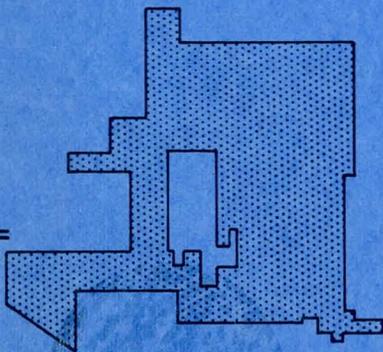


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A PLANNING REPORT
FOR
PARADISE VALLEY, ARIZONA



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A PLANNING REPORT
For
THE TOWN OF PARADISE VALLEY

As Revised May 1973

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PARADISE VALLEY

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MARICOPA COUNTY PLANNING DEPARTMENT
STAFF PARTICIPATING IN THIS STUDY

Donald W. Hutton, Director
Gerard Berube, Planner
Elizabeth Shaw, Cartographer
Susan Harvey, Secretary

PLANNING COMMISSION AND TOWN COUNCIL, TOWN OF PARADISE VALLEY, ARIZONA

Gentlemen and Mrs. von Ammon:

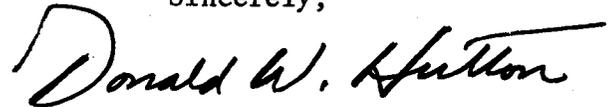
This planning report for the Town of Paradise Valley was prepared by the County Planning Department in cooperation with the County Highway Department, County Flood Control District, and County Health Department pursuant to an agreement entered into on March 27, 1972, by and between the Town of Paradise Valley and Maricopa County and as previously authorized by the Maricopa County Planning Commission on March 2, 1972.

This report consisting of maps, tables, and explanatory text is a revision and up dating of the previous report prepared in September 1964, by the County Planning Department pursuant to agreement entered into between the Town of Paradise Valley and Maricopa County on October 4, 1963, and which was subsequently passed and adopted by the Mayor and Council of the Town of Paradise Valley on January 14, 1965.

During the preparation of this report many individuals provided helpful assistance and we particularly wish to acknowledge assistance provided by the following persons:

Mr. Oscar A. Butt, Town Manager
Mr. Robert Esterbrooks, County Engineer
Mr. Winston H. Carsten, Assistant County Engineer, Traffic
Mr. John C. Lowry, Chief Engineer and General Manager, Flood Control District of Maricopa County
Mr. Lee Ohsiek, Assistant Chief Engineer of the Flood Control District
Mr. Joseph J. Weinstein, M. C. E., Chief, Environmental Service Division of the County Health Department.

Sincerely,



Donald W. Hutton
Director

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INTRODUCTION

A broad objective of community planning is to promote the health, safety and welfare of a community and in so doing make it a better place in which to live, work and play. By means of maps, tables and text a plan provides a general guide for the orderly and economical growth of a community.

The idea of developing a community according to a plan or design is not new. Since ancient time various cities and towns have been laid out according to a plan. In 1926, Justice Sutherland of the United States Supreme Court handed down a decision pointing out that each community has the right and the responsibility to determine its own character and as long as that determination does not disturb the orderly growth of the region or the nation it has a valid use of the police power to carry out such a plan. It was this decision that provided the impetus to modern-day planning.

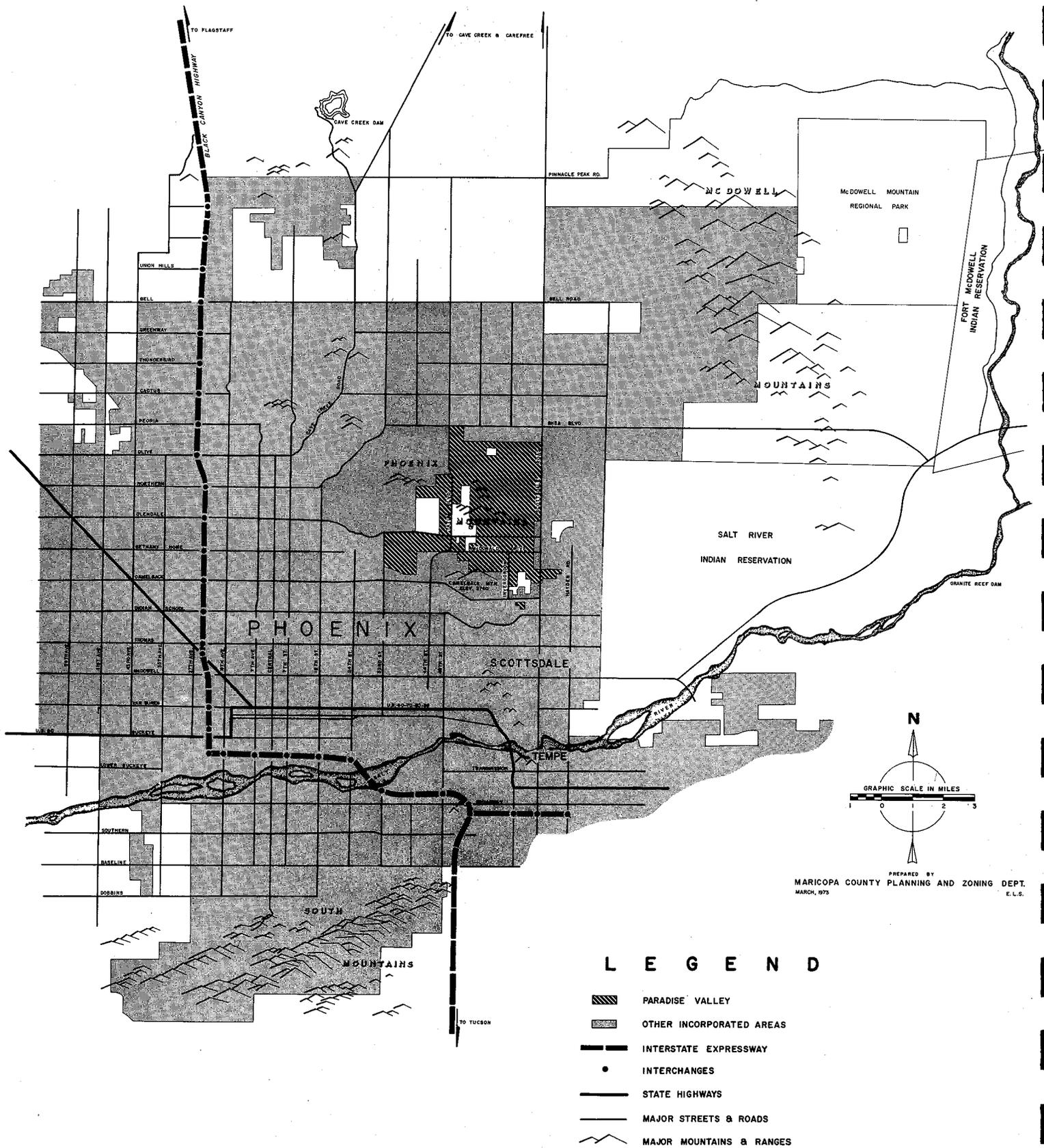
It is the purpose of this report to show by maps, tables and text the existing conditions within the Town of Paradise Valley, to indicate and discuss trends of development and to suggest a future land-use plan which will embody the following aims and purposes as set forth by the Town Council:

"To preserve the community as a primarily residential and resort area with such service areas as are necessary for the convenience and interest of the residents;

To preserve the general desert characteristics, low population density, minimum through traffic, minimum noise level and minimum night light level;

To provide areas for development of residential sections, schools, churches, fire stations, post office, civic center, (municipal offices), park and recreation areas, bridle paths, future arterial streets and other special uses as may be deemed necessary."

The preparation of such a plan is a relatively simple job compared to the task of carrying it out. Chapter 3 of this report discusses methods of implementing such a plan as contained herein.



GENERAL LOCATION MAP

HISTORICAL BACKGROUND

A primary objective of the Town of Paradise Valley is to preserve the spacious and open desert character of the area. For many years matters relating to physical development have been of particular interest and concern to the citizens of Paradise Valley. Prior to incorporation the Paradise Valley Improvement Association was active in influencing development and protecting the character of the area by helping to prevent changes of zoning that it considered contrary to the public interest.

On May 24, 1961, the Town of Paradise Valley incorporated. Mr. Patrick C. Downey was elected as the Town's new mayor by the first appointed Council which included Sterling Hebbard, Irvin J. Miller, Robert Temple and Mrs. Mildred Holcomb.

The first planning commission appointed May 26, 1961, consisted of John C. Bonnell, Chairman and Messrs. Irwin L. McMahon, George W. Andrews, Leonard W. Deehan, Hugh H. Milligan, and Alexander A. Raisin. The aforementioned commission immediately moved forward to secure a zoning ordinance and subdivision regulations.

Activity during the first year of the Town's existence centered upon adoption of a zoning ordinance and subdivision regulations prepared by the Department of Planning and Zoning of Maricopa County, annexation of adjoining land, and establishment of municipal operations.

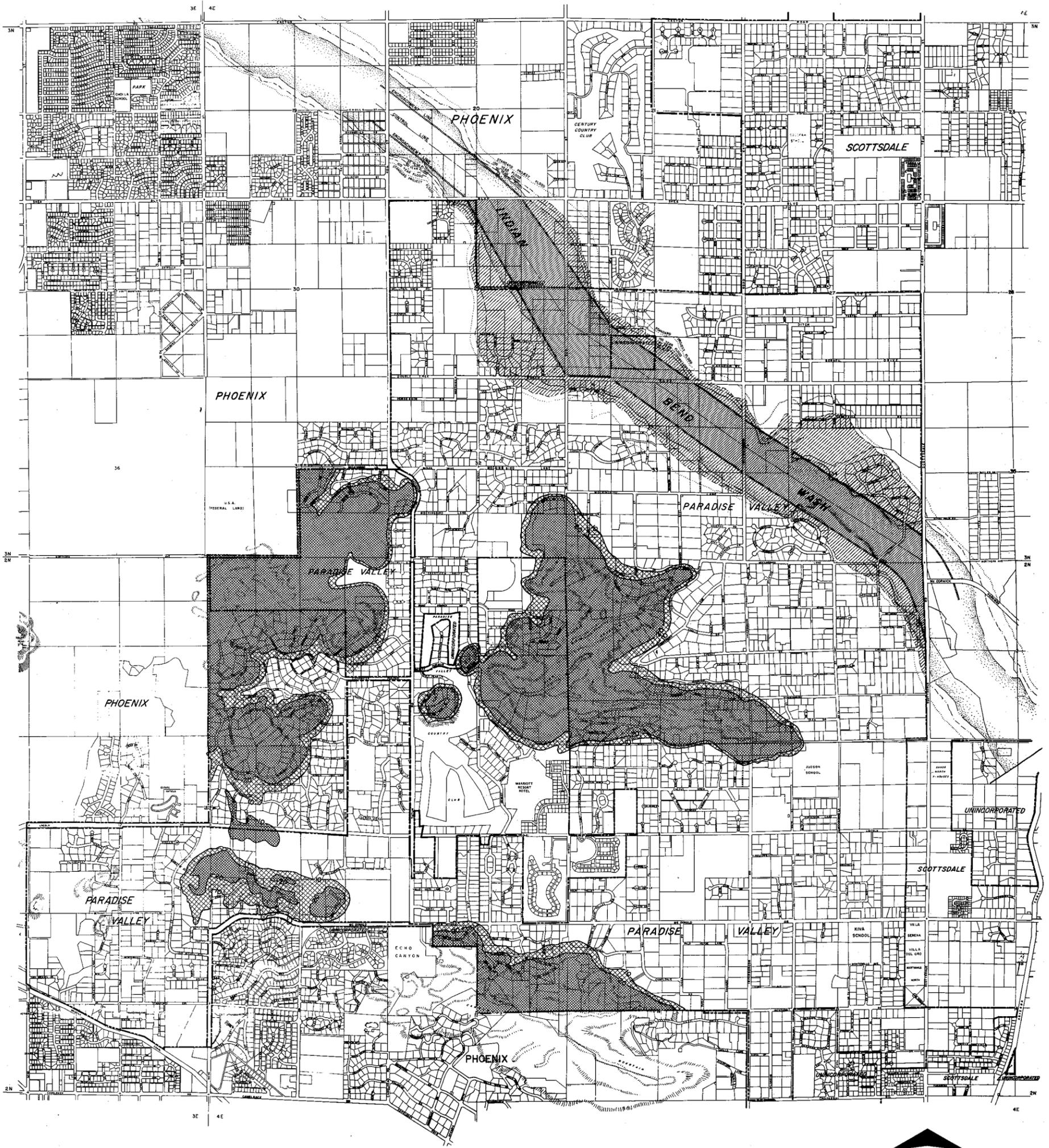
The area originally incorporated as the Town of Paradise Valley included 2.69 square miles. Within two days of incorporation, the Town annexed an additional 0.41 square miles and after nine additional annexations the incorporated area increased to its present size of 13.29 square miles. The town and its relationship to other communities is shown on Plate 1.

Population of the original townsite is estimated at about 700 persons. With annexation and general growth the population has increased considerably.

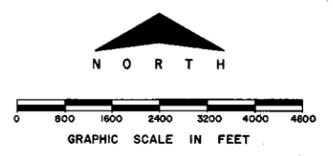
A land-use survey made by the County Planning Department in May 1964 revealed that there were 1,356 single-family residences within the incorporated area. The 1960 census revealed that the average number of persons per household or dwelling unit for the Paradise Valley area was 3.32 persons. Assuming that no change has occurred in the average number of persons per dwelling unit since 1960, the estimated permanent population as of May 1964 is estimated at 4,501 persons.

As of March 1973, a current land use survey reveals that there were 2353 single-family residences within the Town. According to the 1970 U. S. Census, the average number of persons per household or dwelling unit was 3.5 persons. On this basis, it is estimated that present population amounts to 8,235 persons which represents an increase of 3,734 persons or 83% since 1964 when the first Town Plan was prepared.

TOWN OF PARADISE VALLEY ARIZONA



- LEGEND**
- CORPORATE LIMITS
 - - - - STUDY LIMIT-INDIAN BEND WASH
 - STANDARD PROJECT FLOOD
 - 100 YEAR FLOOD
 - 50 YEAR FLOOD
 - 25 YEAR FLOOD
- NOTE: SEE FLOOD PLAIN INFORMATION STUDY, VOLUME I, INDIAN BEND WASH REPORT, FLOOD CONTROL DISTRICT OFFICE



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MARICOPA COUNTY PLANNING DEPARTMENT
ELS APRIL 1973

L E G E N D

- | | |
|--|--|
| <p>MOUNTAINS</p> <ul style="list-style-type: none"> LESS THAN 10% SLOPE 10 TO 20% SLOPE 20% OR MORE SLOPE | <p>FLOOD PLAIN</p> <ul style="list-style-type: none"> AREA WITHIN ENCROACHMENT LINES AREA WITHIN 100 YEAR FLOOD LIMIT |
|--|--|

PHYSICAL CHARACTERISTICS

CHAPTER 1

EXISTING CONDITIONS AND SUBDIVISION TRENDS

This chapter contains a general discussion of existing conditions that influence planning, growth, and development of the Town of Paradise Valley.

Climate

The climate of Paradise Valley is a desert type with low precipitation and low relative humidity. Day-time temperatures are high throughout the summer months, often exceeding 100 degrees. During July, the average daily minimum temperature is 79.4 degrees. Winter day-time temperatures are quite mild and night-time temperatures seldom drop below freezing. Average daily maximum and minimum temperatures for January are 62.5 and 39.8 degrees respectively and the mean temperature for January is 55 degrees.

Very little rainfall or wind occurs within the Paradise Valley area. However, the area is subject to occasional thunderstorms that vary in intensity and location and often create sheet flooding and high sudden runoff from the mountain areas through the major washes.

With its rather ideal climatic conditions the Paradise Valley area is also subject to a high incidence of "temperature inversion", which is an adverse condition that contributes greatly to air pollution problems. Consequently great concern and emphasis should be placed on the elimination of dirt roads, the elimination of burning and unnecessary removal of the natural vegetation.

Physical Features

The Town of Paradise Valley is located at the southern end of the geographical area designated Paradise Valley, which is formed by the southwest slope of the McDowell Mountains and terminated by the Phoenix Mountains. (See Plate 1). The valley floor is situated at a general elevation of 1,350 feet above sea level and is accentuated on the south by Camelback Mountain, elevation 2,700 feet, and Mummy Mountain, elevation 2,200 feet, which are major land marks of the community. (See Plate 1)

Other topographical features that influence the past and future development of the area are major rock outcroppings and major wash and drainage areas. The Indian Bend drainage-way which runs through the northeast portion of the Town is subject to periodic flooding. This drainageway, as delineated on Plate 2, shows those areas that would be inundated by either a 25 year, 50 year, 100 year or Standard Project Flood.

General development of land on steep slopes, in flood plains, on poorly drained land and on land with adverse soil conditions usually creates pro-

blems of public responsibility and costly burdens to the general taxpayer. The Town of Paradise Valley contains limited areas of each of these conditions. Consequently, proposed development within these affected areas should be prohibited or carefully controlled. The topographical features shown on Plate 2 were obtained from several different sources, such as, old U. S. Geological Survey Maps, advanced sheets from new U. S. Geological Survey Maps, specific flood control maps, and some subdivision plats. Therefore, the topographical lines and wash lines cannot be considered precise for the establishment of detailed grading plans for specific improvements. The purpose of Plate 2 is to depict existing conditions in general as derived from current sources of information.

Utilities

Water and Sewage

Existing water service to the Town is provided for by four separate privately-owned water companies, and sewage problems are handled individually by the use of septic tanks and cesspools. The Town Council is very interested in extending sewers through the Town. They have recently authorized an extensive sewer feasibility study as well as allocating \$35,500 to construct a sewer line to provide service for the new Town Hall.

Electrical Service

Electrical service to the Town of Paradise Valley is provided principally by the Arizona Public Service Company, with a small area served by the Salt River Project. The existing supply and distribution of electricity is adequate to meet any foreseen needs. However, neither company has followed a planned pattern of distribution, and existing lines have been added and extended only to meet customer demands. The majority of the power lines are located in street rights-of-way; however, many follow along private property lines by special easement or agreement. The development, adoption and adherence to a comprehensive land-use plan would aid in the development of any efficient economic electrical distribution system.

In July of 1964, the Town of Paradise Valley took a significant step forward to preserve the openness and beauty of the area by adopting an ordinance requiring that new utility lines be placed underground. The Town was the first community in the state to adopt such an ordinance and joins with only a few cities across the nation that require all utilities to be placed underground in order to preserve natural beauty and appearance.

Fuel

Natural gas service to the Town comes under the jurisdiction of Arizona Public Service Company. Gas lines and service are presently available to most of the town area; however, certain undeveloped areas do not have ser-

TABLE 1

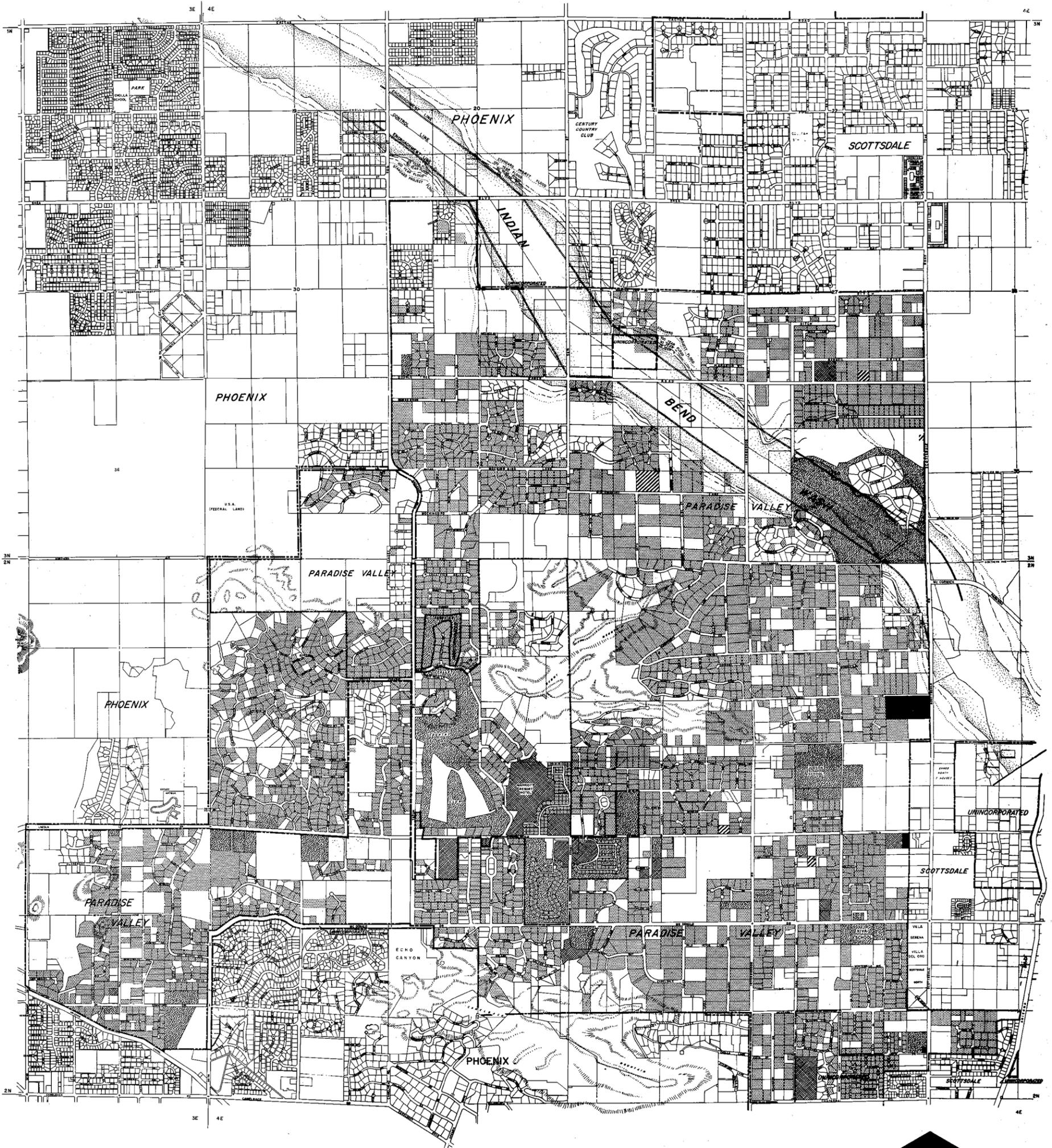
EXISTING LAND USE

Town of Paradise Valley

<u>Land Use</u>	<u>Total Developed Acres</u>	<u>Developed Acres Per 100 Persons</u>	<u>Percentage of Total Developed Land</u>
	(Acres)	(Acres)	(%)
RESIDENTIAL			
Single-Family	3,301	40.0	70.5
Ranches and Resorts	30	.4	.7
Total Residential	3,331	40.4	71.2
COMMERCIAL			
Total Commercial	23	.3	.5
INDUSTRIAL			
Public Utilities	24	.3	.5
Total Industrial	24	.3	.5
PUBLIC AND SEMI-PUBLIC			
Streets and Alleys	913	11.1	19.5
Parks and Playgrounds	0	0	0
Schools Public and Semi-Public	390	4.7	8.3
Total Public and Semi-Public	1,303	15.8	27.8
TOTAL DEVELOPED LAND	4,681	56.8	100.0
Vacant	3,824		
GRAND TOTAL	8,505		

(1) Population of Paradise Valley - March, 1973 - 8,235

TOWN OF PARADISE VALLEY ARIZONA



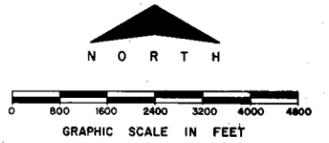
L E G E N D

- CORPORATE LIMITS
- STUDY LIMIT-INDIAN BEND WASH
- STANDARD PROJECT FLOOD
- 100 YEAR FLOOD
- 50 YEAR FLOOD
- 25 YEAR FLOOD

NOTE: SEE FLOOD PLAIN INFORMATION STUDY, VOLUME I, INDIAN BEND WASH REPORT, FLOOD CONTROL DISTRICT OFFICE.

L E G E N D

- | | |
|---------------------------|------------------------|
| SINGLE FAMILY RESIDENTIAL | COMMERCIAL |
| GUEST RANCH OR RESORT | PUBLIC AND SEMI-PUBLIC |
| UTILITY | |



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E.L.S. APRIL 1973

EXISTING LAND USE

vice available at the present time. Gas lines extensions have been provided on the same basis as has electrical service-to meet customer demand. The development and adoption of a comprehensive land-use plan would aid in the planning and development of the distribution system. For additional information concerning natural gas service within the town limits, contact the Arizona Public Service Office, located in the Hayden Plaza East Shopping Center Tempe.

Existing Land-Use

Plate 3, "Existing Land Use", shows the type, location and extent of various land uses within the area included in this study. In general, this report considers the entire Phoenix Urban Area and its relationship to the Town of Paradise Valley. The specific study area for planning purposes includes the area presently contained within the town boundaries, the unincorporated area lying between the Town and the City of Phoenix, and those unincorporated enclaves within the town boundaries. The study area includes approximately 9,973 acres or 15.58 square miles, of which 8,505 acres or 13.29 square miles presently within the town limits.

As indicated by Plate 3, several different types of land use presently exist within the Town of Paradise Valley, with single-family residential being the predominant use.

The existing pattern of land use, roads and streets greatly influences and determines the development of any future plan. Therefore, it is important to review and understand the existing physical conditions and problems in preparing any plans for future land-use needs and requirements.

Table 1 contains a summary of the area occupied by various types of land use.

Following sections contain a detailed discussion of the various types of urban land use and the area they occupy.

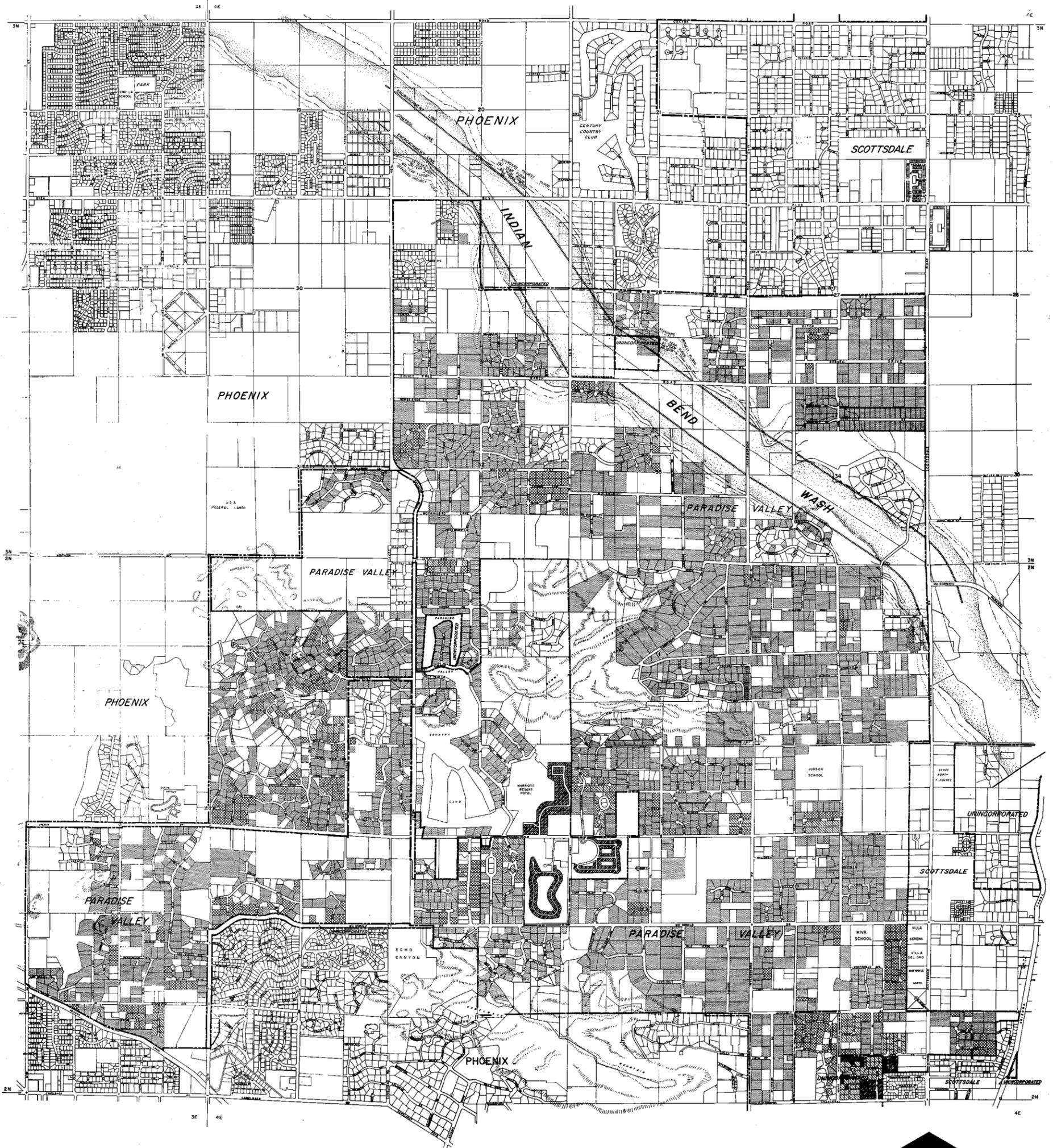
Residential Use

Existing single-family residential use within the incorporated area as shown on Plate 3 covers 3,301 acres or approximately 39 percent of the town area and contains 2,353 single-family residences. This amounts to an average lot size of 1.03 acres within the incorporated area.

As shown on Plate 3, single-family residential use is the predominant land use and the present pattern largely determines the future pattern of land use that can be expected.

Other compatible uses include resort and guest ranches which are scattered throughout the study area. The future land-use plan is based upon the premise that the majority of citizens desire to maintain the spacious

TOWN OF PARADISE VALLEY ARIZONA



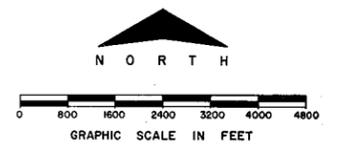
L E G E N D

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L E G E N D

- | | | | |
|--|---------------------------|--|---------------------------|
| | LESS THAN 18,000 SQ. FEET | | 35,000 SQ. FEET TO 1 ACRE |
| | 18,000 TO 35,000 SQ. FEET | | 1 ACRE OR MORE |



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ELS APRIL 1973

LOT AREA PER FAMILY

residential character and amenities that were primary reasons for incorporation of the Town of Paradise Valley.

Lot Area Per Family

Plate 4 shows the lot area per family for existing homes shown on Plate 3. This plate reveals that the majority of single-family homes are located on lots that contain an area of one acre or more. This condition was recognized in the preparation of the present zoning ordinance. Lot area per family has a direct relationship to light and air between buildings and an over-all implication with respect to population density and the type and extent of municipal services needed such as water and sewage disposal. Consequently, lot size is an important factor to be considered in future land use planning for the Town and its environs.

Guest Ranches and Resorts

Plate 3 shows the location of guest ranches and resorts within the town limits. The majority of these uses are located at the southern end of the Town, with the exception of the Yellow Boot Ranch located to the north on Double Tree Ranch Road. Existing guest ranches and resorts utilize approximately 30 acres and account for approximately .4 percent of the town area.

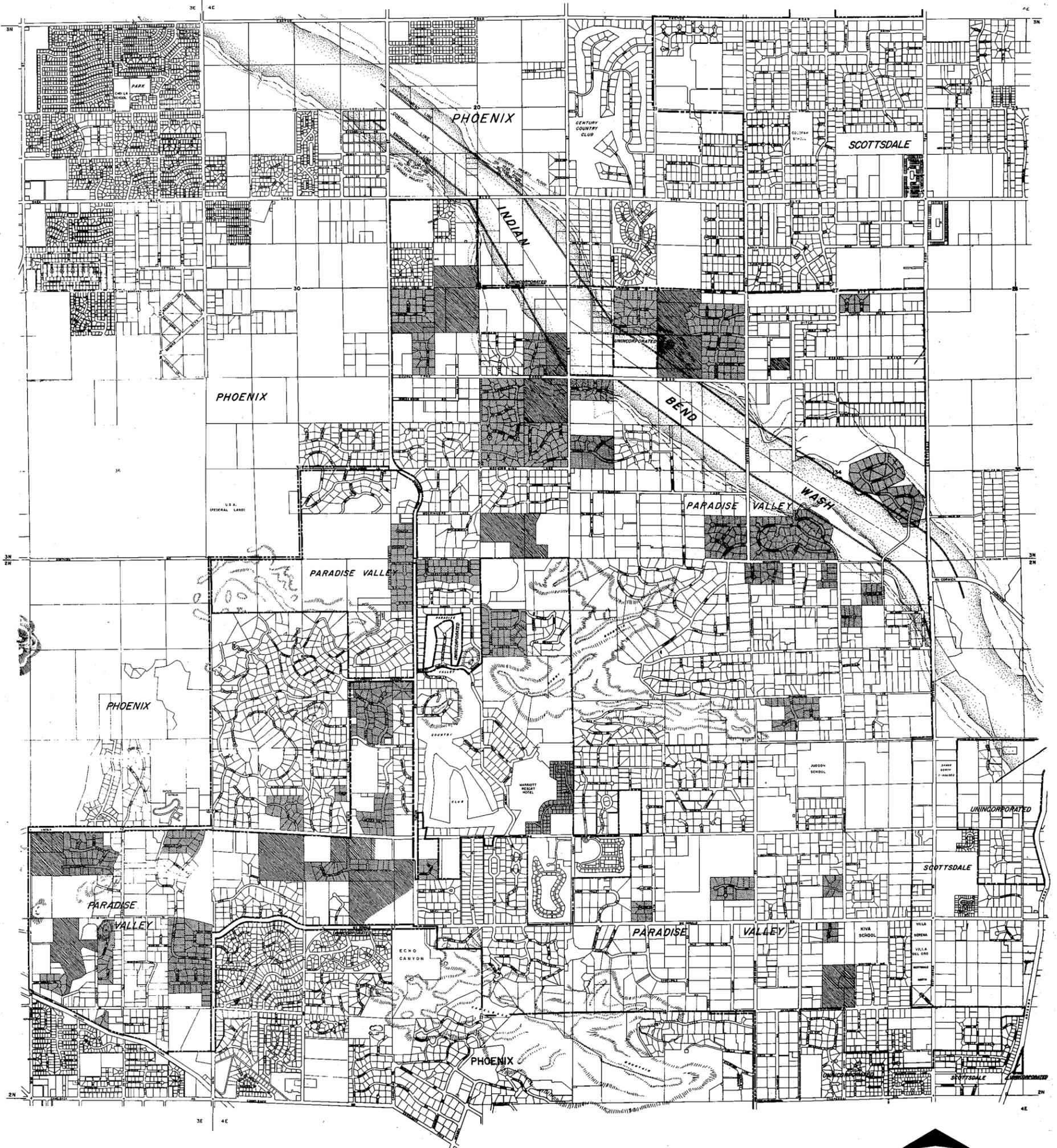
Camelback Inn, El Chorro, Mountain Shadows, the Sun and Sage and other resorts located just outside the town limits occupy a total land area of approximately 131 acres. Additional guest ranches and resorts can reasonably be expected in the future. However, it is not possible to determine how much land would be needed or the precise location that should be designated for future guest ranches and resorts.

Guest ranches and spacious resorts antedate much of the single-family development, and in general they are accepted as compatible with single-family residential development. The present zoning regulations define guest ranches and resorts and contain certain minimum standards for their development. Because of the scenery, climate, and other conditions, Paradise Valley is considered a prime location for luxury guest ranch and resort facilities. Consequently, constant effort and vigilance will be necessary to achieve and adhere to satisfactory and acceptable standards for this type of use.

Commercial Uses

Commercial uses within the town boundaries are limited to two realtors, one restaurant, John Gardner's Tennis Ranch, several guest ranches, a hotel and another hotel under construction. Many of these uses were established prior to the Town's incorporation.

TOWN OF PARADISE VALLEY ARIZONA



L E G E N D

- CORPORATE LIMITS
- STUDY LIMIT-INDIAN BEND WASH
- STANDARD PROJECT FLOOD
- 100 YEAR FLOOD
- 50 YEAR FLOOD
- 25 YEAR FLOOD

NOTE: SEE FLOOD PLAIN INFORMATION STUDY, VOLUME I, INDIAN BEND WASH REPORT, FLOOD CONTROL DISTRICT OFFICE

L E G E N D

- PLATS THAT HAVE BEEN RECORDED
- PLATS THAT ARE UNDER CONSIDERATION



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E.L.S. APRIL, 1973

SUBDIVISION ACTIVITY 1964-1973

Industrial Uses

With the exception of water, gas, telephone and power lines, electrical substations and water pumping stations, no industrial land uses are located within the town limits. Land occupied by electric substations and water pumping stations, as shown on Plate 3, occupy approximately 24 acres.

Except for power substations and the like necessary to meet present and future population requirements, industrial land uses should continue to be prohibited by the Town. Ample area is provided elsewhere within the Phoenix Urban Area for such uses.

Public and Semi-Public Uses

Schools, churches, the town hall, tennis courts, golf courses, and a cemetery comprises the public and semi-public uses within the town limits, as shown on Plate 3. These uses utilize approximately 390 acres and account for less than 5 percent of the town area.

The Franciscan Retreat and the Paradise Valley Country Club lying just outside the town boundary occupy approximately 160 additional acres for this use.

Vacant Lands

As shown by Plate 3, almost half of the Town still remains undeveloped. This is due in part to the steep slopes and hard rock areas of the mountains and the flooding areas of the Indian Bend Wash. However, there is a large amount of land suitable for future home sites.

Vacant lands amount to approximately 3,824 acres and account for 45.0 percent of the town area.

Subdivision Trends

A total of 49 subdivision plats have been recorded since 1964. The subdivisions contain 789 single-family lots and cover an area of approximately 1,000 acres. At 3.5 persons per housing unit, the subdivisions could accommodate 2,760 persons. These subdivisions are shown on Plate 5.

Summary

In summary, the foregoing has discussed existing conditions including climate, physical features, utility services provided, and the scope and extent of various types of land use found in Paradise Valley and the study area.

At the time of the land-use survey approximately 8,235 persons occupied a total 4,681 acres for all urban purposes as reflected in Table 1. Assuming

an annual population growth rate of 7 percent, the 1980 population would then attain 13,250 persons. This number of persons would occupy approximately all of the available vacant land based upon the present spacious character of development and the retention of the upper elevation of the mountains for open space reserve.

CHAPTER 2

PUBLIC BUILDINGS AND GOVERNMENTAL SERVICES

The following is a discussion of public building facilities and needs

Schools

The Town of Paradise Valley is located within the Phoenix Union High, Scottsdale Elementary and High, and Creighton Elementary School Districts. At the present time only one public elementary school is located within the Town boundaries: Kiva School, 6911 East McDonald Drive, located in the southeast part of the Town. The original construction of this school provided for a normal enrollment capacity of 820 students and the September 1963 school enrollment was 971 pupils. A school bond issue passed in December 1963 included funds for the addition of 15 rooms and the purchase of 10 additional acres to the Kiva School as part of the over-all program. This expansion program was completed and ready for use for the 1964-65 school year.

The Cherokee Elementary School is presently under construction southeast of 56th Street and Double Tree Ranch Road. This school is expected to be completed by September 1974. It is on a 20 acre site and has a design capacity of 1,060 students.

The chapter on future land-use analyzes school enrollment trends and attempts to estimate future elementary school enrollment trends. Chapter 3 also contains certain criteria that should be considered in the location of a new elementary and high school facilities.

In addition to the public school system, four private schools are located within the study area: 1) the Phoenix Country Day School located in the southwest corner of the Town on Stanford Drive; 2) the Paradise Valley Day School; 3) Camelback Desert School, and 4) the Judson School.

The Phoenix Country Day School, the Paradise Valley Day School and the Camelback Desert School are privately operated day schools for kindergarten through 12th grade. The 1973-74 combined enrollment was approximately 680 students, of which less than 20 percent are residents of the Town of Paradise Valley proper. The Phoenix Country Day School was established in the Fall of 1961 with a total enrollment of 93 students; the 1973-74 enrollment was approximately 340 students. This school has a continuous expansion program planned to a maximum capacity of approximately 600 students.

The Judson School is a privately operated day and boarding school: it contains a nursery school, kindergarten, and grades 1 through 12. The school provides room and board for students in grades 3 to 12 inclusive.

The 1973-74 enrollment was 440 students of which 300 were provided room and board on the premises. Approximately 60 percent of the students are from out of state, with less than 10 percent of the day students being residents of Paradise Valley. The Judson School maintains approximately 40 teachers and is accredited by the State Superintendent of Public Instruction and the University of Arizona's Office of High School Visitation.

Public and private schools, including the Judson School, occupy approximately 80 acres of land, which accounts for less than 1 percent of the total land area contained within the study area.

Public Park and Recreational Facilities

At present the Town does not have any land for park purposes, nor does it have a recreational program. Because of low population density and close proximity to existing major recreational facilities, it is unlikely that the Town would need public recreational areas and programs other than recreational Programs normally provided on public school grounds. The provision of adequate playground and field equipment and a supervised recreation program at the public schools should satisfactorily meet the Town's recreational needs for children and youths.

In addition to the school areas and a recreational program, it is suggested that the Town give consideration to the preservation of parts of Mummy Mountain in order to retain its character and beauty as a major land mark and to provide open space for hiking and riding enthusiasts.

"The natural heritage of our Nation must be preserved in two senses. We cannot afford by either unwise action or neglect, to lose or impair resources of outstanding natural, scenic, scientific, or historic importance. These must be protected from misuse so that they may be passed on to future generations as nearly in their original state as possible."

"Outdoor Recreation for America"

Under the Housing Act of 1961, the Federal Government authorized the Housing and Home Finance Administrator to make grants to states and local public bodies to help finance the acquisition of land for permanent open space. It might be logical for the Town of Paradise Valley to investigate this possibility.

Libraries

The Town of Paradise Valley does not have a public library at the present time. However, the Maricopa County Free Library provides bookmobile service to the community biweekly. Some type of permanent library facility will definitely be needed in the future.

Plans for the new Town Hall includes a library within a portion of the court room. Services will be supplemented by the Maricopa County Free Library and donations from the townspeople.

Post Office

A post office branch is located in the Town Hall for the purpose of selling stamps and receiving letters and parcels for mailing. No deliveries are made from this station. Local mail delivery is presently provided from postal stations located in Scottsdale and Phoenix.

Provisions for a post office within the new Town Hall have been made.

Police Protection

Police protection is provided by a Town Marshall and eight deputies. Communications are provided by the Maricopa County Sheriff's Office. An extensive study has recently been completed which outlines ways of improving police protection for the Town of Paradise Valley. Recommendations of this study have been adopted and will result in the addition of five to six officers effective July 1, 1973. At that time, at least two police cars will be on the road 24 hours per day, 7 days per week.

Fire Protection

The Town of Paradise Valley is located within the franchise district of the Rural Fire Protection Company. The Town of Paradise Valley does not have a contract or agreement with the Company for fire protection services. Fire protection is presently provided on an individual subscription basis. The Rural Fire Protection Company has stations located at 71st Place and Mercer Lane and in downtown Scottsdale. This company has a station in the vicinity of Mc Donald Drive and Scottsdale Road. With this station, the majority of the Town is within a 5 mile running area, which is considered satisfactory for a Rural Type Rating. However, the National Board of Fire Underwriters and the Arizona Fire Rating Bureau recommend a maximum 3 miles travel distance for high-value, low-density residential development, such as exists in the Town, and a maximum of 1 to 1 1/2 mile travel distance for concentrated developments such as Camelback Inn and Mountain Shadows. All subdividers are required to install fire hydrants and the town has recently installed 13 plugs in a Core Area adjacent to the Town Hall site. This action should result in an improved fire rating for the Town of Paradise Valley.

It is not within the scope of province of this report to make a detailed study of fire protection problems because of the many factors involved. Such a study would require the services of specialists in this field. Comments contained herein must be considered as general in nature and are only intended to indicate the importance of the problem.

Flood Problems And Needs

The following discussion of flood problems and needs has been prepared by the office of the Maricopa County Flood Control District:

Topography of Watershed

The topography of Paradise Valley varies from rugged mountains to flat valleys. Storm runoff in the mountains is rapid, with relatively little chance for percolation, and the steep slopes produce flows with rapid peaking and high velocities. Large quantities of silt, sand and debris are carried by this runoff. As the flow reaches the gentler slopes at the foot of the mountains, the sediment load is dropped.

The desert area in the northern part of Paradise Valley is flat and cut diagonally by the broad shallow flood plain of Indian Bend Wash. Runoff on the desert is slow, and during intense storms the water travels as shallow sheet flow across the flat land, with heavier concentration in the numerous washes.

The flow from mountains and desert travels to Indian Bend Wash where it creates a broad, shallow watercourse flowing slowly toward the southeast. This slow flow is not likely to cause severe erosion problems, but on the other hand, the slow movement means that the water takes longer to drain away, and such inundation as does occur will continue for a relatively longer period.

Flood Plain

Recent floods, especially that of June 22, 1972, in Indian Bend Wash have shown the wisdom of controlling development and construction inside that flood plain. The limits of floods of 25-year, 50-year, and 100-year frequency, and a Standard Project Flood, are shown on Plate 2. The designation of floods as 25, 50, and 100-year frequency indicate the approximate discharge that will be equaled or exceeded on an average in a long period of time, i.e. a 100-year frequency flood will occur 10 times in 1000 years. The Standard Project Flood is based on the largest storm of record in the general region, which is repositioned over the watershed under study. The flood limits for the area northwest of Invergordon Road are those contained in a Flood Plain Information Study prepared June 1964 by the District Engineer, Los Angeles. Between Invergordon and Scottsdale roads, the limits are based on recent topography which reflects changes in ground surface resulting from construction of the golf course.

Recommended encroachment lines are also shown. These lines define a zone to preserve the flood-carrying capacity of the natural floodway. These were determined on the basis that the elevation of a 100-year frequency flood would not be increased more than 0.5 foot. Further discussion is given in a later paragraph.

CAP Project

The Central Arizona Project aqueduct will be constructed several miles north of and generally parallel to Indian Bend Wash. As part of the project, several flood detention structures are planned which will impound flood waters from the Mc Dowell Mountains and the watershed north of the aqueduct. There will be material benefit to flood conditions in Indian Bend Wash, but complete elimination of flooding will not result. This is clearly seen from the effects of the storm of June 22, 1972; the runoff from this storm over the mountains was large enough to cause serious flooding in Indian Bend Wash, even if the portion of the watershed north of Bell Road had been eliminated.

More data on the effects of the Central Arizona Project on floods in Indian Bend Wash will be available when current studies on the area are completed by the District Engineer, Los Angeles.

Freeway

The City of Phoenix has developed plans for a freeway, with a channel between the opposing traffic lanes, following the general alignment of Indian Bend Wash. A plan has been prepared which shows that the channel would be concrete-lined. The rights-of-way for the freeway would consist of two 150' strips; on the upper reach the channel was estimated to be 100' wide, with capacity for a 100-year flood. At 52nd Street the channel would be 200' wide.

Several courses of action are open to Paradise Valley with regard to the plan of Phoenix:

- a) Develop a plan to extend the freeway and channel through Paradise Valley. This would require an extensive study of the dimensions required for the channel, in order that freeway limits could be tentatively fixed insofar as future zoning and subdividing are concerned. Inasmuch as the flood discharge increases, due to inflow, as flood peaks move downstream, the size of the required channel will also increase. Coordination with Scottsdale would also be required to determine whether that community would adopt the freeway concept.
- b) If Paradise Valley chose not to adopt the freeway and channel plan within its limits, Phoenix would need to provide an exit system for the freeway. Also, Phoenix would need to provide for spreading of the flood flows, and dissipation of the energy, so that the water would enter Paradise Valley with the same velocities and widths as prevail under existing conditions.
- c) If extension of the channel only, without the freeway, were planned in Paradise Valley, an extensive study of the dimensions of the channel would be required. Phoenix would need to provide an exit system for the freeway.
- d) Extension of the freeway only through Paradise Valley would require that

Phoenix provide for spreading flood flows, and dissipation of energy, of Indian Bend Wash.

Exterior drainage

Drainage outside Indian Bend Wash must be considered in developing tracts, as was well-demonstrated during the storm of June 22, 1972. In the relatively flat terrain, the runoff was slow, washes filled quickly, and typical overland flow occurred. This resulted in water depths as much as 6" above natural ground. In the steep mountain areas, the flow was rapid and large quantities of debris were eroded, carried, and deposited in the delta areas.

Each development should be accompanied by a hydrologic study based on the rainfall which occurred on June 22, 1972. Streets and drainage channels should be designed to carry the major portion of the flow, and the hydraulic design should be such as to keep floor levels above the flow lines of the considered (design) runoff. ✓

The requirements of EHA in this regard serve as excellent guide lines. In general, they are that: 1) Streets up to curb line elevations should handle 5 to 10-year frequency storms; 2) The minimum finished grades of lots at houses should not be affected by 50-year frequency storms; and 3) First floor elevations should be above a 100-year frequency storm. ✓

Consulting engineers for the developers should be required to make all necessary hydrologic and hydraulic computations to meet these requirements, including satisfactory disposal of the water to a point outside the tract. These computations should be submitted for review by the Paradise Valley Board or its staff.

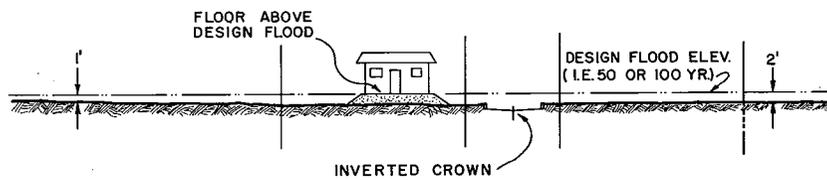
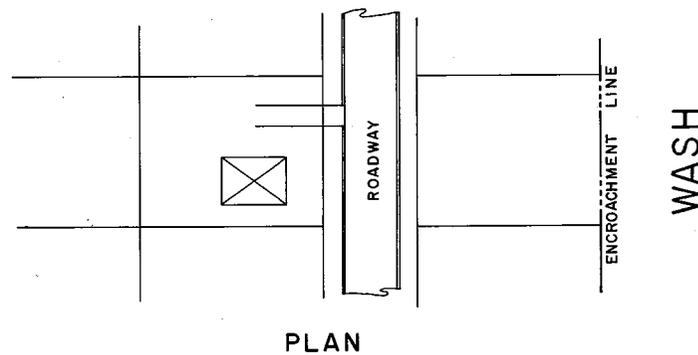
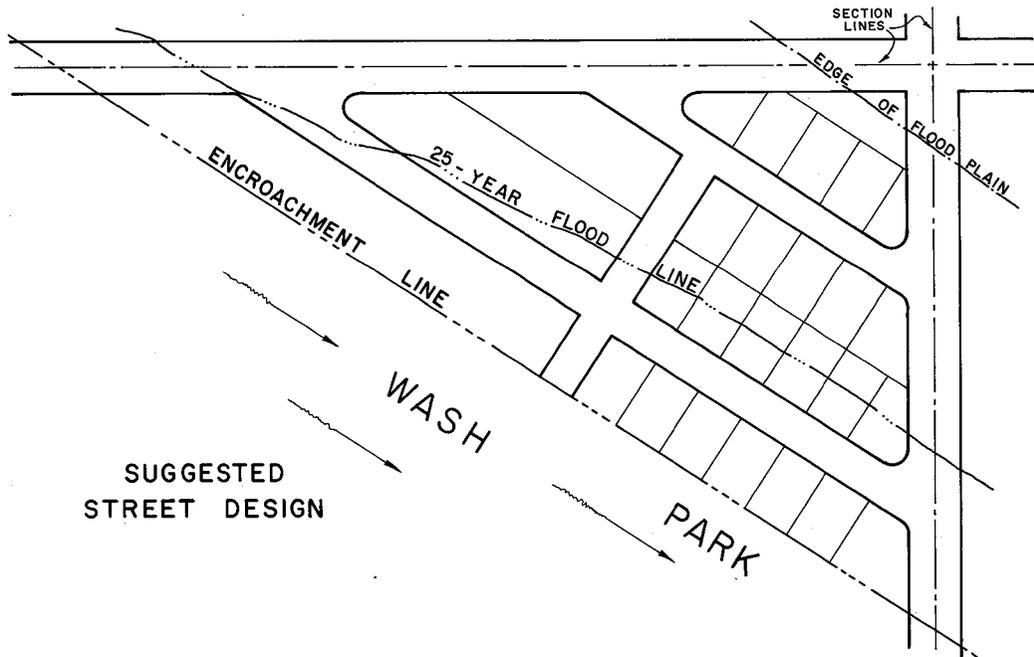
Flood Plain Development

Plate 2 shows the general location of encroachment lines. The area inside the flood plain may be developed within certain limits.

a) Inside encroachment lines. The encroachment lines were planned to delineate a zone which would prohibit structures which obstruct the free passage of flood waters. Unrestricted construction within Indian Bend Wash would result not only in flood damage to structures placed in the wash by reason of increased height of flood waters, but would probably also cause flood waters to be diverted outside the limits of the existing flood plain to areas not now subject to flooding. The purpose of the encroachment lines is to avoid both these problems.

Some forms of development are entirely suitable within the encroachment lines. They include recreation areas, such as golf courses, tennis courts (if constructed without mesh fences or other obstructive features), parks

SCHEMATIC ILLUSTRATION
OF
POSSIBLE DEVELOPMENT IN FLOOD PLAIN
OUTSIDE OF ENCROACHMENT LINES



MARCH 1973

ELEVATION

PLATE 6

and picnic areas, agriculture, golf driving ranges, playgrounds, outdoor basketball courts, etc. Shrubbery and trees should be kept to the minimum to allow passage of flood waters with a minimum of obstruction.

b) The zone outside the encroachment lines may be subdivided or otherwise developed if reasonable care is exercised to avoid obstructing the free passage of flood waters within the zone.

In subdividing tracts within the flood plain but outside the encroachment zone, streets should be oriented generally parallel to the flow in the channel to provide capacity for flood waters. If these streets were also constructed with inverted crowns, their flood carrying capacity would be further increased.

Floor levels of houses and buildings should be constructed above the computed elevation of the 100-year flood to eliminate the hazard of damage from all but the most severe floods. In order that flood heights will not be adversely increased, there should be no fences nor walls in these subdivisions, and shrubbery should be held to the barest minimum. Trees with branches not lower than 6' above the ground are preferable to shrubs and bushes as landscaping. Plate 6 shows a possible method of subdividing the flood plain outside the non-encroachment zone.

Water Supply, Sewage Disposal and Solid Waste Disposal

The following discussion dealing with water supply, sewage disposal and solid waste disposal was prepared by Joseph J. Weinstein, M. C. E., Chief, Environmental Service Division, Maricopa County Department of Health Service.

Water supply, its quality, quantity and mode of distribution; solid and liquid waste disposal facilities and practices, exercise a powerful influence over the optimal development of any community. To the planners responsible for the growth of the Town of Paradise Valley, these factors present a substantially provocative challenge, the weight of which is even now heavily evident, and increasing.

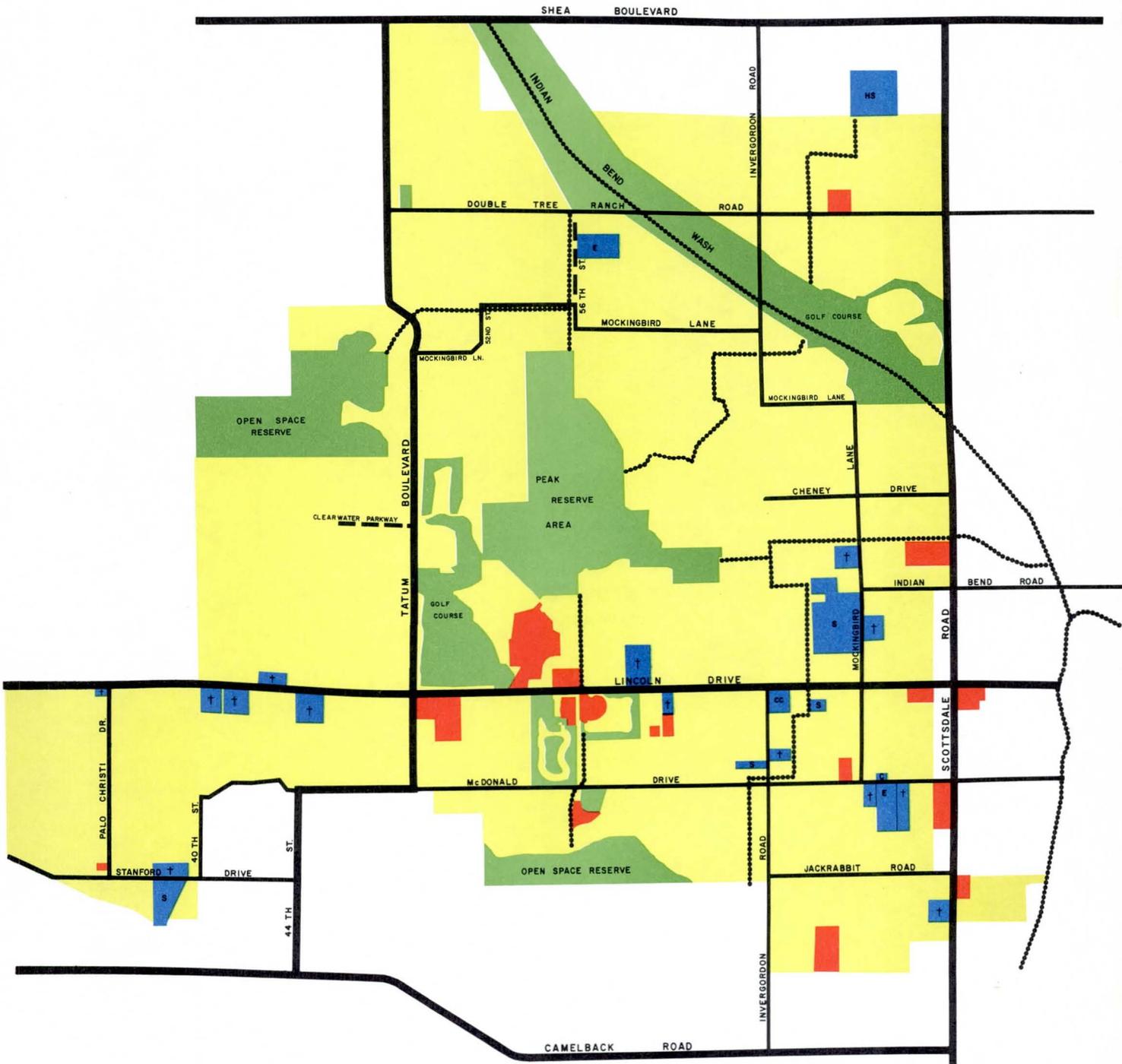
1. Water Supply Four water companies and the City of Phoenix provide domestic water and to a very limited extent, fire supply to the community. Engineering of the systems, excepting perhaps for that portion under the control of the City of Phoenix, has been subject to review and scrutiny only in relatively recent years. Water main sizes, water pressure and similar factors vary considerably from water company domain to domain, and within domains, and in some cases, the home owner is hard put to bring an adequate supply of water into his home from mains which may run short of water or water pressure. The chemistry of the waters from the several suppliers is different and rate structures vary. Currently, the Cities of Phoenix and Scottsdale are pursuing plans to buy certain of the water companies serving the Town and redistribute or trade off service areas.

The Town of Paradise Valley now exercises comparatively little if any control over the future of its domestic water and fire supply. Control of the water utility exercises a determinative effect on the growth of the Town and ways and means to assure substantial control of the water supply to the Town should be devised.

2. Sewage Disposal The method of sewage disposal most commonly used in the Town of Paradise Valley is the individual sewage disposal system consisting of a septic tank, the size of which is commensurate with the extensiveness of the structure served. Effluent from the septic tank drains to one or more seepage pits or to a subsurface leaching field. Some of the community is on sewer which connects directly to the City of Phoenix sewerage system or through City of Scottsdale sewers into the Phoenix, also known as the multi-city, sewerage system. Hillside and mountainside developments present an ever-present hazard to health and a source of trouble for the future since, notwithstanding preliminary testing procedures employed by the Maricopa County Health Department, it is impossible to predict with any degree of certainty when the effluent will break away from the property served and enter adjacent property. It is basic to the employment of septic tank facilities that at best, such systems are temporary, to be replaced by sewers. The community is blessed with an abundance of beautiful home sites and should lose no time in acquiring a share and a position in the existing and developing multi-city sewerage system. The Town has recently initiated a sewer study to determine the practicality, feasibility and economics of sewer routes throughout the town.

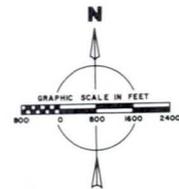
3. Solid Waste Disposal Pursuant to A.R.S. 9-441, the Town is required to provide a dump site conveniently located for the use of its citizenry. The law also places restrictions not only on where such a dump site must be located but contains, in the following section, a prohibition against the use by a citizen of dump sites other than those established under the law. It is true that a private refuse collection service company serves the community but it should also be evident that the citizenry is at the mercy of the refuse collection company both as to the quality of the service rendered and the rates charged for the service. If the Town of Paradise Valley does not already bind the garbage service company to serve the entire community under a contract which provides substantial security against faulty performance, it should look to the legality of arranging for such service from either the City of Phoenix or the City of Scottsdale.

TOWN OF PARADISE VALLEY, ARIZONA



L E G E N D

- | | | | |
|---|---|---|-----------------------------------|
|  | SINGLE FAMILY RESIDENTIAL AREAS |  | EXISTING MAJOR STREETS |
|  | GUEST RANCHES OR RESORTS |  | EXISTING COLLECTOR STREETS |
|  | PUBLIC & SEMI-PUBLIC
E-ELEMENTARY HS-HIGH SCHOOL S-PRIVATE SCHOOL
CC-CIVIC CENTER T-CHURCH C-CEMETERY |  | PROPOSED COLLECTOR STREETS |
|  | OPEN SPACE AND PEAK RESERVE AREAS |  | PROPOSED HIKING AND RIDING TRAILS |



PREPARED BY
MARICOPA COUNTY PLANNING AND ZONING DEPT.
APRIL, 1973 A.S.C., E.L.S.

GENERAL LAND USE PLAN

CHAPTER 3

FUTURE LAND-USE PLANS

This chapter includes a suggested general land-use plan together with a schematic plan to illustrate how the area may be developed accordingly. In preparing these plans, consideration has been given to policy statements of the Town Council, present conditions and needs, the location of existing roads and streets, and other physical conditions.

The future land-use plan is designed to serve as a general guide in determining the kind of scope and extent of various public improvements that will be needed to serve the future population and to provide a general framework within private developments would materialize.

General Land-Use Characteristics

Because of its proximity to Phoenix, Scottsdale, Tempe and Arizona State University, the Town of Paradise Valley offers easy access to the physical and cultural activities of the metropolitan area; while at the same time it offers openness, quietness, privacy and a great amount of desert scenic beauty. The majority of homes are located on lots that are one acre or larger in size. Also, topographical features such as Camelback Mountain, Mummy Mountain, Indian Bend Wash and several other major wash areas render much of the land area unsuitable for conventional small-lot residential development. Past zoning trends also indicate that the residents prefer and require large lots or tracts of land for their homes.

General Land-Use Plan

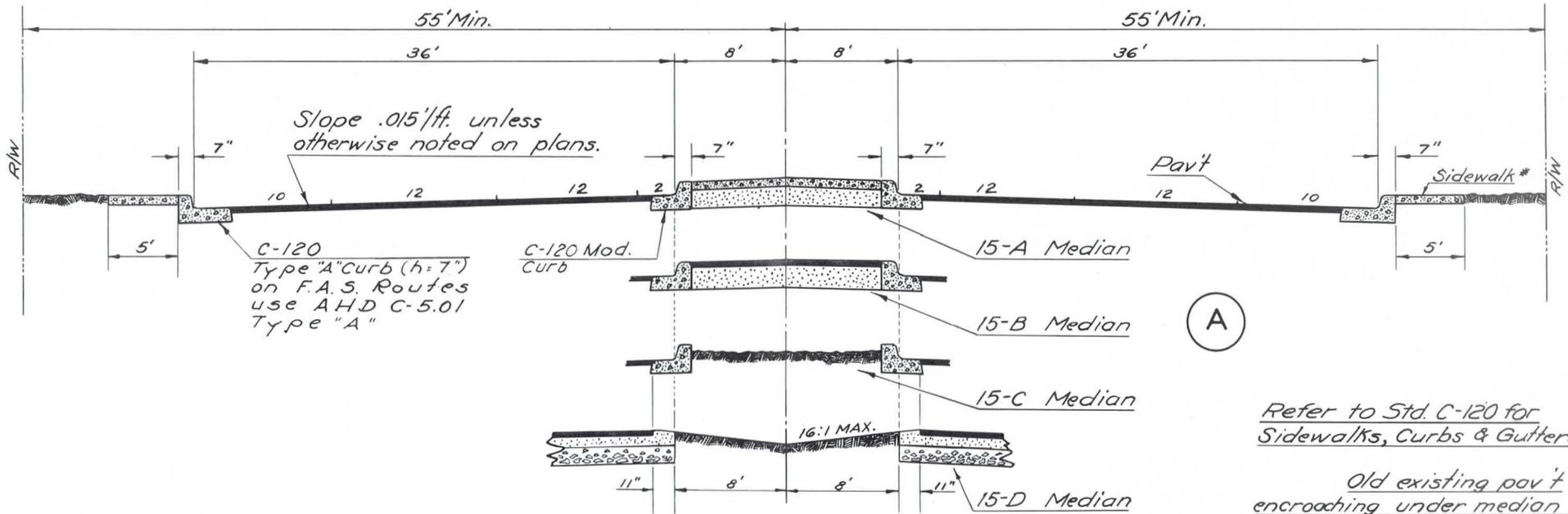
The General Land-Use Plan, Plate 7 shows diagrammatically the area contained within the study area and, by broad pattern, suggested general land uses. The area covered by the plan contains approximately 12,171 acres. Approximately 10,000 acres are indicated for large lot (1 acre or more) single-family residential development and approximately 2,000 acres are indicated for peak and open space reserve areas. Plate 7 also shows the general location of major streets, secondary streets, a hiking horseback and bicycle trail network, a wall and bicycle side path on school approach streets.

A discussion of the principles and standards considered in preparing the general land-use plan is as follows:

Streets and Highways

General principles and standards are as follows:

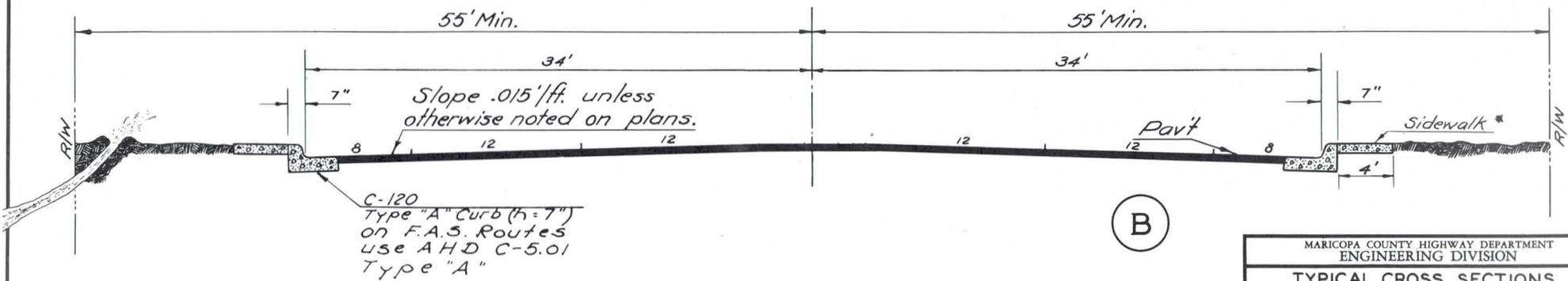
A system of major streets is concerned with the free flow of traffic to and from all areas of the community. Major streets provide for safe



(A)

Refer to Std. C-120 for Sidewalks, Curbs & Gutters.

Old existing pav't encroaching under median so as to interfere with curb construction, utilities, or drainage, will be removed.



(B)

MARICOPA COUNTY HIGHWAY DEPARTMENT
ENGINEERING DIVISION

TYPICAL CROSS SECTIONS
MAJOR ARTERIAL STREETS

17

DRAWN: J.H.M. | DATE: 8-5-63 | CHECKED: oad

APPROVED: Samuel F. Sanford
COUNTY ENGINEER

APPROVED FOR COUNTY BOARD OF SUPERVISORS:
B.H. Bruma
CHAIRMAN.

REVISED	
DATE	APPROVED
11-21-63	RCE

* Sidewalk optional

NO SCALE

and free vehicular movement from one residential area to another and from residential areas to major places of business, employment or recreation. Following are four major advantages that result from a planned major street system: 1) traffic can be more easily controlled; 2) larger volumes of traffic can be moved over a few wide streets rather than dispersed over a number of narrow streets; 3) certain major streets are primarily of general rather than local benefit and can often be improved and financed with the assistance of state and federal aid; 4) greater economies in street construction can be provided in accordance with traffic needs.

The following discussion on streets and traffic movement was prepared by the County Highway Department as part of the present planning agreement to update the Town Plan:

Historical

During the last five years, the traffic on the street system in the Town of Paradise Valley has increased as much as 100% on the major routes because of the location of the Town with respect to the increasing expansion of it and surrounding communities. Collector and residential streets have likewise seen increased usage but not in such proportion.

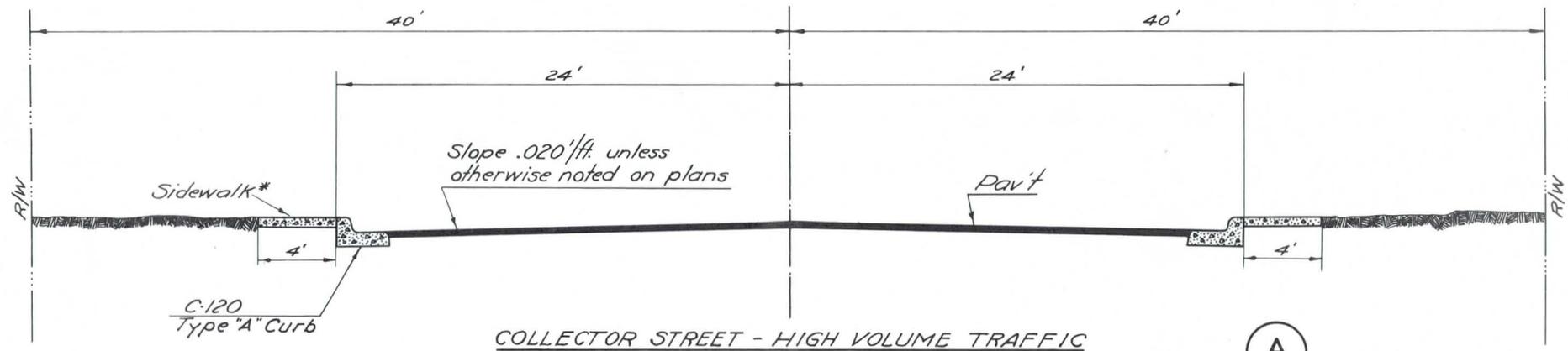
Because of the mountainous terrain, there are only a few major streets which can serve the people in the area as well as the commuting people between Phoenix and Scottsdale, and other points. Demands on these routes will continue to increase and most of them are already operating in excess of their practical traffic capacity. The need for widening such thoroughfares as Lincoln Drive and Tatum Boulevard is evident to daily users but widening is no simple matter. The limitations posed by topographical features such as major rock outcrops, major washes, and drainage areas, increase road construction costs. High land values and the difficulty in financing, further the reason why Paradise Valley's transportation system has not kept abreast of the demands upon it.

Major Steets

These usually require at least four moving lanes and two distress or parking lanes. The major streets main concern is with the free flow of traffic to and from all area of the community. A major street should normally be designed with heavier pavement than collector or residential streets in order to accommodate heavy traffic volumes at moderate to high speeds. Cross sections of major streets are variable depending upon abutting land uses, expected traffic volumes, topography and other physical considerations. Right-of-way widths will vary from 80 feet to 110 feet and up to 150 feet where service or access roads are provided. Pavement widths will vary from 68 feet to 88 feet. See Plate 8 for Cross Sections.

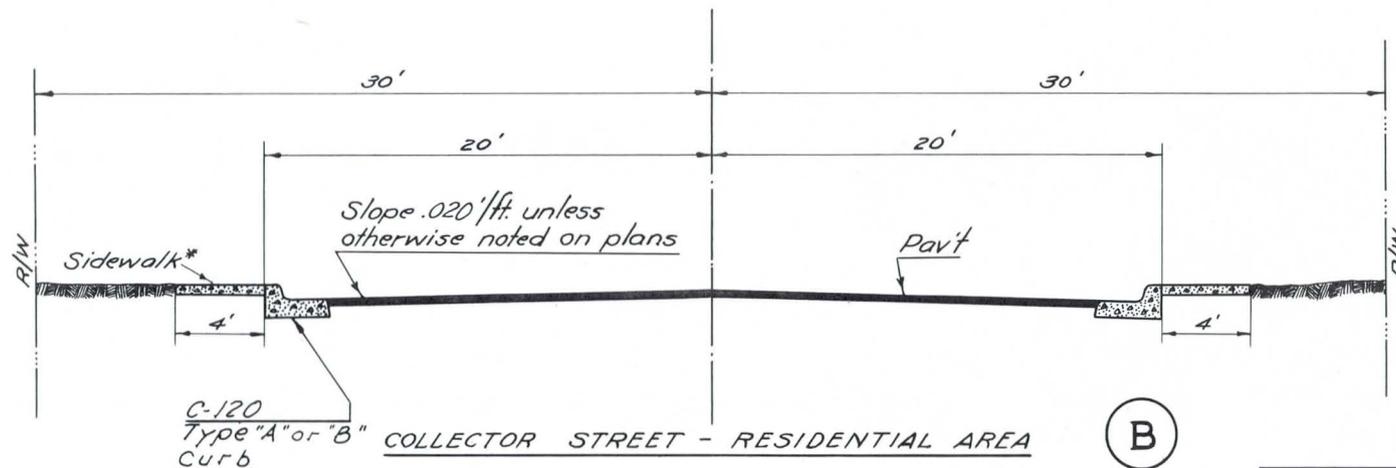
Collector Streets

A Neighborhood street with limited continuity and having the primary



COLLECTOR STREET - HIGH VOLUME TRAFFIC

(A)



COLLECTOR STREET - RESIDENTIAL AREA

(B)

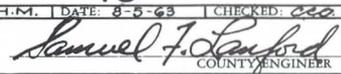
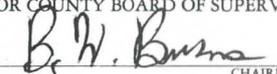
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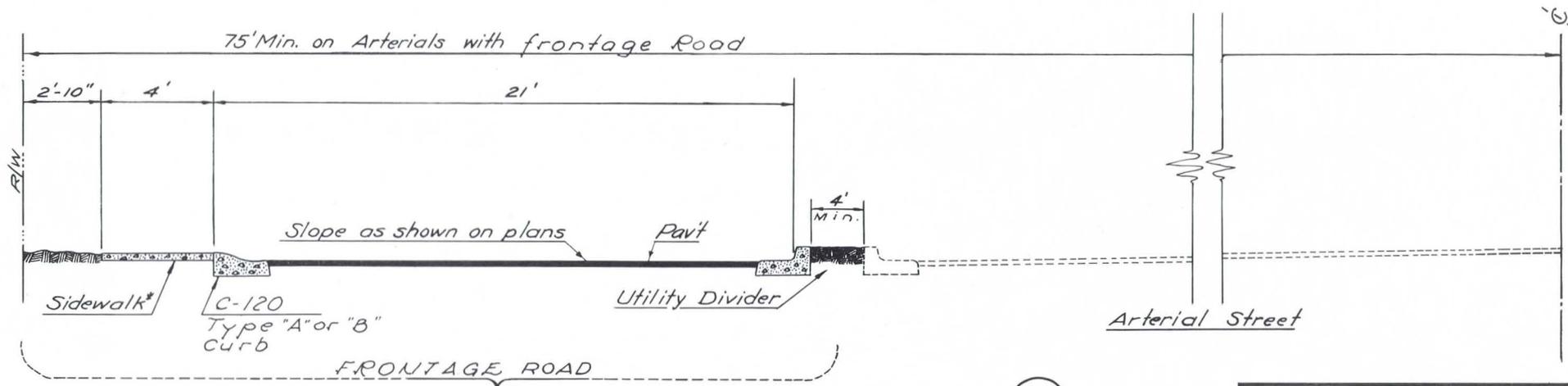
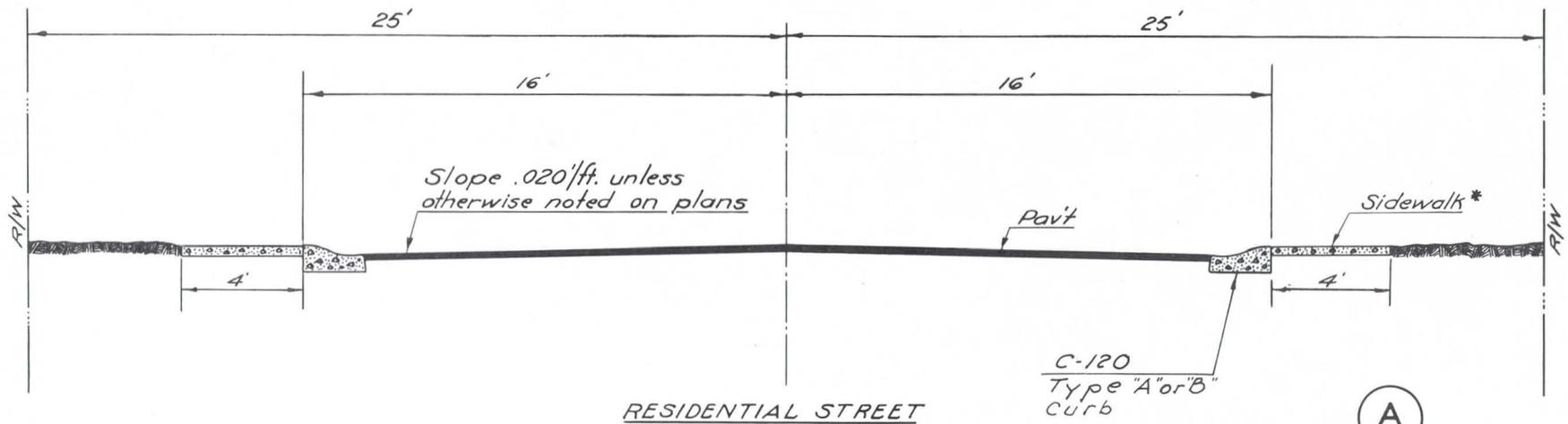
DATE	APPROVED
7-4-63	RCE

* Sidewalk optional

See Std. C-120 for details of Sidewalks, Curbs & Gutters.

NO SCALE

MARICOPA COUNTY HIGHWAY DEPARTMENT ENGINEERING DIVISION	
TYPICAL CROSS SECTIONS COLLECTOR STREETS	
18	
DRAWN: J.H.M.	DATE: 8-5-63
APPROVED:	CHECKED: cco
 COUNTY ENGINEER	
APPROVED FOR COUNTY BOARD OF SUPERVISORS:	
 CHAIRMAN.	



REVISED

DATE	APPROVED
7-1-63	[Signature]

* Sidewalk optional

See Std. C-120 for details of Sidewalks, Curbs & Gutters.

NO SCALE

MARICOPA COUNTY HIGHWAY DEPARTMENT ENGINEERING DIVISION	
TYPICAL CROSS SECTIONS - RESIDENTIAL STREETS AND FRONTAGE ROADS	
19	
DRAWN: J.H.M.	DATE: 8-5-63
APPROVED: [Signature]	CHECKED: [Signature]
COUNTY ENGINEER	
APPROVED FOR COUNTY BOARD OF SUPERVISORS:	
[Signature]	
CHAIRMAN.	

function to collect or pick up traffic from residential streets and feed it into the major street system. A collector street should provide for two moving lanes and two distress or parking lanes. Collector streets should be wider than the residential streets and speeds should be permitted to exceed 25 miles per hour. Right-of-way widths may vary between 60 and 80 feet with pavement widths of 40 to 48 feet. See Plate 9 for Cross Sections.

Residential Streets

These are primarily designed to provide access to abutting property. Normally for residential streets, right-of-way varies from 50 to 66 feet and pavement widths vary from 26 to 32 feet. Residential streets are intended for low traffic volumes with speeds not to exceed 25 miles per hour. Busses and trucks should be discouraged from using these streets. See Plate 10 for Cross Sections.

Street Classification

Paradise Valley has a limited mileage of major and collector streets - these streets are shown on the "classification map" prepared by the Maricopa Association of Governments Transportation Planning Program (MAGTPP). Present and recommended street classifications are shown on Plate 7.

Present Street Classification

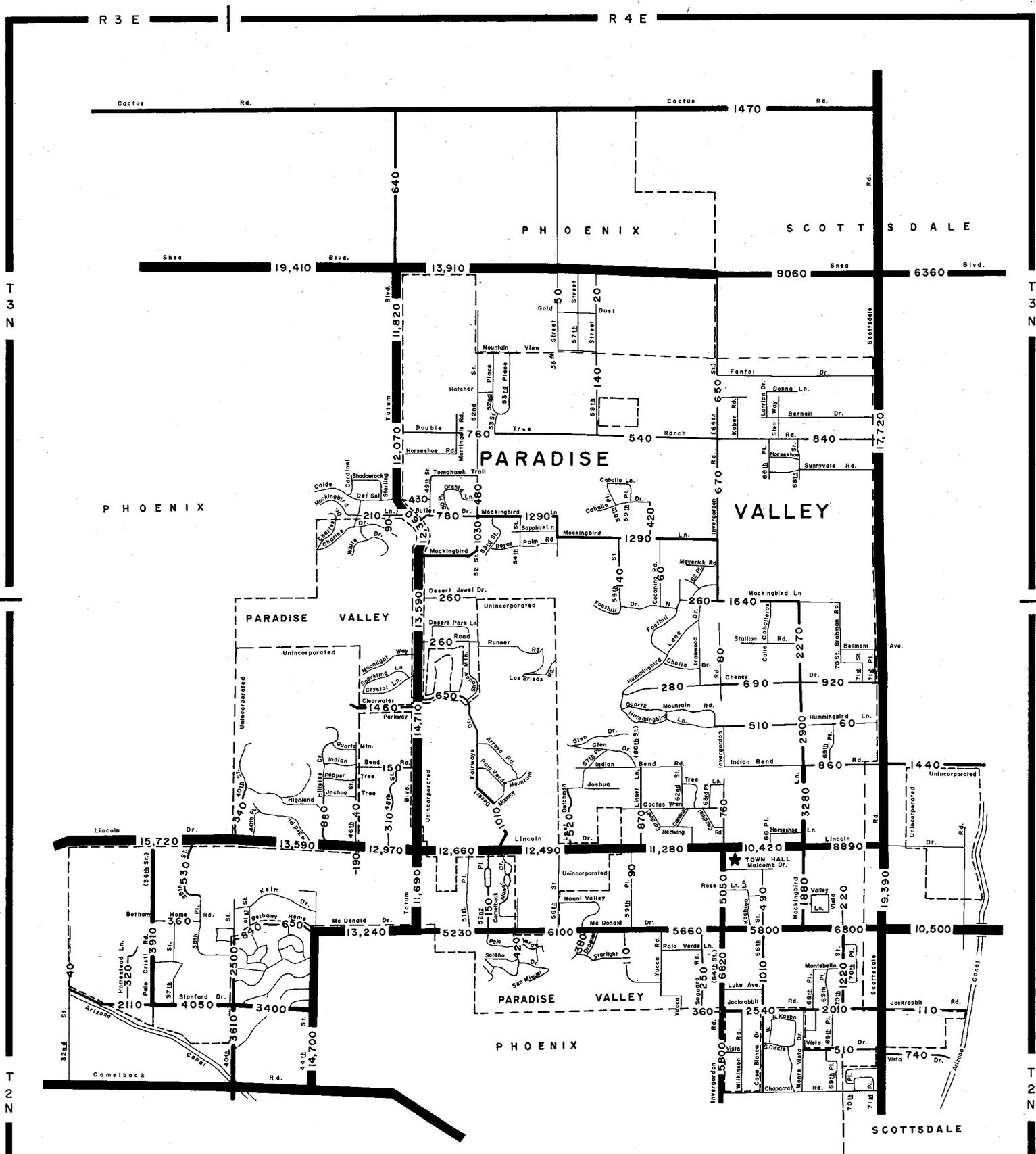
Major

From - To

Lincoln Drive	32nd Street to Scottsdale Road
McDonald Drive	44th Street to Tatum Boulevard
Tatum Boulevard	McDonald Drive to Shea Boulevard
Shea Boulevard	Tatum Boulevard to Scottsdale Road
Scottsdale Road	Chaparral Road to Shea Boulevard

Collector

Stanford Drive	32nd Street to 40th Street
Palo Cristi Road	Lincoln Drive to Stanford Drive
40th Street	Stanford Drive to McDonald Drive
McDonald Drive	40th Street to 44th Street
McDonald Drive	Tatum Boulevard to Scottsdale Road
Jackrabbit Road	Invergordon Road to Scottsdale Road
Invergordon Road	Jackrabbit Road to Lincoln Drive
Mockingbird Lane	McDonald Drive to Tatum Boulevard
Double Tree Ranch Road	Tatum Boulevard to Scottsdale Road
Cheney Drive	Invergordon Road to Scottsdale Road
Indian Bend	Mockingbird Lane to Scottsdale Road

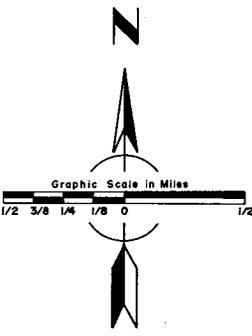


PARADISE VALLEY TRAFFIC FLOW MAP

ALL TRAFFIC BASED ON 24-HOUR WEEKDAY COUNT

LEGEND

RESIDENTIAL ROUTES	
101 TO 500	
501 TO 1,000	
1,001 TO 3,000	
3,001 TO 5,000	
5,001 TO 10,000	
OVER 10,000 VEHICLES	



★ TOWN HALL
6325 N. Invergordon Road

Prepared By
MARICOPA COUNTY HIGHWAY DEPARTMENT
Traffic Engineering Division

June 1972

RECOMMENDED CHANGES

Increase the following to Collector Street Standards:

Invergordon Road from Mockingbird Lane to City Limits

Clearwater Parkway from Tatum Boulevard to Unincorporated Line (New)

56th Street from Mockingbird Lane to Double Tree Ranch Road (New)

Traffic Volumes

Traffic volume counts were made at over 100 locations on streets within Paradise Valley during the study and the accompanying Plate 11 shows the 24 hour weekday traffic figures resulting from those counts. During the past five years, Lincoln Drive traffic has increased from 8,875 vehicles per day in 1968 to 12,914 in 1972. An even greater increase has been evidenced on Tatum Boulevard which increased from 7,880 vehicles per day in 1969 to 14,222 in 1972, an increase of nearly 80% in four years. A week long count was taken to show daily and hourly fluctuations of traffic for these two major routes. Normally, city street traffic volumes show weekday traffic to remain at about the same level from day to day with substantially lower volumes on Saturdays and Sundays. This is not true in the case of either Lincoln Drive or Tatum Boulevard, as weekend volumes remain almost as high as weekday figures, suggesting of course high recreational interest traffic.

General Comments

1. Lincoln Drive As a part of the Federal Aid Urban System, improvements on Lincoln Drive are eligible for Federal participation in funding. That portion of Lincoln Drive from 32nd Street (Phoenix City Limits) to Tatum Boulevard is scheduled for widening in the County's five year program during the 1973-74 fiscal year. Every effort should be made by Paradise Valley in cooperation with the County to finance widening of the remainder of this principal arterial (Tatum Boulevard to Scottsdale Road) as an extension of the County's project.
2. Tatum Boulevard A Federal Aid Secondary Route, Tatum Boulevard is within the Town between McDonald Drive and approximately one fourth mile to the north; from this point to Mockingbird Lane Tatum Boulevard is within the County, except for a small portion at Northern Avenue which provides a tie for annexation of land to the west. From Mockingbird Lane to Shea, Tatum is within the City of Phoenix. Widening of this principal arterial is likewise scheduled for the fiscal year 1973-74 in the County's five year construction program. Right-of-way at the present time varies from 40 to 55 feet because of the terrain, involving cuts and fills, roadway widening will require a 55-foot minimum on either side of the section line. Prior to any such widening, the Town of Paradise Valley should make available to the County that portion of the needed right-of-way lying within the Town.
3. McDonald Drive Designated as a Collector Route, McDonald Drive is assuming more and more importance particularly since its extension from Scottsdale

Road to Pima Road and it's recent signalization at its intersection with Tatum Boulevard. Carrying approximately 6,000 cars per day, McDonald Drive between Tatum Boulevard and Scottsdale Road should receive early consideration for programming its widening. (With special attention given to vertical alignment). Existing right-of-way varies from 33 feet to 40 feet on each side of the section line and the acquisition of a minimum of 40 feet (55 feet desirable) will necessarily precede any construction.

4. Surveillance Field investigation of Paradise Valley streets revealed a number of traffic control measures in need of improvement or upgrading.

The new Manual on Uniform Traffic Control Devices makes a number of changes both in signing and street striping or painting, and existing traffic control measures that are in conflict should be changed to conform. Among items noted were: White centerline instead of yellow; Three different color combinations of street name signs; (recommended reflectorized white on green); Safe speed signs to be posted under the curve signs (Mockingbird Lane); Length of no-passing zone lines are excessive; and Pedestrian crosswalk, school signs, etc. are of the old style.

The Town has recently completed restriping all roads within the Town in accordance with the new standards. All street name signs are being standardized using reflectorized white on blue.

5. Topics Two major intersections in Paradise Valley are scheduled for improvement under the "Traffic Operation Program to Increase Capacity and Safety," Palo Cristi and Lincoln Drive, and Lincoln Drive and Tatum Boulevard. Construction is under way on the first and the latter is awaiting the acquisition of additional right-of-way by Paradise Valley. Improvement at both includes widening along with modern traffic signal control.

McDonald Drive is presently classified as a Primary Type II road under the Federal-Aid Classification, and intersection improvements on it, are eligible for 77% Federal Funding under the TOPICS program. In this connection Paradise Valley might well make application to the Arizona Highway Department for widening and signalization of the intersection of Invergordon Road and McDonald Drive under this program.

Reconstruction of the McDonald Drive-Tatum Boulevard Intersection is also under consideration as a TOPICS Project. The proposed improvement would replace the existing T-intersection with a wide sweeping curve, but the problem of right-of-way acquisition makes this project doubtful.

Schools

The following is a discussion and comparison of principles and standards commonly accepted by educators and planners concerning the location and size of public school facilities with those currently being used by the Scottsdale Public School System. All schools within the Town of Paradise Valley are in the Scottsdale School District.

The present system in the Scottsdale School District is organized on the 8-4 plan. Kindergarten and grades 1 through 8 are contained in the elementary schools with grades 9 through 12 contained in the high schools. Plans and suggestions contained herein assume that the present system will continue in the future.

Standards for Each Type of School

Recommendation standards for the two types of schools are as follows:

Elementary Schools: The desirable size of elementary schools range from a minimum of 400 pupils to a maximum of 1,000 pupils. A capacity of 400 to 600 pupils for schools containing grades 1 through 6 and 900 to 1,000 pupils for schools with grades kindergarten through 8 inclusive is considered an optimum size by many educators and planners although school district needs some time necessitate the construction of larger schools.

The 1969 Guide for Planning Educational Facilities published by the National Council on Schoolhouse Construction recommends that the elementary school contain a site of ten acres plus one acre per 100 pupils of ultimate enrollment. Classrooms should not average more than 30 pupils, thus a 700 capacity school would require a minimum site of 17 acres and 24 classrooms.

(In 1953 the National Council on Schoolhouse Construction recommended that elementary school sites have a minimum site of five acres plus an additional acre for each 100 pupils of predicted maximum enrollment. Subsequently, because of changing conditions and trends in building design, use, and other factors, this earlier standard was found to be inadequate for present day needs.)

The Scottsdale School District presently requires a site area of 10 acres for a 26 classroom facility of which 2 classrooms would be for kindergarten with a design capacity of 50 pupils each (25 in the morning and 25 in the afternoon) and 20 acres for a 52 classroom "double" school (4 rooms for kindergarten) which accommodates 1,200 to 1,800 pupils.

An elementary school should serve as a center for neighborhood community activities, it should be centrally located with respect to the area served and be within three-fourths of a mile walking distance of the majority of pupils. The elementary school should be developed in conjunction with a neighborhood park. The school should be so designed that a multi-purpose room will be available for neighborhood or community center use after school hours and for a supervised summer recreational program.

The elementary school should not be located on a major street nor within or adjacent commercial or industrial uses. Where an elementary school is close to a major street, it is necessary to provide some means of traffic control. It is recommended that, within the radius of one mile, all school approach streets should make accommodation for students on foot or bicycle.

High Schools: The 1969 National Council on Schoolhouse Construction Guide for Planning Educational Facilities indicates that a desirable minimum size for secondary schools is "300 pupils at 75 pupils per grade" and that a maximum desirable size is 1,000 pupils.

The National Council on Schoolhouse Construction also recommends that a high school should contain a site of 30 acres plus one acre per 100 pupils of ultimate enrollment. (In 1953 the National Council on Schoolhouse Construction recommended that sites have 10 acres plus an additional one acre for each 100 pupils of predicted maximum enrollment.) Thus a 1,000 capacity high school would require 40 acres if developed as a community school park. (A community school park includes a school, playfield, and park)

A high school should be located on or close to a major street and have access from collector streets. Normally high school students are dependent upon transportation by private vehicle, public transit system, or by walking. One and one half to two miles is considered to be a reasonable maximum distance for walking. Accommodations should be provided for students on foot or bicycle on approach streets.

Existing Conditions

The Town of Paradise Valley is presently served by the Kiva, Squaw Peak and Cocopah Elementary Schools and the Arcadia, Camelback, Scottsdale, Saguaro and Chaparral High Schools.

The Kiva Elementary School located at 6911 East McDonald Drive is located on a 20 acre site with a capacity for 1,270 students. The present enrollment of this school is slightly over 1,400 students which is in excess of its design capacity.

The Arcadia, Camelback, Saguaro and Scottsdale High Schools receive students from the Town of Paradise Valley. These schools are located from 1 to 10 miles from the town proper and consequently are not well located to serve residents of the town proper.

Phase 1 of the Chaparral High School, located at 68th Street and Gold Dust Avenue has been completed. This portion accommodates approximately 820 students. The school could be completed within 2 years if a proposed school bond issue is approved this year. When completed, Chaparral High school will provide for 2,200 students. This school is adjacent to the northern town limits of Paradise Valley.

Future Pupil Requirements

In order to design a system of schools, it is necessary to estimate the number of pupils for which facilities must be planned. This section contains a discussion of past population and school enrollment ratios for the Town of Paradise Valley as indicated herein.

It is not within the scope of this report to make future enrollment estimates for the Scottsdale School System and to determine the portion which would need to be served by schools located in the Town of Paradise Valley; nor is it the purpose of this report to plan a system of schools for the Scottsdale School District. Also, the study area covered by this report is not coincidental with the high school district boundaries. However, for purposes of this report, an estimate has been made of the number of pupils which might be expected from a total population of 14,000 persons that is estimated to be attained in the next 18 years within the Paradise Valley study area.

The 1970 Census revealed that in the Paradise Valley area 18.9 percent of the total population was enrolled in elementary schools and of this amount 16.9 percent were in private schools. It is assumed that these ratios will remain rather constant. Therefore, it is estimated that the future ultimate enrollment will be approximately 2,500 pupils of which approximately 420 would be in private schools.

Future high school enrollments are based on ratios found by the 1970 Census which indicate that 10.1 percent of the total population was enrolled in high school of which 19.5 were in private schools. Projecting this same ratio the future ultimate enrollment will be approximately 1,340 students of which 260 would be in private schools.

Parks, Recreation and Open Space Reserves

Because of low population density and character of development, there appears to be little or no foreseeable need for the various types of public parks required by a typical urban area, (i.e. ornamental parks, neighborhood parks, large parks). Golf, tennis, and swimming facilities are provided by various country clubs and resorts located within or adjacent the study area. Many of these facilities are available to the general public upon payment of established daily or seasonal fees.

Playgrounds should be located at elementary school sites and playfields located at high school sites to meet the needs of school age children for active recreation facilities during the school year. There will also be a need for a supervised recreational program during the summer months and arrangements should be made by the Town to provide such a program during the summer months on public school grounds.

The "General Land-Use Plan" suggests that certain undeveloped portions of Mummy Mountain and vicinity be set aside as a public preserve. The area shown on this plan would be difficult to use for urban development as evidenced by the fact that it has not been developed to date. Ways and means whereby this area might be acquired should be explored as conditions permit.

In addition to the mountainous and peak areas shown for open space reservation, it may be possible to retain an open natural channel for the Indian Bend Wash instead of the proposed concrete flood control channel. The Town of Scottsdale is considering such type of development and is currently working with the County Flood Control Office and the Corps of Army Engineers in studying the feasibility for this type of development.

The dotted lines shown on Plate 7 indicate the general location for a riding trail system which would basically serve the town residents who retain horses for recreational use and pleasure. This riding trail system would eventually connect to the adopted County-wide network of hiking and riding trails and would provide many miles of local trails for hiking or riding use. Where feasible, the incorporation of the use of bicycles on the hiking or riding trails would add to the recreational use and pleasure of the trail system. The trails as suggested would utilize the open space area, except in a few cases. Because of the existing large-lot development, additional splinter trails as indicated on Plate 6 could be established along property lines and utility easements, which would provide access to the major trails from the residential developments.

Special easement rights for all types of trail use might be obtained by the Town Council in areas where trails traverse private property.

New Town Hall

Plans for a new Town Hall were approved on March 8, 1973. Completion of this facility is anticipated by December 1973. The building, containing 6,672 square feet will be situated on the southeast corner of Lincoln Drive and Invergordon Road. Offices of the Mayor, Town Manager, Marshall and Clerk will occupy the southwest portion of the building. The meeting room, post office and a combination conference, library, court room will occupy the remainder. A compound for road maintenance and other equipment will be provided in the southeast corner of the site.

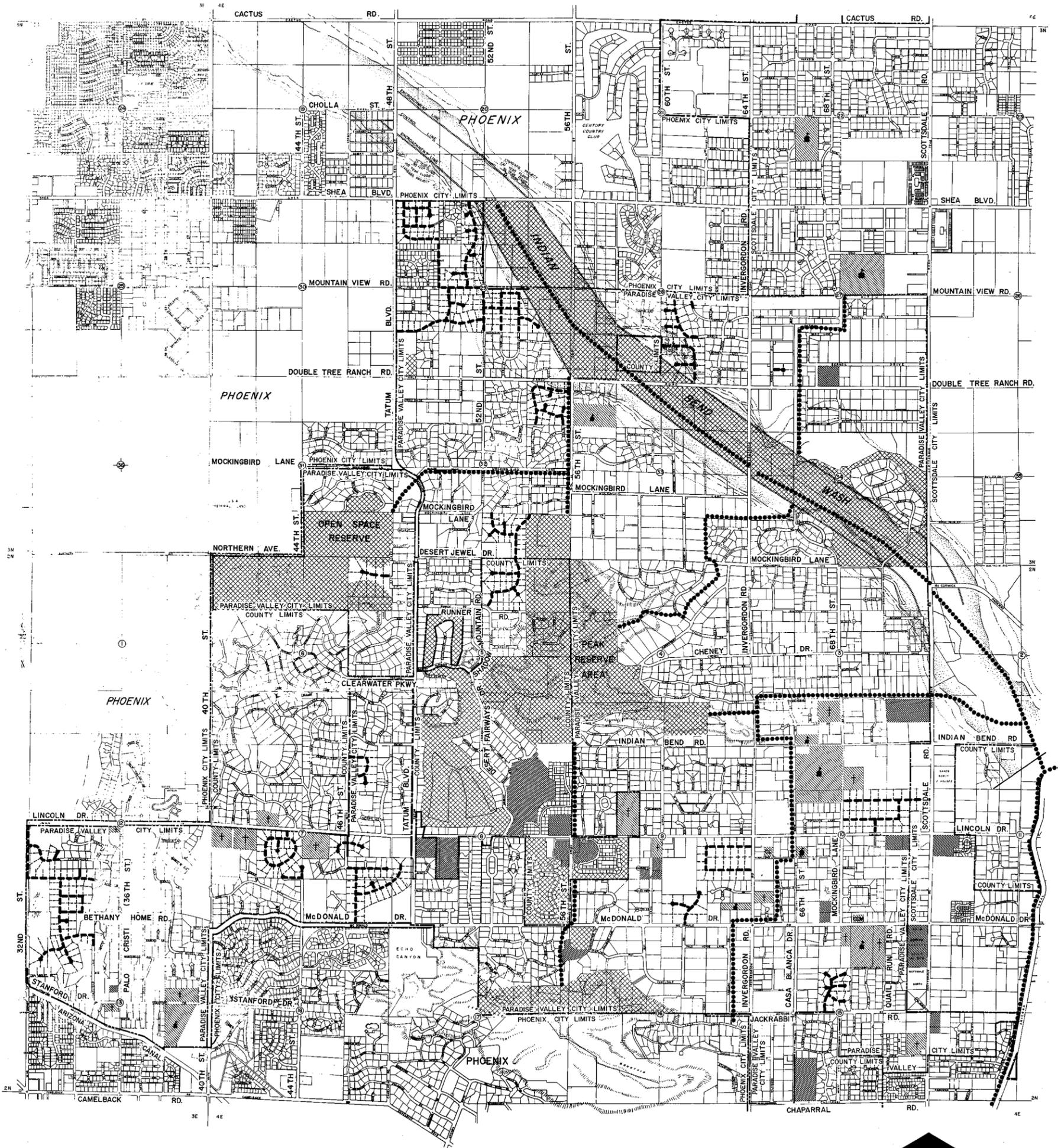
Access will be from both Lincoln Drive and Invergordon Road, with parking provided for approximately 40 vehicles.

No attempt has been made in this report to indicate specific sites for community facilities. However, such facilities should be included within a single complex, centrally located and adjacent to a major street for the maximum convenience of the area served. A discussion of convenience goods needs is as follows:

Convenience Goods

Similar to community facilities the need for convenience goods and services increases as population increases. The historic policy of Paradise Valley has been to oppose proposals for commercial uses within the town boundaries. Two of the general policy considerations suggested by the Town Council

TOWN OF PARADISE VALLEY ARIZONA



LEGEND

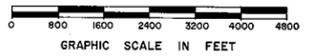
- CORPORATE LIMITS
- STUDY LIMIT-INDIAN BEND WASH
- STANDARD PROJECT FLOOD
- 100 YEAR FLOOD
- 50 YEAR FLOOD
- 25 YEAR FLOOD

NOTE: SEE FLOOD PLAIN INFORMATION STUDY, VOLUME I, INDIAN BEND WASH REPORT, FLOOD CONTROL DISTRICT OFFICE

○ CENTER OF SECTION

LEGEND

- ▨ PUBLIC AND SEMI-PUBLIC
- ▩ RECREATION AND OPEN SPACE
- ▧ GUEST RANCHES, RESORTS, AND HOTELS
- SUGGESTED STREET EXTENSIONS
- SUGGESTED LOT LINES
- SUGGESTED RIDING TRAILS
- ⚡ SCHOOL
- ✚ CHURCH
- ☠ CEMETERY
- CC CIVIC CENTER



PREPARED BY
MARICOPA COUNTY PLANNING DEPARTMENT
BASE MAP
E.L.S. APRIL, 1973

GENERAL DEVELOPMENT PLAN

PLATE 12

and considered herein in formulating this report are: "1) No major need for commercial property, 2) Preserve the community as a primarily residential and resort area with such service areas as are necessary for the convenience and interests of the residents."

The majority of retail needs for the Town of Paradise Valley are undoubtedly provided now by the following shopping facilities: Arcadia Village, a neighborhood center located at Camelback Road and 40th Street; Fashion Square, a community sized shopping center located at Camelback and Scottsdale Roads; East Camelback Mall, a small regional center located at Camelback and 20th Street; Camelback Town and Country Village, a community sized center also located at Camelback and 20th Street; and Thomas Mall, a regional center located at 44th Street and Thomas Road, the neighborhood center located at Lincoln Drive and Scottsdale Road. All of these facilities are located within a 20 minute driving time from almost all parts of the Town of Paradise Valley.

From the above information it is therefore concluded that only a limited amount of commercial facilities might be needed within the town boundaries, that these facilities would only provide for the day-to-day necessity items and services, and that such facilities might be centrally located jointly within a town complex as suggested herein.

General Plan of Development

The general intent expressed in the "General Development Plan" Plate 12, is to show a suggested plan that will provide an orderly, systematic means of growth and direction. Without a plan for future growth and a means of implementation, it is doubtful that the end result achieved would conform with the "Aims and Purposes" set forth by the Town Council. The plan suggests the general location of new streets, the extension of certain existing dead-end streets; and it indicates a general over-all lot pattern for areas suitable for development.

The suggested plan has been proposed without benefit of detailed topographical information, and of necessity it is schematic. Existing streets are shown by open double lines and the general location of proposed streets are shown by a heavy solid dash line. However, the actual subdividing or development of any given vacant portion may vary extensively from the suggested scheme because of topography, land lines, the individual property owner's desires, and other unforeseen circumstances.

A general over-all pattern for existing undeveloped areas as shown on Plate 12 reveals that an additional 2,058 residential lots could be developed within the study area. This over-all plan provides for 4,938 single-family lots which will accommodate approximately 14,000 persons as compared with 8,235 persons now residing in Paradise Valley.

The plan is based on the requirements of spacious residential lots with one acre or more of land per parcel. The plan recognizes existing

property lines, which in some cases limit design possibilities because of the number of small separately owned parcels. In many areas, the consolidation of small parcels into single ownership would permit greater latitude in street and lot arrangement than would otherwise be possible.

Existing resorts and hotels occupy a considerable portion of the land north of Camelback Mountain and south and east of Mummy Mountain as indicated on the plan. This general location provides a satisfactory location for these uses. This area is served by the major thoroughfares of Tatum Boulevard, McDonald Drive, and Lincoln Drive, which provides quick access to the cultural, recreational and commercial aspects of Phoenix and Scottsdale.

Areas for future resort and guest ranch developments have not been shown on the plan, the intent being that these uses should be permitted to intermingle with the residential areas providing they retain spacious lots and an open desert character similar to the adjoining residential development.

The General Plan of Development as shown by Plate 12 provides a concept of how the future land use and street pattern might be developed as conditions may warrant.

The primary purposes of this report is to provide a broad plan, including principles and standards, for certain facilities that will be needed to serve present and estimated future population needs as envisioned within the framework of policy statements set forth by the Town Council.

Methods for Implementation of the Plan

The general plan should be used as a guide to evaluate requests for change of zoning and for subdivision of land. The general plan provides a framework for public and private improvements.

Zoning Regulations

The zoning regulations and subdivision regulations of the Town are the two most important methods or tools for implementing the Town Plan. Zoning is primarily concerned with the use of land, height of structures, open space around buildings expressed in terms of yard requirements, and off street parking. Authority for the zoning regulations is derived from the State enabling legislation. A primary purpose of zoning is to encourage the most appropriate use of land throughout the Town. The zoning regulations adopted by the Town have a substantial relation to health, safety, welfare, and convenience of the community and they provide for a reasonable use of land. From time to time, unforeseen needs and conditions may warrant review of the zoning regulations. However, changes should be made only when community rather than special interest needs are served.

Subdivision Rules and Regulations

Subdivision regulations are concerned with the information shown on preliminary and final plats, principles and standards of design for the arrangement of lots and streets, and the standards and scope of physical improvements that may be required.

The subdivision regulations are a companion tool to the zoning regulations. A plan for a system of major streets and highways will be adopted to insure that adequate right-of-way is provided for such streets and highways as well as local streets at the time land is subdivided.

Good design cannot be legislated and subdivision rules and regulations cannot in themselves assure that land will be subdivided in the most attractive and logical manner. Much depends upon the ability of persons who design a subdivision and the quality of administration of the subdivision rules and regulations. Plate 2 shows the degree of slope of various lands. Presently the Planning and Zoning Commission of Paradise Valley have under consideration regulations governing the development of land where slopes exceed a certain percent.

Capital Improvements Program

A capital improvement program should be prepared that would detail physical needs for five or more years in advance. This should be reviewed annually and kept up to date.

A long-range capital improvement program would be useful to assure that specific projects are carried out in accordance with priorities of need and within a community's ability to pay. Such a program would protect the community against the undue influence of groups representing special interests or projects which might be of limited usefulness or need. Also, a capital improvement program provides better assurance that there will be continuity and consistency of effort under various administrations of government.

Public and Administrative Support

The planning process cannot be of maximum benefit without public and administrative support. Public support is essential to securing consistent administration of any plan.

The Planning Commission and Council represent the public interest in planning and general development. As custodian of a general plan, the Commission is in a position to evaluate the merit of specific proposals that may be advanced from time to time by others. Also, it should initiate and recommend to the Council the undertaking of projects and proposals as needs and conditions warrant.

APPENDIX

The following Land Use Plan for the Town of Paradise Valley, Arizona was adopted by unanimous resolution of the Mayor and Common Council on January 14, 1965 after consideration of the recommendations of the Planning and Zoning Commission of the Town.

The resolution is:

RESOLUTION NO. 39

A RESOLUTION OF THE MAYOR AND COMMON COUNCIL OF THE TOWN OF PARADISE VALLEY, ARIZONA ADOPTING A LAND USE PLAN FOR THE TOWN OF PARADISE VALLEY AND DECLARING IT TO BE AN EXPRESSION OF PUBLIC POLICY.

WHEREAS, the orderly and efficient use of the land within the Town consistent with the health, welfare, morals and safety of the inhabitants is a matter of public concern; and,

WHEREAS, such orderly and efficient use of land can best be accomplished by advanced planning so that prospective purchasers and developers of land may be fully informed with respect to the land use policies and objective of the Town;

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Common Council of the Town of Paradise Valley that the attached Report Upon Planning for the Town of Paradise Valley be and it hereby is adopted and shall be known as the Land Use Plan for the Town of Paradise Valley, and is declared to contain an expression of public policy of the Town with respect to all things therein contained.

PASSED AND ADOPTED BY THE MAYOR AND COMMON COUNCIL OF THE TOWN OF PARADISE VALLEY, ARIZONA, this 14th day of January, 1965.

APPROVED this 14th day of January, 1965.

Jack B. Huntress, Mayor

ATTEST:

Helen E. Marston, Town Clerk

The Town of Paradise Valley acknowledges with gratitude the efforts of the staff of the Maricopa County Department of Planning and Zoning in the preparation of the Report Upon Planning upon which the attached Land Use Plan is based.

Jack B. Huntress, Mayor