

WARE MASSACHUSETTS

a comprehensive plan

WARE, MASSACHUSETTS

COMPREHENSIVE PLAN AND MODEL ZONING
BY-LAW

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Town of Ware
Town Hall
Ware, MA

Town of Ware,

We here with transmit our Comprehensive Plan and Model Zoning By-Law for Ware, Massachusetts to the town of Ware.

This report is intended to initiate a comprehensive planning process in Ware. It includes an inventory of the population, community facilities, economic base and land use. The interpretation and analysis which follows the inventory is meant to illustrate the methodology the people of Ware should use and the considerations which should be made in planning for the future of your town. We hope that this report will be a useful tool for those who will continue the planning process in Ware.

Many groups will be participating in this process including the Planning Board and the Industrial Development Commission. The resources of the University of Massachusetts will also be made available for consultation and research. Possibly the Center for Community Renewal Studies could act as coordinator of all these groups.

We would like to thank the town for cooperating with us in the preparation of this report.

Yours very truly,

Lesley Ewing, Sarah Fernandez, Richard Hunt, Georgianna Maxfield and Christine Somogyi.

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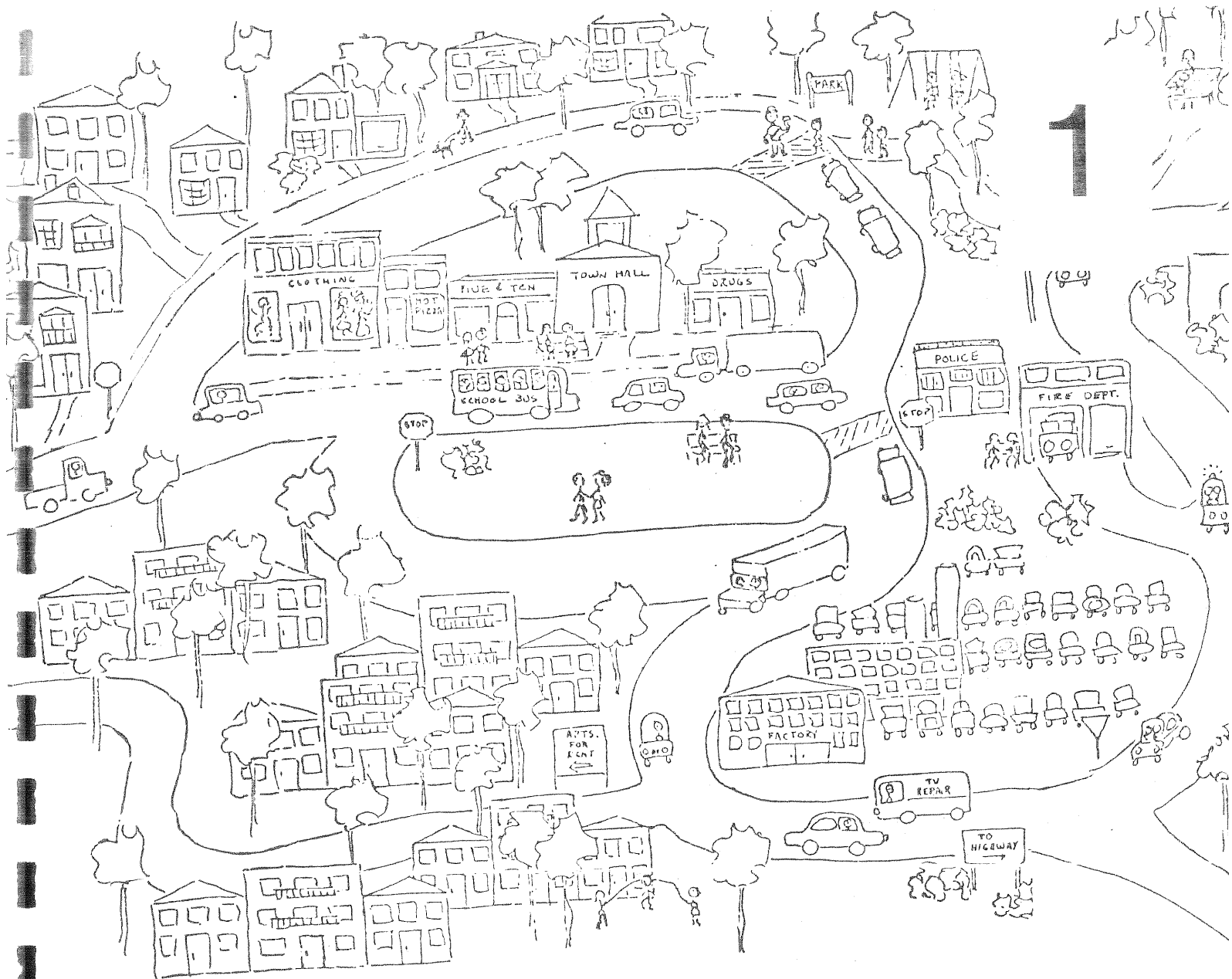
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introduction

INTRODUCTION TO THE COMPREHENSIVE PLAN FOR WARE, MASSACHUSETTS

Planning is an activity in which almost everyone engages. Individuals must decide what they want to do with their lives and how they will achieve their goals, families must plan and provide for all the needs of their members, and towns must decide what their goals are, what the needs of the residents are and how these needs and goals can be met.

The need for a formal planning process increases as the unit being planned for increases. When the town is the unit being planned for, it is necessary to create a special agency, the planning board or commission, to oversee the development of the town. But it is also important for all the decision making agencies and people affected by those decisions to become involved in the planning process, to agree upon a set of goals and policies and to work together to realize those goals.

Many towns have adopted the practice of preparing comprehensive plans as a means of coordinating the activities of all the agencies and individuals effecting and affected by the future of the town. The plan is either prepared by the local planning agency or by outside planning experts but the general format of the plan is usually the same.

The plan performs two important functions. First, it determines the present condition of the town and the direction the community is moving in and, second, the direction the town should be moving in based on the physical conditions of the land and the desires of the residents.

The present conditions and trends occurring in the town are assessed by analyzing the population, the use of the land, the municipal facilities, i.e., the water and sewer systems, schools, fire department, recreation, etc., and the amount of money the

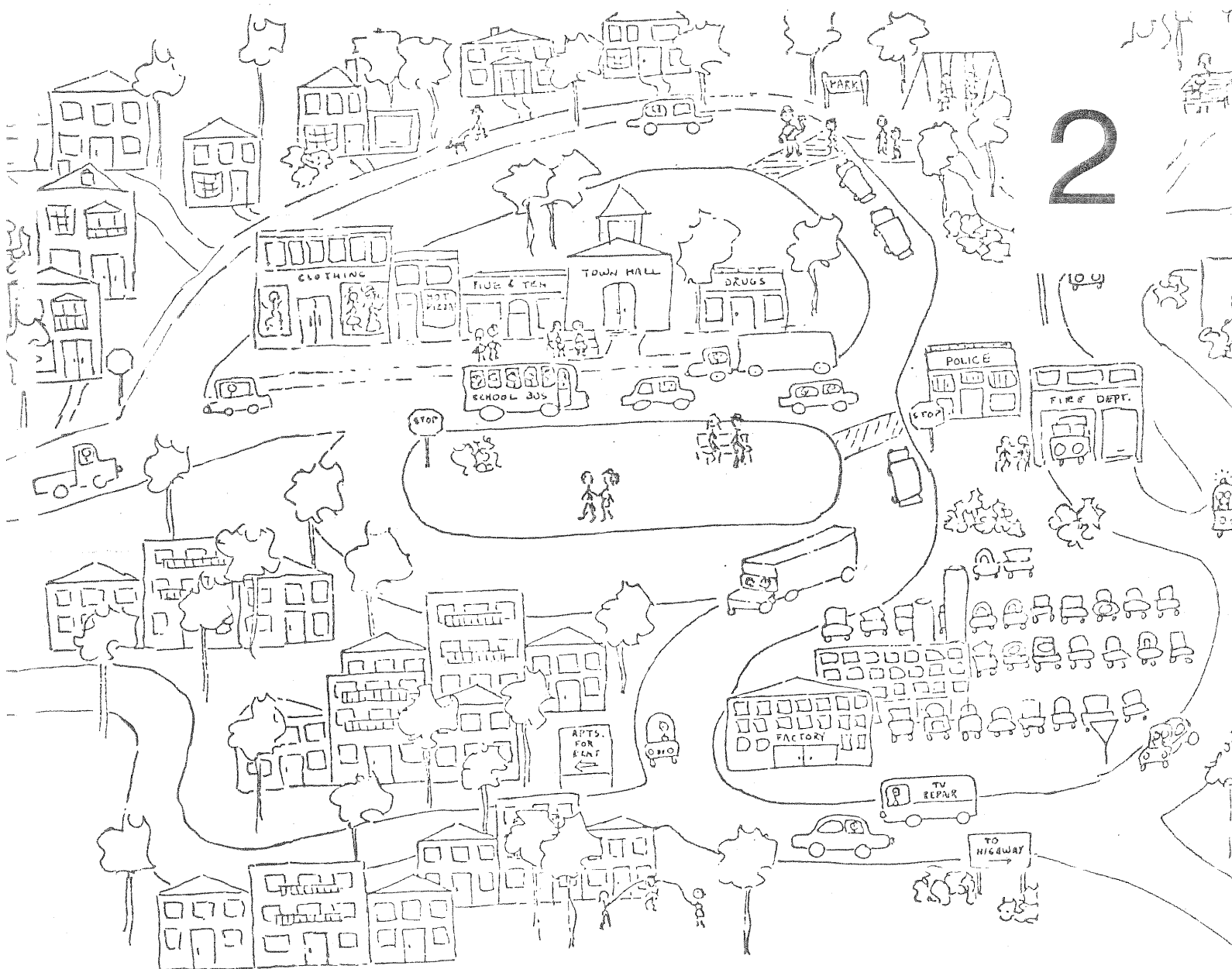
town has and how it uses it. This section of the plan is an inventory to determine where the town stands at the present moment.

Plans for the future must be based on what is desired and what is possible. Residents are consulted as to whether they would like to maintain the present character of their town, or encourage its development into a residential community, a commercial or industrial center, or any other alternative. The development potential of a town is partially restricted by its physical limitations. Conditions which limit the developability of the land in town, such as severe slopes, flood prone areas, and unsuitable soils, are identified so that development can be diverted from those areas.

It is important to bear in mind that the plan is one part of the planning process. It should be used as a monitor to keep track of the present conditions and the direction of movement of a town and, therefore, it must be periodically updated. The citizens of the town, the decision makers and the people affected by those decisions, should have a prominent role in the formulation and the reformulation of the plan in order for it to be a useful and meaningful tool for guiding the development of the town.

The comprehensive plan for Ware is being prepared in several different stages. This document represents the first stage of the plan. It is a preliminary plan which includes the following: an inventory of the present conditions in Ware; a questionnaire which was circulated and analyzed to determine the general desires of the town residents; and tentative suggestions for the future development of the town based on our evaluation of the residents' desires and the physical capabilities of the land for development. We have also included, at the end of this report, a proposed zoning plan which may be adopted by the town as a means of acquiring more control over the development of the land. Subsequent stages in the preparation of the plan will allow for greater citizen participation in deciding upon the goals of the town and developing a strategy to work towards those goals.

This document was prepared by a team of graduate students from the Department of Landscape Architecture and Regional Planning at the University of Massachusetts in Amherst.



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Regional History

The region surrounding the Quabbin Reservoir possesses a diverse natural environment and rich cultural history. The variety of terrain, soils, and water resources in this area has led to many different agricultural, industrial, and residential uses of the land. The history of this region is preserved not only in written works, but can be observed in land use patterns developed by early settlements that are still evident today. This regional history will briefly discuss the development of counties and towns, the settlers, agriculture, industrial development, transportation, and the formation of the Quabbin Reservoir.

One of the first historical developments in this region was the creation of Hampshire County in 1662, by order of the General Court in Boston. Although centered around Springfield, Northampton, and Hadley, most of Western Massachusetts was considered part of this county. Settlers soon began to move onto land purchased from the Indians and form agricultural communities. With increased settlement and population growth, Hampshire County was divided into more manageable areas by creating new counties of Worcester in 1730, Berkshire in 1761, Franklin in 1811, and finally Hampden in 1812.

The process of town settlement and incorporation was started with Brookfield in 1673, and continued with changes in town composition and borders through the 1930's. State borders were undergoing considerable change in 1712, when a surveying error created the impression that Woodstock, Somers, and Enfield, Connecticut, were part of Massachusetts. In an "equivalent lands" trade, Massachusetts gave Belchertown, Pelham, and parts of Ware and Enfield to Connecticut. This confusing situation was eventually resolved by 1727, and the towns returned to their original states.

The settlers who moved into this region were generally second or third generation colonists from other parts of Massachusetts, although a group of Scottish Presbyterians did settle Pelham in 1738. In the nineteenth century, Irish, French Canadian, and Polish immigrants were attracted by the job openings created by local industry and railroad construction; but the first settlers were drawn by land grants and offers of free farm land. Crops grown on the newly cleared land supplemented with fish and game from the surrounding wildlands provided an adequate living, but with little surplus.

The Revolutionary War brought an economic crisis for the settlers of the region. While the people were willing to take an active part in the fight against England, the taxes necessary to support the Colonial Army proved too great a burden for their small incomes. Oppressive taxes, individual and town debts, and a general lack of money in the region led to widespread tax delinquency. When the legislatures in the counties threatened to auction the goods and property of the citizens' to raise money for the taxes, widespread rebellion occurred. On January 24, 1787, Captain Daniel Shays led over 1,000 men from Palmer to Springfield. They were met by armed militia commanded by General Lincoln. One volley was fired and three of Shays' men were killed and one wounded. The insurgents fled in confusion, ending the rebellion.

Despite the economic hardships, this type of subsistence agriculture was predominant until 1860, when dairy farming began to develop. Dairy farming, cheese factories, and creameries were important to the economy of the region until 1915, when a number of factors, including strict state health regulations, led to a decline in this type of production. Other agricultural products that have been produced with varying degrees of success are fruit--primarily apples, strawberries, and blueberries, poultry, and silk.

Industrial development has been greatly affected by the water resources of the region. The rivers flowing through this area have provided economical sources of power, and various types of mills and factories have been built along the river banks. As early as 1793, the town of Warren had two grist mills, a sawmill,

One of the most important developments in the region's history was the creation of the Quabbin Reservoir. To insure an adequate water supply for the metropolitan Boston area, the Massachusetts Legislature voted on April 26, 1927, to allow the Metropolitan District Commission to dam the Swift River, flood the river valley, and create a storage reservoir. Land needed for the project was acquired by the M.D.C. during the late 1920's and 1930's. The area to be flooded was evacuated in 1937, and leveled in 1938. Trees, houses, even cemeteries, were removed before the area was submerged. The towns of Enfield, Prescott, Greenwich, Dana, and Millington were dis-incorporated, and parts of the towns that were not under water were annexed by neighboring towns. New Salem and Petersham acquired parts of Greenwich, Enfield, and Prescott. Other portions of Enfield were annexed by Pelham and Belchertown. The Metropolitan District Commission also acquired extensive watershed lands for the Quabbin Reservoir in many of the surrounding towns. The effects of the formation of the reservoir cannot be adequately described here, but note should be made of the disappearance of towns as governmental units, related changes in the remaining town boundaries, elimination of industries and jobs in the old towns, and the creation of jobs due to the construction of the dam and operation of the reservoir.

Today, the region still exhibits a variety of cultural and environmental characteristics that were part of its early history and development. Some towns, like Granby and Wendell, are still primarily agricultural. Others continue to rely on the industrial base they began to develop in the nineteenth century. Ware was one of the first towns in the region to develop industrially, and in 1971, it was still primarily industrial with 24 manufacturing firms in the town. Industries are no longer dependent on the water power they originally used, but inertia and the presence of a trained labor force keep them from moving.

Many towns now fulfill an increasingly common role of residential communities. Increased numbers of professional and service industry workers live in one town and commute to a neighboring

a scythe factory, and a forge. The Swift River has powered several saw mills for the lumbering industry in the area, and the factories along the Ware River are considered essential to the industrial base of Ware. The Monson Woolen Mills and the Hampden Cotton Manufacturing Company, built in 1813, are on the banks of the Chicopee River. A wide variety of goods have been produced by the factories in this area, including leather, tools, paper, sewing machines, furniture, castings, and textiles.

Road transportation in this region was originally based on stage roads that were little more than enlarged Indian paths. Range roads also existed, connecting townships and providing access to tracts of land. Major trade routes did develop, such as the Bay Path, which ran through Belchertown. Although taverns and open houses provided some services and comforts to travelers, travel was probably difficult and unpleasant until the formation of turnpike corporations after 1800. Corporations were allowed to collect tolls to pay for road maintenance and improvement. Several modern state highways provide east-west, and north-south travel routes. The Mass Pike or Interstate 90 also connects with the roads of the region providing easy travel to the major cities in the state.

Several rail lines pass through the region and have served several towns in passenger and freight capacities. While railroads have followed industrialization to some extent, they have also been a factor in promoting development by opening up new areas that were previously too isolated for manufacturing. After its construction in 1840, the Boston and Albany Railroad (now known as the Penn Central) was largely responsible for the industrial growth of Palmer. When a branch line was built to the northern part of Monson in 1850, the output of the granite industry in the area increased dramatically. Another effect of the railroads, previously mentioned in the discussion of settlers, was the settling of ethnic groups originally involved in rail construction within the region. The other major rail lines were the New London-Northern, Springfield, Athol, and Northeastern, and the Boston and Maine.

town where they work. Improved roads and larger numbers of jobs in these areas have been major factors in the development of the residential community.

Town History

The first permanent settlers moved into the territory now known as Ware in 1729. They came from Brookfield to the east and from Hadley to the north-west. Although there was some agricultural activity in the area, early settlement developed slowly because the soil was not particularly productive. The major attraction to the settlers was the streams, which offered water power sites suitable for the easy establishment of mills.

Prior to the year 1742, when the Ware River Precinct or Parish came into existence, the territory of Ware was part of a section of Hampshire County known as the Elbow Tract, or the Elbows, named for the meandering bends in the Ware and Quabog rivers. This tract comprised the lands of the present towns of Palmer and Ware.

The town takes its name from the river that flows along the eastern side of its territory. The Indians named this river the Nenameseck meaning fishing basket or fishing weir - hence the name Ware.

Saw and grist mills were established at the falls on the Ware River around 1729. These are believed to have been the earliest mills within the Ware territory. Between 1730 and 1840 the mills grew slowly in number and variety. A map of 1830 shows an iron furnace, machine shop, cotton, woolen and grist mills grouped around falls at the village.

The mills steadily drew the people from the fields to the factories and Ware soon became one of the first mill towns with the greater proportion of its economy rooted in manufacturing.

Ware's economy was based upon the mills and the town experienced several lean periods when trouble befell them. Many early mills were destroyed by fire, others folded under external economic forces. Much of this was remedied when the majority of the mills were combined and incorporated into three concerns: the Otis Company, the George H. Gilbert Manufacturing Company

and the Charles A. Stevens Company. All three companies manufactured textiles. Over the years the mill owners built a great many tenements and several company stores.

The early settlers were of two different and distinct nationalities, the English and the Scotch-Irish. The two classes did not get along until the second generation. The people were very poor and this is continually referred to in old documents. As the mills grew in size beginning in the 1840's and 1850's a large number of foreign workers came into Ware. These people were Polish, French Canadian and Irish. Throughout the years this has caused some tension in the community regarding competition for employment and in other areas of community life.

Ware was situated on several main east-west and north-south routes in the state. But, since a number of roads were privately owned and operated as turnpikes, it was very expensive to bring goods over land. This explains why Ware, as an isolated community, developed a whole series of local industries sufficient for local needs. The establishment of a branch of the Boston and Albany Railroad along the bank of the Ware River in 1870 was a great boost to the town. This was followed by the Massachusetts Central which formed the southern division of the Boston and Maine Railroad. The coming of the railroad made Ware less subject to the economic fluctuations of the surrounding communities.

Ware's zenith of productive existence was from 1870, the introduction of the railroads, until 1921, after World War I. The town was the trading and distributing center of the surrounding area. Ware was still growing as an industrial center with existing company expansions and the establishment of new manufacturing concerns.

The textile slump, experienced throughout New England, began in 1922. The three major companies, Otis, George H. Gilbert and Charles A. Stevens were under great pressure. Earlier, the Gilbert and Steven companies had merged. This was the first concern that announced a reduction of wages and shortened work schedule, which affected over 1,000 employees. Four years later the plant closed due to continued slowness in the wholesale woolen market.

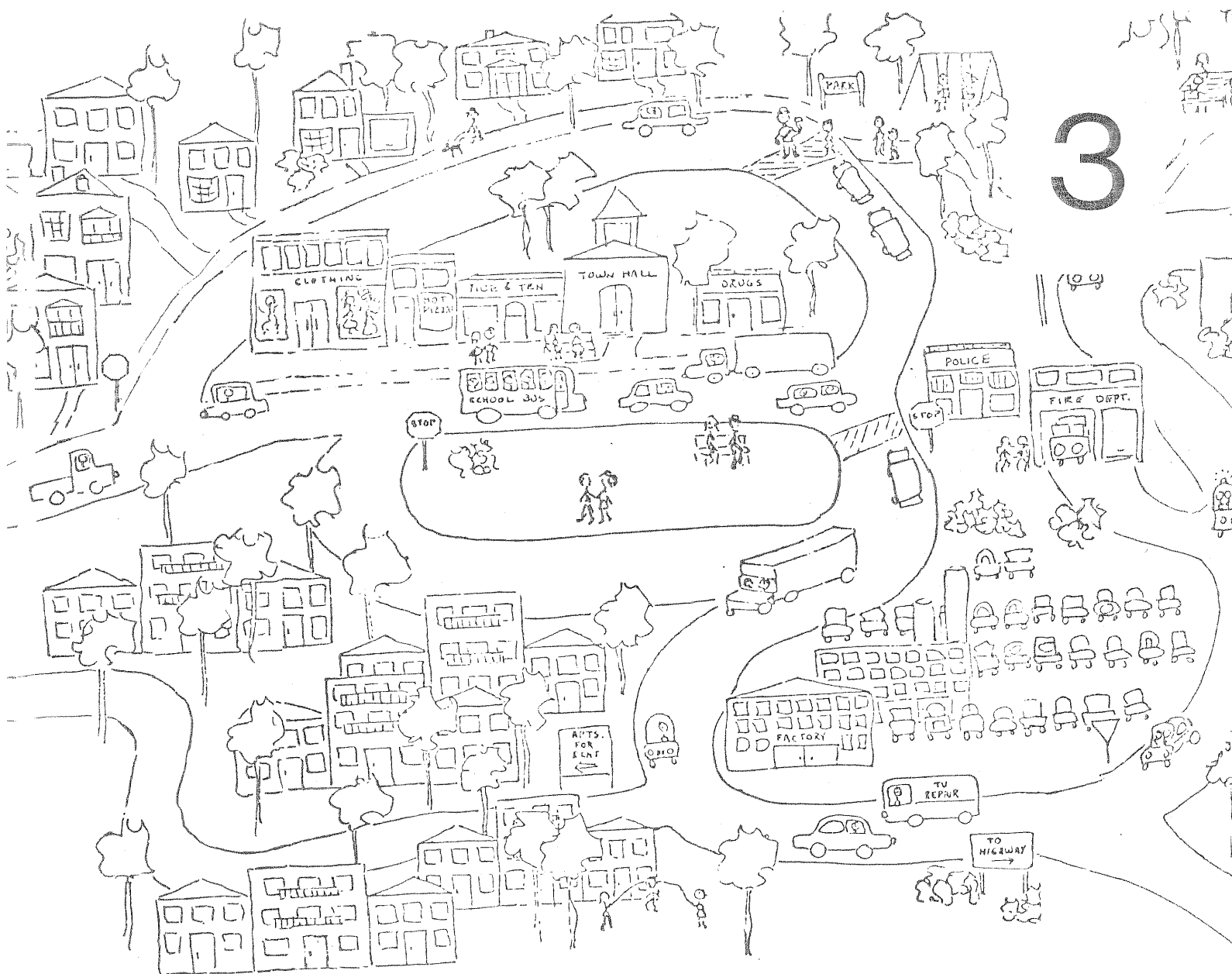
The Otis Company, the largest single employer of Ware people, was the next to announce a reduction of wages. This resulted in a strike in which the mills were closed for five months. The outcome of the strike seriously rocked the economy of the area. The Otis Company eventually merged with other companies in Massachusetts and New Hampshire. The plant remained operative, but on a limited scale, until 1937 when the company was finally liquidated.

Ware was still suffering from the depression when a devastating flood and hurricane in 1938 brought the community close to complete financial collapse. The citizens of Ware combined their efforts to form Ware Industries in an attempt to provide sources of employment by inducing small industries to occupy the spaces formerly occupied by the mills.

Although beset by many troubles, by 1941 Ware Industries was operating successfully and paying dividends. There was a diversification of manufacturing and new industries moved into town. Ware proudly acquired the nickname of the "town that couldn't be licked."

In the early 1950's employment in the Ware area was at its highest level in many years except during the period of World War II. Ware Industries, Inc. continued to be the most important of the town's businesses. Attempts were made throughout the decade to unionize the various businesses in Ware, but as a rule the workers were content in their employment and rejected the efforts of unionizers.

In spite of the gains of the Fifties, the 1960's brought increasingly high unemployment. Business and industry declined and population remained stable. Ware remained a core trading center so far as the nearby towns were concerned, but the majority of the employment still centered around manufacturing as it had since the town came into existence.



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POPULATION

In planning for the future, it is important to look at population characteristics, for there are strong interrelationships between these and other factors. An increase in population means an increased need for community facilities, housing and jobs, and, likewise, an increase in employment opportunities or housing might result in a growing population. It is also important to look specifically at certain subgroups of the population, for people of different ages or at different stages in life have different needs that must be met by the town.

Four groups will be considered here, two of which relate to age:

1) the school-age population which will mean the subgroup in the 5-14 age range. Educational and recreational facilities for youth must be re-examined in terms of growth changes in this group.

2) the elderly population including those 65 years of age and older. Changes in the elderly population will necessitate a re-evaluation of the programs and facilities planned for the town's senior citizens.

The second two relate to stage of life and are derived from the following distribution, which is based on a nationwide survey:

Percentage Distribution of Age of Head of Families, 1960

Age of Head	Owner	Renter	Other
18 to 24 years	14%	70%	16%
25 to 34 years	44	50	6
35 to 44 years	64	33	3
45 to 54 years	69	27	4
55 to 64 years	62	29	9
65 years and over	65	27	8

Source: Survey Research Center, 1960 Survey of Consumer Finances.

It can be seen that heads of households in the 18-24 age group are primarily renters (70%), those 25-44 are in the transitional stage of buying homes, and those 45-54 comprise the group with the greatest percentage of home ownership. Thus the two other groups to be considered are:

3) the primary rental age population, those 18-24 years of age. While a small percentage of household heads of this age are homeowners, most (70% nationally in 1960) are tenants. Growth of this group would thus suggest a need for apartment units.

4) the primary house-buying population, those 25-44 years of age, who are in the market for owner-occupied dwellings. The availability of single-family units would have to be considered if there were significant changes in this group.

This section of the plan will deal with past and present population characteristics for these are significant in terms of the town's growth pattern. However, it must be stressed that past trends in population will not continue unless all factors influencing population change remain the same. Population forecasts, therefore, are dependent on consideration of the town's economic, physical and social characteristics and potentials, for these bear directly on the probability of growth or decline.

Population Growth

Ware:	<u>Year</u>	<u>Population</u>	<u>10-yr. Growth Rate</u>
	1900	8263	+ 6.2
	1910	8774	- 2.8
	1920	8525	-13.4
	1930	7385	+ 2.3
	1940	7557	- 0.5
	1950	7517	0.0
	1960	7517	+ 8.9
	1970	8187	

In the 70-year period since 1900, the population of Ware has remained relatively stable. Since the period of 1900-1910,

when immigrants settling in northeastern industrial areas resulted in over a 6 percent increase in Ware's population, the number of residents has either been declining or has been increasing only slightly until the last decade. From 1960 to 1970 there has been almost a 9 percent growth rate, at least in part a result of an increase in residential development, especially new subdivisions along Route 32, and desirability of Ware to commuters to nearby employment centers.

<u>Town</u>	<u>Population</u>							
	<u>1900</u>	<u>1910</u>	<u>1920</u>	<u>1930</u>	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>
Ware	8263	8774	8525	7385	7557	7517	7517	9187
Belchertown	2292	2054	2058	3139	3503	4487	5186	5936
Hardwick	3203	3524	3085	2460	2154	2348	2340	2379
New Braintree	500	464	394	407	439	478	509	631
New Salem	807	639	512	414	357	392	397	474
Palmer	7801	8610	9896	9577	9149	9533	10358	11680
Pelham	462	467	503	455	568	579	805	937
Petersham	853	757	642	660	923	814	929	1014
Warren	4417	4188	3467	3765	3531	3406	3383	3633
W. Brookfield	1448	1327	1281	1255	1387	1674	2053	2653
Total	30046	29804	30363	29517	29568	31228	33438	37524

Comparing the trends in Ware to the changes occurring in the area including Ware and the surrounding towns, it can be seen that the area-wide population has, until recently, remained extremely stable implying that while the population of one town in the region may have decreased, an increase in another town maintained the region-wide population stability. The region as a whole was relatively unaffected by such national influences as the economic prosperity of the twenties which resulted in large population increases in many communities or the depression of the thirties which in many areas resulted in population decline.

Recently, the rate of growth for the area has been increasing, from 5.6 percent in 1940-1950, to 7.1 percent in 1950-1960, and to 12.2 percent in 1960-1970. This is particularly important for Ware because in light of the fact that employment opportunities have not increased significantly, it must be assumed either 1) that people who are unemployed are

not leaving the area or 2) that the area is becoming more attractive as a commuter residence, or both. The characteristics of residents of Highland Village and Beaver Lake homes, determined from a study of new residential developments, indicate that both assumptions are at least to some extent true.

Study of New Residential Developments*

Five areas were studied with respect to the following characteristics:

- 1) age of head of household
- 2) occupation of head of household
- 3) former residence
 - a) percent moved within last year
 - b) location from which they migrated

Streets studied in the Beaver Lake area are Duck Pond Road, Beaver Road, Shoreline Drive, Horseshoe Circle, Ramblewood Drive, Beaver Lake Road and Beach Road. Residences are single-family, owner-occupied homes.

Highland Village is a 105-unit rental housing complex on Boulder Road and Stonypoint Drive. Building permit issued in 1971. Provides moderate and low income housing units.

The Elderly Housing Project, located off Monroe Street, contains 56 units. Building permit issued in 1972.

Warebrook Village is a multi-family housing complex located on Eagle Street. Containing 60 units, it was only partially occupied at the time of the 1974 street listing. Building permit issued in 1972.

There are a number of new subdivisions off Route 32 and two streets with new residents, Klug Avenue and Kingsberry Lane, were selected as representative of these areas. The houses are single-family, owner-occupied.

*Information for this study was obtained from the 1974 Ware Street Listing.

Table 1 - Migration

	Beaver Lake	Highland Village	Elderly Housing	Warebrook Village	Route 32 Subdivisions
% of residents with different address pre- vious year	48%	100%	100%	100%	95%
Of new residents					
% from Ware Town	23	54	60	23	40
Other	77	46	40	77	60
Other Hampshire County	--	2	3	--	7
Springfield-Holyoke- Chicopee	37	--	5	15	5
Palmer Town	--	15	5	--	15
Other Hampden County	11	3	3	8	--
Worcester City	2	1	2	--	--
Other Worcester County	8	17	18	23	28
Other Massachusetts	--	2	1	23	--
Out of State	19	6	3	8	5

Table 1 shows that over half of all new household heads in Ware included in the study were not previous residents of Ware but in-migrants from other towns. With a decline rather than increase in employment opportunities in Ware, it is likely that many of these new residents commute elsewhere for work. It is thus apparent that one of Ware's functions is as a commuter residence and that this function may become increasingly important if employment opportunities do not increase and the rural residential quality of the town is developed.

Table 2

Occupation of Head of Household by Percent

	Beaver Lake	Highland Village	Elderly Housing	Warebrook Village	Route 32 Subdivisions
Professional, technical	29	6	0	25	11
Managers, officials, proprietors	23	2	0	34	5
Clerical, sales	8	7	0	8	0
Craftsmen, foremen	20	3	0	0	17
Operatives	4	33	0	25	28
Service Workers	4	6	0	0	17
Laborers	4	10	0	0	22
Farmers, farm managers	2	0	0	0	0
Retired	6	10	100	8	0
Unemployed	0	13	0	0	0
Housekeeper	0	8	0	0	0

The occupations of new residents shown in Table 2 further suggest that many are commuters to other towns, for even with the lack of new jobs in Ware, all new single-family homeowners are employed. Unemployment is indicated only in the rental units.

Table 3

Age of Head of Household

	Beaver Lake	Highland Village	Elderly Housing	Warebrook Village	Route 32 Subdivisions
Percent					
under 25	2	43	0	17	17
25 - 34	47	33	0	50	56
35 - 44	21	2	0	17	5
45 - 54	18	6	0	8	0
55 - 64	6	6	8	8	0
65 and over	6	10	92	8	0

The age of renters vs. age of homeowners is shown in Table 3. While only 6 percent of heads of households in new single-family homes are under 25, approximately 40 percent of tenants in new multi-family units (excluding the elderly housing project) are under 25.

Sources of Population Growth

The population of a community changes as the result of four factors: births, deaths, in-migration and out-migration. Births contribute to population increase while at the same time deaths of people of all ages contribute to its decrease. Similarly, people are moving to the community while others are leaving. The balance of the forces results in the overall population growth or decline.

Natural increase is the balance between births and deaths. Despite the fact that Ware's birth rate has declined from an average of 8.6 births per year per 100 women of childbearing age for 1955-65 to an average of 7.9 births for the period 1965-70, births still exceed deaths and natural increase therefore continues to contribute to population increase. Of the population growth of 300 from 1965 to 1970, approximately 45% was the result of natural increase.

Net migration is the difference between the number of people moving to an area and the number of people leaving it. It is computed by "aging" the subgroups of the population the appropriate number of years, subtracting deaths by age, and adding births which occurred during the time interval considered. A comparison is then made between the number of people who would have been present had no migration occurred and the actual number of people present at the end of the time interval. The difference is the net migration.

In the ten year period between 1955 and 1965, there was a total net migration of -160. This means that if no migration had taken place during that period and the only changes occurring were due to natural increase, the population in 1965 would have been greater by 160 people. In the five year period from 1965 to 1970, net migration was +163.

By examining migration rates for specific subgroups, the movement accounting for the reversal of trends from the '55-'65 period to the '65-'70 period becomes more apparent.

Following are the 5-year net migration rates by age for the two time intervals being considered. The numbers indicate the

percentage by which each age group increased or decreased as a result of migration over a five year period.

Five-year net migration rates by age

	average 1955-65 % net migration	1965-70 % net migration
0-4	-0.5	+ 4.7
5-9	-0.8	+15.4
10-14	+3.0	+10.3
15-19	+1.5	- 6.3
20-24	-3.2	-16.2
25-29	-10.2	- 3.2
30-34	-3.6	+ 4.2
35-39	-4.0	+ 3.7
40-44	+1.1	+ 6.3
45-49	-1.6	+ 4.1
50-54	+0.7	+ 5.3
55-59	-1.4	+ 0.5
60-64	-1.9	+ 8.3
65 and over	+0.9	- 1.4

Looking at the school-age population, there was a large influx of school-age children in '65-'70 compared to '55-'65. In '65-'70 there was a net in-migration of over 150 children ages 5-14 alone.

Net out-migration of the rental age population continued over the two time periods, increasing in '65-'70. Whereas in '55-'65 there was also a net out-migration of primary home-buying and home-owning age populations, there was a net in-migration of these groups in '65-'70.

The elderly population showed no significant net migration for either time interval.

The figures indicate, then, that while young people, probably single adults or young married couples without children, moved away from Ware during both periods, in '65-'70 there was a net in-migration of older adults and children, probably representing

families with school-age children, unmatched in '55-'65.

Movement of young lower income people tends to be local -- many young in-migrants to Ware are from nearby towns in Hampden and Worcester counties. Older, higher income people tend to move longer distances -- in recent years, many have come to Ware from the Springfield-Holyoke-Chicopee area and from out of state.

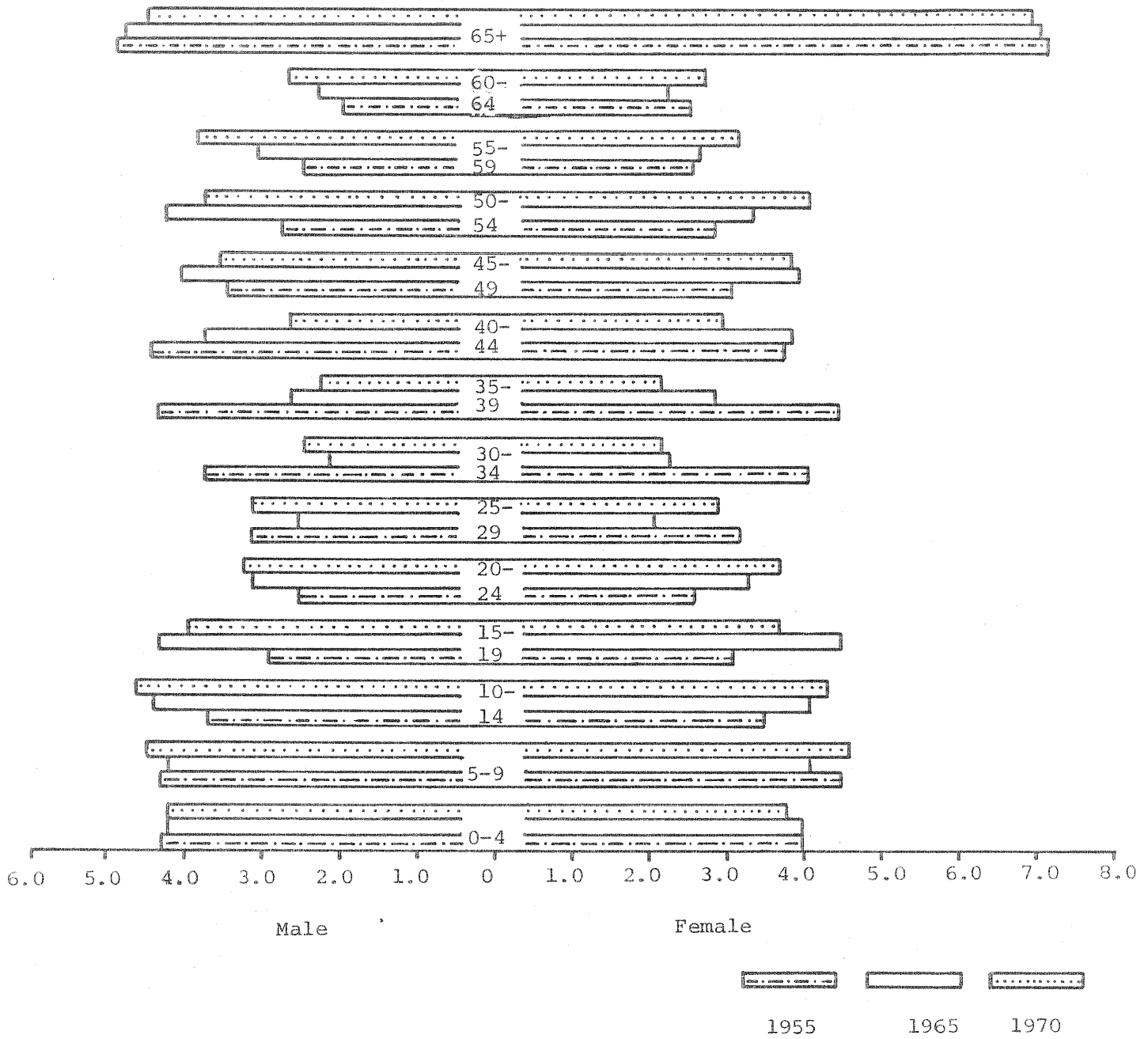
Age and Sex Distribution

In order to look at percentage changes in the age and sex composition of the Ware population, a population pyramid has been constructed, comparing the 1955, 1965 and 1970 figures. (The 1955 and 1965 populations are state census figures whereas the 1970 population is from the federal census. Some problems exist in comparability; however, no other recent federal census gives age and sex breakdowns for the whole town of Ware.) The pyramid is constructed by first determining the percentage of the total population falling in each age-sex category and then plotting the percentages on a graph. The percent that each female age group is of the total is plotted on the right and the percentages for males on the left.

As the population ages, bulges that appeared in one age group at the beginning of the time period considered will appear in an older age group at the end. For example, the large percentage of 40-44 year olds in 1955 is reflected in the large percentage of 55-59 year olds in 1970. While migration may affect the pattern -- for example, the percentage of the population in the 20-24 year old group is less than would be expected by looking at the 5-9 group of 1955 -- an overall picture of the age of the future populations can be obtained by moving the groups up the appropriate number of years.

In comparing the pyramids for the years shown, it can be seen that the percentage of children has been increasing slightly since 1955, with the 0-14 age group accounting for 24.3 percent of the population in 1955 and 25.9 percent in 1970. The

Figure 1



Population Pyramid - Town of Ware

rental age population has increased in percentage from 5.0 percent in 1955 to 7.0 percent in 1970 while the primary house-buying population has decreased from 31.1 percent in 1955 to 20.6 percent in 1970. The percentage of the population 65 and over has decreased slightly from 12.0 percent in 1955 to 11.3 percent in 1970.

Thus while out-migration of rental age and in-migration of home-buying age groups have been significant in the last five years, the natural growth of the population has resulted in a pattern different from what would be expected by looking at migratory trends alone.

Household Size

The average household size in Ware has decreased from 3.09 people per household in 1960 to 2.92 in 1970.

1960 - Ware Town - number of households: 2394

population of households: 7400

average number of people

per household: 3.09

1970 - Ware Town - number of households: 2791

population of households: 8161

average number of people

per household: 2.92

(1970 U.S. Census of Population)

A decrease in household size may be the result of increased availability of multi-family rental housing with efficiency and/or one bedroom units which facilitate the "un-doubling" of households. With the passing of the multi-family by-law in 1973 forbidding the building of any apartment houses, condominiums, etc., in Ware, it may be expected that the household size will not change significantly in the future except, perhaps, with a rapidly declining birth rate.

Population Forecasts

Population forecasts, in order to be meaningful, must integrate population characteristics with physical features and economic

and social trends in the community and throughout the region. They must reflect the town's attitude toward growth and plans for accommodating future growth as well as the probability of future industrial or residential development in the town if it is desired.

The method used here is one which assumes that past trends in Ware will continue in the future or that forces which serve to attract residents to the town or encourage them to leave will counterbalance to produce the same result. In order to forecast the 1980 population, the 1970 population was "aged" ten years and the birth, survival and migration rates derived from 1960-1970 data were applied. The result is the following projected age breakdown for 1980:

Age	1970	%	1980	%
0-4	651	7.9	629	7.3
5-14	1468	17.0	1518	17.5
15-24	1195	14.6	1323	15.3
25-34	865	10.6	1070	12.4
35-44	822	10.0	931	10.7
45-54	1243	15.2	852	9.8
55-64	1014	12.4	1176	13.6
65+	929	11.3	1160	13.4
Total	8187		8659	

A comparison of trends in Ware from 1960-1970 and from 1970 to the present makes the projection more meaningful.

- 1) From 1960-1970 there was a growth rate of 8.9 percent, the highest 10-year growth rate since 1900-1910. The change projected from 1970-1980 results in a 5.8 percent growth rate, still higher than any rate since 1900-1910.
- 2) The unemployment rate in Ware and the region is higher now than it was in 1960-1970, reflective of the nation-wide recession.
- 3) In 1960-1970, there was an average of 40 housing units built per year compared to 34 per year from 1950-59 and 20 per year from 1940-49. In the early 1970's, building permits for single family homes were issued as follows (numbers are approximate):

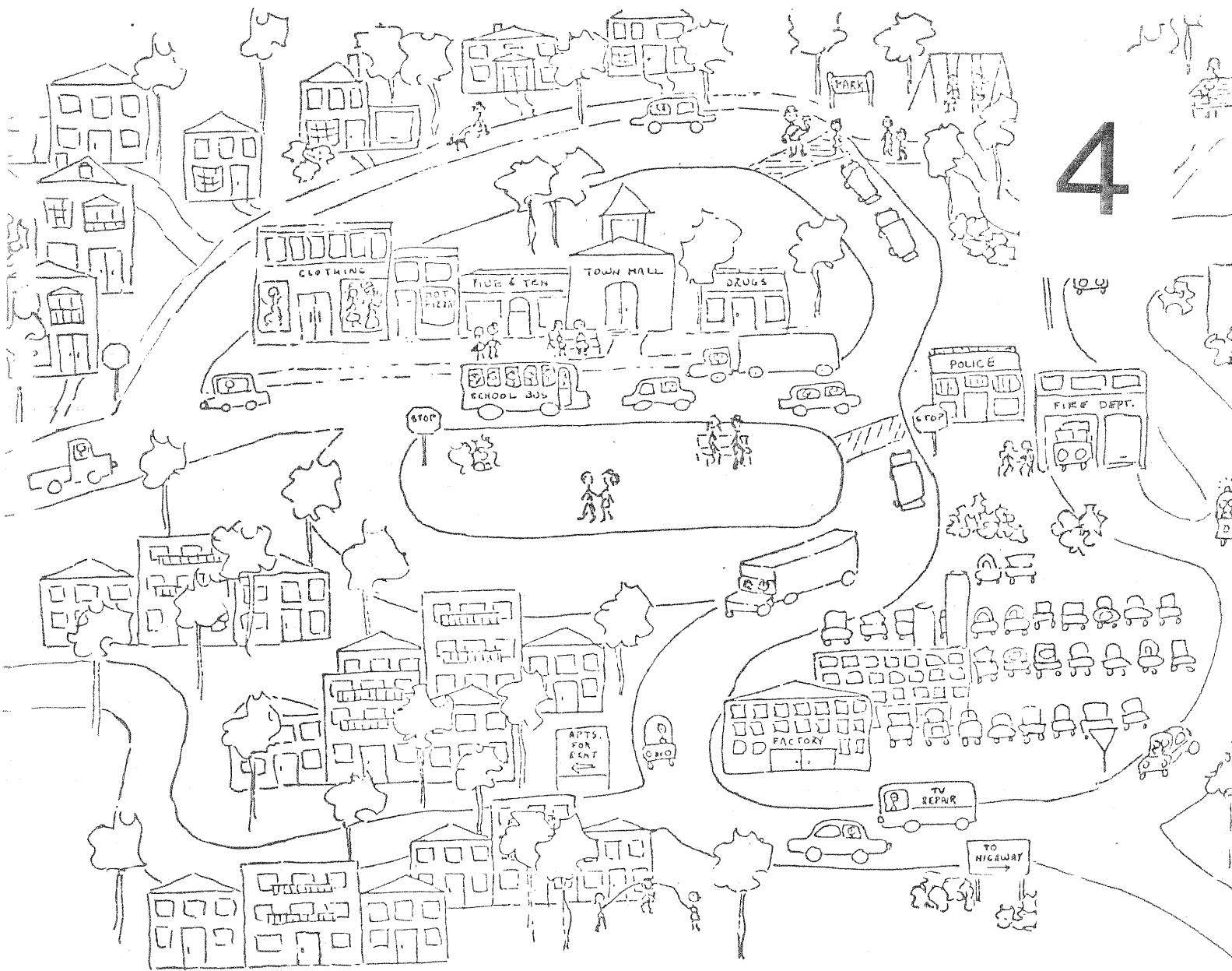
1971 - 78
 1972 - 54
 1973 - 52
 1/74-10/74 - 27

Also, over 200 units in multi-family dwellings were built.

- 4) In 1973, a by-law was passed which prohibits the building of multi-family dwellings.

Thus while some forces (unemployment, ban on apartment construction) were and will be negative influences on population growth in 1970-1980 compared to 1960-1970, others (single-family residential development) were positive influences.

If changes occur nationally, if the economic situation improves or construction costs go down, for example, the forecast must be adjusted; but more importantly, if Ware makes any major decisions on future development of land within its borders or if region-wide land use decisions are made, the suitability of the forecast method must be re-evaluated. Population forecasts must be flexible, and while it appears now that a slowly declining growth rate is most probable, any major change in trends may strongly affect that growth pattern.



housing

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HOUSING

Two characteristics of a town's housing supply are most important in terms of land use planning: the number of available units and the price of those units. There must be a sufficient number of dwellings to comfortably accommodate present residents and future in-migrants to the town and to allow them some choice of residence. Houses and apartments must also be affordable to the residents of the town, a common standard being that no more than 25 percent of a household's income should be used for provision of housing. The cost of housing as compared to income levels within the town is thus an important consideration.

While an evaluation of housing quality, the availability of plumbing facilities and soundness of structure, for example, is also crucial in an analysis of a town's housing supply, it does not relate directly to the planning of residential land uses except in cases of extreme blight not to be found in Ware. Thus this discussion of housing will be limited to an evaluation of the supply in terms of numbers and price.

Survey

In 1970 in the town of Ware there were 2,900 housing units of which approximately 60 percent were owner-occupied and 40 percent renter-occupied. Of the owner-occupied units, the median value was \$16,900, with almost 75 percent falling in the \$10,000-25,000 price range. Of the rental units, the median rent was \$51, with over 80 percent of the rents below \$80. There were 3.2 persons per housing unit in owner-occupied dwellings and 2.5 in rental units.

Approximately 75 percent of the housing was in structures containing one or two units, with only about 10 percent of the

total housing stock in greater than five unit complexes. In 1970, there were no developments with more than 50 units though some have been completed since that time.

Vacancy Rate

Of Ware's 2,900 housing units, 2.6 percent were vacant and available for occupancy in 1970. This is higher than Belchertown and slightly lower than Palmer which had vacancy rates of 2.2 percent and 2.8 percent respectively. The rate was higher for rental units, with 5.6 percent being vacant. Belchertown had fewer vacant rental units, only 4.4 percent, and Palmer had more, 7.5 percent. The median rent asked for the vacant for rent units in Ware was \$52, approximately the same as the contract rent for occupied units. In Belchertown, the median rent asked was \$113 and in Palmer, \$60. Almost 40 percent of Ware's vacant rental units had been unoccupied for less than two months, compared to 50 percent in Belchertown and 25 percent in Palmer.

Only a few housing units were for sale in all three towns. Of the 2,900 housing units in Ware, only 13 were vacant for sale, with the median price asked being \$13,800. The median price asked in Belchertown was \$20,400 and in Palmer, \$25,000.

In terms of future housing requirements, there appears to be little need for extensive apartment construction in Ware unless changes occur which result in a large influx of people to the town. The growth rate predicted for 1970-1980 results in an increase of only approximately 160 households, and with consideration of the vacancy rate for rental units and the extent of apartment construction from 1970-1973, the rental supply seems adequate. With the low availability of vacant for sale housing, the emphasis in the future should be in this area.

In 1973, the Town Meeting of Ware passed a bylaw prohibiting the construction of multi-family dwellings in the town. It appears from the survey on goals that most residents of the town still favor this bylaw, for while almost 60 percent of those surveyed recommended the provision of more housing in the town,

less than 10 percent favored the provision of multi-family homes. As long as sufficient rental units are available, there is no reason for the town to choose a housing policy inconsistent with the wishes of its residents.

Rent-Income Comparison

The second consideration is whether or not the available housing units are affordable to the people living in them. If households are forced to pay more than 25 percent of their income for housing, there is a problem and the availability of low-rent units must be evaluated.

In 1970, of those households with a yearly income of under \$5,000, approximately only one fourth were in housing, they could afford as per the above definition. Almost half were paying more than 35 percent of their yearly income. For other income groups, rents were basically within the affordable price range:

Percent of Income Group Spending Less than 25 Percent of Yearly Income on Housing

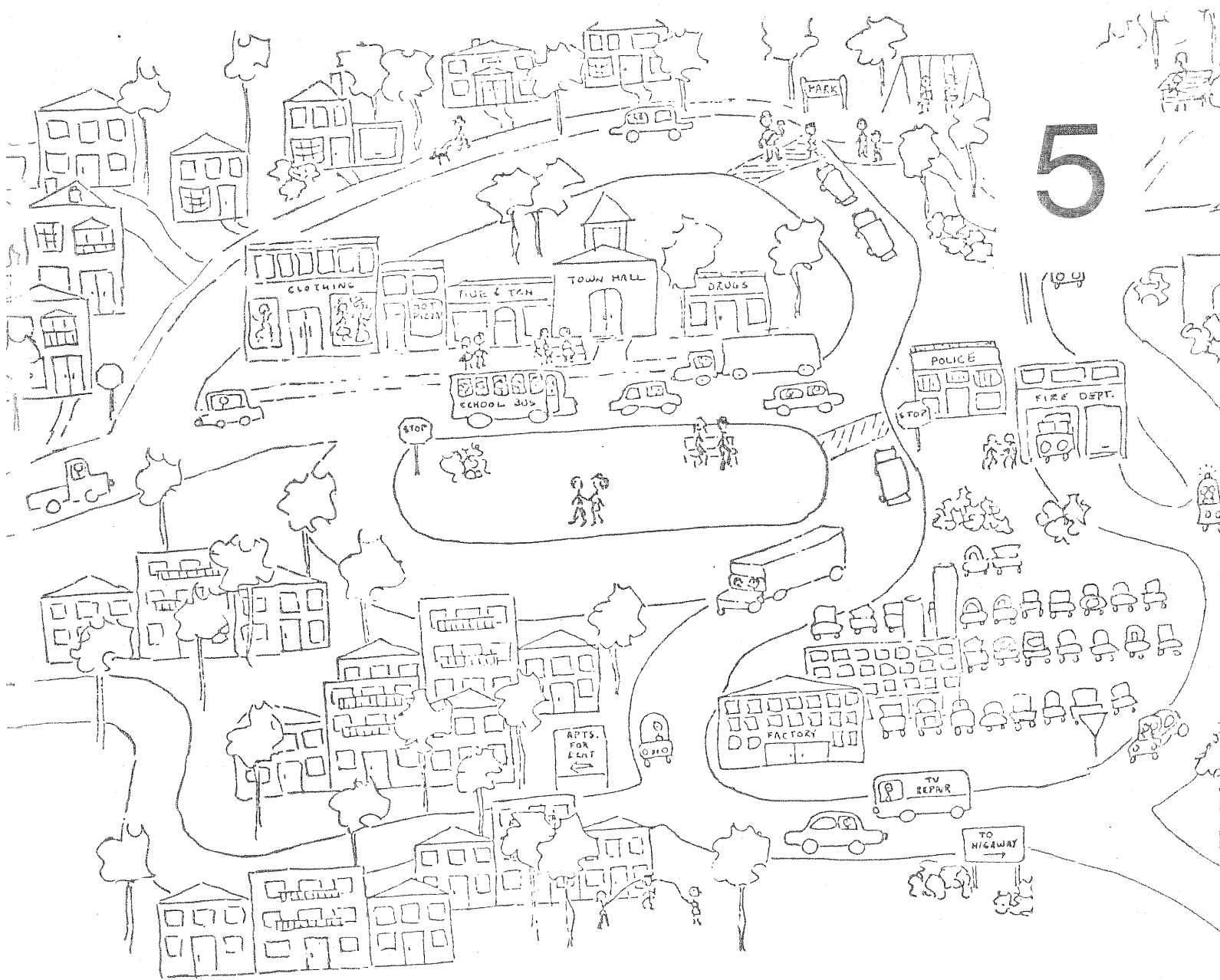
<u>Income</u>	<u>Per Cent</u>
Less than \$5,000	26.1%
\$5,000 - \$9,999	96.1%
\$10,000 - \$14,999	100.0%
\$15,000 or more	100.0%

Since 1970, low-rent and rent subsidized apartments have been built in Ware. These include 56 apartments for the elderly with an average monthly rent of less than \$50.00 and a 110-unit complex operating under the MHFA. Of these units, 25-40 percent are available to those qualifying for rent subsidies. There has been an effort, then, to eliminate the need for low-rent housing. However, even if it were assumed that all of the rent-subsidized and elderly housing units were occupied by Ware residents in greatest need of low rent housing, that need, while decreased, would not have been eliminated. With that assumption, households with income less than \$5,000 in 1970 would be paying the following percentages of their income for housing:

	<u>1970 Households</u>		<u>with new low-rent housing</u>	
	<u>number</u>	<u>%</u>	<u>number</u>	<u>%</u>
Rent less than 25%	89	26.1	189	55.4
25-34%	83	24.3	83	24.3
35% or more	169	49.6	69	20.2

Slightly less than half of the households would still be paying more than they could afford. To further increase the problem, not all residents of the new low-cost housing units are former residents of Ware; the study of new residential development indicated that approximately 40% of these residents were not from Ware.

In the survey on goals, a third of those surveyed expressed a need for more low-income housing in the town. If this need is real, as it appears to be, the town residents will have to weigh their desire for no new apartment construction against the need for specifically low-rent apartments in determining the best housing policy for the town.



community facilities

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COMMUNITY FACILITIES

Community facilities are various services which are operated for the benefit of the community. Some of these services are necessary--such as providing the townspeople with water--and other services are desirable for their cultural and educational benefits. More and more services are changing from being desirable to being necessary and these designations are very temporal. Two hundred years ago it would have been a luxury for Ware to have any type of school; today the school facilities have become an integral part of the town.

In the following section, we explore many of the community facilities in Ware, the schools, the recreation areas, the library, the fire department, water and sewer facilities, and the hospital. Our main concern is with the physical aspects of these services--the extent of the water mains, the availability of recreational land; it is for the boards or committees running these services to manage these facilities and set the policies. This report is an inventory of the lands and physical structures of the community facilities, and an evaluation of their future service to the town.

School Facilities

Standards and Guidelines

The Massachusetts School Building Assistance Bureau of the Department of Education follows the National standards and guidelines for classrooms and school sites. These are ultimate standards and in cases where the conditions set by the Commission cannot be met, the School Board should try to get as close to these conditions as possible. On the average the Commission recommends no more than 25 pupils per classroom. Elementary school sites should be at least 10 acres with an additional acre for every

one hundred pupils. Middle school sites should be 20 acres, and secondary school sites should be 30 acres with an additional acre for every one hundred pupils. With an enrollment of 660 students in 1973, the elementary school needed between 16 to 17 acres. South Street School with 217 students, and Church Street School with 224 students should have about 24 1/2 acres for their combined student body. Finally, with its present enrollment the High School should have about 35 1/2 acres. Since it is difficult to increase or decrease the size of the site from year to year, ideally the site should be large enough to accommodate the largest projected school capacity. This is especially true in towns like Ware, where there is open building land available at a relatively low cost.

History of the Schools in Ware and the Marshall Plan

In January 1969, Educational Consultant John E. Marshall prepared a report entitled School Needs In Ware. In accordance with the guidelines published by the Massachusetts Department of Education, the Marshall Plan recommended that Ware become a part of a regional school district from kindergarten to twelfth grade. At that time, the biggest problem with the Ware school system was "obsolete or inadequate school plant facilities." A two step plan was presented to provide Ware with a regional school system and adequate facilities. Step one was the building of a new elementary school to replace the South Street School. This was scheduled for 1971.

Status after Step 1

Grades K-5 in the new elementary school replacing South Street School

Grades 6-8 in the Church Street School

Grades 9-12 in the Ware High School

The second step was planned for 1975. It involved constructing a new regional high school for grades 9-12. The present high school would replace the Church Street School as a middle school for grades 6-8.

Status after Step 2

Grades K-5 in the elementary school

Grades 6-8 in Ware High School, now a middle school

Grades 9-12 in the new regional high school

Following the recommendations in the Marshall Plan, a new elementary school was completed in February, 1973. At the present time, this new building is being used by grades K-4. The South Street School is being used by grades 5 and 6. The interior of the Church Street School was renovated in 1972 and a new gym floor was put down in 1973. This improved building is used for grades 7 and 8. The High School, built in 1961, is being used by grades 9-12.

Present Status

Grades K-4 in the new elementary school (1973)

Grades 5-6 in the South Street School (1901)

Grades 7-8 in the Church Street School (1893 and 1925)

Grades 9-12 in the Ware High School (1961)

Enrollment Figures

Grade	1971		1972		1973	
	Parochial	Public	Parochial	Public	Parochial	Public
K	42	96	38	113	36	112
Ung.	-	8	-	35	-	110
1	33	121	39	107	36	117
2	32	120	30	108	43	95
3	35	138	29	123	29	107
4	36	94	32	124	32	119
5	39	104	30	105	30	128
6	37	120	36	111	33	89
7	39	122	35	124	37	109
8	38	115	37	134	41	115
9	-	126	-	157	6	159
10	-	119	-	131	3	148
11	-	133	-	119	4	128
12	-	112	-	129	1	111
Total	331	1,528	306	1,620	331	1,647
Springfield Trade School		15		7		9
Total		1,874		1,946		1,987

An Inventory of Existing School Facilities

Elementary School:

The elementary school was built in 1973 behind the Ware High School on a portion of the high school land. It is a quite spacious building designed for open classroom teaching. Presently, the roof of the school is leaking, causing a great deal of damage inside the building. When these leaks are stopped, this building will adequately provide for Ware's Elementary School needs for many years. This school shares a great deal of open space with the high school. It also has its own parking lot and a large wooded playground.

South Street School:

The South Street School was built on 4 1/2 acres of land in 1901. The building has a brick exterior, and the classrooms inside are all about 900 square feet--an ample size for classes. The building interior was refurbished in 1951, and in the past few years, extensive structural and aesthetic improvements have been made.

There is a classroom sized area for physical education in the basement, and a large gymnasium area covering most of the third floor. There are small playing fields both in front of and behind the building, and there is a basketball hoop in the rear parking lot for half court games. The school is close to Memorial Field which provides a large football field for after school recreation. There is also vacant land behind the school which provides additional space for recreation, although this land is not presently owned by the school department.

In 1969, the Marshall Plan recommended that this building be abandoned as soon as possible. The building was, reportedly, structurally unsafe and also a potential fire-trap. It was considered an antiquated facility, unable to provide the flexibility needed for today's educational methods and special instructional needs. "The single good feature of this school (was) the ample size of the classrooms" (from the Marshall Report.)

Since the time of this report, the School Board and the middle school staff have expended a great deal of time, energy, and money to improve the South Street School. The unsafe elements have been reinforced and the building codes for fire safety have been met. Many of the heat losses in the building are being corrected and most of the interior has been recently repainted. The halls and classrooms are bright and cheerful, and almost all the bathroom facilities are modern; all of them are sanitary.

The classroom facilities still lack flexibility. Special instruction areas for music practicing, conferences and counseling have been provided, and there is a large classroom for students with special needs. Perhaps in 1969 the Marshall Plan's recommendations to abandon the school were reasonable, but since that time the school has been greatly improved. If it is possible, the School Board should try to acquire the land behind the school. But now, there is no reason to abandon this school for the next 20 years.

Church Street School:

The Church Street School was erected on 2 3/4 acres of land in 1893. In 1925, a second building was also built on the site. These two buildings are connected, and together have 19 classrooms from 720 square feet to less than 300 square feet. Many of these are too small for classrooms, and are used for music rooms and conference areas. The older of the two buildings contains a small gymnasium (2,000 sq. ft.) which was recently refloored. There is also a small playing field and playground with monkey bars and climbing poles, but there is no land available for expansion.

The Marshall Plan recommends that this facility be used only until new facilities are built. But, like the South Street School, this school has received a great deal of attention since 1969. The roof has been patched, windows replaced to decrease heat losses, the boiler is being fixed, and the classrooms are all being repainted. In addition to all of this, a library has

been set up and a library aide has been hired to maintain it. A large classroom has been set up for classes for students with special needs.

Due to its age, this building is not as flexible as many of the newer school buildings, but it does have one large open classroom, created by taking out a wall between two adjacent rooms. This building, with the South Street School, is now adequate for Ware's Middle School needs. If any additional land becomes available, it should be acquired.

High School:

Ware High School was built in 1961 on a large 44 acre site. There are ten general classrooms, eleven specialized classrooms, a double gymnasium, a library, and a 350 person capacity auditorium. The Marshall Plan projected a "reasonable" capacity for this building as 500 pupils. Last year there were 560 pupils in this building; it was operating well over its "reasonable" capacity at about 98 percent total capacity (according to the School Board). To alleviate the overcrowding the school department is presently considering adding six temporary classrooms to the existing facilities.

The recreational facilities at the high school are quite good. In addition to the double gymnasium, there is a vast amount of open space. There is also a large playing field and several parking lots. The school will provide for Ware's high school needs for many years. Should the overcrowding continue, the high school will need permanent classrooms added on, not temporary ones.

School Needs

All of Ware's schools should be adequate for many years to come. The School Board should try to acquire the vacant land behind the South Street School, and if any land should become available around the Church Street School, it too should be acquired. Both of these buildings are sound, but neither is on a site large enough for sufficient recreational areas.

The high school should be reevaluated soon to determine whether or not additional permanent classrooms will be needed to alleviate the present problem of overcrowding.

All of the schools should establish a continuous building improvement program. Except for the high school, all of the schools have recently had improvements made, and this momentum should be maintained. No building which is used as extensively as a school can remain in sound and safe condition without constant surveillance and maintenance. As the old saying goes, "A stitch in time saves nine." So too with buildings. If the South and Church Street Schools had been maintained each year, the massive improvement program, recently undertaken, would not have been necessary. A continuous improvement program will also help eliminate costly major improvements.

Recreation Facilities

Standards and Guidelines

As in many other areas, there are national standards for recreation facilities established by the National Recreation and Park Association. These standards are often used to compare the effectiveness of a community's facilities with national demands. They are useful in developing a unified and balanced system of park and recreation lands and facilities. As stated in the National Park Recreation and Open Space Standards, four principle uses of the standards are:

1. The development of a comprehensive plan of park and recreation areas and a systematic approach to land acquisition.
2. The determination of what and how many recreation facilities are needed to best serve the people, and where they should be provided.
3. The justification to political bodies for the acquisition and development of park and recreation lands and facilities and to determine priorities.

4. Use as a measure against which the effectiveness of the park and recreation system can be evaluated.

The recreation standards advised by the National Recreation and Park Association are shown in Charts I-IV.

It should be understood that these standards are for the ultimate population of the area, and not for the present population. All of these lands should be publicly owned. Public school property, special areas such as cemeteries and plazas, vacant undeveloped land, and voluntary agency lands should not be included in the recreational land. (This condition is very often not met. Although these areas may presently provide open space and recreation areas, unless they are publicly owned, there is no guarantee that these lands will remain open spaces or recreation areas. One of the main reasons behind establishing a recreational system is to preserve this land in perpetuity.)

The various recreation areas in the standard all have different purposes, and are proposed for different groups of people. The playlot is a small area intended for children up to 6 or 7 years of age. It is essentially a substitute for the backyard and thus normally only provided in high density areas such as apartment or tenement districts. Children should not be required to cross busy streets to reach the playlot.

Vest pocket or mini-parks are usually vacant lots, converted to recreation use. They may serve children, senior citizens, or all age groups, depending on the needs in the neighborhood.

Neighborhood parks should provide facilities for active recreation such as ball parks and playing fields. These areas should be screened from surrounding areas to prevent excessive noise from the park. If possible these parks should adjoin elementary schools. Recreation facilities for adults should also be provided in these parks.

District parks should supplement the neighborhood parks in providing near at hand recreation facilities. These larger sites should adjoin junior and senior high schools if possible. They

should encompass the activities formerly included in the play fields. These parks are best located on or near easily accessible thoroughfares.

Large urban or metropolitan parks are normally designed to provide the urban dweller with an opportunity to escape the noise and congestion of the city without traveling long distances.

Regional parks serve the people of a large region. They are usually maintained by the county or some regional government. They may be left in their natural state or developed extensively, but they should not take the place of neighborhood or district parks.

TABLE 4

RECREATION FACILITIES BY CLASSIFICATION AND POPULATION RATIO

Classification	Acres/ 1000 People	Size Range	Population Served	Service Area
Playlots	*	2,500 sq. ft. to 1 acre	500-2,500	Sub-neighborhood
Vest pocket parks	*	2,500 sq. ft. to 1 acre	500-2,500	Sub-neighborhood
Neighborhood parks	2.5	Min. 5 acres up to 20 acres	2,000-10,000	1/4-1/2 mile
District parks	2.5	20-100 acres	10,000-50,000	1/2-3 miles
Large urban parks	5.0	100 + acres	One for ea. 50,000	Within 1/2 hr. driving time
Regional parks	20.0	250 + acres	Serves entire popu- lation in smaller communities; should be distributed throughout larger metro areas	Within 1 hr. driving time
Special Areas & Facilities	*	Includes parkways, beaches, plazas, historical sites, flood plains, downtown malls, and small parks, tree lawns, etc. No standard is applicable.		

*Not applicable

By Percentage of Area

The National Recreation and Park Association recommends that a minimum of 25% of new towns, planned unit developments, and large subdivisions be devoted to park and recreation lands and open space.

TABLE 5

STANDARDS FOR SPECIAL FACILITIES

The following standards are recommended for individual recreation facilities:

Facility (outdoor)	Standard/1000 people	
Baseball Diamonds	1 per 6,000	Regulation 90'
Softball Diamonds (and/or youth diamonds)	1 per 3,000	
Tennis Courts	1 per 2,000	(Best in battery of 4)
Basketball Courts	1 per 500	
Swimming Pools--25 yard	1 per 10,000	Based on 15 sq. ft. of water for 3% of pop.
Swimming Pools--50 meter	1 per 20,000	
Skating Rinks (artificial)	1 per 30,000	
Neighborhood Centers	1 per 10,000	
Community Centers	1 per 25,000	
Outdoor Theaters (non-commercial)	1 per 20,000	
Shooting Ranges	1 per 50,000	Complete complex incl. high power, small-bore, trap and skeet, field archery, etc.
Golf Courses (18 hole)	1 per 25,000	

Note: Most of the above mentioned facilities are desirable in small communities, even though their population may actually be less than the standard. Every effort should be made to light all facilities for night use, thus extending their utility.

TABLE 6

SPACE STANDARDS FOR NEIGHBORHOOD PARKS

Suggested space standards for various units within the park. The minimum size is five acres.

Facility or Unit	Area in Acres	
	Park Adjoining School	Separate Park
Play apparatus area--preschool	.25	.25
Play apparatus area--older children	.25	.25
Paved multi-purpose courts	.50	.50
Recreation center building	*	.25
Sports*fields	*	5.00
Senior citizens' area	.50	.50
Quiet areas & outdoor classroom	1.00	1.00
Open or "free play" area	.50	.50
Family picnic area	1.00	1.00
Off-street parking	*	2.30**
Subtotal	4.00	11.55
Landscaping (buffer & special areas)	2.50	3.00
Undesignated space (10%)	.65	1.45
Total	7.15 acres	16.00 acres

*Provided by elementary school

**Based on 25 cars @ 400 sq. ft. per car.

TABLE 7

SPACE STANDARDS FOR DISTRICT PARKS

Suggested space requirements for various units within the park. The minimum size is 20 acres.

Facility or Unit	Area in Acres	
	Park Adjoining School	Separate Park
Play apparatus area--pre-school	.35	.35
Play apparatus--older children	.35	.35
Paved multi-purpose courts	1.25	1.75
Tennis complex	1.00	1.00
Recreation center building	*	1.00
Sports fields	1.00	10.00
Senior citizens' complex	1.90	1.90
Open or "free play" area	2.00	2.00
Archery range	.75	.75
Swimming pool	1.00	1.00
Outdoor theater	.50	.50
Ice rink (artificial)	1.00	1.00
Family picnic area	2.00	2.00
Outdoor classroom area	1.00	1.00
Golf practice hole	*	.75
Off-street parking	1.50	3.00**
Subtotal	15.60	28.35
Landscaping (buffer & special areas)	3.00	6.00
Undesignated space (10%)	1.86	3.43
Total	20.46 acres	37.78 acres

*Provided by Jr. or Sr. High School

**Based on 330 cars @ 400 sq. ft. per car

standards should be used as lower limits--2,500 sq. ft. for 500 person sub-neighborhoods. There is also a need for a neighborhood park and a new swimming pool. Beaver Lake will soon be in need of some organized recreational areas and might be a good site for these new facilities.

Library

The Young Men's Library Association in Ware was established in 1873, and the present library building was erected in 1881. The Association is an independent, private corporation. The library is open to the public and is supported by both municipal funding and an endowment. Along with space for stacks, there is a children's room and a reading room which are both frequently used. In October, 1973, a balcony was added in the center section of the library to give more stack room and uncrowd the bottom floor.

The library belongs to the Western Regional State Library System in Springfield. Through this system the Ware Library can borrow films and research materials from the larger libraries in the area. The staff consists of three full time librarians, and one part time worker. Along with caring for the books and circulating them, the librarians provide a preschool story hour every week for up to 80 youngsters, and a reading club for 10 weeks in the summer. They also provide the Housing for the Aged with large type books, and organize special exhibits for display in the library.

The size of the library, with the new addition is large enough for the present town. Although there is no room for further expansion on the present site, circulation can be increased within the existing facilities. The library is in the center of town. The municipal parking lot is only two blocks from the library, but right now there is no off-street parking for the library. Due to its location on the main street, both the library users and the staff have parking problems and would benefit from a parking area near the library. At present there is no possibility for a library parking lot. The main plans for the future involve installing cable television in one of the library rooms for public use. The cable has been installed and the library is looking for a T.V.

Fire Department

The fire station is in the center of Ware's business area. It is the only station in Ware, and it services all of Ware and some of the MDC forest land bordering Ware. It also services all of the mills. Although most of the mills are within a mile of the fire station, for additional safety all of the mills are protected by sprinkler systems. All together the fire department is in charge of over 40 square miles of land. To manage this the fire staff consists of 9 permanent men, including:

- 1 chief
- 1 captain
- 2 deputies
- 6 station men
- 30 volunteers on call

The equipment available at the station is:

- 1 Forest Fire and Pumping truck which answers all calls(1966)
- 2 Pumpers (1950, 1963)
- 1 Ladder truck (1946 model)
- 1 Reserve pumper (1936 750 gallon model)
- 1 Ambulance (1970)
- 1 Chief Car (which can serve as an ambulance back-up) (1971)

For years now the chief has been recommending that the town connect all developed areas with town water, using twelve inch mains instead of the frequently used six inch mains. An old six inch main will often clog with rust, thus reducing the effective size of the pipe and allowing less water. Many of the older pipes in town have in fact been clogged in this way and need to be replaced. Additional streets and buildings have increased the need for water and many mains are insufficient to serve to area in case of fire.

Each pumper has a range of about 1000 to 1100 feet. Using two of these in a series, the range can be increased to 2000 feet. Further extensions involve too much time, too many men, and too many trucks. Easily accessible approaches to the water are needed to optimize this range. Although the fire chief is consulted on highway construction, many access roads to the river are poorly built. They are often unmaintained dirt paths, and trucks have been stuck in them in the past.

At present the Department is trying to put 6 dry hydrants in around Beaver Lake to increase the pumper range in the area.*

The short range plans of the fire department are to replace the 1936 pumper, the ladder truck, the ambulance and the chief car. Its long range plans involve building a new auxiliary fire station on Beaver Lake. There would be one pumper at this station which would be manned by volunteers in the area. They would answer calls in the area. The main station would also answer the calls, but the auxiliary station would provide quicker and more immediate service to the growing area. Since insurance rates increase for buildings outside a three mile radius of the station, such a new station would also decrease the fire insurance for the entire Beaver Lake area. With its addition almost every house in Ware will be within a three mile radius of a fire station.

Water Facilities

Standards and Guidelines:

The New England Fire Insurance Rating Association rates town water systems according to main size and fire fighting ability. In residential areas, the standards recommend that 6 inch mains should be used only when they complete a good grid in blocks less than 600 feet in length. Otherwise, a minimum of 8 inch mains should be used. In manufacturing and mercantile districts, 8 inch mains should be used only when they complete a good grid. Minimum 12 inch mains should be used for long lines which are not cross-connected.

Water Supply:

Ware's water supply is provided by the Municipal Water Department. As of 1970, over 7,000 people were being served. The source of the supply is ground water which is pumped from a well and well field off Barnes Street. The yield of the source

*A dry hydrant is one in which there is no water and no pressure, but it provides a duct to the lake through which the fire pumper can pull water.

is limited to the capacity of the pumps, which are presently working between 18 and 19 hours a day. Along with this well, there is a small auxiliary gravel-packed well, and four distribution storage facilities with a combined capacity of over 2 million gallons, as follows:

<u>Type</u>	<u>Capacity</u>	<u>Location</u>	<u>Elevation</u>
Standpipe	250,000	Church St.	700MSL
Standpipe	500,000	Anderson Rd.	
Reservoir	2,500,000	Church St.	618MSL
Tank	200,000	south part of town	

Has a leakage
problem

For industrial
use only

The New England Fire Insurance Rating Association rates Ware as Class 5 (where Class 1 is very good and Class 10 is bad). There are over 40 miles of mains in the town with 1900 meters. Many of the transmission and distribution lines are inadequate. Many of the mains are 6 inches and some are even 4 inches in diameter. Very few are arranged in a tight grid system. As was stated in the section on the fire department, in many of the older mains, a layer of rust and mineral deposits has built up inside the pipes, decreasing the effective diameter.

Water Needs

The present pump off Barnes Street is operating at peak efficiency. According to the State Department of Public Health, the estimated yield of the present supply is only 1.1 million gallons a day, and the maximum demand, 1.4 million gallons a day, has already exceeded this yield. There is an immediate need for a new water supply. According to the Groundwater Favorability map (prepared by Curran Associates, Inc. in Northampton, Mass.) there are many potential well sites which can be developed. Ware needs a new well and well field as soon as possible. To go with these facilities, the town also needs another storage tank and a transmission line connecting the well to the tank.

Along with these facilities, Ware should begin a program to both replace the older mains which are too small, and to extend the water system to service the growing residential activity around Beaver Lake and along West Street.

Sewer Facilities

At present Ware has a primary treatment plant with a capacity of .8 million gallons a day. This plant treats only domestic waste and serves over 5,200 residents with over 60 miles of sewers. The effluent is deposited in the Ware River which has been given a Class C rating. (The Class C rating means that the water is suitable for recreation and wildlife habitat, and adequate for common food and game fish indigenous to the area.) The town also has storm drainage facilities to handle the rain run-off and infiltration.

The average sewage flows for the town are .44 million gallons a day of sanitary sewage and .92 million gallons a day of infiltration. These are both well below the ultimate capacity of the systems and there will be no need to expand the capacity of either treatment system in the foreseeable future. Also, the Ware River has the capacity to receive secondary treatment for the next fifty years.

There are plans at present to build a secondary treatment plant for both domestic and industrial wastes. This plant should be completed as soon as possible for the protection of the Ware River. In addition to this some of the existing mains are extremely old and need to be replaced. As shown by the map of Soil Favorability for On-Lot Sewage Disposal (prepared by Curran Associates, Inc. of Northampton, Mass.), most of the land in Ware has moderate to severe septic limitations. Because of this, future development should be encouraged to go on sewered lots. Thus, along with replacing the old mains, the town must increase the areas served by sewer facilities.

Hospital

The Mary Lane Hospital is a private non-profit open staff hospital serving Ware, Belchertown, Hardwick, Warren, Brookfield, West Brookfield, North Brookfield, and West Warren.

The Old Wing of the hospital was built in 1922. It now contains the administrative services and the maternity section.

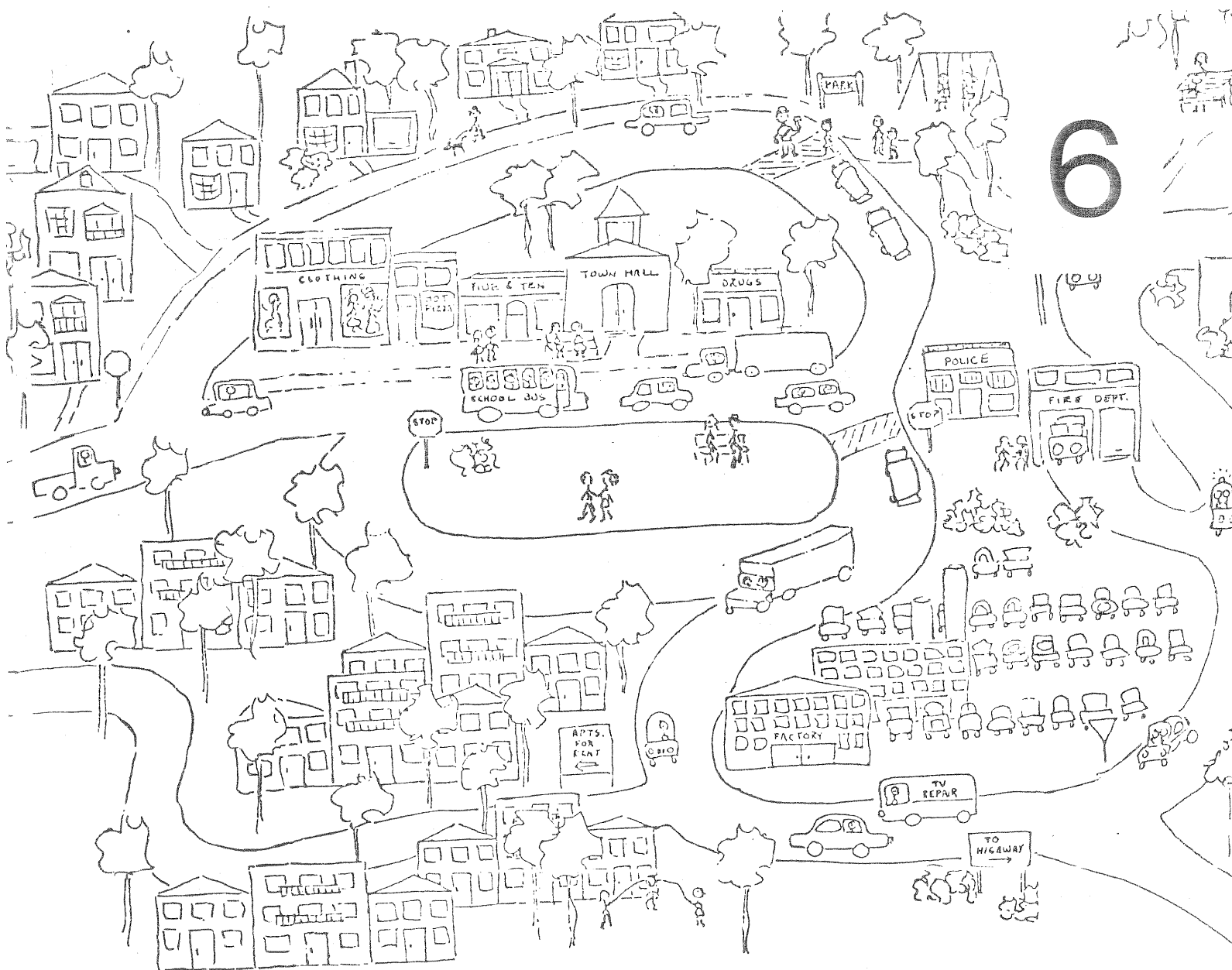
The Storrs Wing was built in 1948 and contains pediatrics, 19 medical-surgical beds, the pharmacy, and the kitchen. The newer Doctor's Offices with 18 medical-surgical beds was built in 1961. The most recent addition was finished in 1972. It has the cafeteria, 35 medical-surgical beds, the surgery-recovery area, the lab, x-ray, therapy rooms and emergency facilities.

The outpatient services (lab, x-ray, and therapy) handle approximately 1500 patients a month. The emergency service has another 1100 patients a month on the average. In addition to this, there are about 58 inpatients a day. The outpatient service capacity is 3000 per month. This service is presently operating at 50 percent capacity and will be more than adequate for many years. The emergency service facilities can handle 1500 patients a month. The present capacity is 77 percent of the total capacity (or 1100). There will be no need to expand this facility for at least 10 years. There is presently the capacity for 78 inpatients a day, and when the average capacity exceeds 75 percent of the total (58 inpatients a day), the Board of Health will permit the hospital to expand to 90 beds. There is room for this expansion when the hospital decides to increase the capacity.

The hospital presently offers annual clinics on hypertension, and diabetes. Every other year the hospital offers a cancer detection clinic. For a fee, there is available a visiting nurse service for convalescing patients who wish to return home before they are fully recovered.

The hospital has several affiliations with the Holyoke College of Pharmacy, and the Holyoke Community College--training dietary personnel. There is frequent in-service training for the nurses which is offered in Springfield.

Presently the hospital needs additional parking areas. In the future, there are plans for a separate six bed Cardiac Intensive Care unit, and 30-35 additional medical-surgical beds. There are also plans to expand the services for Inhalation Therapy and Physical Therapy. The hospital is on a large area of land, and there is open space available for expanding the parking areas and medical facilities.

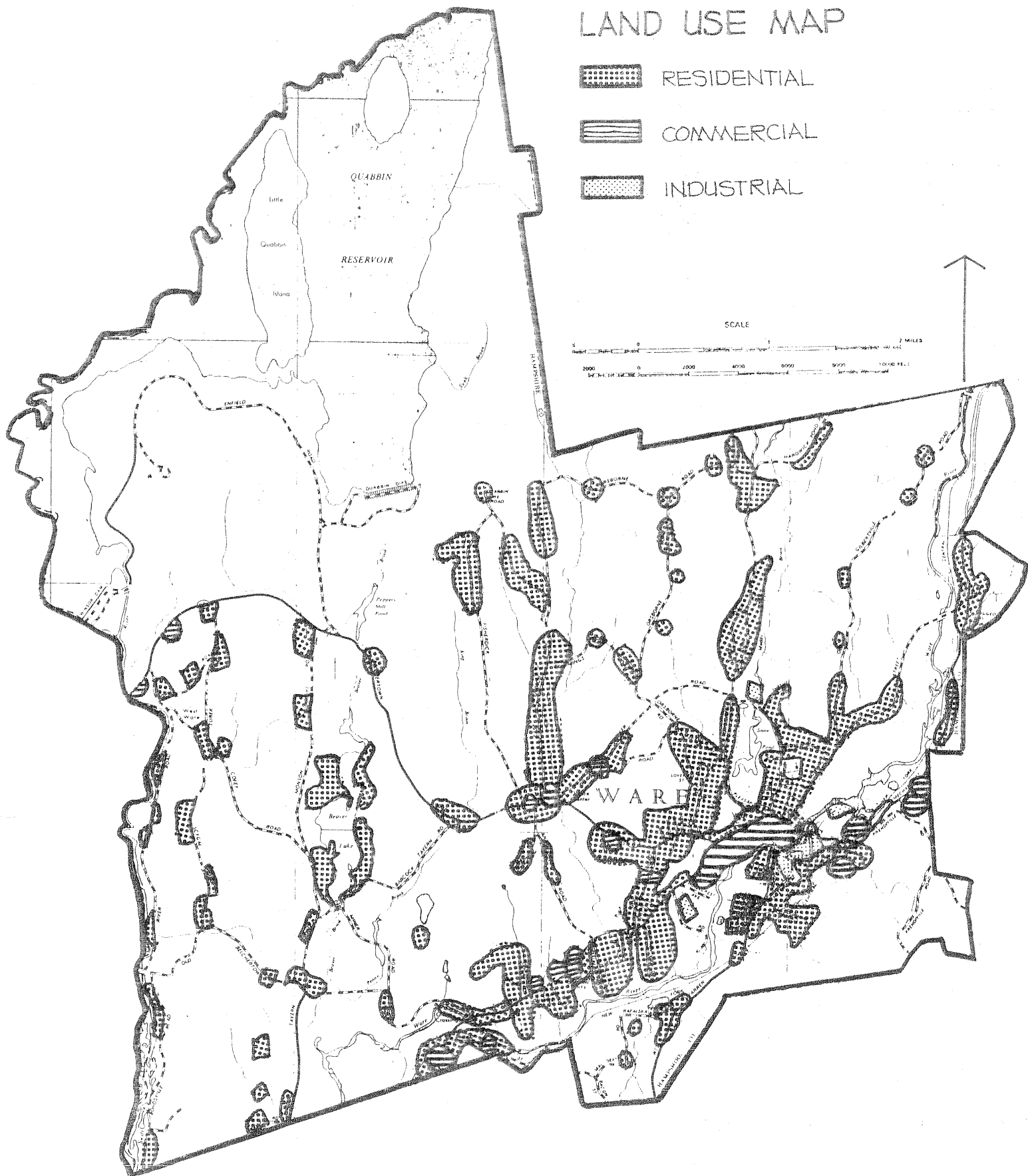


6

land use

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LAND USE MAP



LAND USE

General Description

Ware is located in Hampshire County and is bordered on the northeast by Hardwick, on the east by West Brookfield, on the southeast by Warren, on the southwest by Palmer and on the west by Belchertown. The area of Ware is 25,660 acres or 40.1 square miles. Quabbin Reservoir, owned by the Metropolitan District Commission, is located in the northwest corner of the town and comprises almost a third of the total area of Ware.

Central Business District

The Central Business District (C.B.D.) is in the southeast quarter of the town and is concentrated primarily on one main street. There is some commercial activity on the streets branching off the main street and along Rte. 32 as it leads out of the center of town.

The buildings in the C.B.D. are two and three stories high and many of the upper stories are used as residences. The streets leading off from the main street are lined with two-family and multi-family residences mixed with some commercial and business buildings.

Ware Industries is a large, textile manufacturing concern located at the southeast end of the main street along the Ware River.

The Area Surrounding the Central Business District

Most of the development in Ware has occurred in the southeast section of town. The most densely populated area is the neighborhood surrounding the C.B.D. Many of the buildings are multi-family units. Further away from the center of town there is less commercial activity and most of the buildings are single family homes.

In the past few years, several residential complexes have been built in Ware. Many of these are located along Rte. 32. But several of them are in previously undeveloped, unserviced areas at some distance from the center of town.

Beaver Lake, in the western central portion of town, is being developed as a seasonal home and recreation area although there are

some permanent residences there as well. This area is quite hilly and some of the new roads are steep and difficult to travel on.

There is a great deal of land in Ware which is undeveloped or almost totally uninhabited. Most of this land is in the northern central portion of town and the southwestern portion of town. There are only a few roads providing access to these areas. Some of the land is in agricultural use, some is abandoned farm land and there are also a few houses and mobile homes in these areas.

Land Use Changes Since 1951

Professor MacConnell of the Forestry Department at the University of Massachusetts has prepared land use maps from aerial photographs he took in 1951 and again in 1971. He took pictures of each community in the entire state. A comparison of the 1951 map and the 1971 map for Ware reveals the changes which have occurred over that twenty year period. Professor MacConnell has recently begun to compute the number of acres for each different type of land use. This information offers a statistical comparison of the changes occurring in the land use pattern, as well as the visual one.

Professor MacConnell utilizes six major land use categories, each of which is then broken down into more detailed types. The six categories are: forest land, agricultural or open land, wetlands, mining and waste disposal land, urban land and outdoor recreation land.

There was an increase in forest land in Ware between 1951 and 1971: in 1951 there were 15,750 such acres, comprising 61 percent of the total area of the town, and in 1971 there were 16,892 acres or 66 percent; in all, an increase of 1,142 acres or 7.2 percent.

The increase in forest land seems to be the result of unused agricultural land reverting back to forest land. In 1951 the combined number of acres of pasture land not suitable for tillage and of abandoned field was 4,164. By 1971 this number of acres decreased to 2,060. Therefore, in that period, 2,104 acres of unused agricultural land were converted to other uses. The 1,142 acre increase in forest land probably accounts for almost half of the lost agricultural land.

The remainder of the lost agricultural land has been developed as residential land. Between 1951 and 1971, there was an increase

TABLE 9

LAND USE CHANGES 1951-1971

LAND USE CATEGORY	NO. OF ACRES IN 1951	NO. OF ACRES IN 1971	DIFFERENCE (in nos. of acres)	PERCENT CHANGE
AGRICULTURAL LAND: TILLED	771	979	+ 208	26%
AGRICULTURAL LAND: UNUSED TILLED	0	52	+ 52	
PASTURE: NOT SUITABLE FOR TILLAGE	2182	1280	- 902	41%
ABANDONED FIELD	2082	780	-1300	62%
PRODUCTIVE FRUIT ORCHARD	28	7	- 21	75%
POWERLINES OR RIGHTS OF WAY	0	158	+ 158	
WETLANDS: OPEN WATER	3700	3657	- 43	1%
SHRUB SWAMPS	152	114	- 38	25%
SHALLOW MARSH	212	63	- 149	70%
DEEP MARSH	60	88	+ 28	47%
HEAVY INDUSTRIAL	41	37	- 4	1%
LIGHT INDUSTRIAL	31	22	- 9	29%
COMMERCIAL	21	37	+ 16	76%
HIGHWAY COMMERCIAL	25	18	- 7	28%
SHOPPING CENTERS	0	7	+ 7	
GARDEN APARTMENTS	0	4	+ 4	
TENEMENTS OR APARTMENTS	3	0	- 3	
HIGH DENSITY URBAN RESIDENTIAL LAND	170	280	+ 110	64%
MEDIUM DENSITY RESIDENTIAL	228	408	+ 180	79%
LIGHT DENSITY RESIDENTIAL	12	173	+ 161	1340%
OPEN LIGHT DENSITY RESIDENTIAL	35	48	+ 13	37%
LIGHT DENSITY FORESTED	0	48	+ 48	
CLUSTERED RESIDENTIAL LAND (3-10 Dwell- ing Units)	0	129	+ 129	
ESTATES - 3 or more acres	0	15	+ 15	
AIRPORTS	0	18	+ 18	
RAILYARDS	7	7		
TERMINALS FOR TRUCKS	0	11	+ 11	
OPEN, UNDEVELOPED LAND IN URBAN AREA	58	30	- 28	48%

LAND USE CATEGORY	NO. OF ACRES IN 1951	NO. OF ACRES IN 1971	DIFFERENCE (in nos. of acres)	PERCENT CHANGE
PUBLIC OR QUASI-PUBLIC LAND	33	140	+ 107	320%
CEMETERIES	10	88	+ 78	780%
STADIUMS OR ATHLETIC FIELDS	0	15	+ 15	
SAND AND GRAVEL	0	40	+ 40	
AUTOMOBILE DUMPS	0	15	+ 15	
SEWAGE TREATMENT	0	4	+ 4	

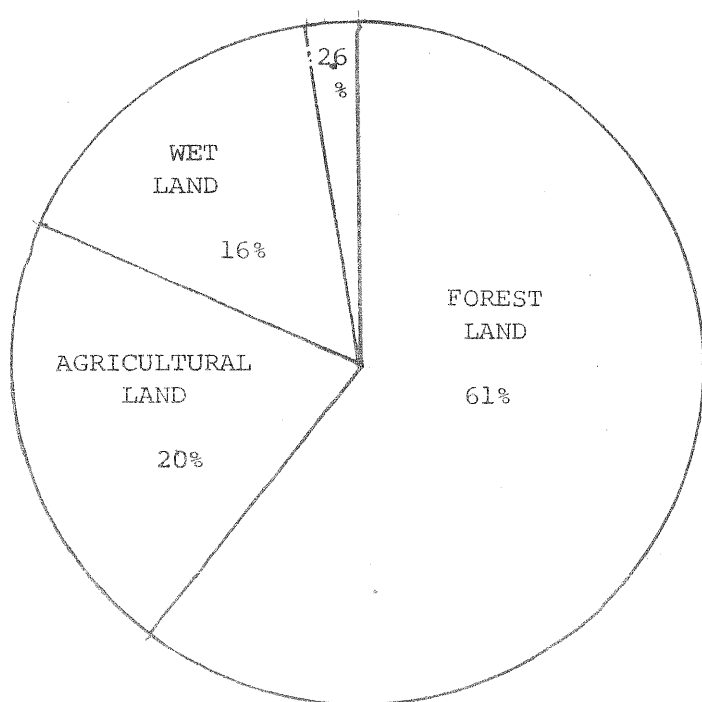
SOURCE: MACCONNELL STATISTICAL SUMMARIES

TOTALS OF THE SIX MAJOR LAND USE CATEGORIES

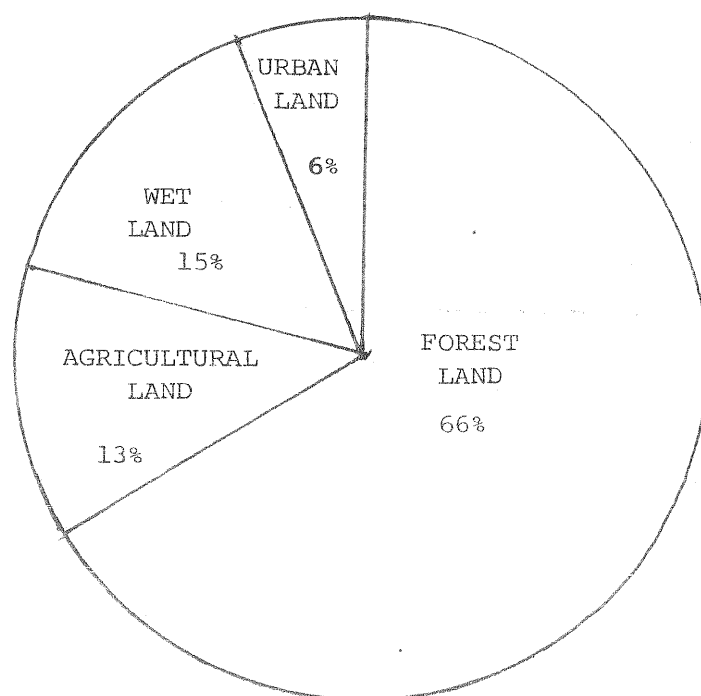
FOREST LAND	15,750	16,892	+1142	7.2%
AGRICULTURAL OR OPEN LAND	5,064	3,256	-1808	36%
WET LAND	4,172	3922	- 250	6%
MINING AND WASTE DISPOSAL LAND	0	59	+ 59	
URBAN LAND	674	1,516	+ 842	120%
OUTDOOR RECREATION LAND	0	15	+ 15	
TOTAL NUMBER OF ACRES	25,660	25,660		

In 1951

URBAN LAND



In 1971



of 180 acres of medium density land, a 79 percent increase; 160 acres of light density land, a 1,340 percent increase; 129 acres of clustered residential land and 110 acres of high density urban residential land or a 64 percent increase. In total, there was an increase of 642 acres of residential land in the twenty year period or an increase of 170 percent.


The change in the amount of commercial land has not been as dramatic as the changes in agricultural or residential land. There were 41 acres of heavy industrial land in 1951 and 37 acres in 1971, a decrease of 4 acres or 1 percent. Light industrial land went from 31 acres to 22 acres, a decrease of 9 acres or 29 percent. Commercial land along highways occupied 25 acres in 1951 and 18 acres in 1971, a decrease of 7 acres or 28 percent. The number of acres of commercial land was 21 in 1951 and 37 in 1971, an increase of 16 acres, 76 percent. On the whole, there was a slight decrease in the amount of land devoted to highway commercial and industrial uses and an increase in the amount of commercial land.

There is still a great deal of undeveloped land in Ware. 66 percent of the land is forested; 12 percent of the land is agricultural or open land; 15 percent is wetland which includes open water, shrub swamps, shallow marshes and deep marshes. Urban land, which includes industrial, commercial and residential land, comprises only 6 percent of the total amount of land in Ware but it was only 3 percent in 1951. Of the urban land types, the increase in residential land has been the most significant.

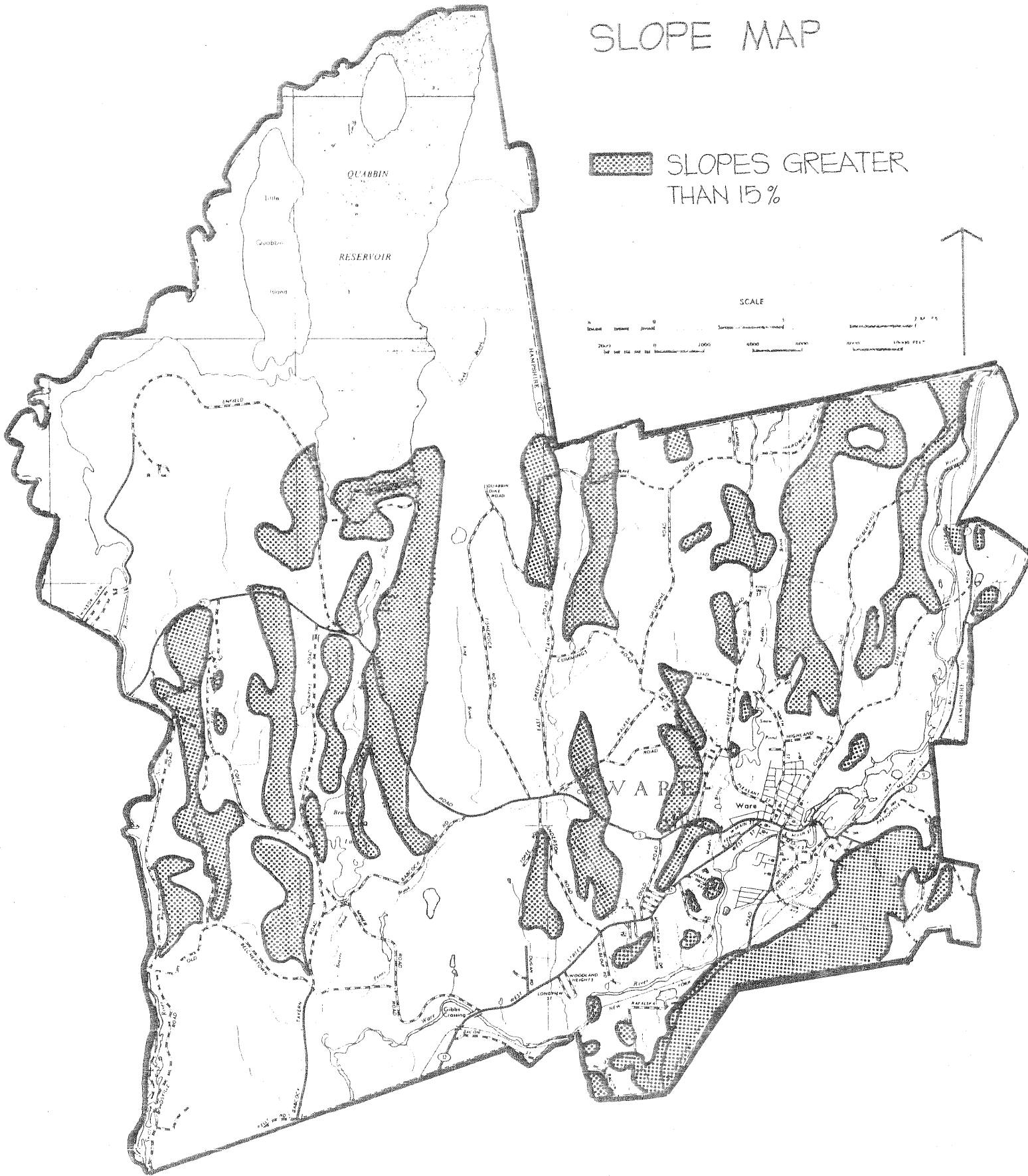
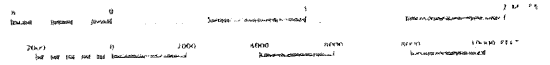
Suitability of the Land for Development

Although there is a great deal of undeveloped land in Ware, one must not assume that all of this land is suitable for development. There are certain physical characteristics of the land which determine its suitability for development, such as slopes, availability of water and soil conditions. There are no minimum standards for what constitutes an acceptable housing site because limitations can be overcome. But, if an area has many limitations it may be very expensive for the town to provide services to the area and the process of development might cause irreparable damage to the environment.

SLOPE MAP

 SLOPES GREATER THAN 15%

SCALE



Therefore, it is necessary to define the most important building limitations and then identify on a map where those conditions exist.

A survey of the land in Ware has been made to determine its suitability for development. The limitations which were considered were: slopes over 15 percent, the presence of wetlands, floodplains and water, the amount of groundwater and the favorability of the soils for septic tanks. Each of these characteristics has been mapped separately. The maps can be overlaid to illustrate those areas which have the least amount of limitations for development and those areas which have the most severe limitations.

Slope

The slope of an area is determined by measuring the degree to which the land rises in 100 feet of horizontal distance. The result is then expressed as a percent. For example, if a street rises 10 feet in the distance of 100 feet, it is said to have a slope of 10 percent.

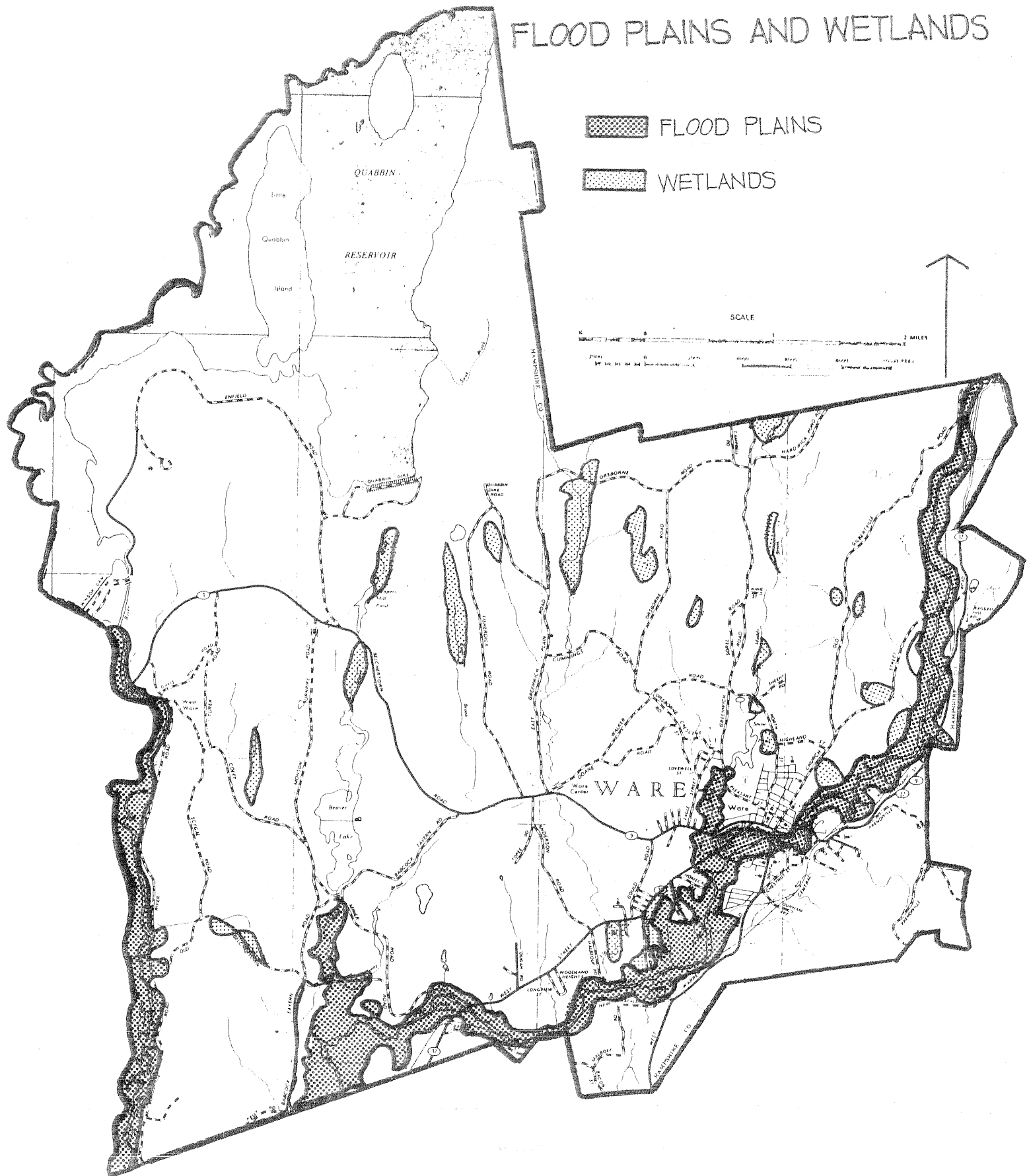
Slope requirements vary with each land use activity, but home site builders generally agree that slopes over 15 percent are less desirable as housing sites because more complicated forms and foundations are required. Subdivision regulations usually require that roads have slopes of 10 percent or less. A steep slope may also increase erosion and maintenance problems on the land. Severe slopes make accessibility difficult and increase the difficulty of installing municipal services to these areas. Therefore, all the areas in Ware which have slopes over 15 percent have been mapped.

The areas which have slopes greater than 15 percent generally appear in vertical bands on the map except for one area in the southeastern corner of the town (see map). The one exception is a large section occupying almost all of the entire lower eastern edge of town south of the Ware River. This area is presently undeveloped.

There are several other bands which have slopes over 15 percent in the northeastern portion of town; most of these are also undeveloped.

In the western part of town there is a long band including the Beaver Lake and the areas directly north and south of it which have

FLOOD PLAINS AND WETLANDS



slopes greater than 15 percent. Residential development has been occurring in this area.

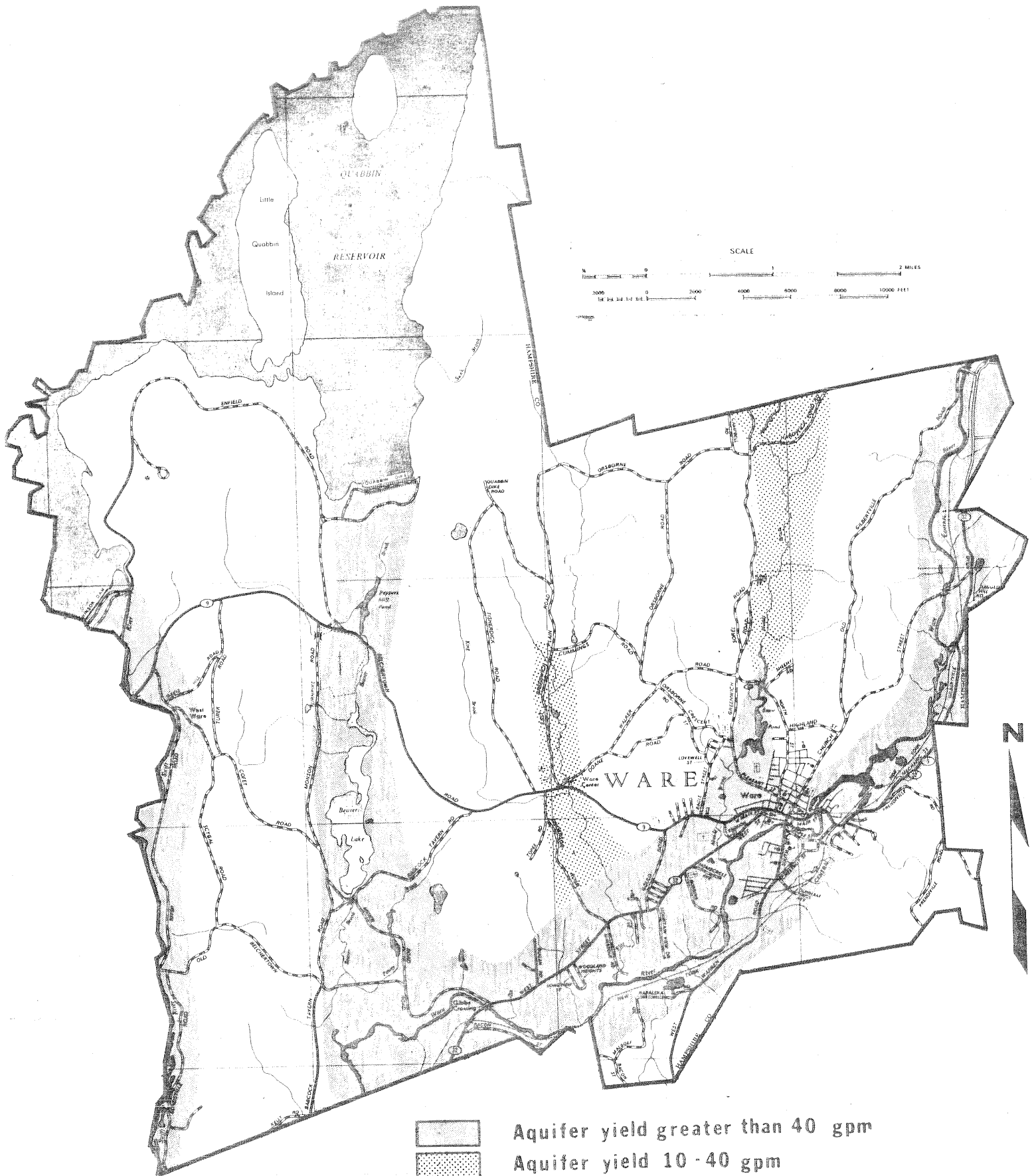
Wetlands, Floodplains and Open Water

Wetlands, floodplains and open water are another set of limitations on the development suitability of the land. Wetlands can be built upon by filling in the land but this causes damage to the environment. There are several laws in Massachusetts, the Coastal Wetlands Act of 1965 and the Inland Wetlands Act of 1972, which require that anyone who intends to build on a wetland must fill out an environmental impact statement showing that the proposed action will have no harmful effect on the surrounding area.

Floodplains are also undesirable to build on because they are subject to periodic flooding. The function of this land is to absorb the overflow of rivers and streams in the flood season. It has been shown that building on floodplains decreases their ability to absorb water and therefore their usefulness as a means of controlling the extent and damages of the flood. Under the new Federal Flood Insurance Program, only those buildings which conform to the safety guidelines set up by the Federal government will be eligible for Federal Flood Insurance.

There are quite a few streams, brooks and ponds in Ware (see map). The Ware River runs along the eastern and southern boundaries of the town. The floodplain is generally defined as that area which is within 100 feet of the river; in some areas, the floodplain extends further than 100 feet. Development has already occurred on the floodplain of the Ware River near the center of the town. Further to the southwest, several residential developments have recently been built close to the river along Rte. 32. Care should be taken to assure that the floodplain itself is not built upon. The Swift River forms the western boundary of town and the surrounding area is relatively free of development.

Wetlands differ from floodplains in that they are areas which are constantly wet rather than subject to periodic flooding. They are not always located directly next to a water body, but are usually within the general vicinity. Wetlands are areas where the ground-



GROUNDWATER FAVORABILITY

water table is at the same level as the surface of the ground and is therefore exposed.

There are some wetlands in the southern section of town along Rte. 32. There are also wetlands in the central portion of the town near Flat Brook, Muddy Brook and Snows Pond. South of Beaver Lake, at the junction of Penny Brook and the Ware River there is a large area of wetland. Light intensity uses such as farming, recreation or low density residential are the most favorable for wetlands and high intensity uses should be discouraged in these areas.

Groundwater Favorability

In areas not serviced by the town water system, developers must consider the amount of water available to fill their wells in the area in which they wish to build. Water is supplied to an area by an aquifer, an underground water source, so availability of water is measured in terms of aquifer yield, the amount of water provided by the aquifer.

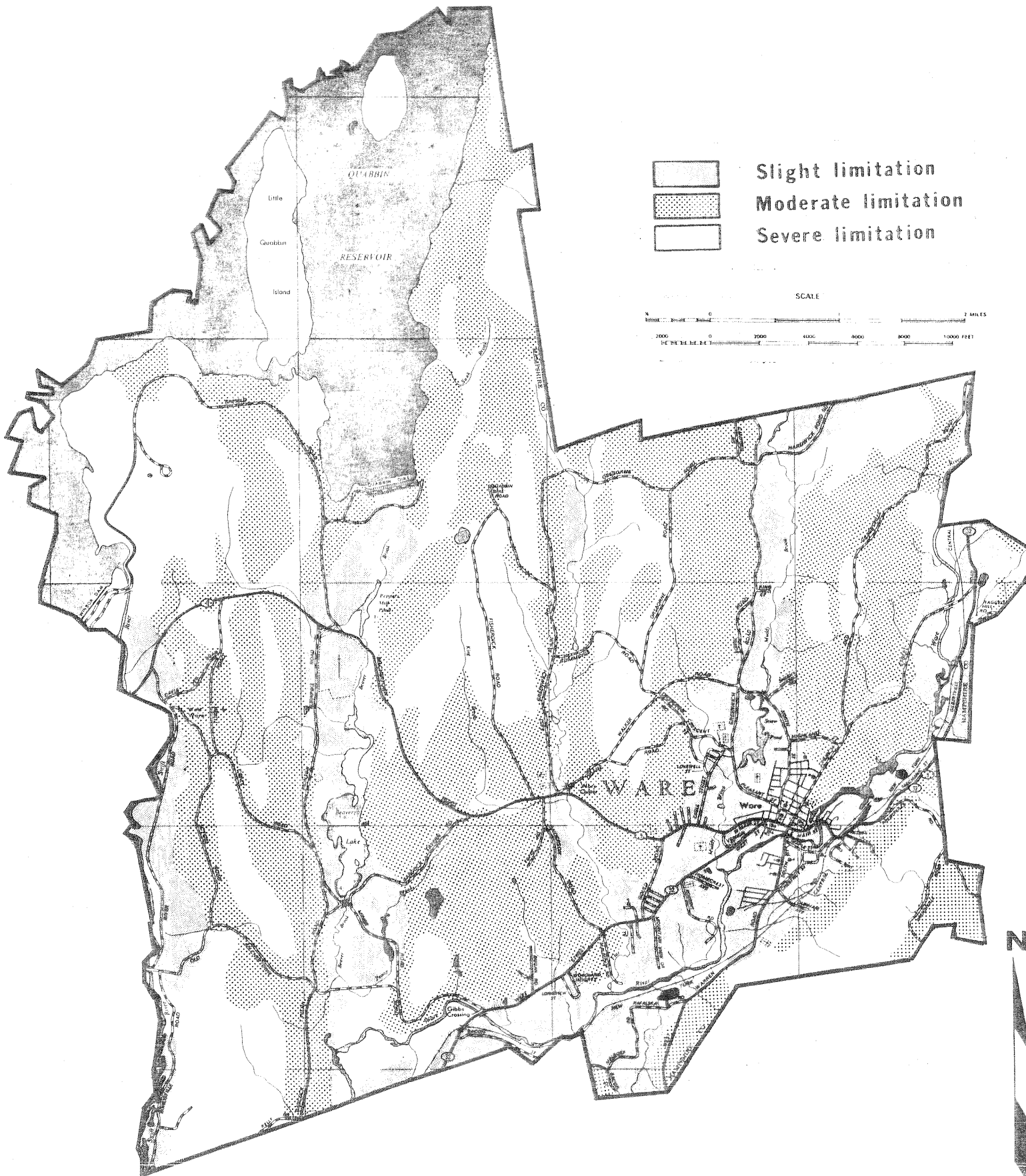
The location of the aquifer is also an important consideration to the developer. Aquifers, which provide us with drinking and bathing water, must be kept free from pollution by septic tanks and industrial waste. Therefore, developers must know where the aquifer is so that septic tanks can be located a safe distance away.

The map identifies areas where there is a great deal of water available, where there is a moderate amount of water available and where there is an insufficient amount of water available. Aquifer yield is measured in gallons per minute (gpm). 10 gpm is considered sufficient for domestic use. Fire-fighting equipment requires an aquifer yield of at least 40 gpm.

The aquifer yield in much of Ware is less than 10 gpm which means that residences in these areas would not be provided with an adequate water supply. The northeastern quarter of Ware has a low aquifer yield except for the area around Flat Brook and Muddy Brook which have an adequate aquifer yield. The ground water supply is also insufficient in the western part of town around Beaver Lake and in the southeastern corner of town.

The municipal water system now serves the central business dis-

Map 5



SOILS FAVORABILITY FOR ON-LOT SEWAGE DISPOSAL

trict and the area immediately surrounding it. Development in areas not supplied with town water should be concentrated in areas which have a sufficient aquifer yield. But development should also be patterned in such a way as to protect aquifers from the possibility of pollution from septic tanks. This problem is often solved by clustering development in a small area and leaving the land directly above the aquifer undeveloped.

In the event that the municipal water system will not be extended any further, Ware people should make an effort to protect their underground water supply. At the same time, they should realize that the amount of growth in the town is partially dependent upon and limited by the available water supply.

Septic Limitations

Every house must be provided with an adequate sewage disposal system and in the absence of a public system operated by the town, septic tanks must be installed. The conditions which are most favorable for the installation of septic tanks are a permeable soil and a low groundwater table. The map for septic tanks indicates those areas which have severe limitations for septic tank installation, moderate limitations and only slight limitations.

In areas which are serviced by the municipal sewage system the limitations for septic tanks are not a problem. Presently the town sewage system serves the center of town and the surrounding area to the north and west of the business district.

Severe limitations exist in the southeastern corner of town and extending eastward along the southern boundary (see map).

Moderate limitations for septic tanks exist in most of the remaining areas of town.

Only slight limitations exist near the central business district and in the areas just outside those served by the existing sewage system. Development should be encouraged in these areas with only slight limitations for septic tanks.

Developable Land in Ware

The maps of all the physical characteristics which impose limitations on development can be laid on top of each other to indicate

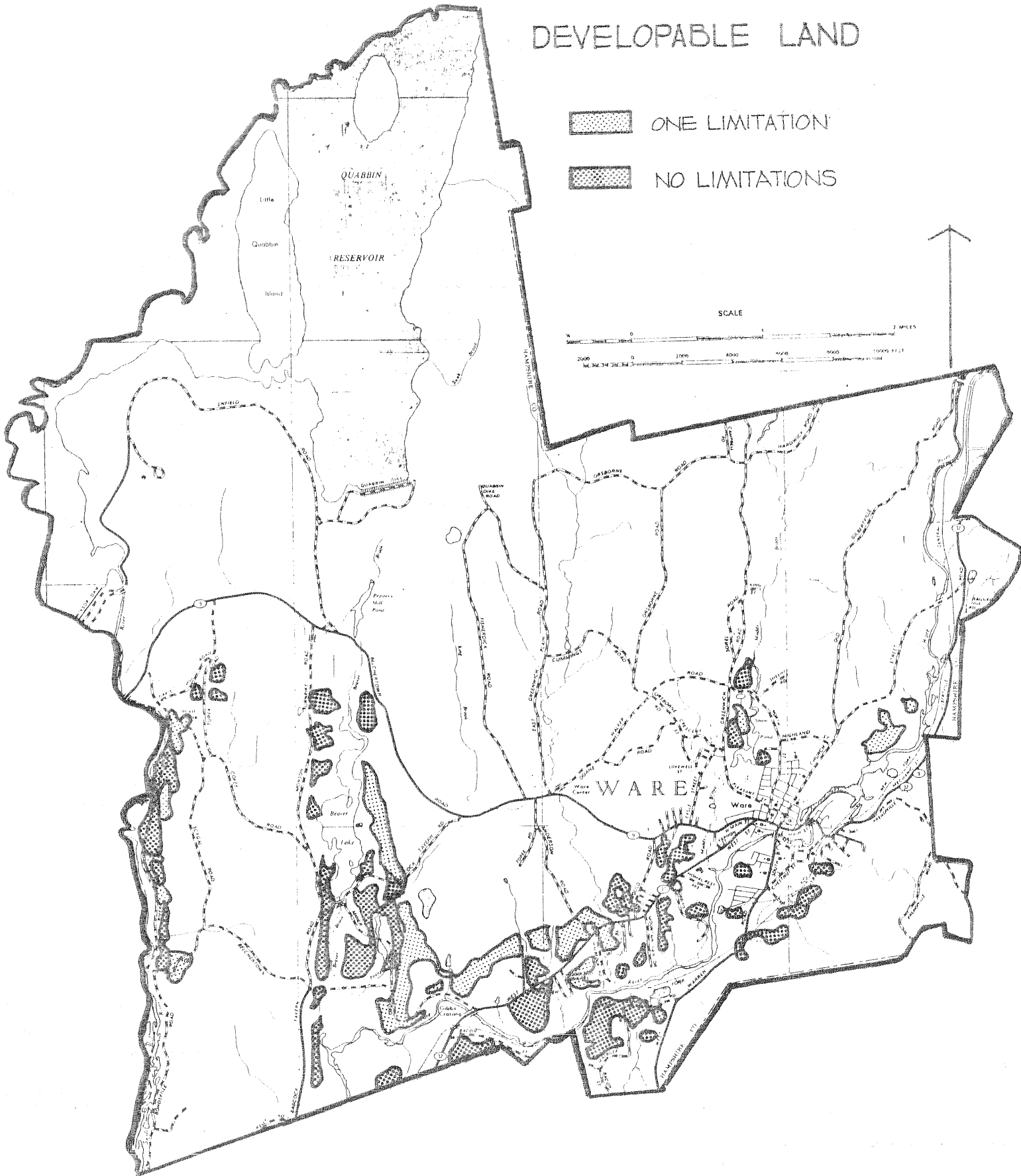
Map 6

DEVELOPABLE LAND

ONE LIMITATION

NO LIMITATIONS

SCALE



those areas which have the greatest number of limitations. A final map was made of developable land in Ware, those areas which have no limitations or only one limitation. These are the areas in which the town should encourage and concentrate development. Developable land is mostly in the southern central portion of the town where the most development activity is already occurring. There are also a few areas which have few physical limitations along the eastern boundary of Ware and in the western part of town along the western boundary and around Beaver Lake.

Development in areas which have several physical limitations will be a great expense to the town and may be destructive to the environment. Building should be discouraged in these areas.

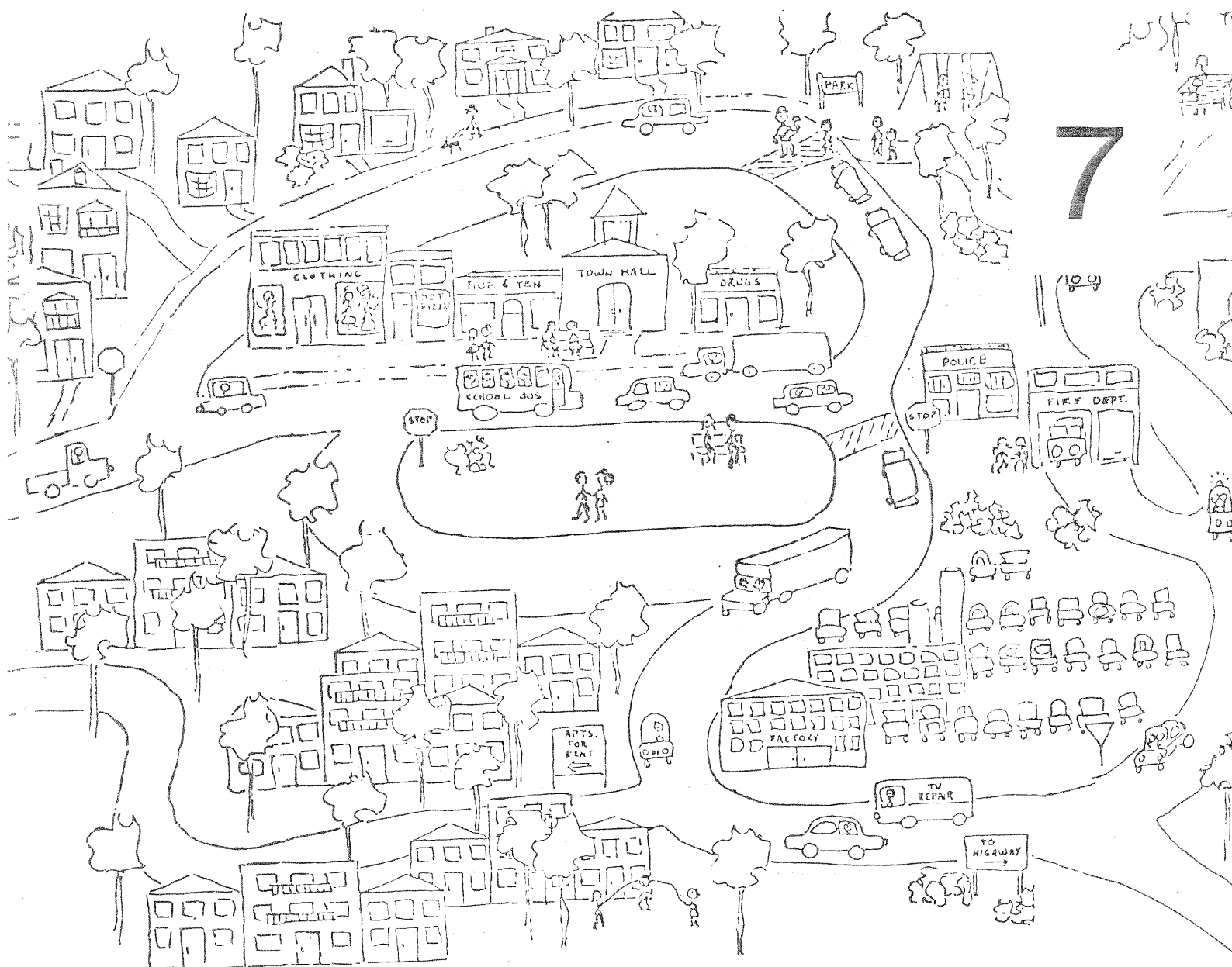
Conclusions

The physical characteristics of the land in Ware render much of it incapable of supporting high intensity development. The entire northeastern quarter of the town suffers from an inadequate water supply, poor soils for septic tanks and steep slopes. Similar conditions exist in the central and western sections of town.

This does not mean that Ware cannot accomodate any further growth. The land surrounding the central business district and to the north and south of Route 32 is relatively free of physical limitations and the most intensive development should be and is occurring in these areas. The land around Beaver Lake is being used for seasonal and permanent residences and, although there are some steep slopes in this area, the land is capable of accommodating this growth.

Ware can make the physical limitations on the land work to the town's advantage. The rolling hills, fields and forests in Ware are very attractive and offer many opportunities for recreational use of the land. Recreation is a low intensity use and is the least harmful to land with many limitations aside from agriculture and its accessory uses. Possible activities which could be encouraged are camping, hiking, horseback riding, cross country skiing and canoeing along the many streams, rivers and brooks in Ware. There may even be several slopes which could be used as ski hills.

Recreational, open land is becoming more scarce as the metropolitan centers continue to grow and urban residents are travelling as far as Canada to enjoy the rural areas that were once in their back yards. Because of this great demand and the recreational potentials which exist in Ware, the town should consider utilizing the physical limitations of the land as assets.



7

economic base

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ECONOMIC BASE REPORT

The purpose of this report is to examine the economic base of Ware. The economy of any community can be looked upon simply as how a community earns its living. The convention, "Economic Base," generally refers to the structure of a local economy--the nature and type of economic activities which support the community. These economic activities are interrelated. Residents employed locally earn an income, and use much of this income to buy goods and services locally, thus fulfilling demands created within the community. Economic activities are often classified into basic and nonbasic components. Basic activities refer to that portion of the economy producing goods, services and capital which export all or most of their output. These activities bring about growth because they bring income into the community and create employment in nonbasic activities, often referred to as "community serving" or "service" activities. The interrelationships between these two components of the economic base sustain the economic life of a community.

Economists generally use employment data to analyze the economic base of communities because of their wide availability. The employment data in this report and much of the other statistical information, unless otherwise stated, has been obtained from the Massachusetts Division of Employment Security, hereafter referred to as D.E.S. The D.E.S. employment data are obtained only from establishments subject to the Massachusetts Employment Security Law. However, coverage to state hospitals and institutions of higher learning was not extended until January, 1972 and there are still many employment types which are not covered. The data used are the best available, but they are not totally complete.

The Structure of the Economic Base

Figure 2 and Table 10 show the structure of the Economic Base of Ware. Location Quotients can be used to compare employment in each sector of the local economy with employment in each sector of a larger or regional economy, where values greater than 1.00 indicate the degree of concentration of various types of economic activities within a local economy. As a result location quotients also provide an indication of those activities which are basic activities for the community.

Manufacturing

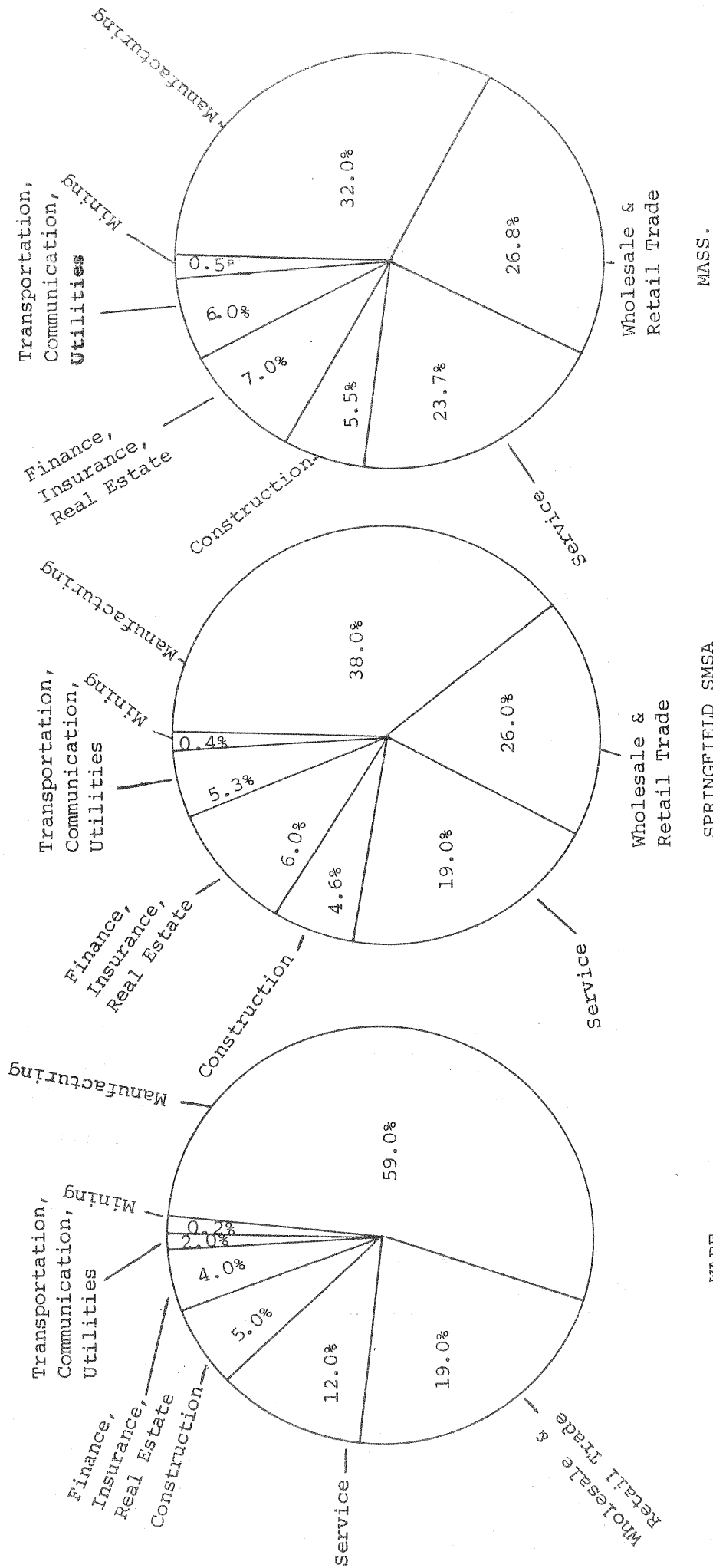
The importance of manufacturing to the economy of Ware is clearly shown in Table 10 and Figure 2. It is the basic economic activity. The proportional employment in the manufacturing sector in Ware is over one and one half times the proportional manufacturing employment in the Springfield S.M.S.A. and the state of Massachusetts.

Table 11 and Figure 3 detail the structure of the manufacturing base of Ware. Textile, shoe, and paper industries are clearly predominate. Two thirds of the manufacturing employment and eight of twenty manufacturing plants reporting to the State Department of Employment Security fall within these three industry categories.

Figure 2

EMPLOYMENT BY INDUSTRY CATEGORY, 1973

WARE



Source: Division of Employment Security

Table 10

1973 Average Annual Employment by Place
of Employment (Employed Labor Force)

S.I.C. Category	Ware Town (percent)	Spring- field SMSA	Location Quotient*	Mass. (Per- cent)	Location Quotient*
Mining	0.2	0.4	0.5	0.5	0.4
Construction	5.0	4.6	1.09	5.5	0.91
Manufacturing	59.0	38.0	1.55	32.0	1.84
Transportation, Communication, Utilities	2.0	5.3	0.37	6.0	0.33
Wholesale & Retail Trade	19.0	26.0	0.73	26.8	0.71
Finance, In- surance, & Real Estate	4.0	6.0	0.66	7.0	0.57
Services	12.0	19.0	0.63	23.7	0.51

*Location Quotient = Percent Local Employment ÷ Percent Regional
Employment

Source: Massachusetts Division of Employment Security

Table 11

1973 Manufacturing Employment by Place of
Employment (Employed Labor Force)

S.I.C. Category	Ware (percent)	Mass. (percent)	Location Quotient*
Manufacturing	59.0 (100) ^{-*}	32.0 (100)	1.84
Textile	45.0	5.1	8.82
Apparel	6.0	7.4	0.81
Shoe	15.0	4.3	3.49
Paper	22.0	5.3	4.15
Machinery	5.0	11.5	0.43
Percent Durable Goods	5.0	34.0	
Percent Nondurable Goods	95.0	66.0	

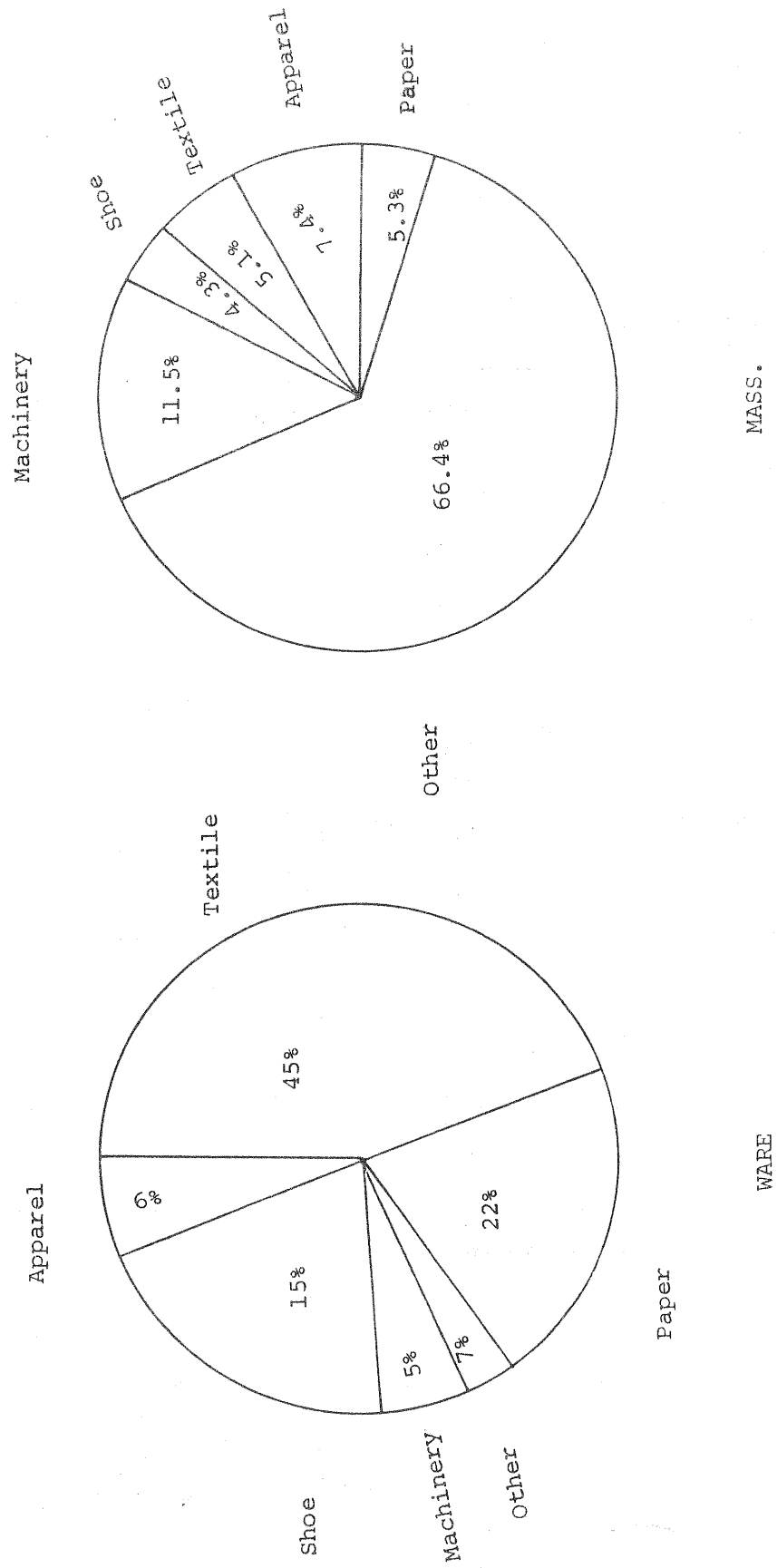
-*Includes only those establishments with greater than 25 employees

*Location Quotient=% Local Employment ÷ % Regional Employment

Source: Division of Employment Security

Figure 3

MANUFACTURING EMPLOYMENT BY INDUSTRY CATEGORY
WARE, 1973



Historically, the economy of Ware has been greatly dependent upon the textile industry. Since the creation of Ware Industries, the occupants of the mill complex have continued to remain almost entirely members of the textile sector of manufacturing. This imbalance in the community economy is a major problem facing Ware. It is likewise an issue that the citizens of Ware must effectively come to grips with, if it is to be remedied. As Ware learned in 1937, when the Otis Company moved south, it is dangerous to put all your eggs in one basket.

The second most important category of manufacturing is finished and coated paper products. Machinery, printing and publishing, furniture products, fabricated and primary metals (foundries) complete the manufacturing base and individually comprise a relatively small portion of the manufacturing employment. Durable goods industries have generally achieved a much higher rate of growth in productivity and employment than the nondurable goods industries, and the ratio of nondurable goods employment to durable goods employment is much higher in Ware than in Springfield and the state as a whole.

Construction is second in importance to manufacturing in terms of relative specialization, and a small segment of it

functions as a basic activity. Finance, insurance and real estate are also of importance to the town. Within the financial sector, three banks with home offices in Ware possess financial resources that are in large part derived from outside Ware; and this represents a significant basic activity component of the economy. All other sectors of the economic base can be considered primarily nonbasic activities, performing mostly community serving or service functions.

Nonbasic Activities: Wholesale and Retail Trade

Wholesale and retail trade are second in importance to manufacturing in terms of relative employment. About sixty-eight commercial enterprises employing about 500 people can presently be found in Ware. Most of these are concentrated along Main Street, within the Central Business District (CBD), although the newest retail district, Phillip's Plaza, is highway oriented.

Ware and Palmer serve as "core" communities within the region, supporting important wholesale and retail functions. Ware has continued to maintain a position as an important trade center for the region with a 1972 per capita retail sales of \$1,856, higher than that for Palmer and the state. The retail centers in Ware attract shoppers from both Ware and the northeastern communities of Petersham, Hardwick, Barre, New Braintree, the Brookfields, and Warren.

Until recently the economy of the Central Business District along Main Street had remained relatively stable, despite both the lack of renovation and amenities, and the competition from more attractive shopping centers within the Springfield area. But during the past few years, Main Street business vacancies have increased and the stability of the business district has been badly altered by the closing of Grants, an important anchor store.

Changes in the Structure of the Economic Base

Tables 12 to 16 present a statistical story of the changes in the structure of the economic base of Ware from 1960 to 1973. Undoubtedly, the most significant changes occurred in the manufacturing sector of the economy. Manufacturing employment declined both absolutely and relatively during the period examined.

Table 12

Number of Firms and Payroll, 1960-1973,
Ware, Massachusetts

S.I.C. Category	1960		1965		1970		1973	
	No. Firms	Payroll (\$000)	No. Firms	Payroll (\$000)	No. Firms	Payroll (\$000)	No. Firms	Payroll (\$000)
Mining	1	25	1	26	1	31	1	22
Construction	14	518		465		1,201		1,661
Manufacturing	20	9,495	18	10,296	20	10,271	20	11,306
-Textile*	7	4,529	6	4,330	6	4,475	6	4,717
-Apparel	1	210	1	75	2	315	2	507
-Shoe	2	2,844	2	3,496	1	2,305	1	1,227
-Paper	1	984	1	1,351	1	1,874	1	3,321
-Machinery	3	471	3	548	3	567	4	671
Transporta- tion, Com- munication, Utilities	9	185	9	246	10	340	10	337
Wholesale & Retail Trade	79	1,002	84	1,405	67	1,949	68	2,788
Finance, Insurance & Real Estate	11	336	12	432	11	654	12	806
Service	41	307	42	355	24	513	33	1,755
TOTALS	175	11,868	183	13,230	152	14,259	164	18,675

*Subdivision of "Manufacturing" category including only establishments with more than 25 employees.

Source: Massachusetts Division of Employment Security

Table 13

Number of Firms and Employment by Place of Employment, 1960-1973,
Ware, Massachusetts

S.I.C. Category	1960		1965		1970		1973	
	No. Firms	No.* Empl.	No. Firms	No.* Empl.	No. Firms	No.* Empl.	No. Firms	No.* Empl.
Mining	1	7	1	6	1	6	1	4
Construction	14	73	16	49	19	97	20	132
Manufacturing	20	2,378	18	1,990	20	1,652	20	1,550
-Textile@	7	1,046	6	800	6	686	6	698
-Apparel	1	80	1	75	2	72	2	90
-Shoe	2	816	2	753	1	461	1	228
-Paper	1	213	1	233	1	260	1	337
-Machinery	3	91	3	84	3	69	4	83
Transporta- tion, Com- munication, Utilities	9	43	9	49	10	64	10	49
Wholesale & Retail Trade	79	336	84	407	67	422	68	507
Finance, In- surance, & Real Estate	11	78	12	86	11	93	12	92
Service	41	115	42	110	24	89	33	312
TOTALS	175	3,030	183	2,696	152	2,424	164	2,646

*Employees (employed labor force): average annual employment

@Subdivision of "Manufacturing" category including only those
establishments with more than 25 employees

Source: Massachusetts Division of Employment Security

Table 14

Percent Total Employment, Employed Labor Force, 1960-1973, Ware, Massachusetts				
	1960	1965	1970	1973
S.I.C. Category	Percent Total Employment	Percent Total Employment	Percent Total Employment	Percent Total Employment
Mining	0.2	0.2	0.2	0.2
Construction	2.0	2.0	4.0	5.0
Manufacturing	79.0	74.0	68.0	59.0
-Textile*	44.0	40.0	42.0	45.0
-Apparel	3.0	2.0	4.0	6.0
-Shoe	34.0	38.0	30.0	15.0
-Paper	9.0	12.0	16.0	22.0
-Machinery	4.0	4.0	4.0	5.0
-Other	6.0	4.0	4.0	7.0
Transportation, Communication, Utilities	1.0	2.0	3.0	2.0
Wholesale & Retail Trade	11.0	15.0	17.0	19.0
Finance, Insurance, Real Estate	3.0	3.0	4.0	4.0
Service	4.0	4.0	4.0	12.0

*Subdivision of "Manufacturing" calculated as percent total manufacturing employment

Source: Division of Employment Security

Table 15

Absolute Change in Population and Employed Labor Force, 1960-1973 Ware Town & Springfield SMSA				
S.I.C. Category	Ware	Ware	Ware	Springfield SMSA
	1960-1965	1965-1970	1970-1973	1970-1973
	Absolute Change	Absolute Change	Absolute Change	Absolute Change
Population	+369	+301		
Mining	-1	0	-2	-35
Construction	+3	+48	+35	+28
Manufacturing	-388	-388	-102	+466
-Textiles*	-246	-114	+12	
-Apparel	-45	+37	+18	
-Shoe	-63	-292	-233	
-Paper	+65	+27	+77	
-Machinery	-7	-15	+14	
Transportation, Communication, Utilities	+6	+15	-15	+847
Wholesale & Retail Trade	+71	+15	+85	+2,840
Finance, Insurance, Real Estate	+8	+7	-1	+548
Service	-5	-26	+233	+14,995
TOTAL	-334	-272	+222	+16,541

*Subdivisions of "Manufacturing" category including only those establishments with more than 25 employees.

Source: Division of Employment Security

Table 16

Percent Change in Population and Employed Labor Force, 1960-1973 Ware Town and Springfield SMSA				
S.I.C. Category*	1960-1965	1965-1970	1970-1973	1970-1973
	Ware % Change	Ware % Change	Ware % Change	Springfield SMSA % Change
Population	+4.9	+3.8	+2.5**	+1.2**
Mining	-14.0	+1.0	-33.0	-4.6
Construction	-33.8	+98.0	+36.0	+0.4
Manufacturing	-16.3	-17.0	-6.2	+0.7
-Textile*	-23.5	-14.3	+1.7	
-Apparel	-56.3	+105.7	+25.0	
-Shoes	-7.7	-38.8	-50.5	
-Paper	+9.4	+11.6	+29.6	
-Machinery	-7.7	-17.9	-15.0	
Transportation, Communication & Utilities	+14.0	+30.6	-23.4	+10.6
Wholesale & Retail Trade	+21.1	+3.7	+20.6	+7.0
Finance, Insurance & Real Estate	+10.3	+8.1	-1.0	+5.7
Service	-4.3	-19.0	+250.6	+91.4
TOTAL	-11.0	-10.0	+9.2	+11.2

*Subdivisions of "Manufacturing" category included only those establishments with more than 25 employees.

Source: Division of Employment Security

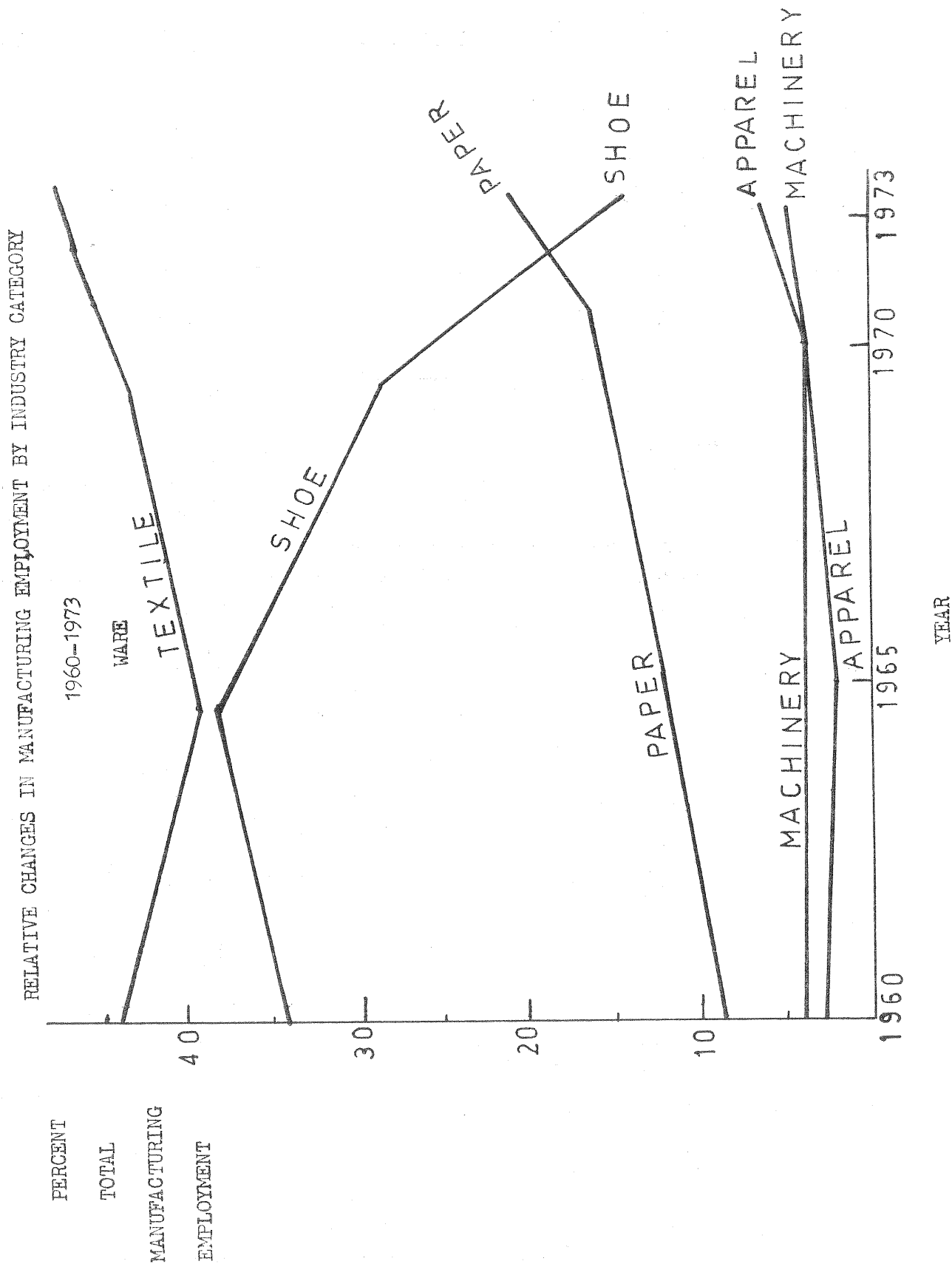
**Estimated

In 1960, about 4 out of every 5 jobs in Ware were in manufacturing, and by 1973 only 3 out of every 5 jobs were in manufacturing. This decline represented a net loss of 828 jobs. Standing in contrast to this trend, employment in wholesale-retail trade increased slowly but steadily, and in the construction sector, employment increased rather rapidly with respect to the other sectors. Growth in the remaining economic sectors occurred sporadically, making the determination of any significant trends difficult. The result of these relatively contrasting changes in the employment structure was not good. Total employment declines by about 20 percent between 1960 and 1970, and increased only slightly between 1970 and 1973. In 1973 there were 384 fewer jobs than in 1960.

Focus on Changes in the Manufacturing Base

As mentioned previously, the textile and leather industries historically have maintained a dominant position in the economy of Ware. The decline of the textile industry in Ware after World War I brought about Ware Industries, and since then its occupants until very recently have been almost entirely from the textile, apparel and shoe industries. As a result it has suffered from many of the same problems that have contributed to the decline of textile and shoe mill activity throughout New England. Figure 4 focuses on the relative change in employment in the manufacturing sector.

Figure 4



Source: Division of Employment Security

The largest decline in manufacturing employment during the period occurred in the shoe industry. The culmination of a long period of contraction occurred in 1973 with the closing of Ware Shoe Company. During its peak, Ware Shoe Company employed between 400 and 500 people, and at its time of closing it represented a loss of about 300 jobs. The next largest decline in manufacturing employment occurred in the textile mill products category. Within this category one of the most recent losses to Ware was the closing of Oxford Mills (carpets). At its closing in 1973 it represented a further loss of about 150 jobs, although many of the layoffs occurred gradually several years earlier as Oxford Mills began to phase out operations in Ware. As a result, the employment figures in Tables 13 and 15 do not exhibit the expected abrupt decline in employment as was the case for the shoe industry for Ware Shoe Company.

On the positive side, the factory building vacated by Oxford Mills, not a part of Ware Industries, has recently been taken over by a member of the printing and publishing sector, Silk Screen Service, presently operating with about sixty-two employees. Within Ware Industries, Rindge Industries, Inc. (textile mill products) has expanded into some of the floor space formerly occupied by Ware Shoe Company. Nemetco Plating, presently employing about eight to ten persons, has moved into some of the vacated space.

Since 1960 a significant expansion of manufacturing activity occurred within the paper products sector. Here, Ludlow Corporation alone is responsible for the sustained increase in employment. In 1973, the Ludlow Corporation completed a two million dollar expansion of its coated paper division. Additionally, since 1960 sporadic changes in employment have occurred in the apparel sector, but employment in this sector in 1973 is only slightly above the 1960 level.

Changes in the structure of the economic base can be examined against the backdrop of population trends. A decline in a community's basic activities can often adversely affect population growth. Diminishing employment opportunities result in increasing out-commuting to growing employment centers within a

region, and diminish population growth. In Ware the decreasing rate of population growth indicated in Tables 15 and 16 between 1960 and 1970 is a reflection of the stagnant economic conditions illustrated by employment figures. Nevertheless, the growth in population, beyond natural increase, and the growth in housing stock, is the catalyst for the upward trends in such nonbasic activities as wholesale-retail trade and finance, insurance and real estate. This continued population growth also indicates the growing importance of Ware as a residential community, particularly its growing dormitory function for people who commute to places of employment within the region. We shall examine this phenomena presently, but first we must examine the more immediate effect of the decline in economic activity, the unemployment situation.

Unemployment

Unemployment figures reflect both seasonal or temporary layoffs and also permanent layoffs from plant closings; and, as a result, they are indicative of changing economic conditions. Because they are subject to many kinds of interpretation, unemployment figures must be examined with some caution.

Unemployment as determined by the State Department of Employment Security includes only those who qualify for, and therefore are receiving unemployment benefits at the time of reporting. These unemployment rates are now calculated by the place of residence, but prior to 1970 the rates were calculated by place of employment. This makes it difficult to determine long range unemployment trends. Also, unemployment rates for a labor market area based on place of residence tend to be lower when compared to unemployment rates for the same labor market based on place of employment, when a large proportion of the resident labor force work outside the labor market area. For such an area the resident labor force is much greater than the employed labor force thereby increasing the base from which unemployment rates are calculated. This is illustrative of the Ware Labor Market Area.

Table 17 gives figures on unemployment on an average yearly basis from 1970 to 1973. The town of Ware is the center of the

Table 17

Unemployment and Resident Labor Force, Ware Town, Ware Labor Market Area
Springfield SMSA, 1970-1973

Geographic Area	1970	1970	1972	1973	1973
					Adjusted From Survey
<u>Springfield SMSA:</u>					
% Unemployed* (Resident Civilian labor force)	5.6%	8.4%	6.6%	6.6%	
<u>Ware Labor Market Area:</u>					
Number unemployed* (Resident Civilian labor force)	500	990	770	1100	
% Unemployed* (Resident Civilian labor force)	4.9%	8.8%	6.7%	9.5%	
<u>Ware Town:</u>					
Number unemployed* (Resident Civilian labor force)	185	361	277	352	473#
% Unemployed* (Resident Civilian labor force)	5.0%	9.7%	7.4%	9.5%	12.7%#
Resident Civilian@ Labor Force Total	3757	3713	3742	3717	3717
Percent Unemployed@ to labor market area total un- employed	37.0%	36.0%	35.0%	32.0%	43.0%#

*Average Annual unemployment. *Source: Division of employment security

@Source: Calculated by author using D.E.S. allocation method

#Calculated by author using 1973 D.E.S. survey data

Ware Labor Market Area which includes eight other surrounding towns. Figures on unemployment, however, are not aggregated for individual towns within the labor market area, and therefore must be estimated using an allocation method. A common method used by the Division of Employment Security is based on the assumption that for Ware, as an example, its share of the labor market area unemployment is proportional to its share of the labor market area labor force. The resident labor force in Ware must also be estimated, and for every 100 people actually employed in Ware (the employed labor force) about 155 people reside in Ware who are part of the resident labor force.*

Not surprisingly, the trend in unemployment for the town of Ware closely parallels the trend for the labor market area. Unemployment declined from 37 percent in 1970 to 32 percent in 1973, but, in 1973 a D.E.S. random sample survey of the unemployed in the Ware Labor Market area (10 percent sample) revealed that 43 percent of the unemployed people surveyed lived in the town of Ware. If this is representative of total unemployment, then a larger amount of the unemployed labor market must be assigned to the town of Ware. This survey, if valid, indicated an unemployment of 12.7 percent for 1973.** It must be pointed out, however, that the survey was taken just after the closing of Ware Shoe Company and Oxford Mills when there may have been a temporary peak in unemployment. Table 18, extracted from the 1973 D.E.S. sample survey, shows the unemployed residents of Ware allocated according to the sector in which they were last employed. Almost three of every four of the unemployed came from the most important basic activity in Ware, the manufacturing sector. Forty percent were previously employed in the shoe industry and 25 percent were previously employed in the textile industry.

*Ignoring in and out migration, this indicates that there are not enough jobs in Ware to employ all the people in Ware who want to work. The result of this type of situation is either out-migration for employment, unemployment within the community, or both.

**This is much higher than the unemployment of 9.5 percent indicated by the allocation method of D.E.S.

Table 18

Unemployment Survey, Resident Labor Force,
Town of Ware, April, 1973

S.I.C. Category	Number of Unemployed	Percent Total Unemployment
Construction	2	5%
Manufacturing	29	73%
-Textiles*	10	25%
-Apparel	1	2.5%
-Shoes	16	40%
-Paper	2	5%
Transportation, Communication, Utilities	0	0%
Finance, Insurance & Real Estate	2	5%
Wholesale & Retail Trade	2	5%
Services	4	10%
Mining	1	2.5%
TOTAL	40	100%

*Subdivisions of "Manufacturing" category. Percentages calculated to total unemployment.

Source: Division of Employment Security

Employment in some sectors of the economic base is highly seasonal. In particular in the textile industry unstable market demands often cause long periods of inactivity. As a result layoffs are often long and frequent. Monthly figures on unemployment can be quite variable, often with changes of one or two percent of the employed labor force from month to month. For example, the unemployment in the Ware Labor Market Area was reported to be 10.4 percent in December, 1971. This was 0.6 percent above the November estimate and 1.7 percent above the June estimate.

Labor Force Mobility: In and Out Commuting

According to Table 19, of the towns in the region, Ware itself, Palmer and Warren are the more important centers of employment. Manufacturing is the most important economic activity in each of these towns. The remaining towns are mostly agricultural and residential in nature, although some have important wholesale-retail and service functions.

Recently, Ware's status as a center of employment has suffered a decline. Diminishing employment opportunities, in particularly the textile and shoe industries, and increasingly more lucrative and attractive employment opportunities outside Ware have combined to increase outward commuting. The nature of this flow pattern can be estimated by comparing employment in the resident labor force with the employed labor force. Interviews with several employers in the manufacturing sector revealed that about 70 percent of their employees reside in Ware. This was taken as a rough approximation for the entire employed labor force residing in Ware and then applied to April, 1970 D.E.S. employment figures for each sector of the economic base. An indication of the magnitude of the out-flow of Ware residents is presented in Table 11.

The largest net out-flows occur in the service and manufacturing sectors. Table 18 presented the work place of Ware residents in the labor force at the time of the 1970 federal census. According to this census, 67 percent of the Ware resident labor force work in Ware, Belchertown, Amherst, or Pelham. (A further breakdown is unavailable). By our calculations about half

Table 19

Regional Employment, by Place of Employment, 1972

Town	Mining		Construction		Manufacturing		Trans. Comm., Utilities		Wholesale & Retail		Fin., Ins. & Real Estate		Service		No. Employees	% Total Town	% Total Region	No. Employees	% Total Town	% Total Region	Total Employees (Town)	% Total Regional
	No. Employees	% Total Town	No. Employees	% Total Town	No. Employees	% Total Town	No. Employees	% Total Town	No. Employees	% Total Town	No. Employees	% Total Town	No. Employees	% Total Town								
Ware	---	n. a.---	115	4.4	49	1789	68	34	316	2.0	17	486	19	34	91	3.5	50	91	3.5	11	2625	32
Palmer	---	n. a.---	83	2.7	35	1868	61	35	235	7.7	76	625	21	44	74	2.4	41	170	5.6	21	3054	37
Warren	---	n. a.---	16	1.1	7	1284	85	24	16	1.1	5	61	4	4	17	1.1	9	116	7.7	14	1510	18
Belchertown	---	n. a.---	4	2.0	2	---	n. a.---	---	4	2.0	1	101	52	7	---	n. a.---	---	87	44.0	11	196	2
W. Brookfield	---	n. a.---	16	3.4	7	142	30	3	---	n. a.---	---	119	26	8	---	n. a.---	---	190	41.0	23	466	6
Hardwick	---	n. a.---	---	n. a.---	---	230	55	4	---	n. a.---	---	21	5	1	---	n. a.---	---	164	40.0	20	413	5
TOTAL	---	n. a.---	234	---	100	5313	---	100	308	---	100	1413	---	100	74	---	100	170	---	100	8300	100
SMSA																						
Springfield	664	0.4	7463	4.7	---	61744	39	---	8519	5.3	---	42230	26	---	9780	6.1	---	29658	19	---	---	---
Worcester	400	0.4	6083	5.5	---	39017	36	---	7950	7.2	---	27828	25	---	8062	7.3	---	20396	19	---	---	---

Note: Because of the small number of firms data not available for following towns within the region:
N. Braintree, New Salem, Pelham, Petersham. These communities are primarily agricultural and residential in character.

*Data not available because of small number of firms in this category.

Source: Town and City Monographs, Massachusetts Department of Commerce and Development.

Table 20

Commuting Patterns: Labor Force Mobility,
Ware Town, April, 1973

S.I.C. Category	Employment by Place of Residence (Resident Labor Force)			Employment by Place of Employment (Employed Labor Force: Allocated)	Difference
	Total Employed*			Total Employed#	
	(April, 1973)			(April, 1973)	
	Male	Female	Total	Total	
Mining	0	4	4	4	0
Construction	305	100	405	50	-355
Manufacturing	1025	1748	1773	1163	-610
-Textiles	(208)	(247)	(455)	(555)	(+100)
Transportation, Communication, & Utilities	42	8	50	43	-7
Wholesale & Retail Trade	260	168	428	277	-151
Finance, Insurance, & Real Estate	28	70	98	61	-37
Services (Private)	(146)	(105)	(251)	(65)	(-186)
Services (Public)	(266)	(313)	(579)	(151)	(-428)
Total Services	412	418	830	216	-614
Other	90	0	90	0	-90
TOTAL	2162	1516	3678	1814	-1864

*Source: 1970 Federal Census

#Source: Allocated from Division of Employment Security Data assuming 70 percent of people employed in Ware live in Ware.

(49 percent) of the resident labor force works in Ware, and the remainder (51 percent), or about 1,864 people commute to work outside Ware. It should be noted that in the 1970 federal census about one third of the labor force in Ware did not report their place of work. This can greatly influence the results based on the census. But, the orientation of the outflow of the labor force is clearly towards the West and Southwest. According to Table 21, about 23 percent of the labor force reporting their place of work located it within the Springfield S.M.S.A. (the largest portion (14 percent) worked in the S.M.S.A. outer ring towns of Palmer and Warren). Only 5 percent reported their place of work to be within the Worcester S.M.S.A. For the economic base as a whole, for every 100 Ware residents who commute to places of work outside Ware, about 42 non-Ware residents commute into Ware to work.

Within the manufacturing sector a large inflow of workers occurs to the textile and apparel mills of Ware industries. Unfortunately, this is the only part of the manufacturing sector for which comparisons could be made. Nevertheless, a large portion of these workers are women and most reside in towns to the east of Ware.

Problems of the Economic Base

The malaise of the textile and shoe industries both nationally and within New England has been examined by many interested authorities. (An excellent summary is given in: New England: A Study in Industrial Adjustment, by R. C. Estall, Praeger.) The reasons for the general situation may be briefly outlined. First, on a national scope, the market for textile and leather products has been relatively static, especially since World War II. This has occurred at a time when important advances have been made in labor saving techniques which increase labor productivity and lead to a considerable loss of jobs. Furthermore, both textile and leather products have been facing increasing competition from substitute materials manufactured by paper and plastics industries.

Table 21

Work Destination, Resident Labor Force,
Town of Ware, April, 1970

Destination	Number of Employees	Percent of Total
City of Springfield	166	6.9
Holyoke & Chicopee	31	1.3
Inner Ring Towns (Springfield SMSA)	27	1.1
Outer Ring Towns* (Springfield SMSA)	334	13.8
Springfield SMSA	(559)	(23.2)
Worcester SMSA	118	4.9
Ware, Amherst, Pelham, & Belchertown	1,614	66.8
Other (Non-Metropolitan)	125	5.2
TOTAL	2,414	100.0

*Includes Town of Warren

Source: 1970 Federal Census

Finally, against this background, the imports of textile and leather goods have risen causing severe competition for the slowing expanding market.

Within New England, the textile and shoe industry continues to face severe competition from southern states. Historically, the most decisive competitive consideration has been the labor cost difference, although recently this dimension has become less significant. Lower fuel and power costs in the South have tended to add further weight to the advantages claimed for the southern states. The energy crisis, particularly in New England, has increased the significance of the fuel and power consideration. Another dimension adversely affecting the New England textile and shoe industries has been the relatively strict air and water quality standards imposed on industry by some states, notably Massachusetts.

Locally in Ware, Ware Industries has had to endure the brunt of the prolonged malaise of the textile and shoe industries. The rapid turnover in textile and leather mill occupants of Ware Industries, and the often long seasonal layoffs, have brought about the situation of chronic and substantial unemployment. Yet, paradoxically, the textile and leather segment of manufacturing in Ware Industries does not enjoy a labor surplus situation. With unemployment in the Ware labor market generally above that for the Springfield S.M.S.A., advertisements, nevertheless, appear periodically in local newspapers for textile or leather mill workers. There is usually little or no response. The explanation is intertwined in the relationship between unemployment benefits and wage levels and working conditions in the textile and shoe mills.

Table 22, 23 and 24 all present information on average annual wage levels for the economic base sectors of Ware and for the Springfield S.M.S.A. and the state. Except for construction and the finance, insurance and real estate sectors, wage levels in all sectors are generally below those for the Springfield S.M.S.A. and the state. The lower wage is especially large for manufacturing. The average annual wages in the textile, apparel and leather

Table 22

Average Annual Wage, Ware Town, Springfield SMSA
and State of Massachusetts, 1973

S.I.C. Category	Av. wage Ware (\$)	Av. wage Springfield SMSA (\$)	Rel. Diff.* Base= Ware#	Av. wage State Mass. (\$)	Rel. Diff.* Base= Ware#
Mining	5,553	8,027	0.69	9,712	0.57
Construction	12,585	11,660	1.08	11,496	1.09
Manufacturing	7,294	9,116	0.80	9,459	0.77
Transportation, Communication & Utilities	6,883	9,757	0.71	10,654	0.65
Wholesale & Retail Trade	5,499	5,784	0.95	6,619	0.83
Finance, Insurance & Real Estate	8,758	8,097	1.08	9,079	0.97
Service	5,626	6,337	0.89	7,426	0.76
TOTAL (average) (for) (entity)	7,058	7,805	0.90	8,394	0.84

*Relative Difference Index = $\text{Ware Av. Wage} \div \text{Springfield SMSA or State Av. Wage}$

#Numbers greater than 1.0 indicate Ware wages higher, and numbers less than 1.0 indicate Ware wages lower

Source: Division of Employment Security

Table 23

Percent Change in Average Annual Wages Ware Town, Springfield SMSA, 1970-1973						
S.I.C. Category	Av. wage 1970 Ware	Av. wage 1973 Ware	% Change Ware	Av. wage 1970 Sprngfld SMSA	Av. wage 1973 Sprngfld SMSA	% Change Sprngfld SMSA
Mining	5,209	5,553	7.0	n.a.	8,027	--
Construction	11,436	12,585	10.0	9,950	11,660	17.0
Manufacturing	6,229	7,294	17.0	7,655	9,116	19.0
Transportation, Communication & Utilities	5,484	6,883	25.5	8,101	9,757	20.0
Wholesale & Retail Trade	4,741	5,499	16.0	5,084	5,784	13.8
Finance, Insurance & Real Estate	7,036	8,758	24.5	6,992	8,097	15.8
Service	5,828	5,626	-3.5	4,609	6,337	37.5
TOTALS (average wage)	6,197	7,058	14.3	6,721	7,805	16.0

Source: Division of Employment Security

Table 24

Average Annual Wage, Manufacturing Categories
Town of Ware, State of Massachusetts, 1973

S.I.C. Category	Av. wage Ware	Av. wage State Mass.	Index of Rel. Diff.*
All Manufacturing	7,294	9,459	0.77
Textiles	6,759	7,529	0.90
Apparel	5,634	5,748	0.98
-Shoes	5,384	6,590	0.82
-Paper	9,855	9,273	1.07
Machinery	8,095	11,247	0.72

*Index of Relative Difference = Ware Av. Wage \div State of Massachusetts
Average Wage

Note: Numbers greater than 1.0 indicate Ware wages higher, while numbers
less than 1.0 indicate Ware wages lower.

Source: Division of Employment Security

products industries, are both the lowest in the whole manufacturing sector, and are also below the average for the state. Workers in these industries in Ware are entirely non-union, while workers in the paper products sector, the Ludlow corporation, are unionized. This condition is reflected in the relatively high wage levels for the paper products sector.

Recent increases in wages for manufacturing workers have not kept pace with increases for the Springfield S.M.S.A. In Ware wages in wholesale-retail trade and finance, insurance and real estate have increased more rapidly than the other sectors while in the Springfield S.M.S.A. services and transportation, communication and utilities have increased most rapidly.

Wage levels tend to reflect not only unionization conditions and the structure of the economic base, but also the occupational status of workers within the various sectors of the economic base. Table 16 presents the resident labor force by occupational category as reported in the 1970 federal census. About 37 percent of labor force reporting their occupation were employed in low level blue collar jobs. The largest portion of this category is represented by "operatives," or, in other words, semi-skilled operators of machinery. The majority of these workers, of course, are employed within the textile, apparel and shoe industries.

Also of significance to an examination of wage levels is the relative employment of women. Women represent 41 percent of the resident labor force in Ware by both occupational category and industry, and are employed in about the same proportion (42 percent) within the manufacturing sector. Fifty-four percent of all textile, apparel and shoe mill workers are women, where they function predominantly as operatives. Operators of spinning machinery, and sewing machines for apparel and footwear are all almost entirely women. Additionally, half of all the women in the labor force are married with their husband present, and 28 percent have children under 18 present in the home.

Relative to their membership in the labor force in Ware, a large percentage of the unemployed are women. The 1973 D.E.S.

Table 25

Occupations, Resident Labor Force
Ware Town, April, 1970

Occupational Category	Number Male	Number Female	Total	Percent Total
Professional, Technical & Kindred	136	114	250	8.4
Managerial, Administration	194	40	234	7.8
Sales	49	60	109	3.5
Clerical, Kindred	99	282	381	12.8
Craftsmen, Foreman, Kindred	409	55	464	15.5
Operatives (except transport)	481	469	950	31.8
Transport Equip. Operatives	85	0	85	2.8
Laborers (except farm)	126	5	131	4.4
Farm Managers	14	0	14	0.5
Farm Laborers	28	0	28	0.9
Service	164	173	337	11.3
Private Household	0	6	6	0.2
SUBTOTAL	1,785	1,204	2,989	100.0
Not Reported	419	326	745	--
TOTAL	2,204	1,530	3,734	--

Source: 1970 Federal Census

Note: Percent labor force "blue collar" occupations = 55.9
 (-percent low level "blue collar" occupations = 37.1)
 (-percent high level "blue collar" occupations = 18.8)
 Percent labor force "white collar" occupations = 44.1

survey of the unemployed residents in Ware reported 53.2 percent to be women. Of those classified as the low level blue collar unemployed 71 percent were women although only 39.7 percent of the total labor force classified as low level blue collar are women.

In theory, poor wages can sustain cyclical or periodic unemployment at high levels, if unemployment compensation levels are also high. The welfare loss or economic hardship of unemployment depends on the difference between unemployment compensation and weekly wages. If the difference is small, individuals may often find little incentive to seek work. How soon individuals find jobs varies according to family status and personal reasons such as financial status and the value placed on leisure. The Treasury Adjustment Act, designed to aid industries affected by competition from imports, raised the base benefits of unemployment compensation from 51 to 65 percent of the average weekly wage. In Ware, with its labor force dominated by the textile and shoe industries, the result has been the existence of relatively high unemployment compensation benefits. In a perceptive study of unemployment in Ware by D. A. Wojcik and C. Harris entitled "Why Work" (B.A. Honors Thesis, Amherst College, 1973) the authors maintain that chronic and substantial unemployment in Ware is more the result of poor wages than high unemployment compensation benefits. They conclude: "Unemployment in Ware is so high...because individuals feel they are better off unemployed than accepting available jobs...From an individual point of view, a good many people are unemployed, not because they cannot find a job, but because the jobs available are not attractive in terms of pay or working conditions."

Industrial Development

The opportunities for industrial development can be examined within the framework of site and situation considerations. The relative advantages and disadvantages of Ware as a possible location for manufacturing, and the local availability of existing industrial space and of new sites for industrial development must all be considered.

A recent survey of industrial management by the Survey Research Center, University of Michigan, revealed the six most important locational factors for manufacturing in order of importance to be the following:

1. Labor costs (wages, productivity)
2. Proximity to markets (including transportation costs)
3. Availability of labor (skills, supply)
4. Industrial climate (attitude of state and community towards industry)
5. Taxes
6. Proximity to materials (including transportation costs)

These factors closely correspond to industrial location theory. Some qualifications included the finding that consumer goods industries place greater emphasis on proximity to market than the remaining factors, and that the manufacturers of rubber, plastics, petroleum, chemical products and primary metals place far less emphasis on the availability of labor - though not costs of labor - than the remaining.

Relative to these location factors we may summarize Ware's disadvantages and advantages as follows:

Ware's Disadvantages

First, Ware is located about halfway (about 30 miles) between the regional population centers of Springfield and Worcester. Not lying within either of their immediate spheres of influence, Ware is somewhat isolated and not quite as accessible to these centers as towns lying within either of these two metropolitan areas (S.M.S.A.'s). Additionally, Ware is even more isolated from regional markets around Boston and the population centers that are concentrated within the Connecticut valley. The isolation of Ware is not only in terms of distance, but more importantly, in terms of accessibility.

As far as highway transportation is concerned, Ware is not easily accessible to the most important East-West corridor, the Massachusetts Turnpike. Direct access by Route 32 is presently

inadequate for heavy truck transportation, and improvements in this road would greatly benefit Ware and increase its stature as a location for industry.

In terms of the railroad network, Ware is served by the Penn Central system which runs a branch line from Palmer, north through Ware to Barre. The possibility exists that this branch line may be discontinued due to lack of traffic. If this occurs, it would be detrimental to the economy of Ware and diminish the attractiveness of Ware as a location for industry. It is encouraging that a local citizen Transportation Study Group has been formed to attempt to forestall this foreboding prospect. If the railbed and track could be upgraded and sidings purchased from the Boston and Maine railroad, the industrial potential of Ware could be greatly improved.

Advantages

As indicated previously, variations in wage costs and productivity are important locational considerations in some industries. However, the relatively low wage levels existing in Ware are not, in themselves, completely advantageous. Of equal or greater importance to industry are such factors as labor attitudes, turnover, absenteeism and the possibility of having to compete with other firms in the vicinity for available labor (all directly affecting productivity). Additionally, an area such as Ware, with predominately low wage industries will often attract new industry seeking to pay low wages rather than those which tend to pay high wages. The textile, apparel and shoe industries usually pay low wages. They are generally characterized as labor intensive and tend to respond strongly to labor cost differentials. Thus the low wage levels in Ware are usually of greatest interest to low wage paying industries.

In the Ware Labor Market area a labor force for new industry is undoubtedly available. The labor force is predominantly non-union, and a variety of semi-skilled machinery operators for mechanized production could be drawn from the existing unemployment pool in the labor market area. Nonetheless, as previously noted,

wage levels must be high enough and other working conditions attractive enough to entice individuals to accept newly available jobs. Also, wage levels and working conditions must have enough appeal to stem the increasing inter-industry mobility of former textile apparel and shoe employees, and other Ware residents, who have found employment outside Ware.

Ware's labor force is easily accessible to a variety of vocational-technical schools and colleges in Worcester and Springfield, and the people of Ware would undoubtedly welcome new industry. As the Springfield S.M.S.A. expands towards Ware, and as access to the Springfield area improves, Ware will undoubtedly take on a more dormitory and residential character. From the standpoint of its potential for industrial development, this will be an additional factor in Ware's favor.

For a community to successfully attract new industry not only must locational considerations be favorable for the community, but also, either existing industrial space or sites for new industrial space must be available.

Existing Industrial Space

The largest amount of existing industrial vacant space in Ware lies within Ware Industries. The entire building complex contains about 610,000 square feet. The recent turnover in occupants has created about 134,000 square feet of vacant space for lease as of December, 1974. This represents about 28 percent of the total floor space. However, not all of this usable, and not all would be desirable for many types of manufacturing since some of it is second and third story floor space.

The most important advantages of Ware Industries operations are: (1) low water rates, (2) low steam rates, and (3) low rent. The type of manufacturing requirements which are best met by Ware Industries operations are those of the textile, apparel and shoe industries. Besides these, other labor intensive industries could also benefit from Ware Industries operations, particularly those requiring semi-skilled and skilled labor producing special items

and meeting small orders. In fact, some of the more recent occupants of Ware are small industries of this type.

Two requirements which Ware Industries imposes upon potential occupants are that they (1) have non-union employment, and (2) are non-competitive with certain of the existing occupants of Ware Industries. These requirements, quite obviously, restrict the industrial potential of Ware Industries. The restriction on competitive business also guarantees less competition for labor and does not help develop a more diverse employment area.

New Space for Industry: Industrial Parks

Recently an Industrial Development Commission was formed which is working towards the goal of industrial development. This includes the possibility of developing sites for industrial parks. The type of industries which have been attracted to industrial parks can be grouped into two categories: (1) Industries which have experienced a rapid growth in employment and productivity. Most of these are durable goods industries. Electronic products is a well known example. (2) A wide variety of industries which have moved within metropolitan areas to new and improved facilities.

Industrial Parks can be a very important factor in industrial development. As previously mentioned the Industrial Development Commission is presently desirous of attracting new industry development in Ware. Because industrial parks can require considerable expenditure of community resources and effort some of the implications, particularly involving planning, must be noted. Most importantly, an industrial park must be sufficiently large and suitably zoned to allow room for the industry to grow without destroying buildings or encroaching on a housing development. Secondly, it should be located at or near an access to a major highway. Railroad availability is also desirable for large sites. Finally, it should offer a complete utility pattern including power, sewers, water and gas. A full examination of sites for industrial space, which might serve as industrial parks, must rely on

an analysis of land use and land--environmental capability in the town. Presently, the nature and location of utilities and roads present obstacles to the development of industrial parks. Adequate sewer and water facilities for industrial use do not exist at present. Ware presently has a fully operational primary sewage treatment plant, but it is not capable of treating industrial waste. Also, there is a need for improvement of town roads and connectors to major highways. Finally, Ware lacks a suitable zoning by-law for industrial land use and potential development.

Conclusions and Recommendations

The most pressing problems confronting Ware's economy are its declining manufacturing base and the imbalance in that base as reflected in the predominance of nondurable goods industries. Industrial growth is an objective of many communities that are faced with similar problems to Ware's.

The benefits of industrial growth and its implications for planning for physical development must be considered. First, industrial growth can contribute to reducing chronic unemployment, a major economic problem in Ware. Secondly, through the "multiplier effect," an expansion in job opportunities can occur in such non-basic or community serving activities as, for example, construction and retail trade. Finally, industrial growth can contribute to strengthening the tax base.

The advantages and disadvantages of Ware as a location for industrial development have been examined in the economic base report. Ware presently has a large amount of existing vacant industrial space in Ware Industries. The Industrial Development Commission should expand its promotional efforts to attract industrial firms who can benefit from the advantages of Ware Industries. Small scale firms requiring semi-skilled and skilled labor producing specialty items should find space in Ware Industries suitable for their needs.

Our analysis of land use and land capability has identified only one area of the town suitable for industrial use. This land

is identified on the Proposed Zoning Map, and is located generally south of the town center off Route 32 near the Palmer town line. The possible development of this land into an industrial park will require further study. Industrial park development requires a considerable investment of community resources and proper planning. Our preliminary evaluation of the industrial development potential of this area indicated that it is borderline between having "minor" to "good" potential. Since this land area seems to be the only one suitable for industrial development in the town, we recommend that it be zoned for industrial use as indicated in our zoning proposal. Should other uses be developed in this area, the town would find it difficult to find alternative space (land) suitable for industrial use.

We also recommend that our preliminary evaluation be followed by a systematic program to determine fully the industrial development potential of the designated industrial use area. This could be accomplished by the Industrial Development Commission at minimal cost to the town, and it should include generally a detailed analysis of industrial development constraints or obstacles within the designated area. The next step in the program should be an industrial marketing study to determine the likelihood of attracting industry to the industrial use area.

Ware is part of a region that is presently suffering from chronic and substantial unemployment. To many in the town's labor force who are unemployed, and have automobiles, it would undoubtedly make little difference whether new employment opportunities are located in Ware or elsewhere. Even if the possibility of industrial development becomes more feasible as the result of our recommendations, it is unlikely to become a reality for a number of years to come. In the near future, pending an improvement in the national economy, a significant increase in industrial growth and expansion is anticipated by the State Department of Commerce and Development within the region--i.e. the eastern part of the Springfield SMSA. Outward commuting from Ware to new

areas of employment will probably increase and the high rate of unemployment should therefore decline. The effect of the "energy crisis" on employment area travel patterns is of some import, but it is difficult to predict.

An improvement in employment opportunities outside Ware, however, does not benefit the tax base of the town. A modest increase in residential development is likely to occur because of the anticipated population growth within the region, but, it would do little to enlarge the tax base and distribute the tax burden more equitably among non-residential users of land.

The industrial marketing study we propose is likely to indicate that the outlook for industrial development in Ware may indeed not be good. Considering the location of the recently completed industrial park in Palmer, and the recent proposal for the industrial development of part of Westover Air Force Base, Ware will find itself at a disadvantage within the region in competing for new industry.

As a consequence, at the present time the town must consider the possibility of the economic development of its natural resources. Tourism and recreational activities offer a potential for economic development that have been largely unrecognized. A recently completed (1969) Natural Resource Program for the town, authored by Hampshire County planners and the Ware Town Advisory Group, examined the recreational potential of both public and private land. The report located and identified extensive areas potentially suitable for a wide variety of recreational uses including skiing, snowmobiling, horseback riding, camping and boating. Also, there are physical and scenic areas of the town that have potential as tourist attractions. The Quabbin Reservoir is perhaps the most important. There is also some potential for tourism and canoeing activities along the Swift and Ware rivers.

Private development of some of the recreational resources is a possibility. If developed as a basic activity, the result could be an important flow of money into the town and an improvement

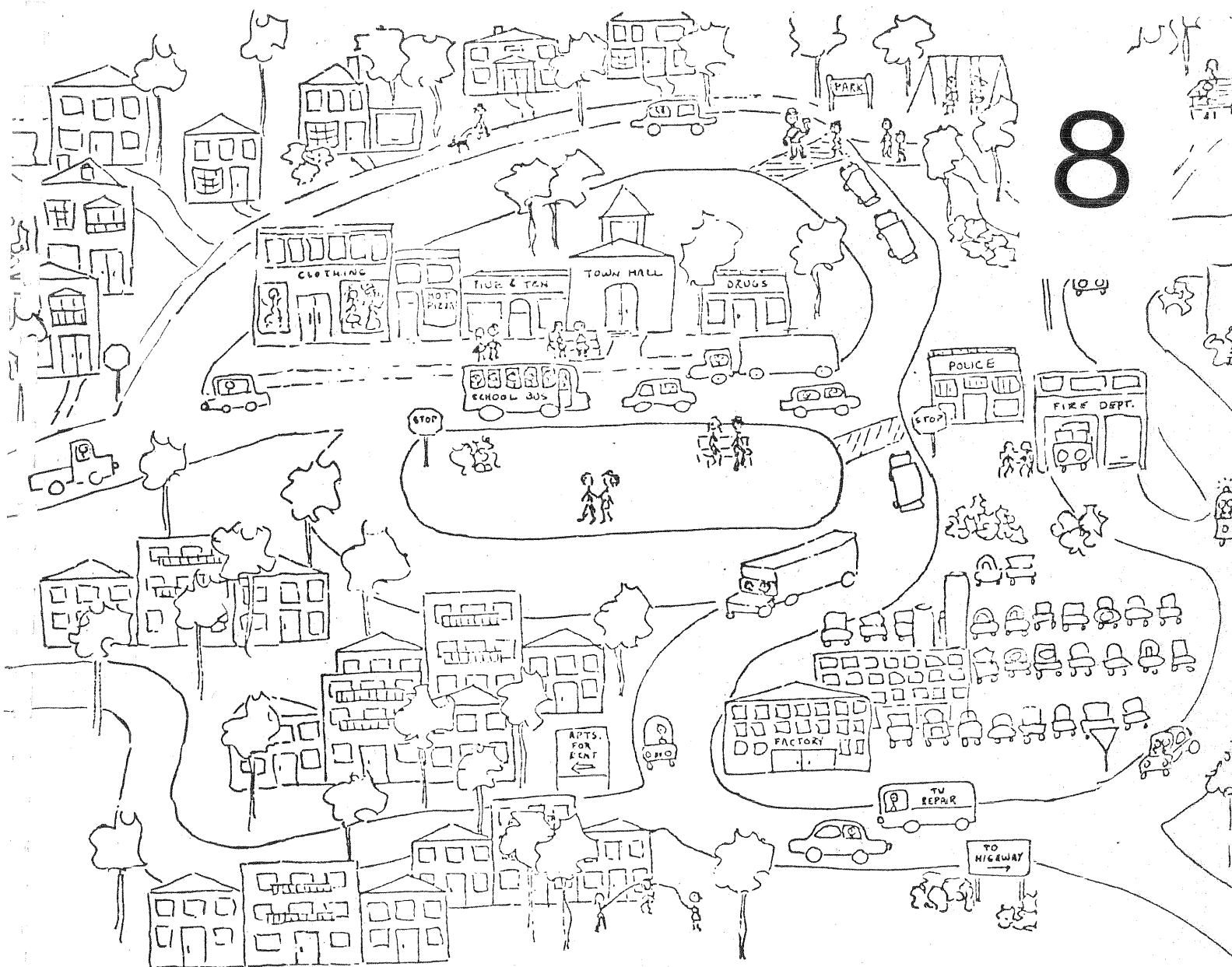
in the tax base. One possibility is the development of a "Story Book Forest" in one of the extensive woodland areas close to Route 9. This type of enterprise provides both an educational and recreational experience for children. The economic benefits of such a development that accrue from the "multiplier effect" would be reflected in an increased demand for tertiary goods and services provided by such recreational related activities as motels and restaurants.

Tourism, along with recreational activities, have increased in importance nationally as individuals now enjoy increasing periods of leisure time. An inventory of historic sites in Ware has been completed. These historic sites can be promoted as tourist attractions, and the possibility exists for handicraft and art workshops and exhibits to be organized to complement the historic attractions.

We therefore recommend that the town provide the funding for a paid full time Executive Director or Secretary of the Industrial Development Commission. The main purpose of this recommendation is to enable the commission to develop a program to promote the development of the economic resources of the town, particularly to determine the feasibility of implementing the economic development suggestions in this report.

Manufacturing Directory

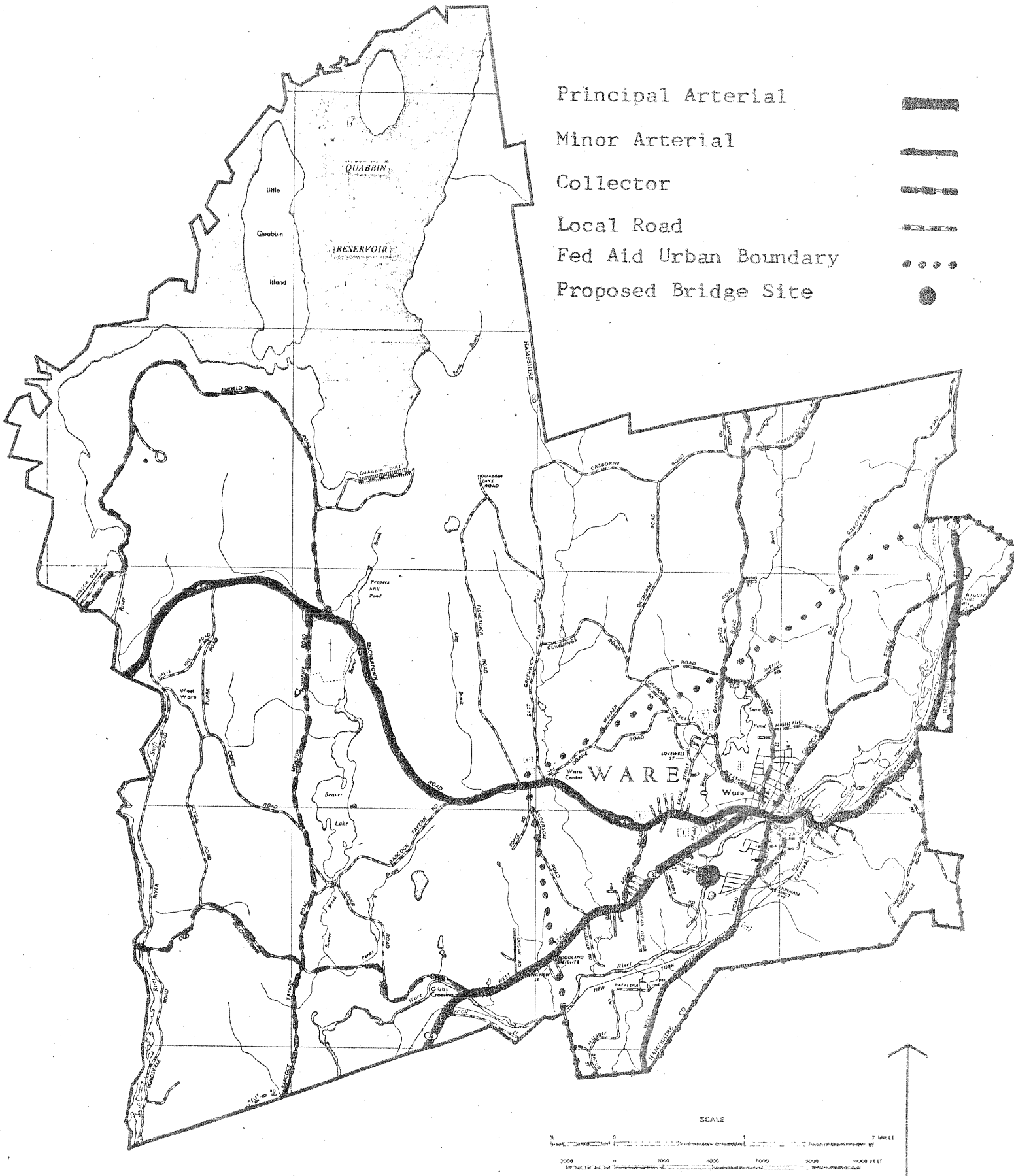
<u>Firm</u>	<u>Location</u>	<u>Product Category</u>
<u>WARE INDUSTRIES, INC.</u>		
	Main St., East St.	
American Girl Fashions, Inc.	" "	Apparel
Frederic's Knitted Fabrics, Inc.	" "	Textile Products
Nometco, Inc.	" "	Metalic Plating
Pioneer Knits, Inc.	" "	Textile Products
Rindge Industries, Inc.	" "	Textile Products
Roman Knitting, Inc.	" "	Textile Products
Seven Sisters Company	" "	Apparel
Slaven & Gordon, Inc.	" "	Textile Products
Ware Knitters, Inc.	" "	Textile Products
Ware Machine Works, Inc.	" "	Machinery
<u>OUTSIDE WARE INDUSTRIES</u>		
American Athletic Shoe Company	South St.	Footware
Cady	River Road	Lumber
Gillespie Company	Pine St.	Machinery
Goldstein & Guritz	West Street	Coveralls
Quabbin Engineering, Inc.	Maple St.	Machinery
Ketchen Depot	Mechanic St.	Machinery
Ludlow Corporation	Cummings St.	Finished & Coated Paper Products
Ryan Manufacturing Company	Route 32	Furniture Products
Talbert Welding	North Street	Fabricated Metal Products
Ware Coupling & Nipple	Milner St.	Fabricated Metal Products
Ware Foundary, Inc.	Pine St.	Primary Metal Products
Ware River News, Inc.	Church St.	Newspaper and Printing
Silk Screen Service	Route 32	Printing



transportation

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FUNCTIONAL CLASSIFICATION OF ROADS



TRANSPORTATION

Transportation is essentially a service which enables people, firms and various other entities to carry on activities at sites selected for these purposes at separated locations. Movement or circulation systems connect the various activities or land uses within a community and also integrate the community with the region and areas beyond. The existing uses of land and the future development of land is strongly influenced by the accessibility that any particular activity has to certain other activities. The primary objective of transportation planning therefore is to design circulation systems and improve deficiencies in existing circulation systems so as to maximize the accessibility between linked activities giving due consideration to safety, comfort and amenity as well as cost.

Roads and Highways

The functional classification of roads and highways used by the State Department of Public Works (DPW) identifies four main categories of roads: Principal Arterials, Minor Arterials, Collector Roads and Local Streets and Roads. All categories are grouped into urban and rural components. These road and highway system characteristics are described in Table 26, and their location is shown on the map. In Ware the Principal Arterials are state highway Route 9 and state highway Route 32. The only Minor Arterial is the West Warren Road. Both the Principal and Minor Arterials have low order access controls, stop signs or yield signs, and all converge on the Central Business District (CBD) of Ware.

Traffic conditions and deficiencies of the road and highway system outside the CBD will be examined first. Attention will then be focused on the more intensively urbanized CBD where the nature of the problems are somewhat different, although nevertheless interrelated with the rural arterials and collectors in the remainder of Ware.

Table 26

System Characteristics

Principal Arterial - Serves long distance trips of Inter and Intra State importance. Links urban population centers of greater than 25,000 population.

Minor Arterial - Connects most traffic generators of regional importance. Serves the principal activity centers within urban areas and population centers of greater than 5,000 population.

Collectors - Provides intraregional service to the small rural communities and provides access to urban residential areas. Services the remaining traffic generators not served by any of the higher systems.

Local - Provides direct access to adjacent property.

Urban - Areas having urban characteristics and having a 1968 population of 5,000 or more including urbanized areas.

Prepared by: Bureau of Transportation Planning and Development,
Mass. Department of Public Works

Tables 27 and 28 present Average Daily Vehicle (Traffic) counts (ADT) at various locations for the Principal and Minor Arterials outside the CBD. Unfortunately, because the ADT counts are for different years, contrasts and comparisons must be viewed with caution.

Table 27
Changes in A.D.T. Vehicle Counts at Two Locations on
Major Arterials

<u>Arterial Location</u>						<u>% change</u>
Route 32: Palmer town line	<u>Date:</u>	1960	1970	1972	1974	1960-1974
	<u>A.D.T.:</u>	3480	4200	4600	4925	42%
Route 9, 32: (Mechanic St.) Prendville Rd.	<u>Date:</u>	1960	1970	1972	1974	% change 1960-1974
	<u>A.D.T.:</u>	2030	2950	n.a.	5420	167%

Source: Massachusetts D.P.W.

Traffic volumes on Route 32 near the West Brookfield and New Braintree town lines do not appear to be as heavy as at the Palmer town line. East of the C.B.D. where Routes 9 and 32 follow the same course on Mechanic Street, traffic volumes increase significantly and, as a result, approach a condition of unstable traffic flow at the curving section of the railroad underpass. Unstable traffic flow conditions continue to exist along the narrow and curving corridor over the Ware river leading to the C.B.D. and congestion occurs during peak hours. West of the C.B.D., traffic volumes are much lighter along Route 9, especially along Gould Road. Gould Road is a Collector which services the Ware High School and functions also as a by-pass between Route 9 and Route 32. The intersection with Route 9 is poorly located, particularly with respect to sight distance approaching Route 9. As Table 29 indicates, this condition has led to a relatively high frequency of traffic accidents here. East and North bound traffic from Routes 32 and 9 South and West of the C.B.D. is channeled into the C.B.D. where both routes converge at West

Table 28

ADT Vehicle Counts, Major Arterials
Outside CBD

Location	1969-1971 ADT*	1972-1974 ADT*
<u>Route 32 South</u>		
Near Palmer Town line	4200	4800
Near Dugan Road	4300	-----
West Street Shopping Plaza	10,000	10,800
Vernon Street	10,000	-----
<u>Route 9-32 Northeast</u>		
Mechanic Street near Prendville Road	2950	5420
Near West Brookfield Town line	2300	4430
Near New Braintree Town line	-----	4420
<u>Route 9 West</u>		
Near Babcock Tavern Road	3150	3200
Near Doane Road	3000	3100
Near Gould Road	4650	5000

Source: Massachusetts Department of Public Works and T.O.P.I.C.S. Report

* Data for any one of three years included, weekly and seasonally adjusted.

Table 29

ADT Vehicle Counts and Traffic Accidents
Urban Major Arterials Outside
the CBD

<u>Location</u>	ADT 1969-1971*	Accidents 1969-1971		
		Total	Vehicle	Pedestrian
East Main Street at Fire Station	9000	3	3	0
West Street Shopping Plaza	10000	7	5	2
West Main Street at Gould Road	4650	10	10	0

Source: T.O.P.I.C.S. Report

*Counts for any one of three years included.

Street and West Main Street. The routes then share the same course east of the C.B.D. until they branch off near the West Brookfield town line.

Just south of the C.B.D. from the intersection of West Main Street and West Street to the West Street Shopping Plaza, Route 32 carries the heaviest traffic volumes of any of the major arteries outside the C.B.D. Unstable traffic flow with some stoppages exists along this mile and a half stretch much of the time and a forced flow with many stoppages occurs during peak volume times. Several factors have combined to bring about these conditions. First, local work and shopping activity patterns are focused on this part of Route 32. Much of the new housing stock in Ware during the last 10-15 years has been built in this vicinity and, as a result, the Principal and Minor Collectors circulate traffic from residential streets onto Route 32. Local shopping activity patterns focus on the West Street Shopping Plaza and the CBD. Work journeys cannot bypass this congested part of Route 32 or the CBD since there is no bridge or connection to the east side of town. Secondly, daily work activity patterns outside Ware tend increasingly to be channeled along Route 32 towards the Springfield Standard Metropolitan Statistical Area (SMSA). Almost one of every four work destinations are located within the Springfield SMSA, the majority being located in the SMSA outer ring towns of Palmer and Warren (See Table 21 of Economic Base Section). Finally, the activity patterns of firms supplying goods and services to the town and region result in a heavy use of Route 32 by trucks since it is the main connector to the Massachusetts Turnpike.

Considering the heavy traffic volume here and the lack of major traffic access controls, it is surprising that more accidents do not occur in this vicinity. The worst safety conditions along Route 32, in fact, exist along a curve approaching Three Mile Bridge near the Palmer town line, where eight traffic fatalities have been reported in the last few years. Additionally, the design of Route 32 south from Ware through Palmer to the

difficult to forecast. Interviews with eight Main Street merchants chosen at random revealed almost evenly divided opinions as to whether a by-pass would beneficially or adversely affect their businesses. As shown on Table 32, there seems to be little correlation between the nature of the business, the frequency of need or cost of purchase, and the responses. Those who indicated that their business might benefit from a by-pass generally expressed the opinion that the reduction in traffic volume would reduce congestion, thereby making the CBD more accessible to shoppers. This, it should be noted, is one of the primary objectives of transportation planning.

Other short-range road and highway priorities are the reconstruction of Route 9 between Ware and West Brookfield where the highway is narrow and winding, and also the reconstruction of Route 9 between Quabbin Park Cemetery and Belchertown where the highway is narrow and banked incorrectly.

Rail Service

Ware is presently served by the Penn Central and Boston and Maine railroads. Both lines provide freight service to the town and use the same line. The line runs from Palmer, north through Ware to Barre. Presently, only the Ludlow Corporation, manufacturers of finished paper products, uses the freight service regularly. Ware Metals, scrap metal and paper service, also uses the freight service periodically. In the past, other companies having access to Boston and Maine sidings have used the freight service. The decline in the use of rail freight service has generally been the result of the unreliable and inefficient service provided by the rail lines.

The continuation of rail freight service to Ware is presently tenuous. According to the United States Rail Association Preliminary System Plan, the volume of rail freight in Ware is of a marginal magnitude necessary to sustain continued rail service. It appears that since only the Ludlow paper plant consistently receives rail service, most of the freight is one way coming into Ware and freight cars generally leave Ware empty.

Table 32

Summary of Responses to Central Business District
By-Pass Proposals by C.B.D. Merchants

Type of Business	Response			
	Help Business	Hurt Business	No Effect on Business	Undecided
Florist		X		
Men's Clothing		X		
Electronics				X
Liquor	X			
Insurance Agency	X			
Office Supply			X	
Pharmacy:				
-Prescription Drugs	X			
-Fountain		X		
Variety Store	X			
TOTALS	4	3	1	1

Source: Interview by author

Also, since the closing of the paper plant in Wheelwright and of Barre Wool, rail freight service does not exist north of Ware. Should Congress approve the Preliminary System Plan, the state of Massachusetts could subsidize these unprofitable lines or the lines could be taken over and operated privately. Subsidies from the state would go to communities that could demonstrate adverse economic consequences to the community as the result of rail abandonment. In Ware, a Transportation Study Group, under the leadership of John Conn, is presently attempting to assess the impact of the proposed abandonment. Ware is also represented on the Joint Transportation Committee, coordinated by the Lower Pioneer Valley Regional Planning Commission. In addition, the Ware River Valley Rail Association has been organized. Consisting of representatives from Palmer, Ware, Hardwick and Barre, this group is attempting to assess the impact of the proposed abandonment on these communities along the rail line.

Presently, the only industry that would be affected by abandonment appears to be the Ludlow corporation which, if forced to switch to motor freight service, would incur significantly higher freight costs. Other potentially consistent rail freight users exist, who could benefit from the comparatively low rail freight rates, if the efficiency and reliability of rail freight service could be improved significantly. They include Ware Metals, Ware Coupling and Nipple, Goldstein and Gurwitz (farm machinery sales) and possibly Ware Lumber Company. One necessary requirement for improved rail service would be to upgrade the presently poor condition of the rail bed from Bondsville to Ware so that the train speed limit could be increased from the present 5 to 10 mile per hour restriction to a normal 30 miles per hour.

Passenger Transportation Service

Presently there is no public mass transit or transportation system serving Ware. Bus service is provided by four private carriers. Only one has daily scheduled service. Although no studies of the need for public transportation service for Ware

have been completed to date, some areas of concern have been expressed by Ware residents.

Most importantly, the lack of any regular passenger transportation system serving Ware may be contributing to the relatively high rate of unemployment in the town. A survey would aid in determining the number of the unemployed who are discouraged from accepting employment outside Ware for lack of transportation to areas of job availability. Presently, approximately half of the resident labor force commute almost exclusively by private automobile to places of employment outside Ware, most often to towns west of Ware within the Springfield SMSA. Based on the 1970 census and other estimates, about 18 percent of the resident labor force is employed in Belchertown, Amherst and Pelham. The majority commute to employment in Amherst, where an increasingly large number are engaged in service-related employment at the University of Massachusetts. Ware residents who are students at the University could benefit along with those employed there from regular transit service at least to Belchertown where public transportation to Amherst is available. A transportation survey is also essential in assessing the need for bus service within Ware, especially for the elderly who regularly require inexpensive transit to and from the center of Ware.

Recommendations

An examination of the need and feasibility of public mass transit for the region is essential. Springfield is surrounded by 12 communities which comprise the Lower Pioneer Valley Regional Transportation Authority. The Authority was created in 1973 pursuant to the enabling legislation, Chapter 1141, Section 14. Services for the Authority are provided on a contractual basis. Eighty percent of the funding for the purchase of equipment is from federal sources, while the remainder is provided by state and local government. In addition, fifty percent of any running deficit is subsidized by the state. Should studies indicate a significant need for mass transit in Ware, several

mass transit options would become available.

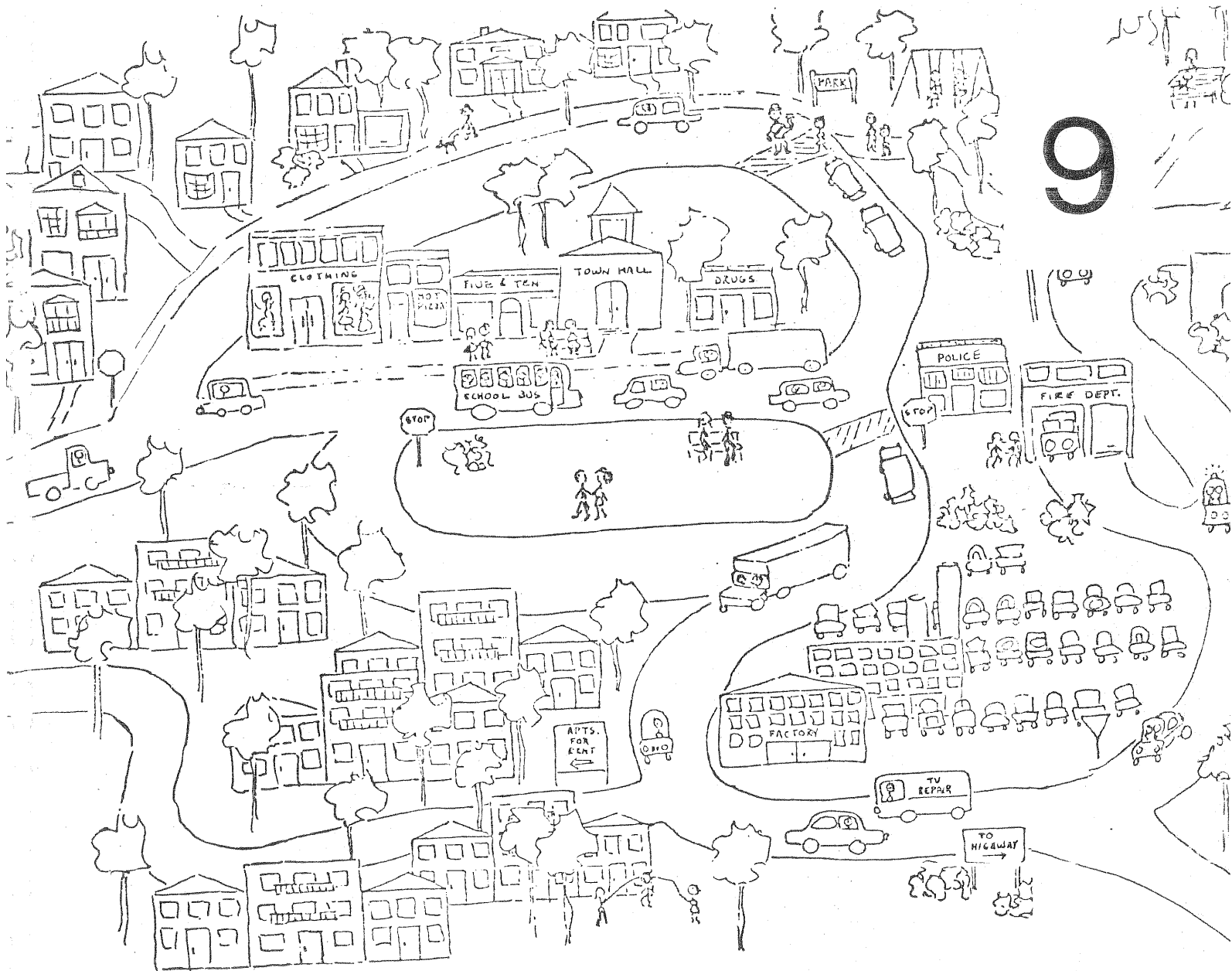
Options: (1) Ware could join the existing Lower Pioneer Valley Regional Transit Authority. However, for a new community to join and receive maximum federal and state subsidization, it must be contiguous to a community presently a member of the Authority. For Ware to meet this requirement, Palmer or Belchertown must join the Authority first. (2) A new regional transit authority could be created involving Ware and other regional communities not presently members of the existing transit authority. The governmental processes and technical requirements for the creation of an authority are set forth in the enabling legislation, Chapter 1141, Section 3 and Section 14. One of the most important requirements is the preparation and approval of a Transportation Development Program, a short-range statement of the present status, problems and proposed improvements in the mass transit system. Of importance to Ware is (a) the low level of transit service now provided by private carriers, (b) the location and identification of non-drivers, and other potential mass transit users who could benefit from both intra-community and regional transit service. (3) A third option is the expansion of the regional transit service to Ware. This service is now provided by private carriers to regional centers identified as in need of mass transit service. The feasibility of this alternative may be restricted somewhat by state franchise licensing regulations. There still remains the question of the profitability of regular private carrier service, considering the relative isolation of Ware and level of service that might be required to meet transit needs.

Ware's most viable option would probably be to encourage Palmer and/or Belchertown to join the Lower Pioneer Valley Regional Transit Authority and then apply for membership in the authority. The establishment of another transit authority close to the existing transit authority would probably, in the long run, prove inefficient and inappropriate. With the possibility that increased industrial development and expansion will occur within the Springfield area and within commuting distance of

Ware, the work activity patterns of non-drivers will focus on communities in the existing transit authority. The best solution is to expand the existing boundaries of the transit authority to include such communities as Ware, Palmer and Belchertown if adequate transit service could be provided.

Airports

Two small airports serve the Ware region. At West Brookfield, airport facilities are available with a 2000 foot runway, and at Palmer with a 2200 foot turf runway. A major public takeover of the Palmer metropolitan airport has been proposed. This priority has been reflected in a recently released Airport Systems Plan. Although the details remain unclear at this time, the proposal includes a modernization of the airport using federal grants. The public takeover would probably directly involve Ware and Belchertown should these communities desire to continue to be served by the airport



fiscal analysis

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FISCAL ANALYSIS

The following report presents a fiscal analysis of the Town of Ware. A fiscal analysis is a prerequisite for programs implementing physical development objectives. The pattern, character and timing of physical development is achieved through a capital improvements program. Capital improvements programming involves the scheduling of public fiscal improvements for a community over a certain period of time, along with a consideration of the priorities and financial capabilities of the community.

The financial capabilities of a community, like those of any household, are the result of the interaction between revenue and expenditure. The revenue potential of a community is determined primarily by its tax-base, i.e. the total market valuation of property. Ware, like most communities and some households, sometimes spends more than it earns. When this happens, it must borrow money through the issuing of municipal bonds. Therefore, the trends in (1) revenue and expenditures, (2) the tax base and tax rate, and (3) bonded indebtedness are the interacting financial elements which will be systematically examined and then considered as the background for a capital improvements program.

Revenue

Tables 33 and 34 show the local sources of revenue for the town for various years from 1960 through fiscal 1973. Tables 35 and 36 show receipts from all sources of revenue for the same period. A more detailed categorical examination is difficult because of changes in accounting procedures in town reports during the period of time included.

Ware's revenue requirements grew at a generally increasing rate from 1960 to 1972. As Figure 5 indicates, the annual rate

Table 33

Major Local Sources of Revenue: Ware

Revenue Source	1960	1965	1970	1971	1972	1973*
Property Tax	609,762	829,902	1,507,045	1,589,712	1,790,661	2,802,351
Motor Vehicle Tax	99,475	135,000	173,000	173,110	180,000	250,183
Department Receipts	346,728	398,886	544,698	803,495	857,783	1,355,800
Available Funds	386,704	195,758	85,552	273,798	108,171	333,987
Total	1,442,669	1,559,547	2,310,295	2,667,005	2,936,615	4,742,317

* 18 month period (January 1, 1973 - July 1, 1974)

Source: Town Reports for years listed.

Table 34

Major Local Sources of Revenue: Ware

Percent Distribution

Revenue Source	1960	1965	1970	1971	1972	1973*
Property Tax	42%	53%	65%	60%	67%	59%
Motor Vehicle Tax	7.0	8.7	7.5	6.5	6.1	5.3
Department Receipts	24.0	25.6	23.6	30.1	29.7	28.6
Available Funds	26.8	12.5	3.7	10.3	3.4	7.0
Total	100	100	100	100	100	100

* Fiscal Year : 18 month period (January 1, 1973 - July 1, 1974)

Source: Town Reports for years listed.

Table 35

Annual Receipts: Ware

Revenue Source	1960	1965	1970	1971	1972	1973*
Taxation	712,442	960,118	1,559,400	1,671,338	1,802,988	2,058,473
State & Federal Grants	262,964	397,043	366,579	496,325	761,411	959,150
Other @	2,128,1473	1,167,539	1,330,232	1,590,169	1,460,833	1,275,008
Total	3,103,879	2,506,700	3,256,211	3,757,832	4,025,232	4,292,631

* Fiscal Year: 18 month period (January 1, 1973 - July 1, 1974)

@ Includes: State Reimbursement, Departmental Receipts and Miscellaneous Receipts

Source: Town Reports for years indicated.

Table 36

Percentage Annual Receipts from
Sources Indicated: Ware

Revenue Source	1960	1965	1970	1971	1972	1973*
Taxation	23%	38%	48%	44%	45%	48%
State & Federal Grants	8.5	15.8	11.2	13.2	18.9	22.3
Other @	68.6	46.6	40.9	42.3	36.3	29.7
Total	100	100	100	100	100	100

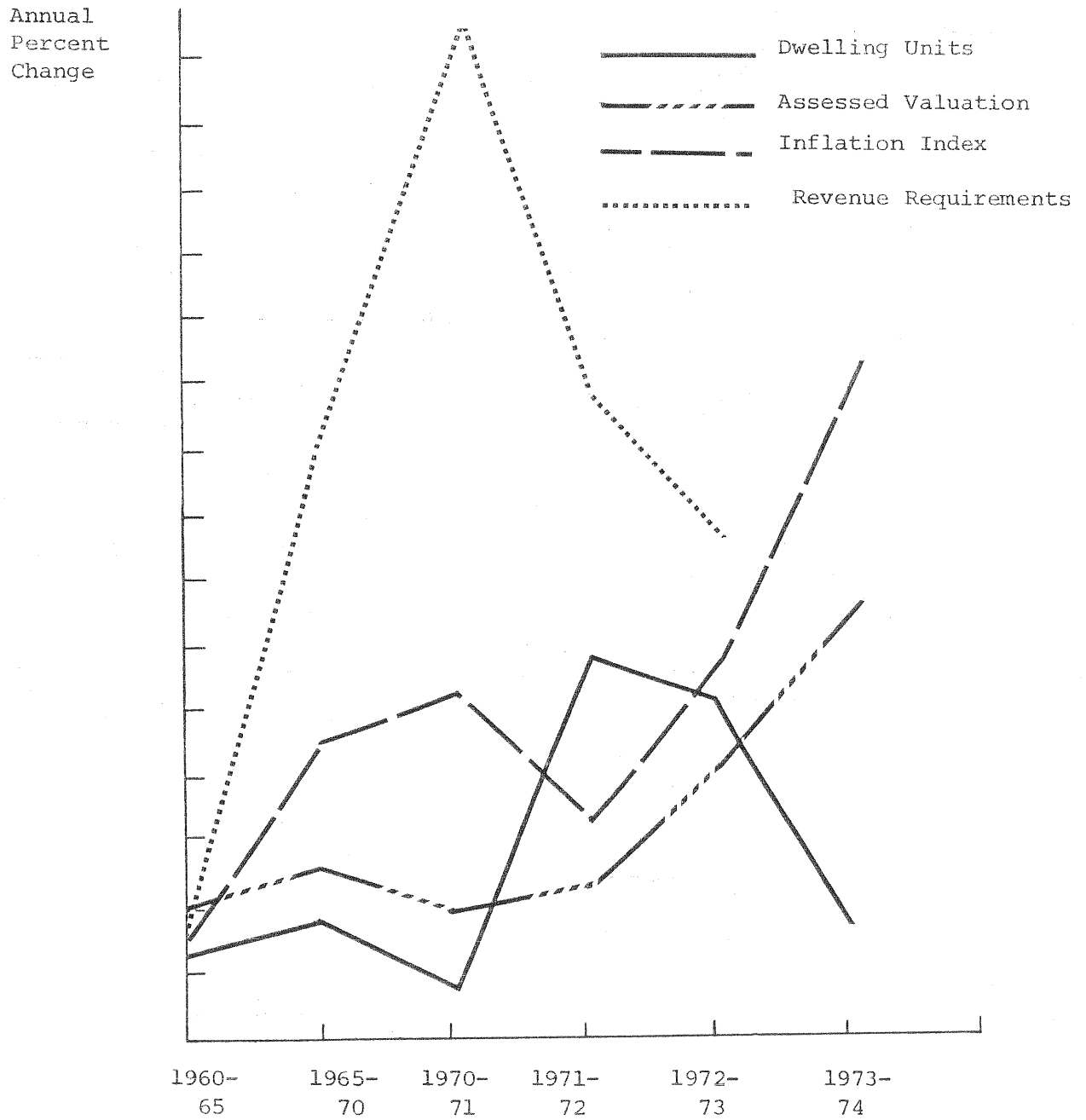
* Fiscal Year: 18 month period (January 1, 1973 - July 1, 1974)

@ Includes: State Reimbursement, Departmental Receipts and Miscellaneous Receipts

Source: Town Reports for years indicated.

Figure 5

CHANGES IN FISCAL ELEMENTS OF WARE



Sources: Town Reports for Years Indicated, Records of Town Clerk and Tax Assessor,
U.S. Dept. of Labor: Consumer Price Index

of increase reached a peak between 1970 and 1971 when the increment in revenue requirements amounted to approximately \$357,000 or about 15 percent. From 1971 to 1973 the annual rate of increase dropped, remaining, nevertheless, between 200,000 and 300,000 dollars per year.

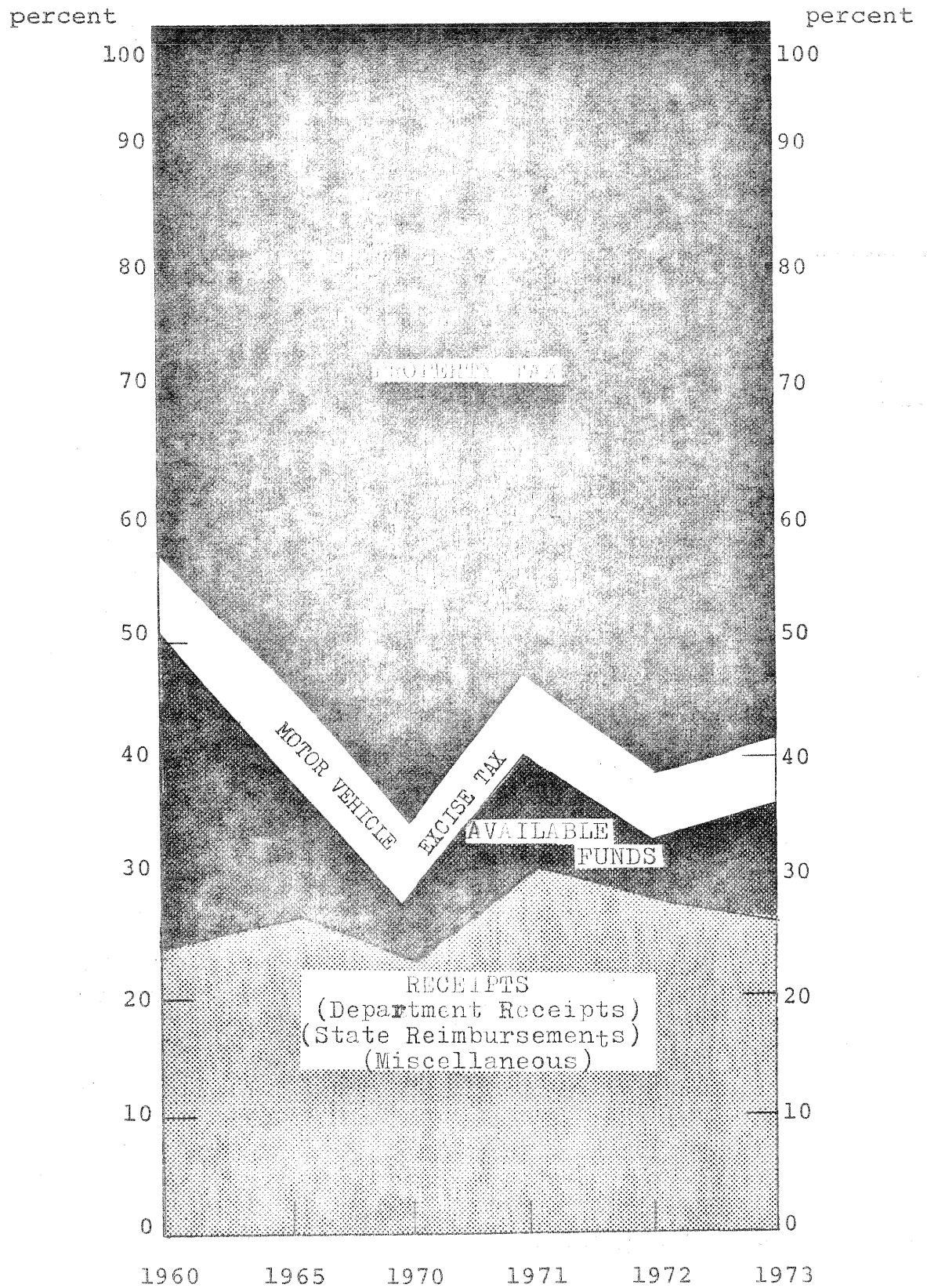
Requirements for higher revenues are generally the result of normal inflation and the increasing demand for municipal services caused by population growth. Since, as shown in Figure 5, revenue requirements increased at a faster rate than inflation, housing stock (new dwelling units) and the tax base (assessed valuation), the conclusion appears to be that higher revenues are also the result of an increasing demand for improvements in town services. Major capital improvements increased significantly between 1970 and 1973, and, although this will be discussed in more detail subsequently, they included expenditures for sewage and water system construction and a new elementary school.

The trend in the distribution of local revenue sources from 1960 to fiscal 1973 is shown in Figure 6 on a proportional basis. It can be observed from Figure 6 that owners of real and personal property have had to bear an increasing portion of the local burden of growing revenue needs. The tendency toward grossly underestimating revenue, evident during the early 1960's, has tended to decline in the 1970's. The result has been decreasing amounts of available funds or "free cash" which would be used to (1) offset the amount borrowed for small capital outlays or (2) keep tax rate increases small. Departmental revenue and miscellaneous revenues have about kept pace with the increase in revenue needs. As a consequence, this category has changed little proportionately.

Contributions from state and federal grants, separate from state reimbursements, have increased substantially since 1970 as Figure 7 shows. Since 1970 this category has tripled, while revenue requirements have increased by only about 30 percent. The effect of the revenue sharing program can be observed in the budgets of 1972 and fiscal 1973. Federal and state grants

Figure 6

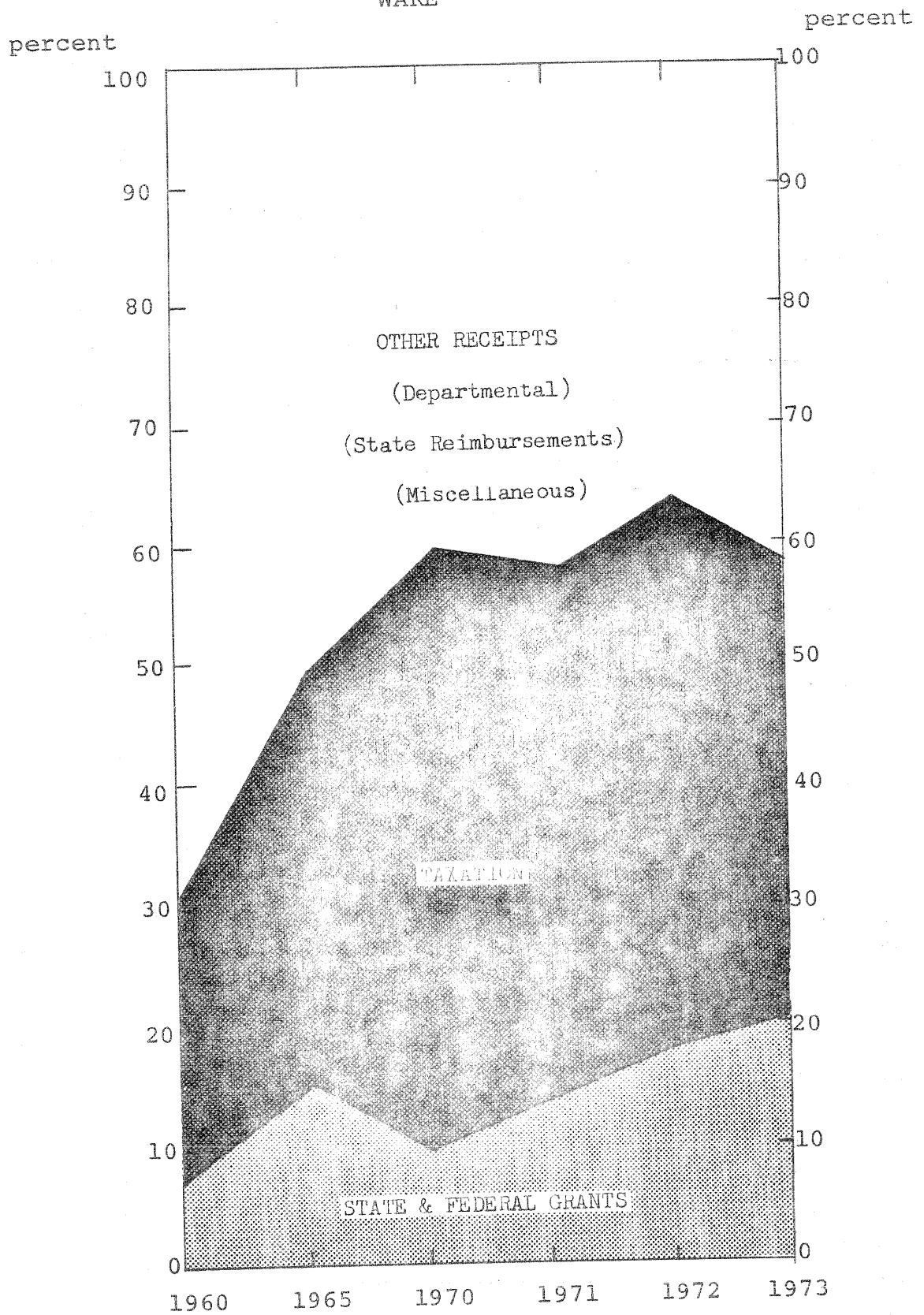
CHANGES IN DISTRIBUTION OF LOCAL REVENUE SOURCES
WARE



Source: Town Report for Years Indicated

Figure 7

CHANGES IN DISTRIBUTION OF ANNUAL RECEIPTS
WARE



Source: Town Reports for Years Indicated

increased from 13.2 percent of the total revenue in 1971, to 18.9 percent in 1972, to 22.3 percent of total revenue in fiscal 1973. This increase in federal and state sources of revenue, however, had little effect on the relative contribution of taxation as a source of revenue. The taxation category increased almost steadily, going from 23 percent of total revenue in 1960 to 48 percent of total revenue in 1973. The contribution of departmental revenue, state reimbursements, and miscellaneous revenue declined from being 50 percent of total revenue in 1970 to 30 percent of total revenue in 1973.

Expenditures

Trends in expenditures in the town budgets between 1968 and fiscal 1974 are presented in Tables 37 and 38. Expenditures have generally gone up, although the rate of increase has been somewhat erratic. The largest percentage increase in expenditures occurred between the budgets of 1969 and 1970. The annual increase of about \$200,000 at this time is not matched again until the differences between the 1972 and 1973 budgets and the 1973 and fiscal 1974 budgets are observed. Between 1970 and fiscal 1974 the budget increased by 45 percent, or \$837,739. However, when the effect of inflation is taken into consideration, the budget increases between 1970 and fiscal 1974 amount to only 7 percent as Table 39 indicates. In fact, in terms of 1968 constant dollars, the largest budget increases occurred between the 1968 and 1970 budgets, while the rate of increase in the budgets between 1970 and 1974 actually declined. It is interesting to note that the increase in the budget between 1973 and fiscal 1974 was not enough to compensate for double digit inflation during that time.

As Figure 8 indicates, the largest category of expenditures in the budget is schools, accounting for 63.2 percent of the budget in fiscal 1974. Debt and Interest was the second highest category of expenditures followed by Public Safety. Within this latter category, the largest items of expenditures were for the Police and Fire Departments.

Table 37

Budget Expenditures: Ware

Budget Category	1968	1969	1970	1971	1972	1973*	1974
General Government	68,254	69,254	78,878	84,541	87,080	129,152	107,084
Public Safety	172,789	180,662	210,249	223,727	259,956	214,543	191,301
Health and Sanitation	17,635	26,667	37,365	40,450	34,249	60,650	45,100
Highways	156,601	137,362	137,200	149,361	191,365	259,201	128,548
Charities and Benefits	74,084	90,316	84,648	100,822	105,387	159,081	111,297
Schools	795,522	928,349	1,134,212	1,204,979	1,238,592	2,225,597	1,692,773
Library	18,000	18,000	19,000	21,000	22,000	22,000	28,200
Parks and Recreation	16,565	18,268	19,914	20,039	23,855	37,375	26,462
Cemetery	19,807	16,780	18,057	16,278	20,084	28,123	22,931
Insurance	25,352	42,903	47,270	62,000	63,967	118,592	85,415
Unclassified	2,512	3,300	3,700	3,610	4,965	9,450	11,250
Debt and Interest	68,547	64,486	69,630	63,978	104,854	360,331	227,317
Total	1,435,688	1,596,347	1,840,209	1,990,695	2,156,364	3,624,095	2,677,948

* 18 month fiscal year (January 1, 1973 - July 1, 1974)

Source: Budget worksheets, Town clerk, Years indicated.

Table 38

Percent Distribution of Budget Expenditures: Ware

Budget Category	1968	1969	1970	1971	1972	1973*	1974
General Government	4.8	4.3	4.3	4.3	4.0	3.6	4.0
Public Safety	12.0	11.3	11.4	11.2	12.0	5.9	7.1
Health and Sanitation	1.2	1.7	2.0	2.0	1.6	1.7	1.7
Highways	10.9	8.6	7.5	7.5	8.9	7.2	4.8
Charities and Benefits	5.2	5.7	4.6	5.1	4.9	4.4	4.2
Schools	55.4	58.2	61.6	60.5	57.4	61.4	63.2
Library	1.3	1.1	1.0	1.1	1.0	1.0	1.1
Parks and Recreation	1.2	1.1	1.1	1.0	1.1	1.0	1.0
Cemetery	1.4	1.1	1.0	1.0	1.0	1.0	1.0
Insurance	1.8	2.7	2.6	3.1	3.0	3.3	3.2
Unclassified	0.2	0.2	0.2	0.2	0.2	0.3	0.4
Debt and Interest	4.8	4.0	3.8	3.2	4.9	9.9	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* 18 month Fiscal Year: (January 1, 1973 - July 1, 1974)

Source: Town Clerk Budget Worksheets, Years Indicated

Table 39

Budget Changes in Actual and Constant Dollars: Ware

Date	Budget Actual Dollars	% Change	Budget 1968 constant dollars	% change
1968	1,435,688		1,435,688	
1969	1,596,347	11.2	1,538,920	7.2
1970	1,840,209	15.3	1,726,790	12.2
1971	1,990,695	8.2	1,827,027	5.8
1972	2,156,364	8.3	1,919,476	5.0
1973*	2,416,075@	12.0	1,953,784	1.8
1974	2,677,948	10.8	1,850,992	-5.2

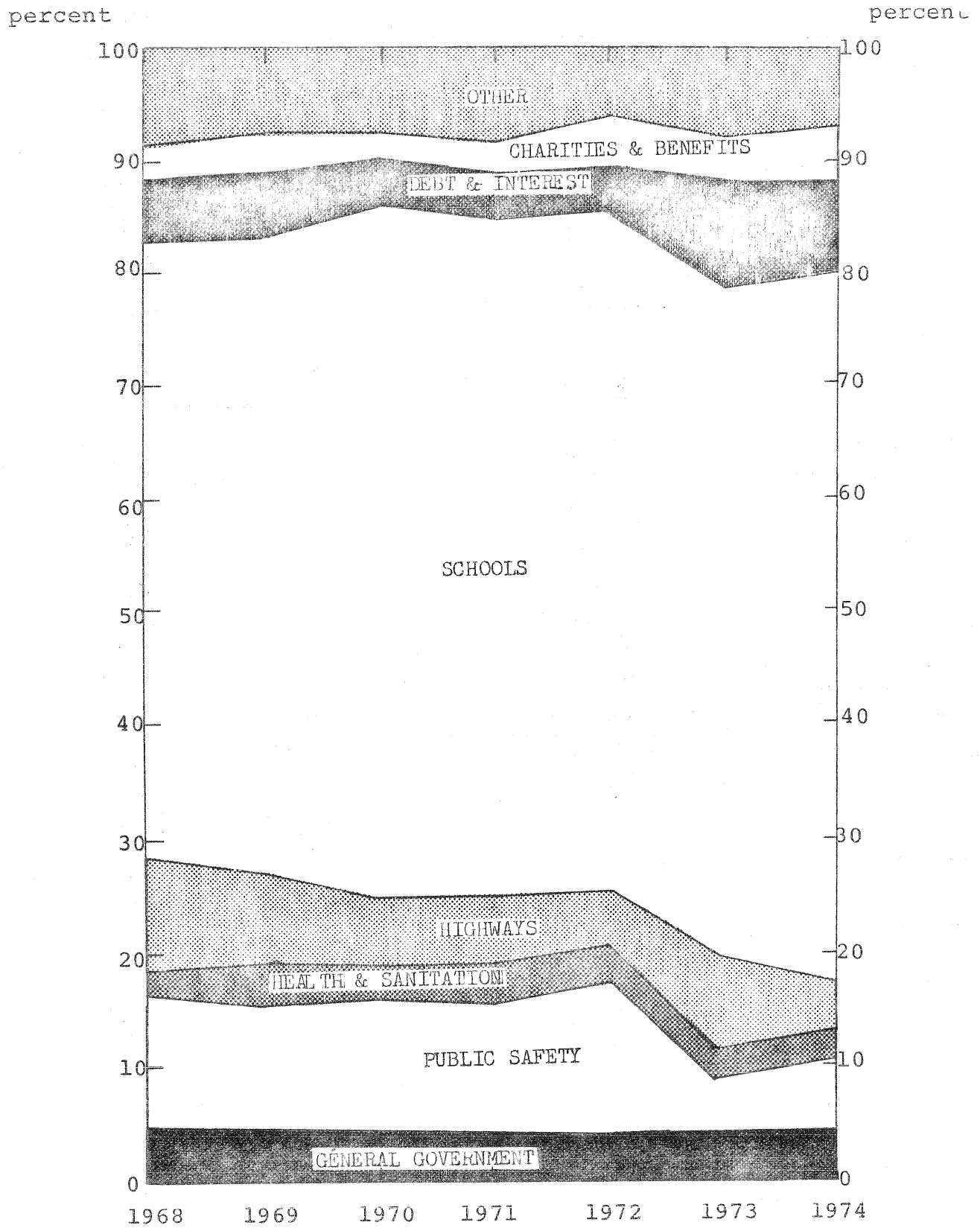
* 18 Month Beginning Fiscal Year

@ Adjusted to 12 month year for comparative purposes

Source: U.S. Department of Labor: Wholesale Price Index

Figure 8

CHANGES IN DISTRIBUTION OF BUDGET EXPENDITURES
WARE



Source: Budget Worksheets of Town Clerk for Years Indicated

Schools

From 1968 to fiscal 1974 the largest percentage increase within the overall budget was for schools. School expenditures increased 49 percent during that period of time. Schools comprised 51 percent of the overall budget in 1968 and 63.2 percent of the overall budget in fiscal 1974. Yet, this substantial expenditure of community resources must be put into perspective. School expenditures form a substantial portion of the overall budget in most communities. In neighboring Palmer, for example, school costs comprised 57.8 percent of their budget in 1971, 60.2 percent in 1972 and 57.3 percent in 1973. In Ware, even with a substantial portion of the overall budget going to schools, the per pupil expenditure for schools is relatively low as Table 40 indicates.

Public Safety

The proportion of the overall budget expended for public safety between 1968 and fiscal 1974 has been relatively stable except for the past two budgets. For fiscal 1973 and fiscal 1974, almost all of the revenue sharing funds were allocated to the Police Department thereby causing a decline in its share of the town budget. When revenue sharing funds are included as expenditures in the Police Department budget, the Public Safety category is inflated to become 9.9 percent of the overall budget for fiscal 1973 and 10.2 percent of the overall budget for fiscal 1974.

Other Departments

The share of the overall budget for most other town departments has remained relatively stable, although the highway department budget declined significantly between fiscal 1973 and fiscal 1974. The 26 percent decline in expenditures for that period was due primarily to increased state aid. Water and Sewer Department expenditures are not a part of the general town budget.

A major factor in rising costs is salaries and wages. Seventy-four percent of the school budget and 81.6 percent of

Table 40

School Expenditures per Pupil
for Selected Communities

Community	Median Family Income (1970)	Per Pupil Expenditures (1971-72)
Belchertown	\$ 7,943	\$ 816
Longmeadow	19,123	1,091
Monson	10,005	853
Palmer	9,052	779
Ware	9,802	763
Warren	9,968	854
Wilbraham	13,462	1,047

Source: Town and City Monographs
Mass. Dept. of Commerce and Development

the Public Safety budget is spent on these two items. Increases in salary and wage rates will therefore affect total expenditures considerably. Until the advent of revenue sharing, salaries and wages had generally not been subject to subsidization by state and federal programs. Although Ware used a considerable portion of its revenue sharing funds for police salaries, it is unlikely that federal funds can keep pace with salary increases. Local taxes will probably make up the difference.

Tax Base and Tax Rate

Total property tax revenues are determined by three elements:

- (1) The "True" or market value of property: the tax base.
- (2) The Assessment Ratio: the assessor's valuation divided by the market value.
- (3) The tax rate set by the town's revenue needs.

The computational procedure for the determination of total property tax receipts is shown below:

Total Assessed Valuation = Market Value x Assessment Ratio

Total Property Tax Receipts = Total Assessed Valuation x Tax Rate

The Assessment Ratio for Ware has remained at about 33 percent since the last revaluation during 1957 and 1958. As Table 41 indicates, the assessed valuation has been rising steadily since 1960. Until fiscal 1973 the annual increase was between 2 percent and 3 percent. Increments in assessed valuation are the direct consequence of growth in housing stock, in the economic base and inflation of market values. In Ware, according to Figure 5, the rate of increase in housing stock (new dwelling units) has been on the decline since 1971. Between 1972 and 1973 housing stock increased 5.2 percent*, while assessed valuation increased only 2.9 percent. Nationally, inflation alone accounted for an increase of 9.6 percent in market values. The contribution of inflation is perhaps more evident in explaining the substantial increase in assessed valuation between

*extrapolated from calendar year to fiscal year

1973 and 1974. Housing stock increased only 1.6 percent*, while assessed valuation increased 4.9 percent*. Additionally, the rise in valuation has not kept pace with the increase in revenue requirements. Consequently, the tax rate has been forced steadily upward to compensate for this disparity.

A recent decision of the Massachusetts Supreme Court has mandated that all communities must comply with the 1961 law requiring all property to be assessed at full and fair cash value, i.e. 100% of market value. Ware, like many communities, assesses property at less than full and fair cash value. The Assessment Ratio for Ware has remained at about 33 percent since the last revaluation during 1957 and 1958. Table 42 shows the actual and full tax value rates for selected communities within the region. Although Ware's actual tax rate is among the highest in the region, its true (full value) tax rate is among the lowest.

It is the tax base (market value of property) of a community that determines its revenue potential. A comparison of the equalized valuation on a per capita basis for Ware and several communities in the region is shown in Table 11. The per capita equalized valuation for Palmer is significantly higher than Ware and other towns considering median family income. Since manufacturing and wholesale-retail trade are important sectors of the economic base in both towns, properties which serve economic functions should make up a significant share of each town's tax base. This appears to be true for Palmer, but seems to be quite the contrary for Ware. Residential property in Ware does not appear to carry its share of the tax burden. If the town would comply with a recent (1973) state regulation (Chapter 761) to classify taxable property according to its use, the relative contribution of each segment of the tax base would be known with some certainty.

*extrapolated from calendar year to fiscal year

Table 41

Change in Elements of Tax Base: Ware

Tax Base Element	1960 (dollars)	1965 (dollars)	1970 (dollars)	1971 (dollars)	1972 (dollars)	1973* (dollars)	1974 (dollars)
Estimated Market Valuation	31,289,700	34,429,260	38,975,310	39,742,800	40,496,860	42,459,870	45,421,050
Assessed Valuation	10,429,900	11,476,420	12,991,770	13,247,600	13,565,620	14,153,290	15,140,350
Property Tax Revenue	609,672	829,902	1,507,045	1,589,712	1,790,661	1,868,234	1,877,403
Tax Rate @ \$1000 A.V.	58.45	72.31	116.00	120.00	132.00	132.00	124.00

* 12 Month Period (January 1 - December 30, 1973)

Source: Tax Assessor's Records

Table 42

Actual and Full Value Tax Rates
for Selected Communities, 1971

Community	Actual Tax Rate (\$)	Assessment Ratio (%)	Full Value Tax Rate (\$)
Belchertown	48.00	99.5	45.87
Brimfield	63.00	67	42.25
Palmer	163.00	22	36.12
Ware	120.00	33	39.74
Warren	52.40	95	49.64
West Brookfield	35.00	98	34.30

Source: Palmer Master Plan (1974)

(Quoted in Mass. Teachers Association Research Bulletin No. 712-19
and Worcester Area Chamber of Commerce, Econ. Research Statistical
Compilation)

Table 43

Per Capita Equalized Valuation
and Median Family Income
for Selected Communities

Community	Median Family Income (1970)	Per Capita Equalized Valuation (1971)
Belchertown	\$ 7,943	\$ 3,454
Brimfield	n.a.	4,764
Palmer	9,052	6,214
Ware	9,968	4,761
Warren	9,802	4,587
West Brookfield	10,116	200

Source: Town and City Monographs, Mass. Dept. of Commerce and Development

Bonded Indebtedness

Major capital expenditures for a community normally entail deficit spending through borrowing, i.e. the issuing of municipal bonds. In Ware this form of financing was not used before 1960. Since then Ware's borrowing practices have generally been conservative, normally requiring no more than 5 percent of the budget expenditures. Recently, however, the proportion of budget expenditures devoted to the payment of debt and interest increased from 3.2 percent of the budget in 1971 to 9.9 percent of the budget for 1973. This recent increase, which can be observed in Table 6, was the result of a \$1,777,000 bond issue in 1972 for a new elementary school.

As Table 44 indicates, the per capita net debt for Ware in 1972 was \$74. Compared to other communities in the region, most with smaller populations than Ware, this amount seems to be average. But, since per capita net debt for the 60 towns in Massachusetts with populations from 5000-7000 was \$219, the debt service for Ware seems small by comparison.

In the past the town has been able to avoid some bonded indebtedness it might otherwise have incurred by: (1) using available funds or free cash for some capital expenditures; and (2) using money from various departmental "funds" for others. For example, the Highway Machinery Fund is maintained through state aid programs. Money allocated to the town for the leasing of equipment on various state aided projects is transferred to the Machinery Fund if town machinery is used on the project. The town also maintains a Stabilization Fund. This is a special account that was established to provide for capital expenditures. This fund is held in investments until needed. Also, in 1973 the town voted to establish a Reserve Fund which, by law, can be used only to cover extraordinary or unforeseen expenditures.

On the other hand, the town has used money from some "funds" to amortize (pay back) short term loans. The recent loan for the new ambulance is being amortized by receipts from the Ambulance Fund. Also, water and sewer system improvements financed by loans are amortized by using Water Department receipts.

The borrowing capacity, or debt limit, for Ware for 1974 was \$2,100,000. This is equal to 5 percent of the equalized valuation, which was \$42,000,000 for that year. The net debt capacity is determined by subtracting the annual principal due on loans "inside" the debt limit. Since in 1974, only the \$1250 due for the new ambulance was "inside" the debt limit, the net debt capacity was \$2,098,750. Except for the new ambulance, the remaining outstanding loans, or bonded debt service, shown in Table 44 are all "outside" the debt limit.

Table 45 shows that by 1977, four of the present seven (1974) outstanding loans will be retired. The annual expenditure for principal and interest for fiscal 1974 was \$277,996 and the outstanding debt service was \$2,493,950. By fiscal 1977, assuming no additional bonded debt, the annual expenditure will be reduced to \$219,909, and the debt service will decline to \$1,659,800. The debt service would decline again in 1984 and by 1990 the town would be debt free. The effect of any new capital expenditures financed by bonded debt will, of course, change this trend. The nature and amount of new capital expenditures that are needed will be discussed in the next section of this report.

Conclusions and Recommendations

Revenue requirements have steadily increased over the years, becoming a problem since 1972. Since the growth in assessed valuation has not kept pace with revenue requirements, and with inflation, the inevitable consequence has been a rising tax rate. According to statute, and now court decree, the town must now reassess property at full and fair cash value, i.e. 100 percent of market value, which will lower the tax rate. While it may seem to make no difference whether the town uses a 33 percent assessment ratio and a \$124 tax rate or a 100 percent assessment ratio and a \$37.50 tax rate, it is almost certain that an assessment ratio of 33 percent on property reassessed in 1957 and 1958 and on property assessed since then has been unequally applied. There is evidence that assessment uniformity deteriorates as the

Table 44

Per Capita Net Debt*
for Selected Communities, 1972

Community	Net Debt \$	Net Debt Per Capita \$	1970 Population
Belchertown	\$562,000	95	5936
Brimfield	710,000	372	1907
Hardwick	21,500	9	2379
Palmer	477,600	41	11680
Ware	606,000	74	8187
Warren	292,000	80	3633
W. Brookfield	None	None	2653

Source: Town and City Monographs
Mass. Dept. of Commerce and Development

* Total Balance of Bonded Debt Outstanding at Beginning of Year

Table 45

Record of Outstanding Bonded Debt, July 1, 1974

Purpose of Bond Issue	Total Amount of Bond Issue	Annual Amount of Principal	% Annual or Semi-Annual Interest	Year Issued	Year Retired	Term of Debt
High School Construction	\$745,000	35,000	3.80	1960	1980	20 yrs.
Sewer Construction	201,000	10,000	3.25	1964	1984	20 yrs.
12" Water Main Installation	65,000	13,000	5.25	1970	1975	5 yrs.
12" Water Main Installation	65,000	13,000	4.25	1971	1976	5 yrs.
Purchase of Ambulance	6,350	1,250	3.00	1971	1975	5 yrs.
Construction of Gravel Packed Well	24,000	4,800	4.25	1971	1976	5 yrs.
Elementary School Construction	1,770,000	95,000	4.70	1972	1992	20 yrs.

general assessment level declines. In other words, individuals with similar properties are often paying different tax bills.

In addition to remedying inequalities in assessment ratios, 100% valuation would also make it easier for property owners to judge the fairness of the assessment of their properties. Individuals would find it easier to take a realistic look at their tax rate as well. Ware's relative position in the region in terms of its tax rate could then more clearly be ascertained.

An important part of the revaluation process should be the preparation of assessor's maps and the classification of each parcel of property according to its utility or use. Assessor's maps are necessary not only for the convenient identification and location of property but, more importantly, the maps are essential for planning for the physical development of the town.

The third element that affects property tax revenue is the tax base. Many of the factors that determine the tax base of a community are outside its control: state policies, regional economic factors and physical and location characteristics. Population and housing are elements of the tax base that are discussed in other sections of the master plan. The modest increases expected during the next decade in these elements should be reflected in a continued slow rate of growth in assessed valuation. A more substantial growth in the tax base, however, could probably be achieved by strengthening the economic base of the town. Since industrial and commercial property normally is of higher value than residential property, a significant increase in industrial and commercial land use in the future would distribute more evenly the burden of increasing revenue requirements now heavily felt by residential property owners. Consequently, in the future the town might be able to hold the line on the tax rate or even lower it, while at the same time still continue to improve municipal services. The outlook for commercial and industrial growth is discussed in the economic base section.

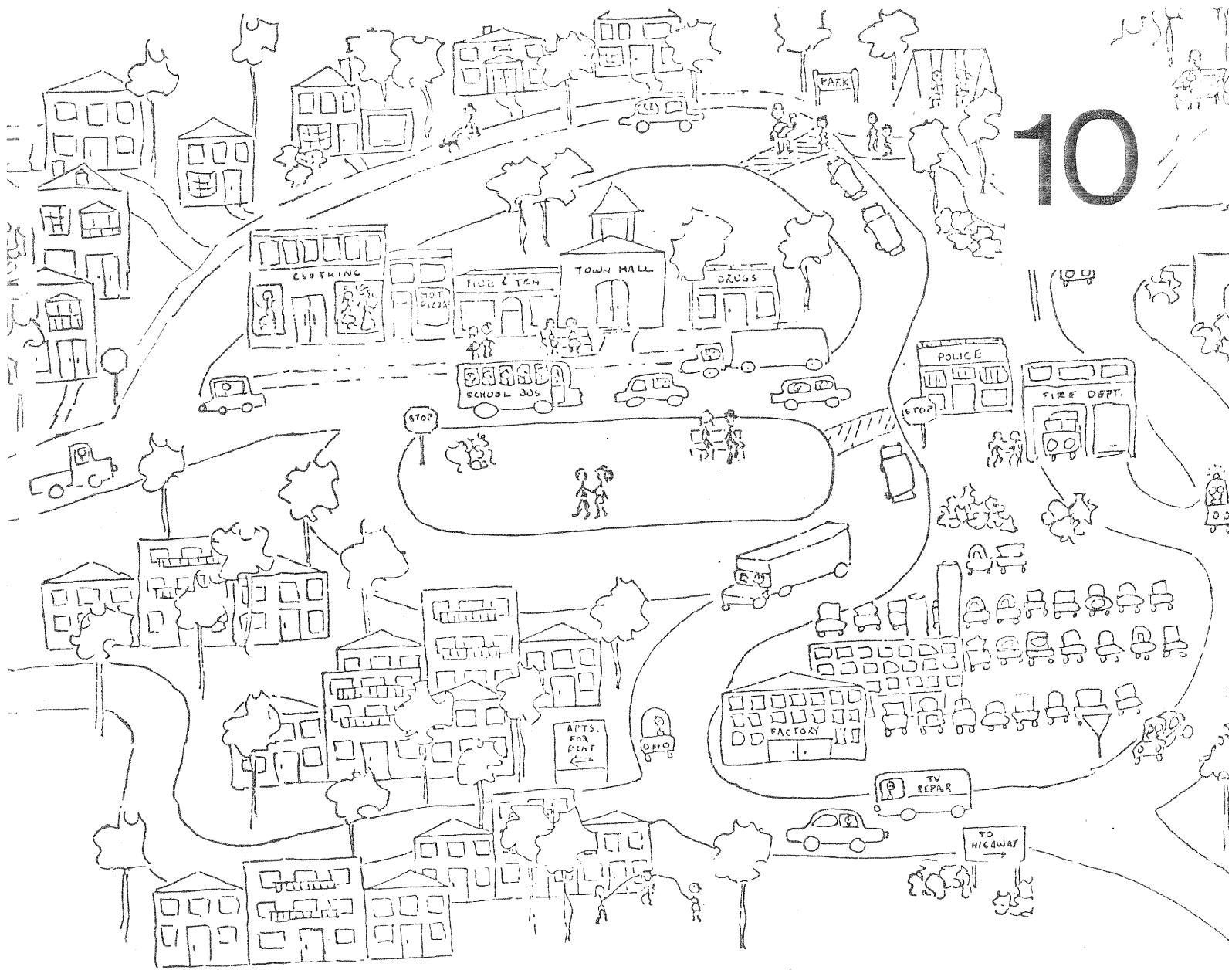
The tendency of the town to incur bonded debt can be described as being conservative. Until recently debt service was kept low through a policy of using Available Funds (Free Cash),

special departmental funds, and Stabilization and Reserve Funds for financing small capital improvements. It is undoubtedly wise for the town not to incur bonded debt for such capital expenditures as equipment and vehicle purchases if possible, while at the same time avoiding the necessity of appropriating large amounts of current tax revenue. This could be possible through judicious use of the Revenue Sharing Fund and the gradual accretion of money in the Stabilization Fund.

However, like many communities, Ware often avoids needed major capital improvements until they are forced upon the town by circumstances often beyond its control. As a result, the town incurs bonded debt for several major capital improvements all in a short period of time, and the tax rate must then be forced upward. During 1971 and 1972 debt service rose abruptly because sewer, water and school capital improvements were all needed in a short period of time.

To help prevent this situation from happening again, our recommendation is that the town adopt a capital improvements budget and a capital improvements program. A brief explanation of these financial considerations follows in the next section.

10



capital improvements

CAPITAL IMPROVEMENTS PROGRAM

A capital improvement is any major non-recurring expenditure for physical facilities of government, such as costs for the acquisition of land or interests in land, construction of buildings or other structures, fixed equipment and landscaping. A capital improvements budget is essentially a separate budget for these items alone. The program is a long range (5 to 6 years) schedule of projects with their estimated costs. A capital improvements program, if financed by bonding, enables needed improvements to be made immediately and paid for slowly. Any rise in the tax rate can then be kept small. With such a program, the community can also weigh competing pressures for limited funds, and projects that relate to each other can be coordinated. The systematic review of projects affords an opportunity to tie them together as to timing, location and financing, thereby implementing the physical development objectives of the town.

The projection of information contained in the fiscal analysis is an essential part of the capital improvements program. Projections are necessary to determine the effect any capital improvement will have on the financial characteristics of the town. To make the projections, the following information from the past 5 to 7 years is necessary and can be obtained from the Assessor's Report and the approved annual budget.

- (1) "Gross amount to be raised," otherwise known as revenue requirements. This figure includes the total cost of operating the town: salaries and wages, departmental operating expenses, debt service, capital outlays, state and county assessments and miscellaneous costs.
- (2) Adjusted "gross amount to be raised." This figure is the minimum cost of operating the town, exclusive of capital expenditures financed in any manner. This can be determined approximately by deducting the cost

of all known capital outlays from the "gross amount to be raised." For those capital outlays financed through bonding, the annual interest and principal payments can be considered as the annual cost of these capital outlays.

(3) "Receipts and available funds."

(4) "Assessed valuation of property."

The trend in these financial elements for the past 5 to 7 years can be calculated as an average annual change. By then projecting these trends from the current base period for the next 5 to 7 years, it is possible to predict with some certainty the impact of any capital expenditure on the tax rate of the community. These projections can be reasonably accurate if there has been a reasonably uniform pattern of growth in the tax base and no unusual receipts or expenditures have occurred to disrupt the past trends.

However, in the event Ware should undertake a revaluation, it would undoubtedly change the projections of assessed valuation, and they will therefore have to be readjusted at that time. Revaluation will also affect the projected "receipts and available funds" by changing the magnitude of state reimbursements. Also, the future of the federal revenue sharing program cannot be predicted beyond the next two years. As a result, these projections will at this time be rough estimates.

In view of these circumstances the following methodology was generally adopted for this report and should be used in the subsequent updating of the capital improvements program. The general procedure for determining the tax rate for any year, exclusive of any new capital expenditures is described as follows:

1. Adjusted "gross amount to be raised" + annual debt service (principal + interest of previously issued bonds) = Total cost of operating the town exclusive of any new capital expenditures.
2. Total cost of operating the town exclusive of any new capital expenditures - "receipts and available funds" = Tax levy, or "net amount to be raised by taxation on property" (exclusive of any new capital expenditures).

3. "Net amount to be raised by taxation on property" ÷
 "assessed valuation of property" = tax rate (exclusive
 of any new capital expenditure).

Although indicated above, it, nevertheless, must be emphasized that the tax rate is based upon operating expenditures and previously committed bond issues only. Increments are then added to the tax rate for new capital expenditures of any kind.

The resulting projections, that is, given present circumstances, are shown in Table 15. The total cost of operating the town exclusive of new capital expenditures has been projected to reach a little over \$4,300,000 in 1980, an increase of approximately \$1,057,000 or 33 percent, over 1974. Considering past trends in salaries, wages and operating expenses, a reduction in the amount or rate of necessary expenditures is not likely to meet the costs of local government. "Estimated receipts and available funds" have been increased at a constant rate commensurate with past trends. The "net amount to be raised" has increased 22 percent during the period, or about 3.8 percent per year. The property tax base is projected to be about \$17,500,000 by 1980, an increase of \$2,260,000 or 16 percent. A tax rate of \$128.80 is estimated for 1980 using the projected increase in assessed valuation and net amounts to be raised. The assumptions and estimates used produce a generally increasing tax rate for the projection period of six years. The actual amounts will depend upon the level of operating costs and capital outlays. This is not unreasonable considering the slow rate of growth in the tax base, and the increased rate of growth in the cost of operating government.

Certain conclusions can be drawn from these limited projections as follows:

- (1) An increase in the tax rate over the next six years may be expected even if there are no capital outlays. The magnitude of any further increase will be influenced by the cost of the capital expenditures and their method of financing, as well as other factors such as interest rates.

(2) To keep a level tax rate of approximately \$122.00 at the projected rate of expenditures, not including any capital expenditures, annual increases in assessed values of \$450,000 to \$500,000 will be required to produce necessary revenues.

(3) A dollar increase in the tax rate would have financed about \$15,000 of capital expenditures, if financed directly from current revenues in 1974. To preclude an undue strain on the tax rate, a limit for capital projects financed from current revenues might be established in terms of a fixed amount or a fixed increment in the tax rate.

A list of (1) capital expenditures for equipment, vehicles and needed services, and (2) capital improvements projects is shown in Tables 16 and 17 respectively. The lists were obtained from questionnaires submitted to each town department and from the many recommendations or proposals contained within the Master Plan report. Wherever possible, a method of financing each project is suggested. The total cost of the project and the town's share of federal and state subsidized projects are also included. Table 18 presents a capital projects schedule for the 1975-1980 period.

The following recommendations are designed to assist in establishing the capital budget process in Ware.

1. A capital budget programming procedure should be adopted, and a Capital Budget Program should be prepared annually in order to keep up-to-date financial data and projections and a priority schedule of capital projects. A detailed Capital Budget Program should be prepared for the 1976 Town Meeting.

2. Borrowing should be limited to projects whose total cost exceed \$20,000 (roughly the equivalent of \$1.35 based on the 1974 tax rate).

3. No borrowing should be approved for recurring (annual) capital outlays.

4. The Stabilization Rate should be steadily built up so that the gross costs of capital projects can be reduced.

5. The ratio of bonded indebtedness to assessed valuation should be kept at a relatively low level.

Table 15

Fiscal Projections

	1974	1975	1976	1977	1978	1979	1980
"Adjusted Gross Amount to be Raised "	\$2,981,205	\$3,160,077	\$3,349,682	\$3,550,663	\$3,745,949	\$3,933,246	\$4,110,242
Annual Bonded Debt Service	+ 261,487	+ 252,640	+ 219,909	+ 208,775	+ 202,665	+ 196,545	+ 190,425
Total Cost of Operating the Town	3,242,692	3,412,717	3,569,590	3,759,438	3,948,614	4,129,791	4,300,667
Receipts and Available Funds	-1,402,289	-1,510,621	-1,618,953	-1,727,285	-1,835,617	-1,943,949	-2,052,281
"Net Amount to be Raised" (Property Tax Levy)	1,840,303	1,902,096	1,950,638	2,032,158	2,112,997	2,185,842	2,248,386
Assessed Valuation	15,140,350	15,527,523	15,914,523	16,300,523	16,685,523	17,070,523	17,455,523
Property Tax	121.56*	122.50	122.57	124.67	126.64	128.05	128.80

Source: Estimated by author

*The present tax rate (1974) is \$124.00. The difference represents an increment of \$37,000 in capital outlays in the 1974 budget.

Table 16

Proposed Capital Outlays: Equipment, Vehicles, Services, 1974-1980

Capital Outlay	Gross Amount	Method of Financing	Budget Appropriation Required	Priority	Year Scheduled
Town Hall Remodeling	\$10,000*	Revenue Sharing Fund	None	1**	1975
Revaluation Including Assessor's Maps	\$68,000*	Revenue Sharing Fund or Bond Issue	Not Known	1**	1976
Ambulance	\$20,000*	Fed. Funding - 50% Ambulance Fund - \$5000 Remainder-Appropriation	\$5,000	2**	1977
Fire Department Pumper (1000 gal.)	\$65,000*	Bond Issue: \$65,000 or Revenue Sharing Fund	Bond Issue (\$12,000/yr. for 5 yrs.)	2**	1976
Highway Dept. Street Sweeper	\$24,000*	Highway Machinery Fund	None	2**	1978
Park Dept. Truck	No. Est.	-	-	-	1979
Fire Dept. Ladder Truck	\$80,000*	Bond Issue	Bond Issue No Est.	3**	1980
Industrial Development Study	\$5,000**	Revenue Appropriation Revenue Sharing Fund	\$5,000	1**	1976
Soil Conservation Service - Survey and Mapping	\$15,000**	Revenue Appropriation Revenue Sharing Fund	\$15,000	1**	1977

Source: Department Questionnaires* and Master Plan Recommendations**

Table 17

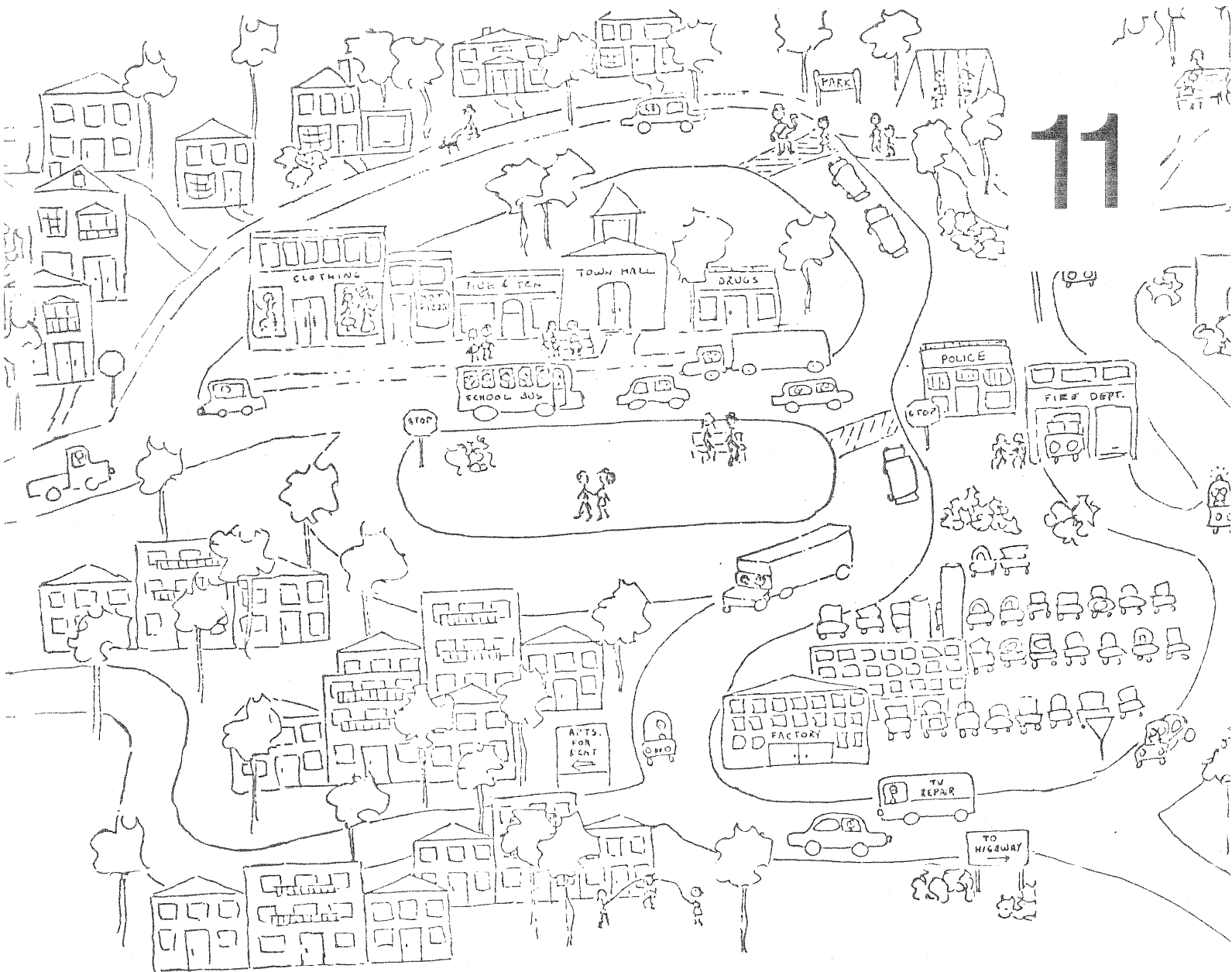
Capital Improvements Proposed: 1974-1980

Project	Gross Amount (1974 dollars)	Method of Financing	Budget Appropriation Required	Priority
Secondary Sewage Treatment Plant	\$1,425,000*	State Funding: 90% Bond Issue Town Share	\$425,000 Bond Issue (\$21,250/yr.)	1**
New Well and Well Field	No Est.	-	-	1**
Replace Old Water Mains	No Est.	-	-	2**
Extend Water Mains	No Est.	-	-	2**
Replace Sewer Mains	No Est.	-	-	2**
Extend Sewer Mains	No Est.	-	-	2**
Gould Road Reconstruction	\$143,000*	Ch. 1140 State-County Funding: 75%	\$35,750	1**
Monson Turnpike Reconstruction	\$60,000 *	Ch. 825	Not Known	1**
Bacon Road Reconstruction	No Est.	-	-	3**
Bridge Survey	\$36,000*	Ch. 825 or TOPICS Program	Not Known	1**
Bridge Construction	No Est.	-	-	2**
Build up Stabilization Fund	\$15,000	Revenue Appropriation	\$15,000	1**

Source: Departmental Questionnaires* and Master Plan Recommendations**

Table 18
Proposed Capital Improvements Schedule 1975-1980

Project	1975	1976	1977	1978	1979	1980
Secondary Sewage Treatment Plant	X					
New Well and Well Field		X				
Replace Old Water Mains			X	X	X	X
Extend Water Mains			X	X	X	X
Replace Sewer Mains			X	X	X	X
Extend Sewer Pipes			X	X	X	X
Gould Road Reconstruction	X					
Monson Turnpike Reconstruction	X					
Bacon Road Reconstruction						X
Bridge Survey		X				
Bridge Construction			X			
Build Up Stabilization Fund	X	X	X	X	X	X



goals and recommendations

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QUESTIONNAIRES AND ANALYSIS

During February and March, 1975, an extensive survey of the town feelings and aspirations was undertaken. A list of 238 townspeople was made up from the town street list. With the assistance of Mr. Clark and the High School Key Club questionnaires were circulated to most of the people on the list. Although the students went to every house on the list, some families were not home when the students came by. After several weeks of work, 144 questions were filled out and returned for calibration. According to professional standards, a 2% random sample is large enough for a reasonably representative survey. The 144 questionnaires constituted 1.8% of Ware's population. The results of such surveys can be used only for general attitudes, but not to predict feelings of an individual person. But it must be emphasized that the results could indicate 100% feel a certain way when, in reality the people surveyed are the only people in Ware who feel that way. This is highly improbable but not impossible.

After the questionnaires were filled out the results were recorded so that they could be stored easily and used with a computer. Then a computer program was written to analyze the data. For quantitative questions such as the number of bicycles in a household, a value for the average number of bicycles per household was obtained. For questions that ask for a value or yes/no answer, such as the question about the need for recreational facilities in Ware, the computer calculated the number and percent of people who answered each way to the question.

A SAMPLE OF THE QUESTIONNAIRE CIRCULATED IN WARE

I.

Please indicate your agreement or disagreement with the statements below by responding as follows:

- (1) STRONGLY AGREE
- (2) AGREE
- (3) NO OPINION OR INDIFFERENT
- (4) DISAGREE
- (5) STRONGLY DISAGREE

- (a) _____ Ware needs more recreational facilities
- (b) _____ Snow removal service in Ware is adequate
- (c) _____ Library facilities available to residents of Ware are sufficient
- (d) _____ The town should encourage more industry to locate in Ware
- (e) _____ The town's first priority should be to lower the tax rate on property rather than improve services
- (f) _____ Ware residential neighborhoods should be protected from excessive noise and traffic
- (g) _____ Traffic congestion is not much of a problem in Ware
- (h) _____ The town should have more control over the use of land within its boundaries.
- (i) _____ Ware would benefit by participation in a regional public transportation system (e.g., a bus system connecting towns in and around the Springfield metropolitan area).

II. Detailed Response

Check off your response according to the question's directions.

- (a) Check any of the following educational services you believe is inadequate

- _____ Day-care or nursery school programs.
- _____ Ware's elementary school facilities.
- _____ Adult education programs.
- _____ None.

- (b) Regarding the future economic development of Ware, do you think the town should encourage (check one or more):

- _____ expansion of shopping facilities.
- _____ commercial development of the village center.
- _____ none of the above.

- (c) Regarding the future residential development, do you think Ware needs (check one or more):
- _____ more multi-family housing.
- _____ more housing for low and moderate income families.
- _____ more parks for mobile homes.
- _____ more subdivision of single-family housing units.
- _____ none of the above.
- (d) Do you believe in principle that Ware should purchase undeveloped land to preserve open space and to provide recreational land? (Check 1)
- _____ yes _____ no _____ no opinion
- (e) What type of use would you like for Ware's open spaces? (Check no more than six)
- _____ picnic sites
- _____ bicycle paths
- _____ hunting and fishing areas
- _____ snowmobile and trail-bike areas
- _____ small neighborhood parks
- _____ organized recreation such as ball parks, tennis courts, etc.
- _____ hiking trails
- _____ scenic lookouts
- _____ none of the above

III. Background Information

1. Where do you live?
2. How many people are in your household or family in each of the following age groups?

_____ under 18 yrs.	_____ 25-64 yrs.
_____ 18-24 yrs.	_____ 65 and over
3. What was the approximate gross income for your household in 1974?

_____ under \$2,999	_____ \$12,000-\$14,999
_____ \$3,000-\$5,999	_____ \$15,000-\$24,999
_____ \$6,000-\$8,999	_____ \$25,000 and over
_____ \$9,000-\$11,999	
4. Where is the place of work of the principal wage-earner of your household?

- _____ in Ware
_____ outside Ware (if outside, which town? _____)
5. If other members of your household are employed indicate the number (other than the principal wage-earner) in each category including yourself:
- _____ employed fulltime in Ware.
_____ employed fulltime outside Ware.
_____ employed part time in Ware.
_____ employed part time outside Ware.
6. How many vehicles are owned, operated, or used by members of your household and generally kept in Ware?
- _____ No. of cars _____ No. of motorcycles
_____ No. of bicycles
7. What type of housing do you now occupy?
- _____ single family unit
_____ two family unit
_____ three or more family unit
_____ mobile home
_____ other

Results

The survey produced some interesting information on families in Ware. In the average household there are:

- 1.2 persons under the age of 18
- .5 persons between the ages of 18 to 24
- 1.7 persons between the ages of 25 to 64
- .2 persons over the age of 65

For transportation the average household has:

- 1.57 automobiles
- .11 motorcycles
- 1.07 bicycles

As for the place of work, there in each household:

- .267 persons working fulltime in Ware
- .207 persons working part time in Ware
- .253 persons working fulltime outside Ware
- .033 persons working part time outside Ware

The types of housing for the entire town are:

- 66% single family
- 15.3% two family
- 13.2% multi-family
- 2.1% mobile
- 2.1% other

The only results of this questionnaire which can be checked are the ones on the persons in a household. The federal census also have this information. For the two age groups of 18 to 24 and 25 to 64 the questionnaire and the Federal Census agree very well. But, in comparison to the census, the questionnaire was circulated to more households with persons under 18 and fewer households with persons over 65. This indicates that the feelings of the young may be over represented and the feelings of the elderly may be under represented. Fortunately the Council on the Aged in Ware also circulated a questionnaire to those people in town over 65. Many of those feelings which may have been lost in our questionnaire can be obtained from the Council's questionnaire.

The survey enabled a ranking of all the community facilities insofar as the perceived need for their improvement:

<u>Community Service</u>	<u>% feeling this service needs to be improved</u>
Recreation Facilities	85.4
Regional Transit System	66.7
Existing Transportation (concerning congestion)	43.1
Daycare or Nursery Facilities	38.2
Adult Education	35.4
Library	20.2
Snow Removal	17.4
Elementary School	13.2

This gives a general community attitude towards how adequate or inadequate the listed facilities are. This cannot replace a professional evaluation of these facilities but it is a valuable additional input into planning for the future of the community.

The questionnaires showed a strong feeling that Ware needs more recreational land and should try to acquire open land. 85.4% agreed that Ware needed recreational land and 72.9% agreed that the town should purchase open land. These two policies are fairly closely related and were among the areas with a great deal of agreement. In a later question regarding specific recreational facilities, the following percentages indicated approval of these uses.

<u>Use</u>	<u>% Approval</u>
Picnic Areas	57.6
Bike Paths	54.2
Organized Recreation	50.0
Hunting & Fishing Areas	47.9
Hiking Trails	42.4
Neighborhood Parks	38.9
Snowmobile Areas	38.9
Scenic Lookouts	29.9

Another objective of the questionnaires was to determine local priorities on some rather broad policy issues. The policies and the amount of support for each are as follows:

<u>Policy Issue</u>	<u>% in Favor of Policy</u>
Encouraging Industry	84.7
Buying Open Land	72.9

<u>Policy Issue</u>	<u>% in Favor of Policy</u>
Protecting Neighbor-	62.5
hoods from Noise	
Lowering Taxes	59.1
Providing More Housing	57.6
Low Income Housing	33.3
Single Family Subdivisions	23.6
Multi-Family Homes	7.6
Mobile Home Parks	5.6
More Control of Land	54.8
Encouraging Commercial	43.8
Development	
Expanding Shopping Area	43.1

On some of these policies, especially in favor of more town control of land, there was a large group of people who had no opinion on the issue. For more control of land, 25.7% were indifferent, so only 19.5% were actually against increased town control of land.

There was strong approval of a policy to encourage industry in Ware. Unfortunately there are no guaranteed methods to obtain more industry. A zoning plan may indicate that the town has set aside land for industry, a training program could improve the skills of available labor, and the Industrial Development Commission may engage in a vigorous campaign to bring industry to Ware, but none of these will insure industrial development. There is a more complete discussion of Ware's potential for industrial growth in the section on economic base. Although many people may favor some policy, the means to achieve that policy are often obscure or non-existent.

On the other hand, a policy such as buying open land is fairly straight-forward. The town can decide to either buy a certain number of acres of land, or spend a certain amount of money over a determined period of time. Also, there are federal programs to finance the purchase of open land for recreational use. This federal program can be used by Ware to help finance the acquisition of open land.

The questionnaires can be used in making budget decisions and growth policies, but there needs to be a balance among policies, even of those of very low priority. If the town were

to dwell only on acquiring recreational land, all the other policies and facilities will suffer. These results, in themselves, do not comprise a policy program for directing the future development of Ware. Good judgment, level headedness and experience are the main criteria for a comprehensive policy plan, but these questionnaires help represent the "public voice" on some specific areas. Hopefully the results will influence the policy makers.

GOALS AND RECOMMENDATIONS

Goals and recommendations are a vital part of the community planning process, for they form a framework for public and private discussion and decision-making. The following goals and recommendations are viewed as a conscious effort to chart the present needs and the future directions for the community.

HOUSING

The housing goal is to provide adequate housing for the present and future residents of Ware.

With the low availability of vacant-for-sale housing in Ware and in the surrounding region, the emphasis in housing policy should be in this area. This is in keeping with the town's by-law prohibiting the building of multi-family dwellings. However, there is also a need for low-rent housing and in light of this need, the town residents should weigh their desire for no new apartment construction against the need for specifically low-rent apartments in determining the best housing policy for the future.

COMMUNITY FACILITIES

The goal of this section is to plan for the orderly and comprehensive growth of community facilities in Ware, and to improve the existing facilities.

As discussed in the Community Facilities Chapter, one recommendation is to acquire land for organized recreation such as ball parks, etc. Also, additional recreational land could be used for small neighborhood parks for the elderly. The construction of a new swimming pool should be a future consideration.

Concerning schools, a comprehensive building maintenance program should be undertaken. Continuous care and general structural improvements are needed to insure the long time utilization of the buildings. Some suggestions are periodic painting, roof patching and furnace inspection.

For adequate future water service it is necessary to acquire a new well field and to construct a new well. Eventually the small older mains will have to be replaced with larger ones. New water mains should be extended to the recently developed areas and especially to Beaver Lake.

Concerning sewer facilities, a program should be instituted to build the secondary treatment plant. The old sewer mains must also be replaced with larger ones, and sewer mains should be extended to developed areas.

One recommendation for the Fire Department is to acquire one or two acres of land at Beaver Lake. Once this land has been purchased, future plans can be made for an auxiliary fire station.

LAND USE

The land use goal is to guide the growth of Ware according to the development capabilities of the land. Ware should encourage high intensity uses in areas which are relatively free of physical limitations and should discourage high intensity uses in areas where many limitations exist.

The validity of a land use analysis and plan is dependent upon the quality of the technical information on which the plan is based. Much of the existing surveys of the land in Ware are either outdated or not in a form which is useful to planners.

The only existing soil survey was done in 1928 when soil testing techniques were not as precise as they are now. Soil surveys are essential to anyone trying to locate developable land. Obtaining a soil survey from the Soil Conservation Service should be a high priority for the town.

The Conservation Commission should concentrate on compiling information on the physical characteristics of the land. When necessary the information should be interpreted and made understandable to the public. The Commission should also continue their efforts mapping the town, and should attempt to identify areas which would be valuable to preserve.

Accurate maps can not be prepared without information about the ownership of the land. The town should acquire assessor's maps designating the boundaries of privately and publicly owned land.

The land surrounding the Central Business District and to the north and south of Route 32 is relatively free of physical

limitations. The most intensive development should and is occurring in these areas. The land around Beaver Lake is being used for seasonal and permanent residences. Although there are some steep slopes in this area, the land is capable of accomodating this growth.

Ware can make the physical limitations of the land work to the town's advantage. The rolling hills, fields and forests in Ware are very attractive and offer many opportunities for recreational use of the land. Recreation is a low intensity use and is the least harmful to land with many limitations aside from agriculture and its accessory uses. Possible activities which could be encouraged are camping, hiking, horseback riding, cross-country skiing and canoeing along the many streams, rivers and brooks in the town. There may even be several slopes which could be used as ski hills.

ECONOMIC BASE

The goal of this section is to promote industrial, commercial and recreation development that would aim for a stable economic base.

The first recommendation is to develop a program to attract industry to Ware. Hire a full time Industrial Development Commission Director, with the responsibility of keeping an up-to-date inventory of vacant industrial space, available land for industrial use and the potential labor market. This person would be a liaison with the State Department of Commerce and Development. Also this office would publicize and advertise this available space, land and work force, possibly publishing a brochure detailing town services, taxes, etc. The office should pursue this program to determine the full industrial development potential, which may be later designated as an industrial use area if a zoning plan is considered.

Plans should be made to utilize the recreation and tourism resources of Ware. One idea is to use the bicentennial years to focus on the history of Ware. The town has many historic

buildings and many of the people engage in traditional crafts. Another attractive feature of Ware is the mill outlets. If these three features are organized and made accessible to the public at large many people would be attracted to Ware. An opening festival to publicize the historic nature and products of the town might be an initial step.

Another recommendation is to make the Central Business District more accessible and attractive. One method might be to give the town a "facelift" by painting and landscaping.

The shopping facilities should be expanded. Ware has historically been a regional shopping center. It is important to try to reestablish this position, possibly through the mill outlets and specialty shops.

TRANSPORTATION

The transportation goals are to relieve the traffic congestion to obtain a higher level of traffic service, to improve the town roads, and to join a regional transit system.

Since it is unlikely that a new state highway bypass will be constructed in the near future, the town should consider alternative proposals for a bypass that would alleviate traffic congestion in town. The problem areas are the West Street section to the West Street Plaza and the Central Business District (Main Street).

For a bridge designing survey the town could apply for Chapter 1140 or Chapter 825 funding, most likely at the Homecrest-Marjorie Street location. Also, Ware should actively pursue Phase 2 of the TOPICS program which involves the consideration of a possible bridge location.

The town should consider the reconstruction of Bacon Road as a new collector which would link Route 32 to West Warren Road. Chapter 90 or Chapter 1140 funding could be used for this project.

The Local Transportation Group in Ware should actively pursue the feasibility of joining the Lower Pioneer Valley Regional Transit Authority. Working through the Joint Transportation

Committee Ware's representatives should encourage Palmer to join the Authority so that Ware would become eligible for maximum subsidies.

FISCAL ANALYSIS

The first recommendation is to initiate a program of revaluation of property at full and fair cash value - i.e. 100 percent of market value.

Borrowing should be limited to capital projects in which the total cost exceeds \$20,000 (roughly the equivalent of \$1.35 based on the 1974 tax rate). Borrowing should not be approved for recurring (annual) capital outlays. The ratio of bonded indebtedness to assessed valuation should be kept relatively low.

The Stabilization Fund should steadily be built up so that the gross cost of capital projects can be reduced (an annual appropriation of \$15,000 for this purpose would raise the 1974 tax rate \$1.00).

MUNICIPAL GOVERNMENT

The goal of this section is to help the municipal government achieve a more efficient and more coordinated approach to the administration and management of the community in developing a planned growth strategy.

The first recommendation is to develop a program of comprehensive budgeting and community maintenance. An office should be made responsible for continually updating the capital improvements budget.

Money is now available to hire a town planner through the Comprehensive Employment and Training Act. Since the money is available, the position of a town planner should be seriously considered. The planner's responsibility would be to encourage planned industrial and residential growth, integrated with community facilities and within a capital budget. Also the planner would help to develop an acceptable zoning proposal for the town.

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APPENDIX

FINANCIAL ASSISTANCE PROGRAMS FOR
CAPITAL IMPROVEMENT PROJECTS

FINANCIAL ASSISTANCE PROGRAMS FOR CAPITAL IMPROVEMENT PROJECTS

Introduction

The following information has been compiled to assist (Ware, Belchertown, Palmer) in seeking state and/or federal financial assistance for the capital improvement projects discussed previously. It is not intended to be complete but only to list major sources of funds. Because of the complexity of many of these programs, pertinent publications of the agencies involved have been quoted throughout.

U.S. Department of Housing and Urban Development

Community Development Block Grants

The Housing and Community Development Act of 1974 replaces several of the categorical grant programs administered by the Federal Department of Housing and Urban Development (HUD) with a new program of block grants to cities and towns. The HUD "categorical" grant programs replaced are: Open Space, Urban Beautification, Historic Preservation Grants; Public Facility Loans, Water and Sewer Grants, Neighborhood Facility Grants; Urban Renewal and Neighborhood Development Grants (NDP); Model Cities Supplemental Grants; rehabilitation loans after August, 1975. The intent of the new block grant program is to make money available to local governments with a minimum of red tape at the Federal level and a maximum of responsibility for how resources are spent at the local level. The Title I Block Grant funding will be for 100 percent of approved project costs.

The primary objective of Title I is to develop viable urban communities through neighborhood improvement and housing-related programs which address the needs of low and moderate income persons. Development should be consistent with local and area-wide planning and should be planned and carried out in an organized

fashion. Money received through Title I is not to be used to reduce local commitments to community development.

Fund Allocation and Entitlement

Cities and towns in Massachusetts will fall into two categories: entitlement communities, which are eligible to apply for specific amounts of funds "ear marked" for their community development needs, and non-entitlement communities, which are only eligible to compete for several "discretionary" funds.

1. Entitlement Communities: The entitlement for cities and towns stem from one of two sources; formula entitlements and hold-harmless amounts. Formula entitlements (for metropolitan cities only) are computed on the basis of population, extent of housing overcrowding, and the extent of poverty counted twice. Hold-harmless amounts represent the average amount of funds received by a community over the period FY '68 - FY '72 under the replaced categorical grant programs for metropolitan cities and under code enforcement, N.D.P., and urban renewal for non-metropolitan localities. These grants are designed to insure that a community participating in the old categorical programs will not suffer a decline in funds available to them.

2. Non-Entitlement Communities: Communities not receiving a hold-harmless or a formula entitlement are not excluded from the Title I Block Grant program. Non-entitlement communities within SMSA's are eligible to compete for "discretionary balance" funds. Each SMSA has a "discretionary balance" amount.

Non-entitlement communities outside SMSA's may compete for funds from the "non-metropolitan discretionary balance" fund. Entitlement communities are not eligible to apply for balance funds; non-entitlement communities can compete along with states and entitlement communities for national discretionary funding.

The two funds which are open to nationwide competition for funding on the part of both entitlement communities and non-entitlement communities, including states, are the Secretary's fund and the Urgent Needs fund. The Secretary's fund, which consists of two percent "off the top" of the Title I authorization (approx. \$48 million nationally for FY '75) is designed to provide support for community development projects in several areas. The more important areas include: areawide projects, innovative community

development projects, and relief of funding inequities. The Urgent Needs fund will contain \$50 million for FY'75 and FY'76 and \$100 million for FY'77. These funds provide for urgent community development needs which cannot be met through other language in the regulations.

Belchertown and Palmer, which are within the Springfield-Chicopee-Holyoke SMSA may apply for funds from Discretionary Balance of \$357,000. Ware, which is considered as non-metropolitan along with all other communities in the state outside of the SMSA's, may apply for funds from Discretionary Balance of \$1,392,000.

Eligibility

A. In order to receive entitlement or hold-harmless funds, an application must be completed and submitted to HUD by the unit of general local government. Citizens in the community must be given a role both in the formation of community development plans and in the establishment of priorities for execution of specific projects. Although eligible activities roughly parallel those eligible under the terminated categorical programs, note should be made of newly-eligible activities. The money may be used as the local share in a federal community development program, provided that the program is for activities eligible for community development block grant funding. A community could use its money to match funds from a federal public improvements or facilities program. The money can also be used to develop a comprehensive community development plan or to develop a policy planning-management capacity.

According to the Community Development Act and regulations, the following must be included in a municipality's application for funding:

1. A three-year Community Development Plan
2. A Community Development Program
3. Housing Assistance Plan
4. Community Development Budget
5. Certifications

B. The non-entitlement community will apply for funding on a competitive basis among all other eligible applicants in the state. No dollars are specifically "earmarked" for given communities, as is the case with Title I formula and hold-harmless entitlements. A final application will be in the same format and will be subject to the same format as a final application for entitlement funds,

Eligible activities will be the same as those eligible under entitlement block grants.

Eligible Activities for "CD" Funds Earmarked for Massachusetts

1. Acquisition of real property which is:
 - a. blighted, deteriorated, undeveloped, or inappropriately developed from the standpoint of sound community development and growth;
 - b. appropriate for rehabilitation, preservation of historic sites;
 - c. appropriate for conservation and recreational purposes;
 - d. to be used for public works, facilities, and improvements eligible for assistance.
2. Acquisition, construction, reconstruction, installation of the following:
 - a. neighborhood facilities and senior centers;
 - b. historic properties;
 - c. utilities, streets, street lights;
 - d. water and sewer facilities;
 - e. foundations and platforms for air rights sites;
 - f. pedestrian malls, walkways, parks, playgrounds;
 - g. flood and drainage facilities in cases where assistance under other programs is not available;
 - h. parking facilities, solid waste disposal facilities, fire protection services and facilities for areas in which other community development activities are to be carried out.
3. Code enforcement in deteriorated or deteriorating areas in conjunction with public improvements and services.
4. Clearance, demolition, removal, and rehabilitation of buildings and improvements. Interim assistance to alleviate conditions requiring immediate public action;

financing of rehabilitation of privately owned properties when in conjunction with other activities; demolition and modernization of publicly-owned housing.

5. Removal of barriers which restrict the mobility of elderly and handicapped persons.
6. Payments to owners for loss of rental income incurred by holding units to be used for relocation in connection with other activities.
7. Disposition of real property acquired under Title I, or retention for public purposes. Money from disposition must be used for community development activities.
8. Provision of public services to areas in which other community development activities will be taking place, provided that other assistance is not available. These services must be to 1) improve facilities related to employment, economic development, crime prevention, child care, health, drug abuse, education, welfare, recreation needs of persons in the area; 2) coordinate public and private development programs.
9. Payment of the non-federal share in a federal grant program for eligible community development activities.
10. Relocation payments and benefits for persons and business being relocated under Title I.
11. Payment of costs of completing a project under Title I of the Housing Act of 1949.
12. Activities necessary to develop a comprehensive community development plan; to develop a policy-planning-management capacity to carry out Title I.
13. Payment of reasonable costs related to planning and execution of the community development and housing activities.

Ineligible Activities

The following ineligible activities were listed in HUD regulations on formula funds. The list is meant to be illustrative only, and not exhaustive.

1. buildings and facilities for general conduct of government; municipal office buildings.
2. stadiums, sports arenas, auditoriums, concert halls, museums, etc.

3. schools.
4. transportation facilities (airports, subways, terminals).
5. medical facilities (hospitals, nursing homes).
6. operation and maintenance expenses connected with community services.
7. general government expenses.
8. political activities.
9. new housing construction.
10. rental assistance payments.

U.S. DEPARTMENT OF AGRICULTURE

Farmers Home Administration

The primary objective of the Farmers Home Administration (FmHA) is to upgrade the environment, economically, by providing financial assistance in the form of loans. The FmHA provides loans for business, industrial and community facilities. The FmHA program provides loans to further business and industrial development and to establish business enterprises in rural areas or cities up to 50,000 population with priority to applications for projects in open country, rural communities and towns of 25,000 population and smaller.

The FmHA program is authorized to make loans to develop community facilities for public use in rural areas of up to 10,000 people. Any community eligible for credit from commercial or cooperative sources is not eligible for a loan from the Farmers Home Administration.

Business and Industrial Loans

Farmers Home Administration is authorized to provide credit through two channels:

1. For private organizations or individuals, FmHA can guarantee loans by private lenders. Applicants should apply for the loan through their private lenders. The agency contracts to reimburse the lender for a

percentage of any loss sustained on such loans. Lenders are responsible for making and servicing the loans.

2. For public bodies, FmHA can make and service the loan. These applicants apply directly to FmHA.

The uses for these loans include, but are not limited to:

1. Financing business and industrial construction, conversion, acquisition and modernization.
2. Financing purchase and development of land, easements, equipment, facilities, leases, machinery, supplies or materials.
3. Supplying working capital and funds for fees and contingency charges.

The guarantee is an assurance to protect the investor, and may cover up to 90 percent of the lender's losses. Repayment of the loan will be reasonably assured as well as the successfulness of the project by the applicant.

The repayment schedule will not exceed:

1. 30 years for land, building and permanent fixtures.
2. 15 years for machinery or equipment, or the life of the machinery or equipment, whichever is shorter.
3. 7 years for working capital.

Interest will be due at least annually after the loan is closed. All or any part of a loan may be repaid before it is due, without penalty. The interest rate will be determined by the lender and the borrower, consistent with the market rate. The interest rate made by FmHA to private endeavors will be computed on cost of Treasury borrowing plus an increment to cover administrative costs.

Community Facilities Loans

Loans are available for public entities such as municipalities, counties and special purpose districts. Non-profit corporations may also receive loan assistance when adequate plans for loan repayments are made. To be eligible for loans the borrower must:

1. Be unable to obtain needed funds from other sources at reasonable rates and terms.
2. Have legal authority to borrow and repay loans to pledge security for loans and to construct, operate and maintain the facilities of services.
3. Be financially sound, and able to organize and manage the facility effectively.
4. Base the project on taxes, assessments, revenues, fees or other satisfactory sources of money sufficient to pay for operation, maintenance, and reserve, as well as retire the debt.
5. Be consistent with available comprehensive and other development plans for the community and comply with federal, state and local laws.

Community facility loans may be used to construct, enlarge, extend or improve water, sewer and solid waste disposal systems or other community facilities that provide essential service to rural residents, and to pay necessary costs connected with such facilities. The loans may also be used to relocate roads, bridges, utilities and other improvements or to acquire interest in land, water rights, leases, rights-of-way and other forms of land or water control necessary to the development of the facility.

Loans normally will be available when the project is completed. For projects costing \$50,000 or more, if interim financing is not possible or available, multiple advances may be made. The maximum term of all loans is 40 years and no repayment period will exceed any statutory limitation on the organizations borrowing authority nor the useful life of the improvement or facility to be financed. The interest rate on loans is five percent on the unpaid principal.

All loans will be secured to adequately protect the interest of the government. Bonds or notes pledging taxes, assessments, or revenues will be accepted as security if they meet statutory requirements. A mortgage may also be taken on real and personal property when state laws permit.

The Farmers Home Administration will assist the applicant in making the first determinations regarding engineering feasi-

bility, economic soundness, cost estimates, organization, financing and management matters in connection with the proposed improvements.

Department of Public Works: Highway Assistance Programs

Federal Aid

Funding for all Federal-Aid System roads is provided by 70 percent federal and 30 percent state matching funds.

In approving projects for Federal-Aid, the Federal Highway Administration must, by law, give preference to:

1. Projects that are recommended as important to the National Defense.
2. Projects which will expedite the completion of an adequate and connected system of interstate highways.
3. Projects providing direct and convenient public access to public airports and public ports of water transportation.
4. Projects which incorporate improved standards and features with safety benefits. A local highway official may designate a Federal-Aid Primary route in a rural area as deficient in safety features. Providing that certain conditions are present, a District Highway Engineer will request the Boston office to place the project on the Department's Federal-Aid Rural Primary program.

Rural Primary Aid Program

Federal Rural Primary funds of some \$6,800,000 annually are apportioned to the Department of Public Works for projects on the Federal-Aid Primary System in rural areas.

The Federal-Aid Primary System is the highway network connecting the major population centers. These funds are designated to be expended in rural areas only.

Rural Secondary Aid Program

Some \$3,200,000 are apportioned annually to the Department of Public Works for projects on the Federal-Aid Secondary System in rural areas.

The Federal-Aid Secondary System is the highway network of federal roads which connect to the primary network of highways or to centers of population. These feeder roads may be farm-to-market roads, rural mail routes, public school bus routes, local rural roads and county roads.

Urban Aid Program

Federal Urban funds of some \$8,900,000 annually are appropriated to the Department of Public Works for projects on the extensions of the Federal-Aid Primary and Secondary Systems within urban areas based upon the continuing, comprehensive and cooperative transportation planning process.

Urban Systems Aid Program

Federal Urban System funds of some \$23,500,000 annually are appropriated to the Department of Public Works for projects on the Federal Aid Urban System which is the highway network located as to serve the major centers of activity within the urban areas.

The 1973 Federal-Aid Highway Act makes it mandatory that each urbanized area of 200,000 population or more be assigned a fair and equitable share of the total Federal funds apportioned to the state. Also, municipalities of 200,000 population or more are entitled to these funds.

The traffic operations program to increase capacity and safety on urban roadways (TOPIC) is no longer in effect and the Urban Systems Program has taken its place.

The type of improvements suggested by the TOPICS program hold true for the Urban Systems Aid Program. These improvements include: signalization of intersections, minor widenings of a street to eliminate a bottleneck, pavement markings, elimination of at-grade road crossings, pedestrian grade separations, erection of street name signs, construction of traffic islands.

Priority Primary Aid Program

Federal Priority Primary funds of some \$4,000,000 - \$6,000,000 annually are appropriated to the Department of Public Works for projects on sections of the Federal-Aid Primary System selected

for priority improvements to supplement the service provided by the interstate system.

The initial selection of the Priority Primary Routes and the estimated cost of completing such routes must be reported to Congress by July 1, 1974.

Rail-Highway Crossings

Federal Rail-Highway Crossing funds of \$1,500,000 annually are apportioned to the Department of Public Works for projects on the Federal Aid System (excluding the Interstate System). The federal share of this program is 90 percent of the project cost.

Projects eligible for funding under this program are those designated to eliminate hazards at railway-highway crossings. These include:

1. Construction of grade separations; however, at least 50 percent of the apportioned funds must be used for the installation of protective devices at railway-highway crossings.
2. Installation of standard signs and markings at all crossings.
3. Installation of train-activated protective devices.
4. Upgrading of train-activated protective devices including track circuit improvements and intercomsection with highway traffic signals.
5. Crossing illuminations.
6. Crossing surface improvements.

The department selects and initiates Rail-Highway Crossings projects based on an inventory of all railroad-highway crossings and a preliminary priority ranking.

Pavement Marking Demonstration Program

Federal Pavement Marking Demonstration fund of an expected \$500,000 annually are apportioned to the Department of Public Works for projects on any highway whether or not any Federal-Aid

System, but not included in the Interstate System. The Federal share of this program is 100 percent.

The intent of this program is to enable the Department to improve the pavement marking of all highways to provide for greater vehicle and pedestrian safety, with special priority to be given to projects which are located in rural areas and which are either on the Federal-Aid Secondary System or are not included on any Federal-Aid System.

The State Department of Public Works selects and initiates pavement marking projects.

High-Hazard Locations

Federal High-Hazard Locations funds of some \$1,600,000 annually are appropriated to the Department of Public Works for projects on the Federal-Aid System (excluding Interstate System). The federal share of this program is 90 percent of the project cost.

High-hazard location projects will be developed under the Department Highway Safety Improvement Program on the following:

1. High priority safety improvement projects identified by accident analysis.
2. High priority safety improvement projects identified by areawide TOPICS studies or studies funded through the Governor's Highway Safety Bureau.
3. Correction of skid-prone locations.

This program is intended to correct specific high-hazard locations and it is not anticipated that major reconstruction of highways would qualify under this program.

Elimination of Roadside Obstacles

These funds of some \$1,600,000 are annually appropriated to the Department of Public Works for projects on the Federal-Aid System (excluding Interstate System). The federal share of this program is 90 percent of the project cost.

Projects eligible for funding under this program are those which eliminate known hazardous obstacles identified by the Department's accident experience. Some examples include: guard

rail end treatments, shielding of bridge parapets or piers, installation of breakaway sign and/or luminaire supports, relocation of utility poles, relocation or removal of signs, crash cushion installations, culvert head wall corrections.

Safer Roads Demonstration Program

These funds are of some \$2,100,000 annually appropriated to the Department of Public Works for projects not on any Federal System. The Federal share of this program is 90 percent of the project cost.

Projects eligible for funding under this program may include the elimination or correction of safety hazards mentioned in the Elimination of Roadside Obstacles program.

Projects may also be selected from the listing of high-hazard location in the:

1. Department Safety Improvement Program
2. TOPICS studies
3. Railroad-highway grade crossings from inventories
4. Diagnostic team project
5. Governor's Highway Safety Bureau studies

It is anticipated that Chapter 90 section 33B projects will be incorporated into this program.

Highway Safety Improvement Projects

In August of 1965, the Bureau of Public Roads issued a Policy and Procedure Memorandum that authorized the use of Federal funds for the improvement of specific locations or sections of the Federal-Aid System which are hazardous to highway users, and where the physical improvement will be expected to reduce the hazards.

Types of improvements include:

1. Horizontal and/or vertical alignment of roads.
2. Removal of hazardous fixed objects from gores and those adjacent to the traveled way.
3. Erection of deflective guardrail at bridge piers, abutments, railings, and other fixed objects not subject to removal, i.e. ledge outcrop, overhead sign posts.

4. Channelization and/or signalization of intersections.
5. Highway lighting and/or signing using breakaway posts when necessary.
6. Correction of skid-prone locations.
7. Erection of energy-absorption barriers in front of fixed objects.
8. Erection of fencing for special areas to control pedestrians and/or animals.
9. Flattening of side slopes.
10. Widening of narrow bridges or other structures.

The projects are initiated primarily by the Department of Public Works but requests from municipalities for specific projects would be given consideration. All requests should be submitted to the District Highway Engineer for his approval and/or recommendation.

All projects should be identified as needing improvements based on accident analysis and be expected to produce a measurable reduction in number and/or severity of accidents.

Governor's Highway Safety Program

The Department of Public Works administers several sections of the Governor's Highway Safety Program that will reimburse the communities 100 percent of the cost for their purchases of safety-related equipment hardware. Some items eligible for reimbursement include:

1. traffic line painters
2. traffic counters
3. regulatory and warning signs on the Federal-Aid Highway Systems.

Applications may be obtained by contacting the District Highway Engineer.

Upon completion of a thorough review of the application, the Department submits its recommendations to the Director of the Governor's Highway Safety Bureau for his approval or disapproval.

STATE AID

Chapter 90, section 34

Funds made available for construction, reconstruction, improvement and maintenance of town, city and country ways, as pro-

vided in section 34 chapter 90 of the Massachusetts General Laws shall be for all public highways other than state highways.

Funds in the past were made available by an annual direct appropriation of the Legislature and more recently by section 4 Chapter 765 of the Acts of 1972. When the funds are from an authorization such as Chapter 765 of the Acts of 1972 which prohibits local contribution unless a community desires to do so, then those portions of Department policy requiring local contribution of 25 percent are waived and the entire cost will be borne by the State.

Funds made available to the cities and towns shall be available for: preliminary engineering, right-of-way acquisition, roadside shoulders and approaches, landscaping and tree planting, roadside drainage, structure and bridges, sidewalks, bicycle paths, traffic control and service facilities, street lighting, intersection construction, street name signs, traffic safety devices and unusual disaster operations.

Disbursement of funds under section 34, Chapter 90, is as follows:

1. 50 percent of the proportion to which the number of miles of public way, other than state highway in each city or town bears to the total number of miles of public ways, other than State highway, in all such cities and towns in the State.
2. 25 percent of the proportion to which the population of each city or town bears to the total population of all such cities and towns in the State.
3. 25 percent of the proportion to which the number of persons whose place of employment is located in each city or town bears to the total number of persons whose place of employment is located within the Commonwealth.

Prior to 1973, Chapter 90 projects were financed 50 percent State, 25 percent County and 25 percent local. The new policy of the Department of Public Works is that the state's share will be 75 percent except for projects carried out on the Chapter 90 Primary System.

The Department will periodically identify a system of local roads that it finds to be essential for through as well as local

travel purposes, and will promulgate design standards that it deems desirable for such roads. The network of roads so designated will be known as the Chapter 90 Primary System. In order to be eligible for state assistance, major capital improvements on the Chapter 90 Primary System will have to meet Department Standards. The local share of such projects will be waived, making the state share 100 percent. Lesser improvements on the Chapter 90 Primary System such as resurfacing, will be handled normally, that is, 75 percent state and 25 percent city or town.

Cities and towns will be expected to maintain an annual accident spot map and a "master plan" for Chapter 90 improvements that places priority on the improvement of high accident locations. The Department prepares programs in cooperation with the Governor's Highway Safety Program to assist cities and towns with these studies. Compilation of this data very probably would allow 100 percent funding under either the Chapter 90 Program or the newly created Federal Safer Roads Demonstration Program.

Section 33B

This program provides for reimbursement to cities and towns up to 100 percent of the cost of safety improvements at high accident locations. These safety improvements may include:

1. Channelization of intersections
2. Installing additional traffic lanes at approaches to signalized intersections
3. General improvements in roadway alignment and grade
4. Providing pedestrian grade separations
5. Addition or improvement of pavement markings, signals, signs or other devices required in connection with the application of engineering techniques to improve safety for both vehicular and pedestrian traffic.
6. Highway lighting projects which met warrants established by the Department.

Reimbursement is allowable under this program for engineering costs for preparation of plans and estimates. Employment of consulting engineers by the cities and towns must receive prior approval by the Department.

In order to be considered under this program, the city or town must submit a completed application along with accident data for each project proposed. Priorities of projects submitted will be established according to the accident experience.

Chapter 497

Under Chapter 497 of the Acts of 1971, the Legislature amended Chapter 81 of the General Laws by adding a new section 31. This amendment added approximately one cent a gallon to the gasoline tax. The revenues raised by this tax increase are distributed to the cities and towns throughout the state.

Chapter 497 is a reimbursement program in which the state reimburses the communities for their expenses for highway maintenance and construction, and policing of highways up to the maximum amount of grant.

In order to receive these funds, it is necessary to file a request on a form provided for this purpose and submit it in duplicate together with certified copies of the town votes on those items for which reimbursement is requested.

Chapter 1140

Section 20, Chapter 1140 of the Acts of 1973 provides \$15,000,000 to be distributed to the 272 cities and towns located outside of the MBTA district.

These funds may be used only for the purpose for which a city or town may borrow money within its debt limit or for the construction of town highways under section 34 of Chapter 90.

The sums received by each community are available for expenditure by that community until June 30, 1977.

Substandard Bridge Program

Chapter 411 of the Acts of 1966 and subsequent acts, have made available certain funds to the Department of Public Works which may be used for reconstruction of local bridges upon agreement with city and town officials. These funds may be used in

conjunction with town funds without acceptance by the state of the responsibility for maintenance.

Chapter 765 of the Acts of 1972 supplemented the substandard bridge program by making available a minimum of \$5,000,000 for improvements to and reconstruction of State highway and other bridges.

Department guide lines for programming substandard municipal bridges are as follows:

1. The project shall be of such magnitude and economic impact as to be worthy of the State's contribution.
2. A project cost equal to, or more than, three years total Chapter 90 allotment (based on the \$7,000,000 distribution of 1967) will be considered and listed for programming when a municipality has agreed to participate in the project costs. This in no means ties this program in with Chapter 90 but is used as a method of measuring the relative merits of the project.
3. A priority for programming will be established in the Department.
4. The municipalities shall be informed that a minimum of three years should be expected between acceptance of a project and completion of construction. This period might be extended considerably depending on the area. This will assist the municipality in making a judgment as to requesting participation in the substandard bridge program.

Municipally-owned bridges may be replaced if the local authorities agree to participate in project costs to the extent of:

1. All land damages and the filling of the layout.
2. The lesser of the following amounts:
 - a. 25 percent of the cost of construction
 - b. a contribution equal to one year's Chapter 90 total assignment of town, country and state funds based on the \$7,000,000 appropriation of 1967. Again this is not to mean any connection with the Chapter 90 program but is used as a method of computing the local contribution.
3. Construction of any highway beyond minimal approaches made necessary by relocation of the structures.
4. Relocation of municipally-owned utilities.

The Department will provide engineering services for design and construction.

Upon receipt of a statement of intent to participate in the project, preliminary engineering will be authorized. A formal agreement covering details of the work will be executed, prior to advertising, and it is expected that the municipal contribution will be made by the town directly to the Department's contractor at such time and in such amounts as may be specified in written orders from the Department.

Bridges Over Railroads

Under Chapter 643 of the Acts of 1971 the Legislature directed the Department of Public Works to accept the transfer of vehicular bridges carrying public ways over the tracks or right-of-way of railroads within the state.

A committee was established within the Department of Public Works to implement the provisions of this Act and a workable agreement has been developed.

Many of the bridges owned by the railroads are maintained jointly by the railroad and the municipality. In order for the Department to assume complete ownership and maintenance responsibility for the structure, it will be necessary for the cities and towns to release whatever rights they may have in the structure.

Upon transfer of whatever titles or rights the municipalities have in the structures and acceptance by the Department, an inspection of the bridges will be made. All information will be programmed by computer to determine the order of priority for repair or replacement.

School Zone Installations

Chapter 185 of the Acts of 1964 established a speed limit of twenty miles per hour in a school zone installed in accordance with standards established by the Massachusetts Department of Public Works. Chapter 616 of the Acts of 1967 provides a fund of \$3,000,000 with which the Department could reimburse cities

and towns for 100 percent of the total initial cost of each School Zone installed.

Standard program procedure includes:

1. Submitting an application form which may be obtained at the District Office.
2. Investigating the desired School Zone by the Department.
3. Approving the bid by the District Office and signing a Memorandum of Agreement with the Department.
4. Finalizing the installation and submitting vouchers, statements, bills from the contractor to the District Office.

Chapter 81

Section 26 of Chapter 81 of the General Laws provides \$275 for each mile of public way in towns with an equalized valuation under \$5,000,000 as of 1945 and with a road mileage ratio under twelve. This assistance is made available to small towns provided they vote matching funds in varying amounts between \$15 and \$150 per mile, depending on the aforementioned road mileage ratio. These funds may be used for the maintenance and repair of any public ways, including snow removal expense up to a maximum of \$75 per mile.

Department policy requires that all public ways be maintained in reasonably passable condition in order to qualify for Chapter 81 assistance.

The Massachusetts Department of Community Affairs directs several housing programs relevant to local community development efforts. These programs are administered through local and regional housing authorities, though the Department can act as a housing authority in some instances.

Key State Housing Programs

Chapter 667

The low-income elderly housing program, established by Chapter 667, can be used to provide housing through construction

of new units, major rehabilitation, or acquisition of existing units. The program is financed through bonds. The program has also been used to provide housing for the handicapped. At least 5 percent of the units in a new construction project must be reserved for handicapped persons. It should be noted that the state legislature recently passed legislation establishing a handicapped housing program (chapter 689 of the Acts of 1974).

Chapter 705

The low-income family housing program (705) can be used to provide housing through new construction, major rehabilitation, or acquisition. This, too, is funded through the sale of bonds.

Chapter 707

The state rental assistance program (707) is to provide rent subsidies to low income tenants in private housing. The state subsidizes part of the tenant's rent so that a tenant pays one-quarter of his income for rent. In other words, the state pays the difference between the market rent for the apartment and one-quarter of the tenant's income. The program is used to subsidize rents in an existing, standard unit, and may be tied to major rehabilitation or new construction of units.

Massachusetts Housing Finance Agency

The Massachusetts Housing Finance Agency directs programs to provide housing for low and moderate income persons. The Agency provides mortgage loans and interest rates below market rates to non-profit or limited dividend developers. These loans are financed through the sale of tax-exempt bonds or notes. The housing is either construction of new units or major rehabilitation of existing units. At least 25 percent of the units in a development must be for low and moderate income persons. An additional portion of the units may be set aside for moderate income persons, and the remaining units can be rented at market rates to middle and upper income persons.

The Bicentennial Commission

To commemorate the 200th birth date of this country in 1976, the Bicentennial Commssion was created by the Massachusetts Legislature. The Commission serves as a channel through which towns and cities can receive financial assistance for various rehabilitation or construction projects related to the celebration. Approval of the proposal will be based on the project's significant historical imprtance as well as the last-
ing value to the community and its people.

The project proposals can only be submitted by non-profit organizations or town or city governments.

The commission has a total of \$2 1/2 million in grants that it must allocate to the towns and cities in the Commonwealth. These moneys are awarded at five different times or rounds with \$500,000 allotted for each round. The rounds remaining this year in 1975 are scheduled in September and November. The subsidy awarded to the towns and cities covers one-half of the total projects cost to a maximum of \$15,000.

For more information and application procedure, contact the Bicentennial Commission Office in Boston.

U.S. Department of the Interior, Bureau of Outdoor Recreation

The Land and Water Conservation Fund Act of 1965

The fund was to increase outdoor recreation opportunities for the citizens of cities and towns. The program provides for:

1. acquisition of land for federally administered recreation areas.
2. matching grants for State recreation planning and state as well as local land acquisition and development. The fund is administered by the Bureau of Outdoor Recreation (BOR) of the Department of the Interior.

The Fund is divided into "sides." They are:

1. The "Federal side," about 40 percent of the total Fund, provides money only for the acquisition of national recreation lands. Acquisition programs must be approved by Congress. They include recreation resources such as

national parks, seashores, lakeshores, forests, wild and scenic rivers, trails, national recreation areas and natural and wilderness areas. These areas are administered by Interior's National Park Service, Bureau of Land Management, and Bureau of Sport Fisheries and Wildlife, and Department of Agriculture's Forest Service.

2. The "State side," about 60 percent of the total Fund, provides grants to states and, through states, to their political subdivisions (cities, counties, towns, etc.) for the acquisition and development of public outdoor recreation areas and facilities. Project grants must be matched dollar for dollar by or through the state.

State Planning Requirement

For a state or its political subdivisions to receive grants from the Fund, the state must develop a comprehensive outdoor recreation plan, and update and refine it on a continuing basis. The Fund provides matching planning grants and technical assistance to states to help develop and update comprehensive outdoor recreation plans. The plan identifies capital investment priorities for acquiring, developing and protecting all types of outdoor recreation resources within a state; it assures continuing opportunity for local units of government and private citizens to take part in their state's outdoor recreation and environmental planning programs, and it provides a practical tool for coordinating all state outdoor recreation and environmental conservation programs.

State Project Grants

Projects in accord with the state comprehensive outdoor recreation plan and meeting high priority public recreation needs identified in the plan are eligible for funding. They may vary from bicycle paths to hiking trails, from roadside stops to swimming pool complexes and from inner city mini-parks to complete State parks. Assistance is available only for public projects. The participant (sponsoring State or local government agency) must agree to permanently dedicate projects to public outdoor recreation use and assume responsibility for continuing operation and maintenance.

Application Procedures

Project proposals must be submitted to the appropriate Bureau of Outdoor Recreation Regional Office through the state agency (or individual) authorized to represent the state for purpose of the Land and Water Conservation Fund Act.

The following steps are taken for submitting and receiving funds:

1. field examinations and site layout plans
2. priority rating by Department of Natural Resources
3. preparation of proposal draft and submission to state liaison officer for review and editing
4. final submission of application (original and six copies)
5. preparation of application for submission to B.O.R. contingent upon:
 - a. Final A-95 review clearance
 - b. General Law Chapter 30, section 62 Environmental Assessment
 - c. Approval by Secretary of Environmental Affairs
6. finalization by the B.O.R. and execution of contract
7. completion of project and final review of documents
8. final payments by B.O.R. to State Liaison Officer (DNR)

The State Self Help Program

Chapter 132A of the Massachusetts General Laws provides up to 50 percent reimbursement for the acquisition of conservation lands to those communities which have established Conservation Commissions.

Coordination among local agencies responsible for conservation and recreation must occur if communities are to receive maximum benefits from their public lands and programs. The Department of Natural Resources also encourages municipalities to involve their citizens in the planning processes to enhance the likelihood that the resultant plans are representative of the widespread public interest and will have public support during the implementation phase.

The procedure for application is generally the same as applying for Land and Water Conservation funds.

School Building Assistance

Chapter 492

Chapter 492 of the Acts of 1974 assist in the funding of school operations, regionalism, and school plant planning and

construction. Section 18 of this chapter amends the School Building Assistance Act by eliminating the general provision that all communities listed as being located in areas of chronic unemployment or depressed areas receive construction grants of 65 percent of the approved project. Instead, Chapter 492 provides that construction grants be determined by funding 50 percent of the final approved cost for projects in a city or town or a partially regionalized school district and 60 percent of the final approved cost for projects in a regional school district. This law applies to all projects approved by the Board of Education on and after July 1, 1975.

Chapter 754

Chapter 754 of the acts of 1968 grants financial assistance for cities and towns in the reconstruction, remodeling, rehabilitation and modernization of school buildings.

The proposal submitted for Chapter 754 funds should consider the following:

1. Long Range Planning
2. Educational Adequacy
3. Structural Soundness
4. Fire Safety
5. Site Adequacy
6. Healthful School Environment
7. Reasonableness of Expenditure

The financial assistance will be one-third of the total expenditure for the reconstruction, remodeling, rehabilitation and modernization of school buildings.

Chapter 645

This Act would permit immediately the establishment of certain public schools and provide financial assistance to cities and towns.

Section 5

Grants may be awarded to any project for the construction or enlargement of a regional, consolidated or county agricultural school, any public schools in any city or town, any central food

services for distribution, any project for the acquisition of an existing structure and the land upon which it stands.

No school construction project shall be an approved school project unless and until the school building assistance bureau and the division of special education in the Department of Education are satisfied that adequate provisions have been made for children with special needs as defined in section one of Chapter 71B of the Massachusetts General Laws.

Section 9

The total construction grant for any approved school project in any city or town shall be 50 percent of the final approved cost; grants for any project in cities and towns designated depressed areas or which have substantial unemployment shall be 65 percent of the final approved cost of such project.

The total construction grant for any approved school project in any regional school district shall be $\frac{1}{3}$ of the product of the final approved cost of the project multiplied by the equalized valuation per pupil in net average membership for the entire state divided by the total equalized valuation per pupil in the total net average membership of the town comprising such district, provided that,

1. no grant shall be approved for any amount less than 50 percent or more than 65 percent of the approved cost.
2. regional school districts in which at least 60 percent of all the member municipalities are designated as depressed or redevelopment areas or which have substantial unemployment shall be eligible for maximum state aid from the school building assistance commission for new construction.

SUPPLEMENT

MODEL ZONING BY-LAW

Supplement: Model Zoning By-Law

- Section 1: Purpose
- Section 2: Provisions for an Official Zoning Map
- Section 3: Interpretation of District Boundaries
- Section 4: Interpretation and Application of Zoning Regulations
- Section 5: Definitions
- Section 6: Establishment and Definition of Zones
- Section 7: Use Classifications
- Section 8: Accessory Uses
- Section 9: Dimensional Requirements
- Section 10: Parking Regulations
- Section 11: Signs
- Section 12: Development Methods
- Section 13: Board of Appeals
- Section 14: Special Permits
- Section 15: Non-Conforming Land and Buildings
- Section 16: Enforcement

ZONING BY-LAW FOR WARE, MASSACHUSETTS

Section 1: Purpose

The purpose of this By-Law is to promote the health, safety and general welfare of the community, to prevent congestion in the streets, to provide adequate light and air, to promote the conservation of natural resources, to preserve and protect the quality of the streams, rivers, ponds, brooks and wetlands of the town, to conserve and protect the value of property and to facilitate the adequate provision of transportation, water, sewerage, schools, recreation, parks and other public requirements.

Section 2: Provisions for an Official Zoning Map

2.00 Establishment and Location: The location and boundaries of Zoning Districts shall be as shown on a map entitled: "Official Zoning Map, Ware, Massachusetts, 1975" at the scale of 1"=1000'. This map shall remain on file in the Town Clerk's Office and additional copies shall be kept at the office of the Planning Board.

2.01 Changes to the Official Zoning Map: If changes are made in the zone boundaries or other material portrayed on the Official Zoning Map, such changes shall be entered on the Official Zoning Map after the amendment has been approved by a two-thirds vote at a town meeting.

Section 3: Interpretation of District Boundaries

3.00 When an uncertainty exists as to the boundaries of the zones as shown on the Official Zoning Map, the following rules shall apply:

1. Boundaries indicated as approximately following the center lines of existing or proposed highways, streets, alleys, or waterways shall be construed to follow such center lines.

2. Boundaries indicated as approximately following property lines or town boundaries shall be construed as following these lines.

3. Boundaries indicated as parallel to or extensions of features indicated in 1 and 2 above shall be so construed.

4. When a boundary line is indicated as obviously not coinciding with property lines, the entire property shall be included in that zone containing the largest portion of the piece of property. These boundaries shall be changed to coincide with the property lines. These changes shall only be made for the original zoning map, and any later amendments to this map shall use either existing property lines or those boundaries indicated in 1, 2, and 3 above. These boundary changes do not apply to the boundaries of the flood prone area.

Section 4: Interpretation and Application of Zoning Regulations

4.00 In their interpretation and application, the provisions of this By-Law shall be held to be minimum requirements, adopted for the purposes stated in Section 1. These regulations shall apply uniformly to each class and kind of structure or land, except as otherwise provided. Whenever the requirements of this By-Law conflict with requirements of any lawfully adopted rules, regulations, by-laws, deed restrictions or covenants, the most restrictive or that imposing the highest standard shall govern.

4.01 No land, building, structure or premises shall be erected, located, reconstructed or converted except in conformity with the regulations provided for that area, unless specified otherwise within the By-Law.

4.02 Should any section or provision of this By-Law be declared in the courts to be unconstitutional or invalid, such decision shall not affect the validity of this By-Law as a whole, or any part except the part declared to be unconstitutional or invalid.

Section 5: Definitions

5.00 For the purposes of this By-Law, the following definitions shall apply:

1. Accessory Use or Structure - A use or structure which is a) clearly incidental to and customarily found with the principal use or structure, b) is subordinate to the principal use or structure, c) is located on the same lot as the principal use or structure.

2. Agriculture - The use of land for farming, including dairying, pasturage, crop growing, horticulture, floriculture, livestock and poultry raising.

3. Building - Any structure which is designed or used for the shelter of persons, animals, or property.

4. Building Permit - A permit required by the Commonwealth of Massachusetts State Building Code, and necessary before construction of a building or structure.

5. Dwelling, duplex - A residential building designed for or occupied by two or more families, each in a section containing a private entrance but having a common roof.

6. Dwelling, multi-family - A residential building designed for or occupied by three or more families.

7. Dwelling, single family - A detached residential building designed for and occupied by only one family, excluding mobile homes.

8. Dwelling unit - One room, or rooms connected together to constitute a separate independent housekeeping establishment for one family, and containing independent cooking, bathing and sleeping facilities.

9. Family - An individual, or two or more persons related by blood or marriage; or a group of not more than four persons not related by blood or marriage, living together as a single housekeeping group in a dwelling unit.

10. Gross floor area - The total floor area of all finished and useable floors, or portions of floors which are finished and useable.

11. Height - The height of a building shall be measured from the highest point of the roof to the average finished grade on the street side of the structure. Height limitations shall

not apply to chimneys, spires, TV antennas, or other structures not intended for human occupancy.

12. Home Occupation - An occupation conducted in a dwelling unit, or single accessory building, provided that:

a. no more than three persons shall be engaged in such occupation, at least one of whom shall reside in the dwelling unit.

b. the use of the dwelling unit for such occupation shall be clearly subordinate to its use as a residence; and no more than 25 percent of the gross floor area of the dwelling unit shall be used for the occupation.

c. engaging in agriculture shall not be considered a home occupation.

d. there shall be no visible changes in the exterior of the building or premises, except for a sign as provided in Section 12.

13. Lot - A parcel of land occupied or to be occupied by a building and its accessory building together with the open space required in this provision. This land shall be held in one ownership and shall not be divided by any street, highway or public way.

14. Lot Coverage - The amount of a lot covered by buildings, not including parking areas and yard requirements.

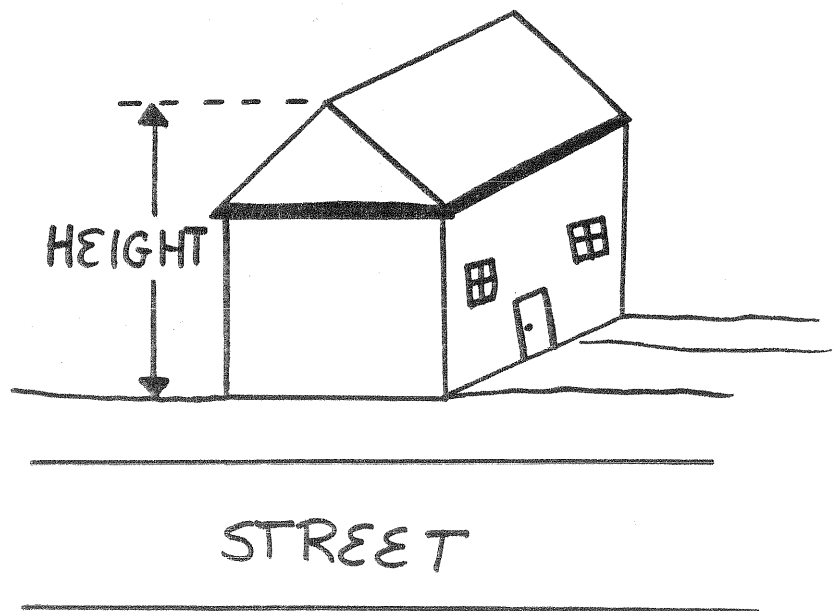
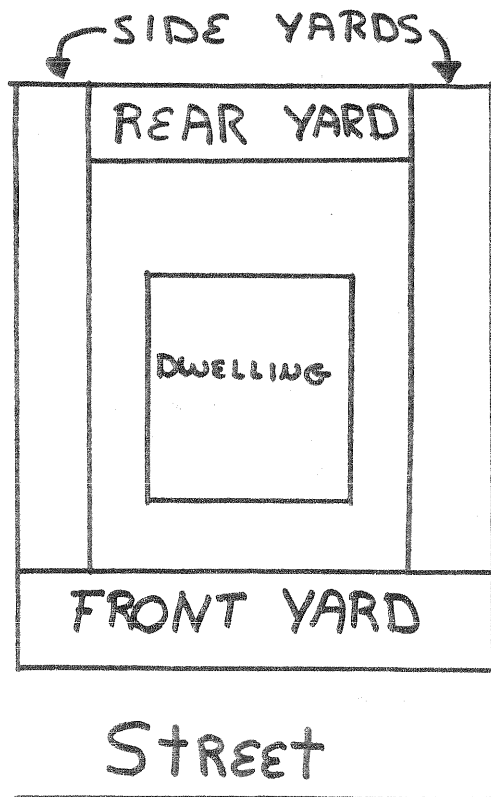
15. Lot Frontage - The width of the lot along the streets providing principal access to the structure.

16. Mobile Home - A detached residential dwelling unit designed for transportation on streets and highways on its own wheels, or on a flat bed or other type trailer, and arriving at the site where it is to be occupied as a dwelling unit completely ready for occupancy, except for small unpacking and assembly operations. Recreational trailers or vehicles are not to be considered as mobile homes.

17. Principal use - The primary activity or structure for which a site is used.

nearest line of the building, porch or part thereof. The depth of such a yard is the shortest horizontal distance between the rear lot line and the nearest point of the building, or enclosed part thereof.

c. Side yard - A yard between the side lot line and the nearest line of the building, porch or part thereof, extended from the front yard to the rear yard. The width of the side yard shall be the shortest horizontal distance between the side lot line and the nearest point of the building, or enclosed portion thereof.



Section 6: Establishment and Definition of Zones

6.00 This By-Law shall apply to all lands, properties, and buildings within the town of Ware, including all submerged lands, water areas, and islands. These lands shall be divided into the following zones:

6.01 "I1" Industrial Zone

The industrial zone consists of those areas so delineated by the Official Zoning Map. This industrial zone is intended to provide land for manufacturing and other related uses. Residential and commercial development is prohibited in these zones due to the interferences of these uses with the intended existence and expansion of the industrial nature of this zone.

6.02 "C1" Highway Commercial Zone

The highway commercial zone consists of those areas so delineated by the Official Zoning Map. This highway commercial zone is intended to provide land for highway-oriented businesses and shopping plazas which need large amounts of land. These zones should only be located on roads which are capable of handling the additional traffic generated by these facilities.

6.03 "C2" Commercial Zone

The commercial zone consists of those areas so delineated by the Official Zoning Map. This commercial zone is intended to provide land for diverse development of institutional, governmental, public service and wholesale and retail business uses. Within this zone, there should be available parking for the people using these services, but this zone is not intended for those uses and businesses which are drive-in or highway oriented.

6.04 "R1" Residential/Commercial Zone

The residential/commercial zone consists of those areas so delineated by the Official Zoning Map. This zone is intended to provide land for high density residential use and also commercial uses of a neighborhood nature as distinguished from those allowed in either the highway commercial or commercial zones. Due to the intensity of use in this zone, it should be limited to

areas which have a high degree of public services, such as central water and sewer.

6.05 "R2" High Density Residential Zone

The high density residential zone consists of those areas so delineated by the Official Zoning Map. This zone is intended to be totally residential in character and no uses which interfere with this character will be permitted. Due to the intensity of use in this zone, it will be confined to those areas which have a high degree of public services, such as central water and sewer, or those areas which are likely to have access to those services in the near future.

6.06 "R3" Residential zone

The residential zone consists of those areas so delineated by the Official Zoning Map. This zone is intended to provide land for residential use of a less intensive character than that in the Residential/Commercial and High Density Residential zones. This zone is intended for areas where public services, such as central water and sewer, are not reasonably anticipated; where intensive commercial and industrial development do not now exist, and where such uses would be an intrusion on the existing and proposed residential development of the area.

6.07 "R4" Residential/Agricultural Zone

The residential/agricultural zone consists of those areas so delineated by the Official Zoning Map. This zone is intended to provide land for low density residential development and agricultural uses. It is intended to provide for the preservation of the town's valuable open land, farmland, and forest areas by discouraging intense development in these zones. This zone is intended for those areas where public services, such as central water and sewer, are not reasonably anticipated, and where no intense development of any type presently exists. Furthermore, it consists of those areas which, due to the characteristics of the land, would not be able to sustain intense development and those lands which would suffer irreparable damage if they were intensely developed.

6.08 "FP" Flood Prone Zone

The flood prone zone consists of those areas so delineated by the Official Zoning Map, and based upon a map prepared for Ware by Almer Huntley Assoc. of Northampton. The purpose of this flood prone zone is to provide that the lands in Ware subject to seasonal or periodic flooding shall not be used in such a manner as to endanger the health or safety of the occupants thereof, or of the public in general, or as a burden to the public in the way of emergency help or relief funds. It is also the purpose of this area to assure the continuation of the natural flow pattern of the water courses within the town in order to provide adequate and safe floodwater storage capacity to protect persons and property against the hazards of inundation by flood.

Section 7: Use Classifications

7.00 For the purposes of this By-Law, existing and future uses of land and structures shall be classified according to the categories listed in this section. Each use is assigned a use number, and can be found in the left hand column of the following pages. To the right of these uses are the zones in which these uses are permitted. The following codes are used in these land uses.

P = Principal Use; Allowed by right

S = Special Exception; Allowed by Special Permit, granted by the Board of Appeals. See Sections 13 and 14.

U = Unauthorized Use; Not allowed under any conditions.

Classification	I1	C1	C2	R1	R2	R3	R4	FP
7.01 Mills, Factories, Warehouses, Trucking and Freight Stations, Storage Yards and Industrial Buildings	P	U	U	U	U	U	U	U
7.02 Factory-Outlet Stores	P	P	P	U	U	U	U	U

Classification (cont.)	I1	C1	C2	R1	R2	R3	R4	FP
7.03 Drive-In Theatres and Restaurants	U	P	U	U	U	U	U	U
7.04 Gas Stations, Body Shops, Repair Shops for cars, trucks, boats and farm equipment	S	P	U	U	U	U	U	U
7.05 Research or Testing Laboratories and Offices, Printing and Publishing Plants, Bottling Works, Manufacturing Plants and Other assembling, packaging or finishing uses.	P	P	S	U	U	U	U	U
7.06 Lumber yards, Fuel storage plants, Truck terminals, or other open air storage areas.	S	P	U	U	U	U	U	U
7.07 Salesrooms for automobiles, motorcycles, trucks, recreational vehicles, boats, and farm equipment.	U	P	U	U	U	U	U	U
7.08 Indoor theatres, Bowling alleys, Dance halls, Auction galleries, Amusement areas, or Assembly halls.	U	P	P	U	U	U	U	U
7.09 Shopping malls, Plazas, Supermarkets, and any other highway oriented retail trade.	U	P	S	U	U	U	U	U
7.10 Retail stores for the sale of merchandise, drug stores, barber shops, beauty shops, laundry and dry cleaners, repair shops for office equipment and appliances and pet stores.	U	P	P	S	U	U	U	U
7.11 Restaurants (not the drive-in type), Clubs and Lodges	U	P	P	S	U	U	U	U

Classification (cont.)	I1	C1	C2	R1	R2	R3	R4	FP
7.12 Hotels, Motels, and Lodging houses	U	P	U	S	U	U	U	U
7.13 Veterinary facilities and Kennels.	U	P	U	S	S	U	U	U
7.14 Governmental administration buildings, Fire Stations, Public Parking and other federal, state and local uses.	U	S	P	S	S	S	S	U
7.15 Crafts shops for the production and sale of pottery, silver, candles, leatherwork (not including tanning), woodwork, and other handicrafts.	U	S	P	S	U	U	U	U
7.16 Professional, Trade, or Business Schools	U	S	S	U	U	U	U	U
7.17 Banks, Real Estate and Insurance Offices, Professional Offices	U	U	P	S	U	U	U	U
7.18 Undertakers, or Funeral Parlors	U	U	P	S	U	U	U	U
7.19 Libraries, Museums, and Art Galleries	U	U	P	S	U	U	U	U
7.20 Hospitals, Medical Laboratories, Physical Therapy Centers, Nursing or Rest Homes and Orphanages.	U	U	P	S	S	U	U	U
7.21 Private day-care facilities, nurseries, and kindergartens.	U	U	S	P	P	U	U	U
7.22 Dwelling units over a commercial establishment	U	U	S	S	U	U	U	U
7.23 Duplex Dwellings (with a resident family responsible for maintenance)	U	U	U	P	P	U	U	U

Classification (cont.)	I1	C1	C2	R1	R2	R3	R4	FP
7.24 Single Family Dwelling	U	U	U	P	P	P	P	U
7.25 Home Occupations and Home Professional Offices	U	U	U	S	S	S	S	U
7.26 Parks and Playgrounds	U	U	S	P	P	P	P	P
7.27 Agricultural Uses, as defined in Section 5	U	U	U	U	P	P	P	P
7.28 Commercial Greenhouses and Stands for the sale of local agricultural produce	U	S	U	U	U	S	S	S
7.29 Country Clubs, Camp Grounds, Hunting, Skiing and other sports grounds.	U	U	U	U	U	P	P	P
7.30 Churches and other places of worship	P	P	P	P	P	P	P	P
7.31 Cemeteries	U	U	U	S	S	S	S	U
7.32 Forestry and harvesting of forest products, Gardening, Wildlife Preserves, and Conservations.	P	P	P	P	P	P	P	P
7.33 Quarrying, and Earth Removal, except when such removal is in connection with the construction of a building, street, or other permitted activity; when such removal is necessary for the operation of the land, as in agriculture or cemeteries; when this earth is moved on the property and not removed; or when such removal is on behalf of any department of the town of Ware.	U	U	U	U	U	U	S	U

Section 8: Accessory Uses

8.00 Any use which is customarily accessory and incidental to a permitted principal use, in the Town of Ware and vicinity, shall be permitted either on the same lot as the principal use, or on an adjoining lot in the same ownership. When the principal use is allowed only by special permit, a special permit is also needed for the accessory use.

8.01 Specific Accessory Uses

a) Rooming House: The operation of a rooming house shall be an accessory use to all single family dwellings provided that there are no more than 2 rental rooms for no more than 4 lodgers, and there shall be a resident family responsible for the use.

b) Swimming Pools: A swimming pool may be an accessory use to a single family home, or duplex provided that the pool is used only by the residents and their guests, and that the pool be surrounded by a secure fence at least 3 feet high.

c) Mobile Homes: A mobile home may not be used as an accessory use in any district except as a temporary structure incidental to construction work on the same lot as the mobile home. These structures shall be removed upon completion or abandonment of the construction, or within six months, whichever comes first.

d) Recreational Ways: Recreational ways and bike paths shall be considered as accessory uses in all districts.

e) Playgrounds: A playground may be an accessory use to any principal use, provided that these playgrounds are designed to serve the residents, clients or customers of the principal use.

f) Day-care centers: Day-care centers may be an accessory use to any residence provided that it serves no more than 5 children. Day care centers may be an accessory use to any employment site provided that there is one adult in charge of every 15 children, and these children have parents employed at the site.

g) Industrial accessory uses

1) Restaurants or company stores shall be an accessory to an industrial use provided that these facilities are for the convenience of the employees.

2) One dwelling unit shall be an accessory to an industrial use if this dwelling is used by the manager, watchman, or some employee essential to the principal use.

Section 9: Dimensional Requirements

9.00 The various requirements for minimum lot size, minimum frontage, front, rear and side yards, lot coverage and height limitations are presented in the following table. All terms are defined in Section 5.

	Min. Lot Area Sq. Ft.	Min. Frontage Ft.	Min. Front Yard Ft.	Min. Rear Yard Ft.	Min. Side Yard Ft.	Max. Lot Coverage %	Max. Height Ft.
I1	60,000	150	60	25	25	35	50
C1	30,000	100	60	25	25	30	40
C2	8,000	0	0	10	0	75	40
R1	12,000	60	10	15	10	20	40
R2	24,000	100	25	25	25	10	40
R3	40,000	150	50	40	40	5	35
R4	80,000	250	60	40	60	5	35
FP	80,000	0	0	0	0	3	25

9.01 Lots within the flood prone zone: If any portion of a lot falls within the flood prone area, that portion may be used to meet the minimum lot area and yard requirements for the district in which the remainder of the lot is situated.

Section 10: Parking Requirements

10.00 Off-street Parking: General requirements in all zones; no buildings, structures or premises shall be erected unless off-street parking space shall be provided which is consistent with the provisions of this section. Each required parking space shall be no less than 20 feet in length and 9 feet in width. The number of parking spaces provided shall be determined according to the following minimum requirements.

1. Residential uses - two parking spaces for each dwelling.

2. Lodging, rooming or boarding houses - one parking space for each guest unit.

3. Motels, hotels - one parking space for each guest or sleeping room, plus one space for each three employees. Also one space for every 90 feet of dining area.

4. Community centers, clubs, lodges and the like - one parking space for each 150 square feet of gross floor space.

5. Assembly halls - one parking space for each three seats.

6. Restaurants, beer parlors, night clubs - one parking space for each 150 square feet of gross floor area.

7. Doctor's offices, clinics, professional offices - four parking spaces for each doctor or professional person.

8. Auditoriums and churches - one parking space for each five seats.

9. Office building - one parking space for each 400 square feet of gross floor area.

10. Retail stores in the C1 zone - one parking space for each 100 square feet of building gross floor area.

11. Manufacturing plants, mills, other industrial sites - one parking space for each 100 square feet of gross floor area.

10.01 Off-street loading spaces

In all zones, any building or structure or part thereof having a gross floor area of 2,500 square feet or more

and which is to be occupied by manufacturing, storage, warehouse, store, wholesale store, hotel or other uses requiring the receipt or dispatch of materials by vehicles, shall be provided with a minimum of one off-street loading space, plus one additional such space for each 2,500 square feet or fraction thereof in excess of the first 2,500 square feet. Each loading space shall be a minimum of 10 feet in width, 45 feet in length, and a clearing height of at least 14 feet. Such loading space may occupy any part of the required yard space except the front yard, or a side yard which fronts on a street. Such spaces shall be smoothly graded, adequately drained and constructed with a suitable sub-grade and durable paved surface.

10.02 No part of a yard or other open space, which is required for any building under this By-Law, shall be used for off-street parking or loading, unless otherwise specified.

Section 11: Signs

11.00 No sign, sign structure, or part thereof shall be erected, enlarged, or altered unless such sign shall be in compliance with the provisions of this section.

11.01 No sign, sign structure, or part thereof shall be located so as to obstruct or conflict with traffic sign lines, or traffic control signs or signals. No signs, lighted or otherwise, shall be permitted which are of a flashing, intermittent, rotating, or other animated type, or which would tend to blind or distract motorists, or which would shine directly into any dwelling. For the various types of signs listed, the following specific provisions shall apply:

a. Signs advertising home occupations and professional offices: one permanent sign, not larger than four square feet in area, and displayed on the premises, shall be permitted for home occupations and professional offices, as defined in Section 5.

b. Farm signs: Farm signs, identifying the name of the farm or estate, displaying the name of the owner and the nature of the farm and its products shall be permitted in any zone. Such

signs shall not exceed six square feet in area, and shall be limited to one sign per farm or estate entrance. This sign shall not be illuminated, and shall be located entirely upon the property where the farm is located, and no part shall be within the right of way of any public road.

c. Temporary real estate and construction site signs: One temporary, non-illuminated sign, not to exceed six square feet in area, may be erected in any zone on the premises affected to advertise the sale, renting, leasing, etc. of real estate or to identify a construction site. Such signs shall be removed not later than two years after their erection, or within five days of sale, rental or leasing, etc. of property, whichever comes first.

d. Signs on premises advertising commercial or industrial enterprises: Signs shall be permitted on the premises of businesses to advertise only the business conducted and/or the products produced or sold on the premises, and in accordance with the zone regulations herein. Such signs may be illuminated in accordance with the provisions of this section. Such signs shall be located entirely upon the property where such business is located, and no part thereof shall occur within the right of way of any public road. The permissible area of such signs shall be determined according to the following:

1. Flat wall signs: Flat wall signs may contain up to two square feet of area for each linear foot of building frontage on a public road or roads, up to a maximum of 50 square feet. Such signs may be located on any wall of the building, but shall not extend above the roof line.

2. Free Standing Signs: Signs shall not exceed 50 square feet in total area per business, provided that the lot has 100 or more linear feet of road frontage. For lots having less than 100 linear feet of road frontage, the total area of free standing signs shall not exceed 20 square feet per business. All such signs shall not extend more

than 20 feet above the highest surface of the portion of the right of way which is adjacent to the property. Every face of a free standing sign shall be included in the area of the sign.

3. Roof signs projecting from the walls of a building shall not be permitted; roof signs shall include signs which are painted on, or lie flat against the roof, and signs which project from the roof.

e) Conservation signs: Signs indicating the presence of a wildlife sanctuary or conservation area, and signs displaying "no hunting," "no trespassing," or similar information, not exceeding two square feet in area, shall be permitted in all zones.

11.02 All signs except temporary real estate signs and signs announcing a public or quasi-public event shall be deemed permanent signs. No permanent sign shall be erected, enlarged or altered without a permit from the Planning Board. Applications for permits shall be submitted to the Planning Board on forms obtainable at said office. Each application shall be accompanied by drawings and written material showing the area and general appearance of the sign, the method of illumination, the exact location of the proposed sign, the method of construction and/or attachment of such sign to the building or structure.

Section 12: Development Methods

12.00 This By-Law permits two (2) types of residential development; conventional subdivision and cluster subdivision.

12.01 Conventional Subdivision Development: Conventional subdivision development includes any subdivision of land for residential purposes, as defined in the Massachusetts General Laws, Chapter 41. This type of subdivision is permitted in all residential zones, provided that the development is in accordance with Chapter 48 of the Ware Code.

12.02 Cluster Subdivision Development: The purpose of cluster subdivision is to decrease the physical and aesthetic damage often caused by residential development. Cluster develop-

ment permits the dwelling units to be placed (clustered) on the more suitable land areas, and the remaining land can be used for common open space. Due to the more intense use of some parts of the land, this method will only be permitted in the R3 zone, and this method shall undergo the same review procedure as a conventional subdivision. Additional guidelines for cluster development shall be as follows:

a) The total number of dwelling units shall be the same as would have been allowed if the land were developed under a conventional subdivision in the same district. Only those buildable lots will be used to determine the allowable number of cluster units.

b) The individual lot area for each dwelling shall be at least 12,000 square feet.

c) The land left undeveloped shall be considered as common land. This land cannot be sold for development, or for private open space. In addition, there shall be some means for preserving this common land such as covenant or deed restrictions, public donation, a trust, or some other means. Both the Town and the development residents shall be given enforcement rights for such preservation.

d) Within this common land, there can be set aside land for gardens for the residents of the development, at the residents' request.

e) The Flood Prone District shall make up no more than 50 percent of the total common land.

f) Groups of residences shall be separated one from another and from adjacent residential areas by this common land.

Section 13: Board of Appeals

13.00 Appointment: The Board of Appeals shall consist of three members and three associate members, all residents of the town of Ware, and all appointed and serving as set forth in Chapter 40A of the Massachusetts General Laws as amended. The term of each member shall end at the date of the annual town

election of the year in which his term expires, or whenever his successor qualifies, which occurs later. Said Board shall have all of the powers and duties of Boards of Appeals under said Chapter, and, in addition, all the powers hereby prescribed.

13.01 Appeals to the Board of Appeals may be taken by any person aggrieved by reason of his inability to obtain a Building Permit under this By-Law, or may be taken by an Officer or board of the Town or other person aggrieved by an order or decision of any administrative official under this By-Law. In any case, no such appeal will be heard by the Board unless a notice of said appeal is filed with the Town Clerk within thirty days after the refusal of a Building Permit or the issuance of the order or decision.

13.02 Variances: Petitions for variances from the terms of the applicable provisions of this By-Law shall be dealt with by the Board of Appeals in accordance with Chapter 40A of the Massachusetts General Laws, as amended. Upon receipt of a petition for a variance, the Board of Appeals shall ask the Planning Board for an advisory report on said petition.

13.03 Special Permits: The Board of Appeals is authorized to review request for special permits and also grant these permits when the use in question requires this permit. For the procedure of getting a special permit and special considerations for certain uses, see Section 14.

Section 14: Special Permits

14.00 Purpose: Special permits are intended to provide detailed review of certain Uses and Structures which may have substantial impact upon the traffic, utility systems, property values, and character of the Town, among other things. The Special Permit review process is intended to insure a harmonious relationship between proposed development and its surroundings, and insures that proposals are consistent with the purpose and intent of this By-Law.

14.01 Application: All applications for Special Permits or renewals, modification, amendment or transfer thereof shall be

submitted in writing to the Town Clerk. All plans and documents required by this By-Law shall be considered integral parts of this application. Applications shall be subject to such rules relating to scale, dimensions, legend, form, fees, preparation and other information as may be promulgated by the Board of Appeals. The Board of Appeals may require additional information in order to review an application and make a decision.

14.02 Modification, Amendment or Renewal: The Board of Appeals shall have the authority to modify, amend, or renew a Special Permit upon application of the owner, lessor, or mortgagee of the premises; provided that such action is consistent with the purpose of this By-Law, and public hearing has been held.

14.03 Transfer: When a Special Permit involving the construction of buildings has not been implemented by construction, said Permit shall not pass to future owners of the property without a public hearing and approval by the Board of Appeals.

14.04 Special Permit Review:

a) Requirement: In all instances where a Special Permit is required by this By-Law, no Structures shall be erected, externally enlarged or used, and no land shall be used without said Permit.

b) Content: An application for a Special Permit shall consist of a standard form to be completed by the applicant. Said forms are available from the Town Clerk's Office.

c) Procedure: Upon receipt of an application for a Special Permit, the Town Clerk shall transmit a copy to the Board of Appeals for action and decision.

d) Specific Findings Required: The Board of Appeals may grant a Special Permit if said Board finds that the proposal is in conformance with this By-Law, and that:

1. The proposal is suitably located in the neighborhood in which it is proposed and/or the total Town as deemed appropriate by the Board of Appeals;

2. The proposal is compatible with existing Uses and other Uses permitted by right in the same district;

3. The proposal would not be a substantial inconvenience or hazard to abutters, vehicles or pedestrians;

4. Adequate and appropriate facilities would be provided for the proper operation of the facilities, including special attention to safe vehicular circulation on the site and at the intersections with abutting streets.

14.05 Considerations for specific uses: Along with the requirements in Section 14.04, the following uses, due to their character and the character of the area, merit special consideration before being granted a Special Permit. These uses and the requirements are as follows: (for ease, the last two digits of the use classification numbers in Section 7 are used here. Therefore, some numbers will be omitted since these uses need no further consideration.)

14.05.09 Shopping malls, et al. For the establishment of any of these uses in a "C2" zone, it shall be shown that these uses will fit in with the less highway oriented nature of the "C2" zone. The parking facilities shall be behind these structures, reasonably out of sight from the main street, or streets. The very open exterior of many shopping malls is a characteristic which would detract from the more intense commercial nature of the "C2" zone, and this appearance shall be avoided.

14.05.10 Retail stores, et al. For the establishment of any of these uses in an "R1" zone, it shall be shown that these uses will be predominately for the use of the residents in the area. The neighborhood quality of these uses shall be demonstrated, as well as the need for such a facility in the specific area. The floor area of the first story of these uses shall be less than 1,500 square feet for each use.

14.05.13 Veterinary facilities and kennels. For establishment of any of these uses in the "R1" and "R2" zones, all of the animals shall be kept in the principal structure, and this building shall be sound-insulated to protect the surrounding lands from noise.

14.05.15 Craft shops, et al. For the establishment of any of these uses, it shall be shown that all work and storage shall

be conducted within a building. In the "R1" zone, the shop shall be less than 1,500 sq. ft.

14.05.33 Quarrying, et. al. Due to the nature of these uses, the following requirements must be met. a) No excavation shall be permitted below the grade of a public way bounding the property at any point closer than 100 ft. from the road. b) No excavation below the natural grade shall be permitted closer than 50 ft. from the boundary. c) All operations shall be enclosed by a fence at least 5 ft. in height. d) Before granting a special permit, the Board may obtain adequate bond, or other guarantee, to insure the restoration of the land to safe and attractive conditions by filling, grade draining, landscaping, or other suitable means. This bond shall be held until the Board approves the restoration. If the quarry is abandon for 6 months, this bond shall be used by the Board to restore the site.

Section 15: Non-Conforming Land and Buildings

15.00 Within the zones established by this By-Law, there exist lots, structures, and uses of land and premises which were lawful before this By-Law, but which would be prohibited or restricted under the terms of this By-Law. It is the intent of this By-Law to permit these non-conformities. Nothing in this By-Law shall require a change in the plans, construction, or designated use of any structure or land for which a Building Permit has been obtained.

15.01 Non-Conforming Lots: Exceptions for recorded lots shall be allowed under the provisions of General Laws, Chapter 40A, Sections 5A and 7A.

15.02 Non-Conforming Uses of Land: Where there exists a lawful use of land which would not be permitted by this By-Law, the use may continue so long as it remains lawful, and follows the provisions:

a) No such use may be enlarged, or extended without a Special Permit from the Board of Appeals.

b) No such use may be moved, in whole or part, to any lot other than the one occupied at the time of this By-Law, unless this new lot is in a zone which permits such a use.

c) When a non-conforming use is discontinued or abandoned for twenty-four consecutive months, the use shall not be re-established, and all future uses of this land shall be in conformance with this By-Law.

d) No additional structures shall be built in connection with the non-conforming use unless they conform with the requirements of this By-Law.

15.03 Non-Conforming Structures: Where there are structures which do not comply with the terms of this By-Law regarding lot coverage, yard requirements, height, or other requirements, this structure may remain as long as it is otherwise lawful, subject to the following provisions:

a) No such structure shall be enlarged or altered in any way which increases its non-conformity. This structure may be altered which decreases or does not increase its non-conformity, if the Board of Appeals grants a special permit.

b) Any such non-conformity which is damaged by fire, or any other means, may be repaired to the same height and lot coverage as before, provided that such repair is commenced within twelve months of such damage, and completed within thirty-six months of the damage.

15.04 Non-Conforming Uses of Structures or of Structures and Land: Where there exists the lawful use of structures, or the lawful use of structures and land in combination, which would not be permitted under this By-Law, the Use may continue so long as it remains lawful, and is subject to the following provisions:

a) No structure devoted to a use not permitted by this By-Law in the zone in which it is located shall be enlarged, reconstructed or moved without a special permit from the Board of Appeals. This does not apply if the use is changed to a permitted use, or moved to a zone where the use is permitted.

b) Any non-conforming use may be extended throughout any parts of a building which were designed for such use, but no design changes can be made after the adoption of this By-Law, and no such use shall occupy any land outside the building.

c) When a non-conforming use of a structure, or structure and land is not used for twenty-four months in conseection, the structure or structure and land shall not be used except in conformance with this By-Law. The Board of Appeals may grant a special permit to recontinue this use, provided this special permit is requested before the thirty-six months of disuse has lapsed.

Section 16: Enforcement

16.00 Execution: No building or structure shall be used, constructed, externally altered, or demolished without a Building Permit, issued by the Building Commissioner. No such permit shall be issued until such activity, as proposed, shall comply with the provisions of this By-Law or with a decision by the Board of Appeals.

16.01 Enforcement: For the purposes of this By-Law the Building Commissioner shall be considered the Zoning Enforcement Officer.

16.02 Violations and Complaints: If the Zoning Enforcement Officer shall be informed or have reason to believe that any provision of this By-Law is being violated, he shall make an investigation of the facts, including an inspection of the premises. Where written complaint is made, the Zoning Enforcement Officer shall act within Fifteen days, and report on this complaint in writing within thirty days. If a violation exists, he shall also issue a Desist Order, as provided in Section 16.04.

16.03 Appeal of Decision: If, after action by the Zoning Enforcement Officer, appeal is taken to the Board of Appeals, and the Board finds a violation, a Desist Order shall be issued, unless such order has already been issued.

16.04 Desist Order: A Desist Order shall be issued for any violation of this By-Law, in unauthorized use, construction which deviated from approved plans, failure to maintain Common Land and facilities, and other requirements.

16.05 Issuance and Contents of Desist Order: A Desist Order shall be issued by the Zoning Enforcement Officer, and delivered to the owner, or his agent. Copies of such notices shall be kept by the Town. This Desist Order shall be written, and shall state the nature of the violation, and conditions under which work may continue. A grace period of no more than ten days may be allowed to permit the necessary corrections.

16.06 Penalties for Violation: Any person violating any of the provisions of this By-Law after a Desist Order and a period of grace, shall be fined not more than fifty dollars a day for each violation. This fine shall be paid to the Town, and may be exacted from the developer, the land owner, any contractor or builder, tenant, architect, or any person having an interest in this property.