

V I E N N A

MASTER PLAN OF  
MAJOR STREETS  
AND PARKING

TOWN PLANNING COMMISSION  
VIENNA, VIRGINIA  
FEBRUARY, 1958

GARLAND A. WOOD & ASSOCIATES  
CONSULTING CITY PLANNER

GARLAND A. WOOD AND ASSOCIATES

PLANNING - ZONING - URBAN RENEWAL - HIGHWAYS

MEMBER AMERICAN INSTITUTE OF PLANNERS

SUMMIT AVENUE AT BROAD STREET

RICHMOND 21, VIRGINIA

Mr. Charles Conrad, Chairman  
Town Planning Commission  
Vienna, Virginia

February 17, 1958

Dear Mr. Conrad:

We submit in this report our analysis and recommendations concerning the Master Plan of Major Streets and Parking in Vienna. This is the second report in the series on the Master Plan in accordance with our agreement with the Town.

Population growth, land use, economics, and future traffic trends have been considered in the preparation of this plan designed to solve present problems, prevent future traffic congestion, and to provide greater safety for the motorist and pedestrian.

Two important aspects of the recommended trafficways plan are a proposed system of expressways and a new routing of traffic on Route 123. A system of primary and secondary thoroughfares is also recommended and consideration has been given to the handling of truck traffic and parking.

We have considered it a privilege to work with you, the Planning Commission, and the special committees on this project. We express our sincere appreciation for your assistance and cooperation and for the assistance of the personnel of the town of Vienna. Other valuable assistance was also obtained from the National Capital Regional Planning Council, the Virginia Department of Highways, and the Fairfax County Planning Commission.

We look forward to the preparation and presentation of other reports on the Master Plan in the very near future.

Very truly yours,

GARLAND A. WOOD & ASSOCIATES



Garland A. Wood

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## I. INTRODUCTION

### Need for Planning Major Streets

This report deals with the major street plan and parking and transportation sections of the Master Plan of Vienna. Consideration has been given to the interrelationship and interdependence of Vienna and the trafficways of the metropolitan Washington area. All of the forces of population growth, land use, economics, future destinations of traffic, and so forth have been properly balanced against the planning values that will bring about the most desirable long time benefits to the community. Some of the goals are the solution of present and future traffic congestion, which causes loss of time and creates accidents; the creation of an atmosphere of safe and convenient travel for the motorist; and the return to the human scale, which is the pedestrian's right to ease, comfort, and enjoyable walking.

### Planning Objectives

Besides coordinating the trafficways and transportation facilities with the Land Use Plan, the objectives of this report are:

1. To separate:
  - a. high speed from low speed traffic,
  - b. through traffic from internal traffic, and
  - c. pedestrian traffic from vehicular traffic as much as possible by the removal of unnecessary traffic from residential areas.
2. To assign, in as far as possible, each street a particular function:
  - a. moving traffic
  - b. providing access to abutting property.
3. To channel industrial traffic to its destination outside the town.
4. To remove through traffic from the shopping area and allow for the free movement of vehicles completely outside and around the shopping area.
5. To provide sufficient off-street parking areas with proper access to these areas and the business district.
6. To provide quick and convenient movement of people and goods to all important places of the city.

## The Problem

The freedom from congestion, delays, and hazards of vehicular traffic has in recent years become extremely important to economic and social existence. Poor accessibility, congestion, and accidents, due largely to inadequate streets, have retarded development and have depreciated the value of property in many business districts.

In Vienna the problems with which we are concerned in this section are apparent at this time. The lack of an adequate system of major streets has often forced the use of local residential streets as trafficways, thereby impairing, if not destroying, their desirability for residential uses as a consequence of the noise, fumes, and accident hazard which invariably accompanies heavy traffic, necessitating unduly large expenditures for street maintenance and repair. The town had a transportation problem: highway traffic streaming through the town created a bottleneck in the central business district which, if allowed to go unchecked, would cause a large economic loss. In choosing to widen the present street rather than reroute this traffic, Vienna has incurred still another problem: the loss of the all-important parking spaces in front of her places of business. The lack of adequate and convenient parking spaces has stunted the growth of many business districts, this inconvenience forcing shoppers elsewhere. Vienna, however, drawing much of her trade from outside the town, must maintain satisfactory parking to enjoy its predicted development.

Thus, we see that these three problems -- of transporting vehicles through the community, of developing a sensible system of streets for the community, and of supplying necessary parking within the community -- are interconnected and must be considered collectively in outlining the future of Vienna.

The goals toward which we strive in this field by our studied planning are fundamental, relatively simple to state, and easy to comprehend. No matter how fundamental, sensible or simple they be, there still remains in our day many problems: social, economic, political, financial, etc., which make these goals difficult to attain.

We are seeking an ideal pattern of transportation which will insure a smooth and speedy flow of traffic to its destination with as little interference to other travelers as possible, and, which, in the central business district, will separate pedestrian from vehicular traffic. We are looking for a street plan which

separates local and through traffic and directs it over a few designated, improved roads. We are searching for ideal parking areas which will provide convenient accessibility to shopping districts without impeding the movement of other vehicles in the area. We are seeking safety from high accident rates, protection from congestion, and refuge from the depreciated, traffic-infested neighborhood.

It was necessary to study the habits of the motorist to determine many of the answers to traffic trends. Fortunately, a comprehensive origin and destination traffic survey of the metropolitan Washington area was made in 1948 and brought up to date in 1955. The zone to zone traffic volume was obtained through interviews. This data was expanded to the years 1965 and 1980 by the National Capital Regional Planning Council. The Council based the future projections on future population, future employment, and future land use predictions. The future traffic volumes between each zone was plotted to obtain the 1965 and 1980 preferred lines of traffic from Vienna to various other communities in the metropolitan area. The resulting data formed the basis of this plan. The trafficways have been coordinated with the National Capital Regional Planning Council, the Fairfax County Planning Commission, and the Virginia Highway Department.

Another study is under way in the metropolitan area. It is the Washington Transportation Study, which is being conducted under the direction of the National Capital Regional Planning Council and will be available some months from now. It is unfortunate that this report had to precede the Washington Transportation Study. As much coordination as was possible, however, was achieved with the National Capital Regional Planning Council.

## II. EXISTING CONDITIONS

### Regional Highways

Vienna is located approximately eleven miles west of Washington, D. C., and two of the principal highways into Washington pass within a few miles of the town limits of Vienna. The main highway through Vienna, Route 123, connects these two highways: U.S. Highway 29-50-211 to the southwest and Virginia Primary Highway 7 to the north.

Routes 7 and 29-211 converge in Falls Church, approximately three miles southeast of Vienna, forming an angle which encloses Vienna on all sides except to the west. In this direction there is only a secondary highway (Route 674), which also connects 7 and 29-211. This road gives off several small highways which run into Vienna and join Route 123 from the west. In the town, Route 123 (or Maple Avenue) gives rise to another highway of note, Route 675 (Park Street), which extends from 123 eastward, branches several times, and eventually joins Routes 7 and 29-211 by way of Route 698.

There would be little reason for anyone traveling on these highways, headed into or out of Washington, to wish to change to the other by means of the secondary roads we have been discussing, and, therefore, we assume that most of the traffic in Vienna is composed of either local vehicles, vehicles coming into Vienna to shop, visit, or transact business; or traffic headed for points beyond. Thus, a much smaller percentage of Vienna's traffic would be non-stopping than that of the nearby towns such as Falls Church and Fairfax, which harbor main arteries into Washington.

The main line of the Washington and Old Dominion Railroad runs through the town in a gentle curve, bisecting both Maple Avenue and Park Street. This railroad offers freight service to Washington, D. C., and the northern tip of Virginia.

### Existing Streets

The map entitled Existing Street Widths shows the relative widths of the thoroughfares in Vienna. The right of way widths, measured between property lines, are an indication of the potential traffic carrying capacity of the streets. They are divided into intervals of 10 feet: 60, 80, 90, 100 and 110.

The widest streets stand out and form the basis for a major street pattern. Obviously, they were dedicated for this purpose.





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MASTER  
 PLAN STUDY

1957



PLATE NO. 1

VIENNA

EXISTING STREET WIDTHS  
 ■ STREETS 60 OR MORE FEET IN WIDTH  
 ■ STREETS 50 TO 59 FEET IN WIDTH  
 ■ STREETS 40 TO 49 FEET IN WIDTH  
 ■ STREETS 30 TO 39 FEET IN WIDTH

Only those sixty feet or wider are capable of carrying four lanes. Such streets as Maple Lane, Park Street, Beulah Road, and Tapawingo Road are among the widest, although there are many other streets that are wide for short distances. Streets that are less than fifty feet in width are generally undesirable for carrying traffic in two directions if parking is permitted on both sides. Many streets in Vienna fall into this category and still more have not been developed to their maximum use. Additional lanes may be added by the construction of additional paving and perhaps curbs. This is relatively inexpensive compared to the cost of purchasing additional right of way.

The plan of major streets will remove some of the serious deficiencies by the addition of necessary thoroughfares. However, the best possible use of existing streets will be integrated into the plan.

### Existing Improvements

The existing conditions of Vienna streets are shown on Plate Number 2. In general, too many of the smaller streets are poor; ungraded, unpaved and uncared for. This causes congestion and in order for the future Vienna to be a clean, healthy community, short local streets must be developed for intra-town traffic. The streets in the new residential developments are designed on sound planning principles and should serve the future community well.

The problems that Vienna faces in the business district have already been mentioned. The present highways bring too much traffic into the center of town. As this report is being compiled, the main street of Vienna, Maple Avenue, is being widened in order that a bottleneck of traffic which plugs up the downtown area may be removed. In the future the Highway Department will not permit parking in these blocks on either side of Maple Avenue. Thus as the bottleneck is broken the problem of adequate parking nearby arises. There will still be enough parking spaces, but the distance from parking space to some stores will be greater in certain instances. At present, the greatest loss is the strategic parking spaces directly in front of the small retail shops.

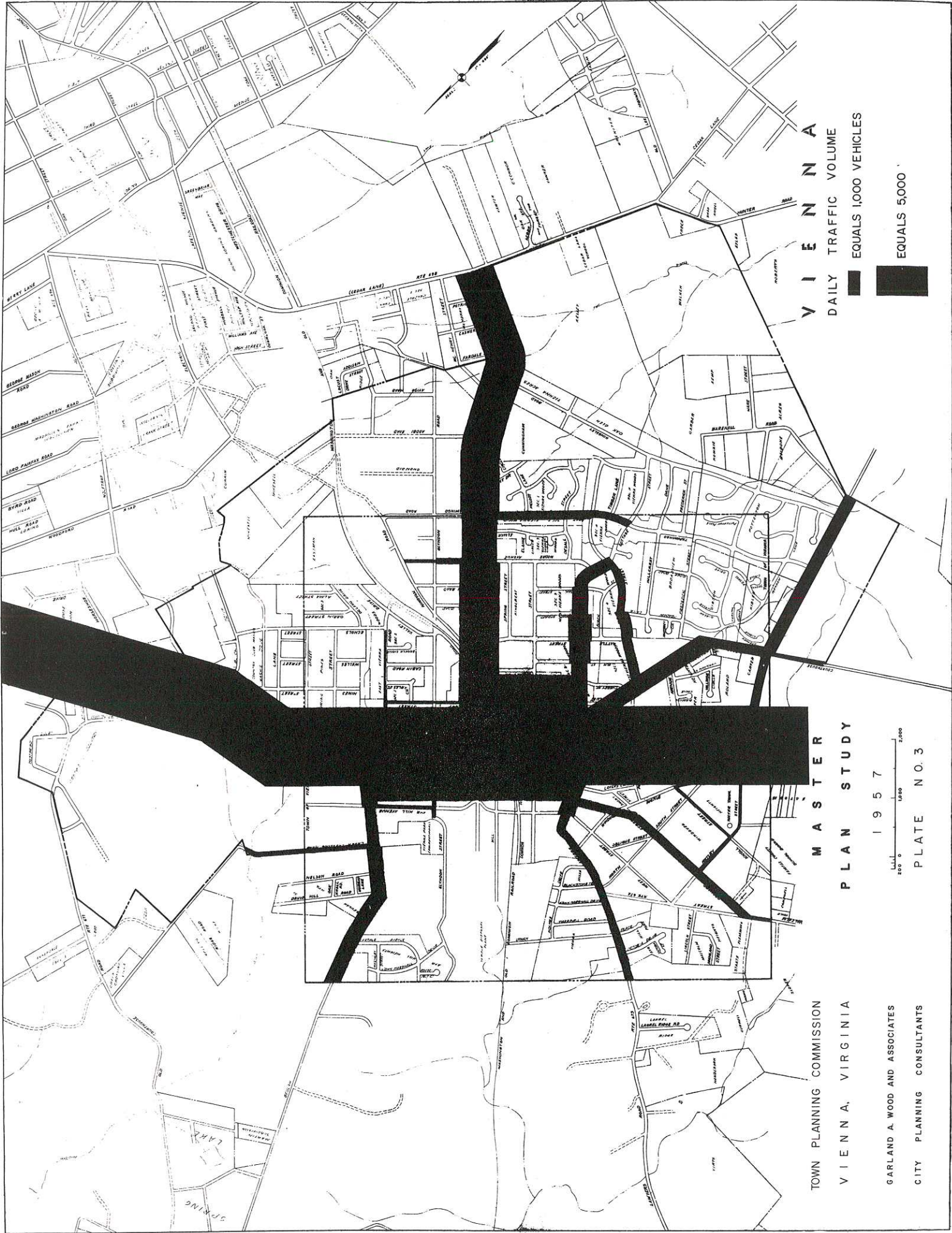
If the number of autos continues to grow as it has in the past decade, the parking problem will become too great to be contained by present available spaces. Even the transportation problem is only temporarily abated, for when the future traffic volumes come into being, they will bring back to Vienna its troublesome bottleneck.



--- UNCONSTRUCTED OR UNPAVED STREETS  
 - - - STATE MAINTAINED ROADS  
 - - - STATE MAINTAINED AND NOT UNDER STATE MAINTENANCE  
 - - - STATE MAINTAINED AND NOT PAVED  
 - - - UNCONSTRUCTED OR UNPAVED STREETS  
 - - - STATE MAINTAINED ROADS  
 - - - STATE MAINTAINED AND NOT UNDER STATE MAINTENANCE  
 - - - STATE MAINTAINED AND NOT PAVED

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MASTER PLAN STUDY  
 1957  
 SCALE: 1" = 1000'  
 PLATE NO. 2



VIENNA

DAILY TRAFFIC VOLUME

■ EQUALS 1,000 VEHICLES

■ EQUALS 5,000

MASTER PLAN STUDY

TOWN PLANNING COMMISSION  
VIENNA, VIRGINIA

1 9 5 7

0 1000 2000

PLATE NO. 3

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### III. CHARACTERISTICS OF TRAFFIC

#### General Traffic Trends

Traffic congestion and other traffic difficulties in practically all cities, large and small alike, can be attributed in the main to the fact that their street systems, designed and built in large part for horse-drawn vehicles, are ill-adapted to the requirements of modern automotive traffic. The narrow, circuitous and indirect streets, quite adequate no doubt in the horse and buggy era, are bottlenecks and sources of accidents for the automobile. While the phenomenal increase in the number and use of motor vehicles has brought about revolutionary changes in the manner of living and doing business, the modernization and improvement of streets in our cities to accommodate this traffic has been unable to keep pace with these developments. Streets were built to be permanent structures. Their permanence now becomes their greatest disadvantage.

This is true in Vienna. The original street system of the town was laid down long before the acceptance of the auto as the mode of transportation, before the days of the exhaust fume, the horn, the evening rush, the traffic jam and high accident rate. There was no reason to design streets any differently than they had always been as long as Vienna remained a small, quiet community.

In the past few years, however, Vienna has undergone remarkable growth. This is evident primarily in the great increase in the population of Vienna and its neighboring regions. Vienna's population has tripled since 1950 and is still continuing to increase. Barring unforeseen events, the Vienna region should reach its population capacity in about twenty years, if not before then. The present population of Vienna, including the annexed area, is estimated to be 7,111 persons.

The estimated figures for this same area in 1965 is 11,230 persons and, in 1980, 16,600 persons. As a direct result of the rise in population, the density of traffic has risen, and will continue to rise. At the present time Fairfax County ranks far ahead of all other counties in Virginia in vehicle miles of travel with 1,336,309 vehicle miles of travel per average twenty-four hour period. The average traffic density per mile of road in Fairfax County is 9,206 vehicles per day, which ranks as second highest to Arlington County with 18,990.

It might be well to take a look at the national statistics from the standpoint of total vehicles in the nation. In 1925 the

number of vehicles, both private and commercial, amounted to 19,941,000. In 1950 there were 48,600,000. In 1957 the number had risen to 67,500,000. It is estimated to increase to 90,500,000 by 1967. Vienna can anticipate an increase in traffic problems greater than these figures would indicate.

Past Trends

The Table, Characteristics of Traffic in Vienna and Virginia, indicates the growth in traffic in Vienna. Traffic in the entire state increased by 137.36% from 1941 to 1957, but the traffic in Vienna topped this figure by increasing 208.36%. The average number of vehicles per twenty-four hours entering and leaving via Route 123 numbered some 2,165 in 1941. By 1957, we find this figure has risen to 6,676 and, of this amount, 72.89% were Virginia passenger cars. This percentage is much greater than the average of 59.33% for the district and 59.73% for the state. The most significant statistic is that almost no trailer trucks pass through Vienna. This is a very healthy situation. Tractor trailers and buses constituted only 0.78% of the Route 123 total, which is much smaller than the 4.20% of the district, or the 6.17% of the state. The percentage of light and medium trucks was practically the same as the district and the state.

Characteristics of Traffic in Vienna and Virginia - 1957

Table Number 1

	#123 near Vienna		CULPEPPER DISTRICT		VIRGINIA	
	Vehicles	%	Miles (1,000)	%	Miles (1,000)	%
VA. PASSENGER CARS	4,866	72.89	2,302	59.33	12,223	59.73
OTHER " "	886	13.27	962	23.96	4,158	20.32
LT. & MEDIUM TRUCKS	872	13.06	502	12.51	2,820	13.78
BUSES & TRAILER "	52	0.78	169	4.20	1,263	6.17
TOTAL - 1957	6,676	.0017*	4,015	19.62 <sup>x</sup>	20,464	100.00
TOTAL - 1941	2,165	.0014*	1,519		8,621	
% INCREASE 1941-1957	208.36		164.32		137.36	

x % district is of state

\* % total vehicle count is of total miles in district

## Present Traffic

The traffic situation inside the town is shown on Plate Number 3, "Daily Traffic Volumes." According to the 1957 volume of traffic, there are two principal thoroughfares: Maple Avenue and Park Street. Of these, Maple Avenue is by far the most frequently traveled street, in fact, more than twice as heavily traveled as Park Street, which carries 3,426 vehicles per day. It is obvious that the traffic congestion takes place near the intersection of these two important streets in the shopping area. The numerous entrances to parking lots along Maple Street adds to the confusion and policing problem.

This map indicates again that too much unnecessary traffic is directed through the heart of town. Non-shopping traffic should not be transported through the central business district for obvious reasons. If this traffic could be diverted by another route which would not interfere with the town's functions, then both the business district and the highway traffic would benefit.

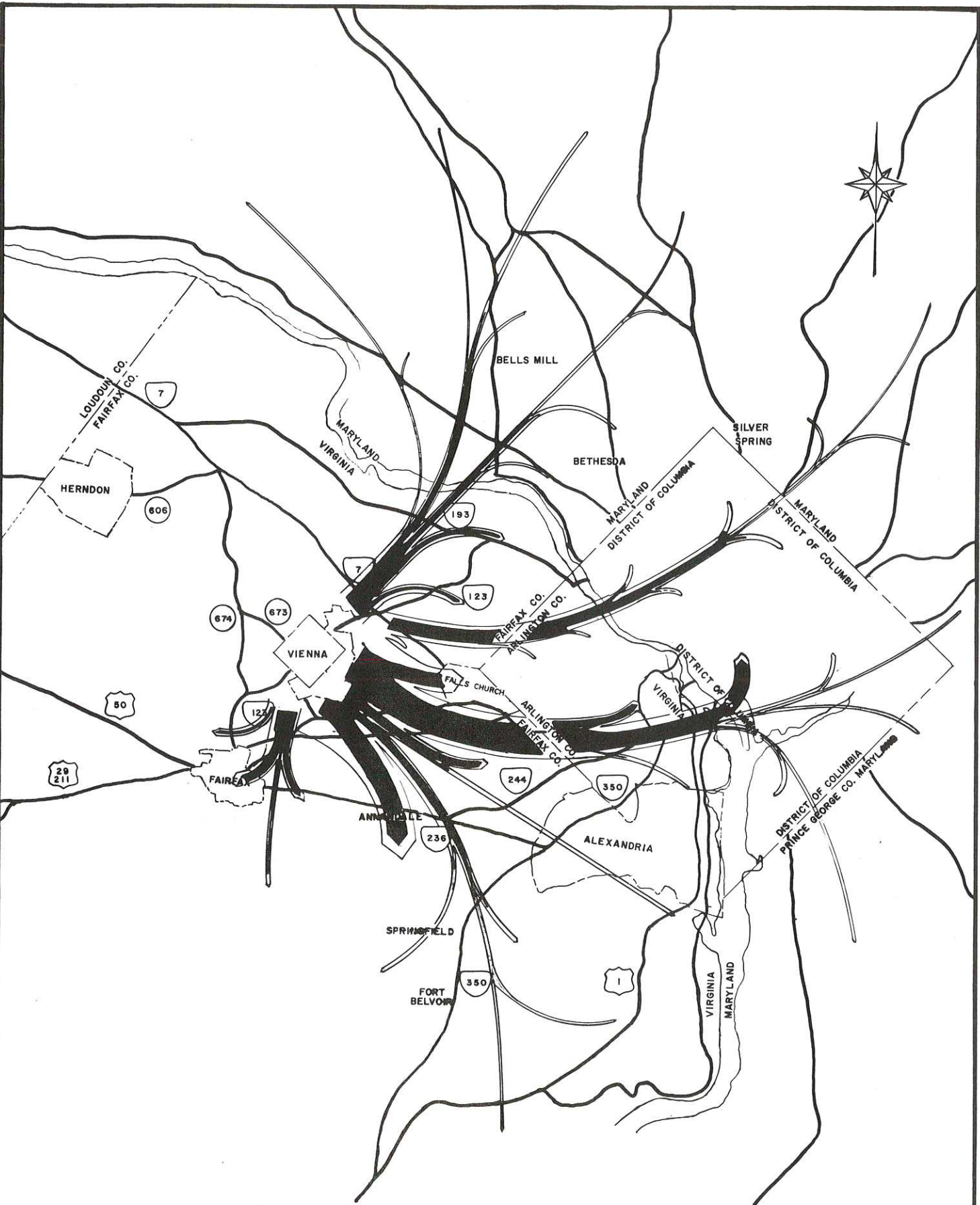
The major traffic flow on this plate is an indication of the type of major arteries which will have to be provided.

## Future Destination of Traffic

The map, Vienna and Region, Future Traffic Volumes, shows a phenomenal growth in traffic to the year 1980. The data for this map was obtained from the preliminary traffic analysis tables of the National Capital Regional Planning Council. It represents the origin and destination predictions for the years 1965 and 1980. The surveys were conducted in 1948 and 1955 and the projections were based on future population and employment estimates for the metropolitan Washington area.

From this map we see that by 1965 or 1980 at the latest, the number of travelers headed to the southwest will be so great that a primary highway must be opened in that direction to relieve Maple Avenue.

In 1980, there will be an estimated 5830 daily trips from Vienna to the northeast, including Maryland; whereas, there will be an estimated 3,869 daily trips to the east and northern part of D.C. and beyond. By 1980 the traffic volume will be approximately 19,000 vehicles per day to the south and the southern part of Washington. Table Number 2 shows these origin and destination estimates based on anticipated generators. It shows the total traffic to and from the Vienna area will climb from 22,513 in 1965 to an estimated 33,773 vehicles per day by 1980.



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# VIENNA AND REGION

FUTURE TRAFFIC VOLUMES

1965
1980
} 20,000 PEOPLE OR 10,000 VEHICLES  
} 10,000 PEOPLE OR 5,000 VEHICLES

**MASTER PLAN STUDY**  
 1957  
 SCALE OF MILES  
 PLATE NO. 4  
 0 1 2 3 4



## ESTIMATED DAILY TRIPS FROM VIENNA AREA TO DESTINATION

Table Number 2

	1965		1980	
	PERSONS	VEHICLES*	PERSONS	VEHICLES*
NORTHEAST & MARYLAND	7,491	3,746	11,660	5,830
EAST & NORTHERN PART OF D.C. & MARYLAND BEYOND	4,759	2,379	7,738	3,869
SOUTH & SOUTHERN PART OF D.C.	25,061	12,530	37,978	18,989
SOUTHWEST	7,715	3,858	10,170	5,085
Total	<u>45,026</u>	<u>22,513</u>	<u>67,546</u>	<u>33,773</u>

SOURCE: The Mass Transportation Survey Staff, National Capital Planning Commission, and National Capital Regional Planning Council, Origin and Destination Survey.

\* The ratio of persons to vehicles is estimated to be 2:1.

### Possible Effects of Traffic On Commerce

Expansion promotes changes in the business district which often go unnoticed until the congestion of this area dictates reforms so drastic that they are unpleasant to the local businessmen.

Since Vienna is still a relatively small community and a portion of traffic to and from the shopping district is pedestrian, there would be ample road and parking space in this area for the present needs if the highway traffic which does not intend to shop in Vienna were diverted around the town. However, when the Maple Avenue project is completed, there will be no parking on either side of this street in the shopping area, and the non-shopping highway traffic will continue to add to the conflict in this area unless, perhaps, with the four-travel lane smoother street, through traffic attempts to move faster than before. As Vienna expands, downtown traffic will increase greatly, whereas the proportion of people who walk from their homes to shop will decrease. At least, this has been the trend because of the increased distance from home to shopping district and because of the increase in the number of autos among the population. Also, as Vienna expands, more and more conflict will

develop between the increasing local traffic and the through traffic.

To Vienna this is very important economically because of the retail trade which comes from outside the town. The discussion under the Economics section of report number 1 shows that the outside trade should continue to grow, and Vienna should become an important retail center. Employment alone (750 in 1955) is estimated to jump to 2,900 in 1965 and 4,400 by 1980. Unfortunately, this potential will never be achieved if the out-of-town shopper is not furnished with an unobstructed route to the shopping center, a convenient place to park, and an attractive area in which to shop. This must be done, not overlooking the local shopper, but guaranteeing him the same advantages as the more numerous out-of-town shoppers.

#### IV. THE PROPOSED PLAN

##### Purpose Of A Comprehensive Plan

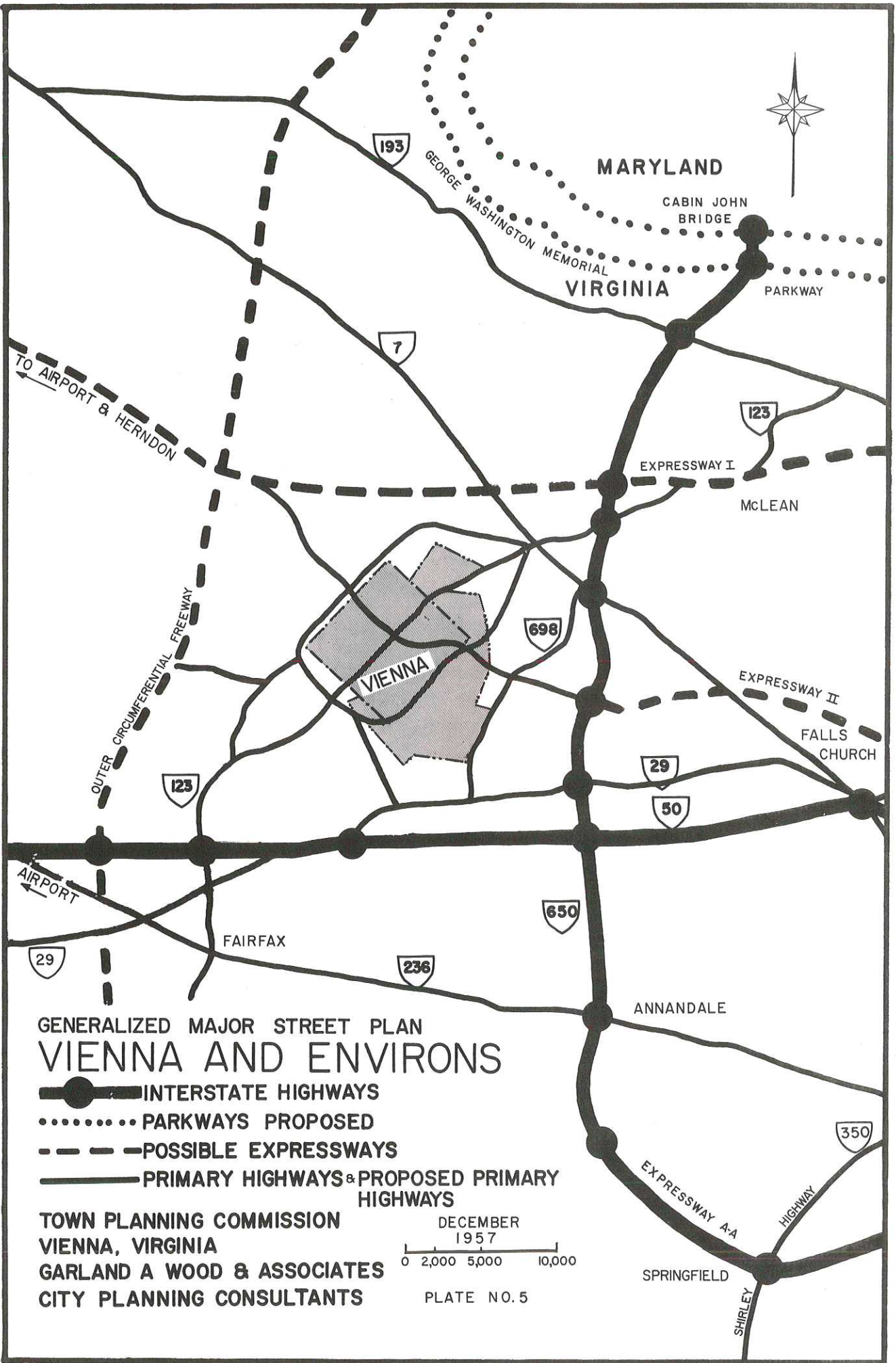
The community's basic prerequisite in handling its transportation problems lies in the development of a competent system of streets and highways wherein the present and expected future volumes of traffic can be accommodated on a relatively few and improved streets.

Such a comprehensive system will provide streets for the majority of present and future vehicular traffic. The purpose of such a system is to expedite traffic movement between various areas of the town. The major movements are between residential areas, from dwellings to schools, shopping areas, and places of employment. The high capacity major streets will expedite traffic movement and will attract the majority of the present and future traffic rather than scatter it over the entire street system. The removal of heavy traffic with its noise and hazards from residential streets will enhance the value of the dwellings. The concentration of traffic will also make for better economics since pavements can be provided in accordance with traffic needs.

##### The Major Street Plan

The Generalized Major Streets Plan, Vienna and Environs, shows the proposed plan for future thoroughfares in the Vienna region. Highways 7 and 29 will be noted to remain unchanged whereas Route 50 has become an interstate highway and presumably carries a much greater load of traffic. To the east a new interstate highway running in a north - south direction is located between Vienna and Falls Church. To the west a possible expressway carries north and southbound traffic, creating a heavily traveled road where today only a lightly traveled secondary highway exists. Future expressways on both the north and south of Vienna will feed Washington traffic to the proposed airport west of Vienna. In fact, expressways will encompass the town.

Inside Vienna the highways undergo important changes also. Route 123 is seen to divide into three branches: one circumventing the town, the second traveling to and through the central business district, the third passing through the town outside of the central business district. These roads will be discussed under the Major Street Plan, but it should be noted here that their general effect would be to allow non-stopping traffic to pass around or through the town without disturbing it, or, if it so chooses, to have ready access to the central business district. It is likely that at this time a considerable number of cars may



**GENERALIZED MAJOR STREET PLAN  
VIENNA AND ENVIRONS**

- INTERSTATE HIGHWAYS**
- ..... PARKWAYS PROPOSED**
- - - POSSIBLE EXPRESSWAYS**
- PRIMARY HIGHWAYS & PROPOSED PRIMARY HIGHWAYS**

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DECEMBER  
1957  
0 2,000 5,000 10,000

PLATE NO. 5

choose to change to Route 50 or the new expressway to the west via 123. These new roads could adequately handle this additional traffic.

A new primary highway is proposed along the Washington and Old Dominion Railroad and will be a very important roadway in the future. It will be a direct connection from the expressway on the west and the new interstate highway to the east, and at this junction there is another proposed expressway into Washington. A loop formed by the branches of 123 could transport some of this traffic around the town and special compensation has been made for the increased traffic from this direction in the Generalized Major Street Plan. This loop is proposed to divert non-stopping traffic around the town and it will effectively accomplish this on Route 123. The right hand side of the loop will serve as a lead into the proposed primary highway along the railroad to the east entering the proposed interstate highway at its intersection with a proposed expressway into Washington. To keep as much traffic as possible out of Vienna, an extension of the southern corner of the loop projects to Route 29. This would be over a new alignment, generally, following the creek south of Nutley Street, avoiding the roller-coaster effect of the present street. Traffic coming towards Vienna in either direction probably would not use this loop unless it intended to change to Route 123. Therefore, special consideration has been made for this traffic passing through the town. Before leaving this subject, it should be noted that all of the land for this proposed loop must be acquired except for the portions which use the present Tapawingo and Woodford Roads.

The most important route through Vienna in the future will be the proposed east-west highway, paralleling the railroad. This road is entirely new except for small portions of Mill Street, Park Street, and Dominion Road. It travels between the neighborhoods of the town creating part of the boundaries for each. Trucks going to the industrial area adjacent to this highway and to the shopping center will use this facility. The roadway passes through the center of town which is the destination of much of the traffic.

The out-of-town shopper will be able to travel on a major thoroughfare directly to the shopping center from any direction. The shopper also has his choice of major routes and therefore would naturally select one of them in preference to using the streets within the neighborhood. The resident of Vienna also has a choice of major thoroughfares for destinations on the opposite end of town.

## Neighborhood Streets

One of the purposes of the Generalized Major Streets Plan is to provide the neighborhoods with a special street system, each road being proportioned to its probable traffic load and the system as a whole being designed to facilitate circulation within the neighborhood and community and at the same time discouraging its use by through traffic.

The function of the neighborhood streets and collector streets is to provide access to dwellings, to school, to the store, and to the major highway that leads to employment centers. Safety of the pedestrian and of school children from motor traffic is a factor that determines the design of a residential street system. Children should not be required to cross any primary highway in reaching school or the playground.

The street system should help the neighborhood to maintain its privacy. Streets laid out in straight lines will invite traffic that has no destination in the neighborhood. An irregular pattern will aid privacy. An irregular design of streets, with closed vistas, wide enough to perform their function, shaded with trees, and appropriately planted will provide the privacy and amenity that most people desire and deserve.

It will be recalled that the Proposed Land Use Plan divides Vienna into five neighborhoods: Tysons, Vienna, Cedar, Flint, and Club. Neighborhoods, however, cannot be arbitrarily set up. They are determined by natural and man-made boundaries.

The street system is perhaps the biggest single factor in influencing the success of the Proposed Land Use Plan. New streets must be built in the developing residential areas before the new dwellings are built. In the older areas changes must be made in the street plan, rerouting major throughfares, creating more "dead end" cross streets, and other similiar steps to give the old neighborhood the privacy and independence it needs to be a more desirable place in which to live. Because of their interdependence the Generalized Major Street Plan and the Proposed Land Use Plan have been drawn up simultaneously as must be the case if either is to be valid.

The five neighborhoods are seen to be entirely free of railroads or major roadways. Each is independent in that it has its own school and playgrounds. The major streets, highways, and rail-road form the boundaries for the neighborhoods.

Each has collector streets which lead directly from the neighborhood into these areas. The collector streets are designed for the safety of the neighborhoods by right angle turns to reduce the speed of motorists. Traffic, coming into the town on the primary highways, could pass through the town, go into the commercial district, or go into the industrial areas without entering one of these neighborhoods. Many of the collector streets need only to be widened in part to meet their future task.

In order to insure this privacy and protection for pedestrians, many of the residential streets end by branching into numerous cul-de-sacs on which the dwellings are located. The residential streets in town join collector streets - some of which travel into the community's commercial center while others join the major streets at the periphery of the residential area and lead eventually to the highways out of the town.

This design can be applied more completely to those neighborhoods not yet in existence, for an existing neighborhood does not lend itself to radical changes in the street plan without damaging a good many existing dwellings, even if such changes were financially possible. A better solution, and one easily applicable in Vienna, is to improve the major streets and highways to the extent that the residential streets hold no attraction for the cross-town traveler. The plan of major streets is a good, functional plan, and, if it is adopted, should accomplish this purpose. The majority of the residential streets, on the other hand, are short, narrow, and circuitous in route. They already tend to hinder any traffic that is not coming to or from their neighborhood. The many cul-de-sacs in the new residential areas in the southern end of Vienna show the town is already exhibiting the safest planning for residents.

#### Conformity With The Plan

After the Generalized Major Street Plan and the Generalized Major Street Plan, Vienna and Environs have been adopted by the Town Council, the general laws passed by the General Assembly in 1934 governing municipal planning gives the Plan the following legal status: "....thereafter no street, ....or other public way, ....shall be constructed or authorized in the municipality ...until and unless the general location, character and extent thereof has been submitted to and approved by the municipal planning commission." Further, the act gives powers to the Town Council to overrule the disapproval of the commission.



GENERALIZED  
MAJOR  
STREET PLAN

INTERSTATE HIGHWAY  
PRIMARY HIGHWAY  
OF ADEQUATE WIDTH  
TO BE WIDENED  
TO BE ACQUIRED  
TRAFFIC INTERCHANGE  
COLLECTOR STREETS  
OF ADEQUATE WIDTH  
TO BE WIDENED

MASTER  
PLAN STUDY

1957

PLATE NO. 6

TOWN PLANNING COMMISSION  
VIENNA, VIRGINIA

GARLAND A. WOOD AND ASSOCIATES  
CITY PLANNING CONSULTANTS



The Virginia Land Subdivision Act also provides the framework for requiring subdivisions to conform to the plan not only within Vienna but within two miles of its corporate limits.

The public authority does have the fundamental inherent rights that exist after, during, and prior to the subdivision of land. These powers are to tax, plan, provide services and facilities, and, in general, promote the health, safety, morals, comfort, convenience, and general welfare of the inhabitants. Therefore, when the subdivider of his free will subdivides the land, the public authority should exercise its given rights to insure that no damage is done to the general welfare of the rest of the community. The public authority must not only maintain the dedicated streets that conform to regulations but must provide services to those who use the land. Therefore, in granting the developer the privilege of recording his plat, the governing body may exact from him certain requirements which will minimize the risk of the new development to the community as a whole. The subdivider is required to transfer in fee simple the land necessary for major streets. It is only right that each subdivider should contribute his share of the community's streets since his subdivision will, in turn, benefit when the entire system is developed. Unless major thoroughfares are provided in the proper location by the dedication of the necessary land the continuation of such streets could be readily blocked.

Many of the streets shown in the Generalized Major Street Plan and the Generalized Major Street Plan, Vienna and Environs can gradually be obtained through subdivision dedication.

#### Amendment To Building Code

When the land is already subdivided the recommended method of obtaining the necessary right of way for streets is by amending the building code. When the application is filed for a building permit, it may be referred to the Planning Commission. If the property involved is set apart in the Generalized Major Street Plan, the application could be held up for thirty days while the Town Council considers purchasing the land. It is much cheaper to acquire prior to the construction of an improvement than afterwards. This is not only applicable where the building is to be torn down but also when part of the yard will be taken later for widening. If an appropriation is set aside for acquisitions in each year's capital budget to be used for acquiring the rights of way before buildings are constructed, there will be a material saving to the public. Not only will there be great savings to the state but to Vienna as well, for when Vienna becomes a city, the cost of acquiring streets will be shared by the city.

The amount of land needed for widening should be purchased prior to the issuance of the building permit, not relying solely on the setback required in the zoning ordinance.

#### Recommendations on Procedure

The Generalized Major Street Plan is designed to provide thoroughfares for the residents of Vienna and the adjoining areas for hundreds of years in the future. Such long time benefits cannot be expected to be constructed in a short period.

The most important recommendations follow:

1. After public hearings, modification, if necessary, and adoption of the plan as part of the Master Plan by the City Planning Commission and the Town Council, it will become the official guide for future construction. The plan must be filed with the Clerk of the Circuit Court. A copy should be sent to the Fairfax County Planning Commission, the Northern Virginia Regional Planning and Economic Development Commission, the National Capital Regional Planning Council, and the Virginia Highway Department.
2. Make appropriations in each annual capital budget for acquisition of rights of ways on which building permits will be issued.
3. Notify subdividers in the community and owners of large tracts of vacant land within two miles of the town's limits to have their engineers incorporate the location of these generalized major streets in their subdivision designs when they prepare them.
4. Arrange for regular meetings with the Resident Engineer of the Virginia Highway Department in order that the most needed improvements may be coordinated with the construction program of the Virginia Highway Department.
5. Draw up a priority of construction of the important major streets and ask the Vienna Town Council and the Fairfax County Board of Supervisors to request the Virginia Highway Department to make these improvements.

The following general principles may assist in the selection of priorities:

- a. elimination of traffic bottlenecks

- b. removal of trucks or other objectionable traffic within the neighborhoods by channeling it directly to its destination
- c. removal of through traffic from the shopping center
- d. provide access to the shopping center from all directions.

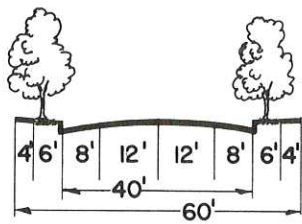
Excellent standards on traffic law and traffic control have been printed by the Governor's Highway Safety Committee and would be of material assistance in revising Vienna's Traffic Ordinance.

#### Width And Capacity Of Streets

The efficiency of any given street is in direct proportion to the width and surface of its roadway. The future safety and comfort of travelers is dependent upon lane width and the adequacy of its pavement. These features are determined for a given street by estimating the amount of traffic to be accommodated, the number of traffic lanes required to move this traffic, the standards of width for traffic lanes for moving traffic and parking, the future use of abutting properties, and the sidewalk, tree and grass plot space. Lane widths of twelve feet are preferred and lanes of less than eleven feet are generally considered undesirable. Hazardous traffic conditions exist on pavements less than twenty-two feet in width. When the capacity of a two-lane pavement is exceeded, it is desirable to construct a multi-lane pavement with a four foot dividing median, unless the median is to be used as a turning lane in which case it should be sixteen feet wide. On streets that do not carry buses, the desirable width for a parking lane is eight feet. Since the stopping of buses requires so much more space than a parked automobile, it is recommended that the lane in which buses stop be eleven or twelve feet in width.

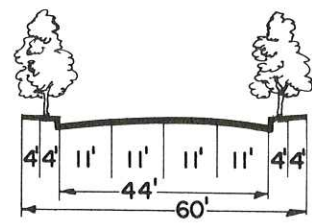
The cross sections of various widths for primary highways and collector streets are shown on Plate Number 7. The anticipated future traffic volume and numerous other factors will determine the width of right of way to be acquired. It would be wise to have the town engineer determine the width that is justifiable at the various locations after considering the cost of the right of way and other local conditions and establishing the preliminary taking lines for each street requiring acquisition.

In our plan we are proposing that residential streets be at least 50 feet in width, collector streets 60 feet in width, major thoroughfares 90-110 feet in width and expressways 300 feet in width.



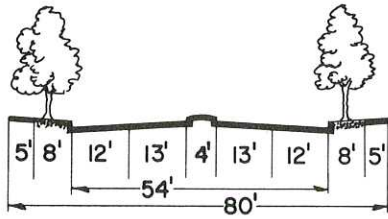
COLLECTOR STREET

2 LANES & 2 PARKING LANES



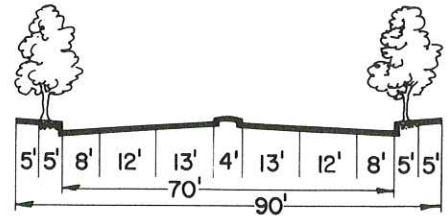
COLLECTOR STREET

4 LANES



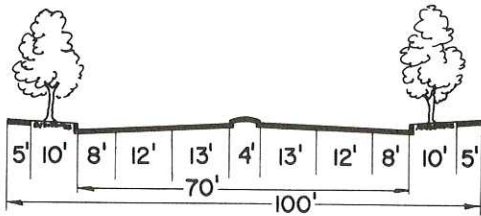
INADEQUATE PRIMARY HIGHWAY

4 LANES



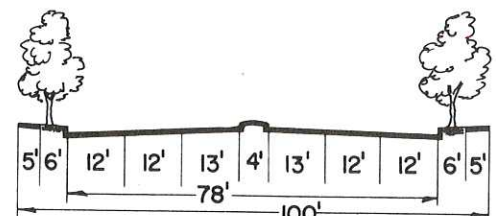
INADEQUATE PRIMARY HIGHWAY

4 LANES & 2 PARKING LANES



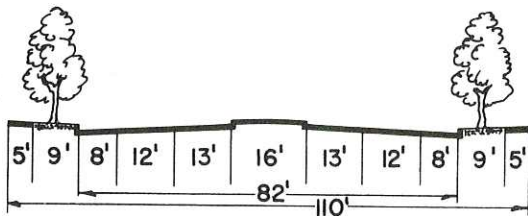
PRIMARY HIGHWAY

4 LANES & 2 PARKING LANES



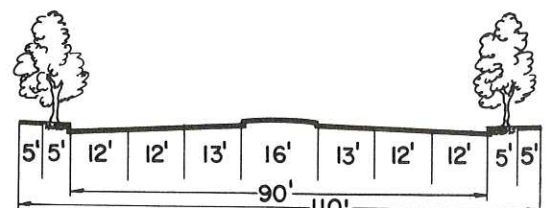
PRIMARY HIGHWAY

6 LANES



PRIMARY HIGHWAY

4 LANES & 2 PARKING LANES



PRIMARY HIGHWAY

6 LANES

RESIDENTIAL DISTRICT



PRIMARY HIGHWAY

6 LANES

BUSINESS DISTRICT

# VIENNA

## RECOMMENDED STREET CROSS-SECTIONS

TOWN PLANNING COMMISSION

VIENNA, VIRGINIA

MASTER PLAN STUDY

1957

CITY PLANNING CONSULTANTS

GARLAND A. WOOD & ASSOCIATES



PLATE NO. 7

The map, Existing Rights of Way in Vienna, indicates that the majority of the residential streets are up to this standard. However, several of these, particularly in the Flint neighborhood, should be widened.

The Generalized Major Street Plan gives an index to the larger streets. Of these, the collector streets in the neighborhoods need to be widened in several places, and there is not one of the primary highways through the town which is of adequate width.

### Cost Of Construction

The proposed plan would not be inexpensive to carry out. In preparing this plan, the cost was considered against the future needs of the community. Not only do we believe that the street system which we recommend to be without extravagance, but we also believe it to be basically necessary for the proper development of Vienna. Wherever possible, locations have been selected that have not been developed. As the land is subdivided, the necessary right-of-way can be obtained by dedication. The pavement that the subdivider constructs will be adequate for many years. This method is much less expensive than selecting existing streets that require expensive widening. Where an existing wide street is designated as a major street in most instances it is adequate to serve for many years in the future without additional right of way having to be acquired.

Of the \$270,000 cost to widen Maple Avenue a length of only 0.39 miles, 29% of the cost was to obtain the right-of-way through expensive business property in the central business district. The recommended plan proposes an alternate location for Route 123. Not only does the plan for the construction of the S-shaped roadway around the central business district entail obtaining the right-of-way through less expensive property, but its benefits will definitely serve Vienna for many more years than the present construction.

Furthermore, of the \$270,000 appropriated for this construction only \$40,000 was contributed by Vienna. The other \$230,000 was appropriated by the Highway Department, which again would share nearly all of the expense in the construction of the major street improvements.

There are other alternatives that were considered and discarded. One was the construction of an expressway through the town, which was proposed by Francis Dodd McHugh in his Master Plan of Fairfax County. Considering the cost of acquiring the three

hundred foot right of way, the eight or more acres for interchanges, and the expensive construction cost, particularly at points of interchange, it was decided that the future traffic would not warrant this cost. In the proposed plan, one would travel from the center of Vienna only about two miles before reaching the expressway loop around Vienna. Once upon the expressway, one might enjoy the comfort and speed of modern travel in any of eight directions.

Any change in Vienna's streets will be expensive, but, as we have attempted to indicate in this study, the future growth of Vienna will make changes necessary. Yet, by following the Master Plan which we present, the town will be building a road system which will always be functional, and in the future the cost of setting up a carefully planned street system will be saved a thousandfold.

## V. CENTRAL BUSINESS AREA AND PARKING

### The Importance of Parking

The central business area is the most important feature to consider in planning parking facilities for any city. The anticipated volume of increase of business must be carefully considered in the total plan. In most cities the growing shortage of parking space causes shoppers to compete for available spaces. However, in Vienna we find the situation considerably brighter and with careful planning the number of parking spaces will not be reduced to a dangerous level.

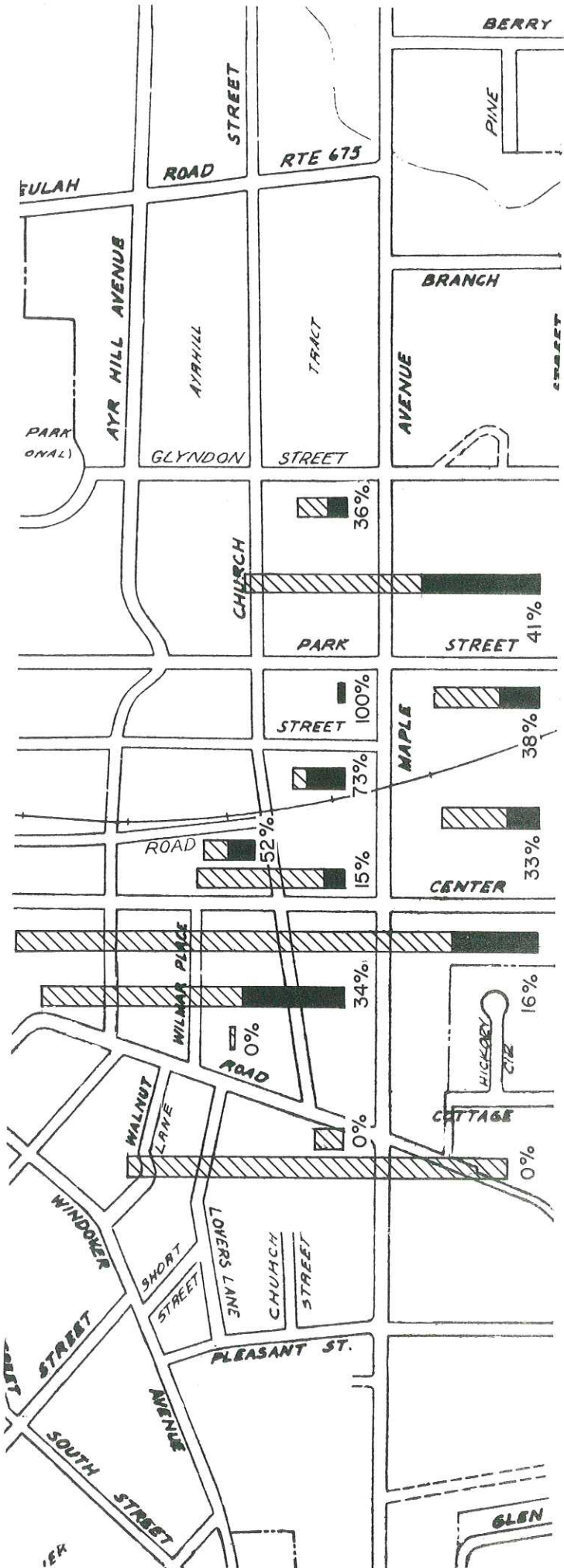
Parking is a problem which is just beginning to trouble every community in our country. Parking restrictions such as meters and fifteen minute parking zones do not completely solve the parking problem, although restrictions do encourage short term parking and force the all day parker further from the heart of town. Consequently, the most convenient spaces are left for the shoppers. This is economically advantageous for studies have shown that, on the average, shoppers will not walk more than 800 to 1,000 feet from car to destination in larger cities. The distance would be much shorter in Vienna. Nevertheless, this is fundamentally only a reversal of the existing "first come, first served" situation.

With the expansion of business in the future, parking may become a problem. The solution lies in the creation of additional off-street parking lots within the central business district. However, providing these lots on a catch-as-catch-can basis is not likely to bring about the most effective solution for the future shopping district. Without planning, there is no assurance that the shopping center will not change in such a way as to minimize the potential usefulness of the newly provided parking facilities.

In the future these sites should be selected after a careful analysis of parking demand, storage capacity, probable turnover, topography, land cost, traffic movement, and its proximity to existing and future shops. A unified design of the entire shopping area will produce the best results.

### Present Situation

The present parking situation in Vienna is quite the exception rather than the rule. Accessibility has been discussed under the Major Street Plan and need not be recapitulated here.



# VIENNA EXISTING PARKING

BAR REPRESENTS NUMBER OF PARKING SPACES IN BLOCK

BLACK PORTION INDICATES NUMBER OF SPACES IN USE

54 PER CENT OF PARKING SPACES OCCUPIED  
 NUMBER OF CAR SPACES

SURVEY TAKEN: 4 TO 5 P.M.  
 THURSDAY, NOVEMBER 22, 1957

TOWN PLANNING COMMISSION  
 VIENNA, VIRGINIA  
 1958

CITY PLANNING CONSULTANTS  
 GARLAND A. WOOD & ASSOCIATES  
 PLATE NO. 8

MASTER  
 PLAN STUDY  
 SCALE OF FEET





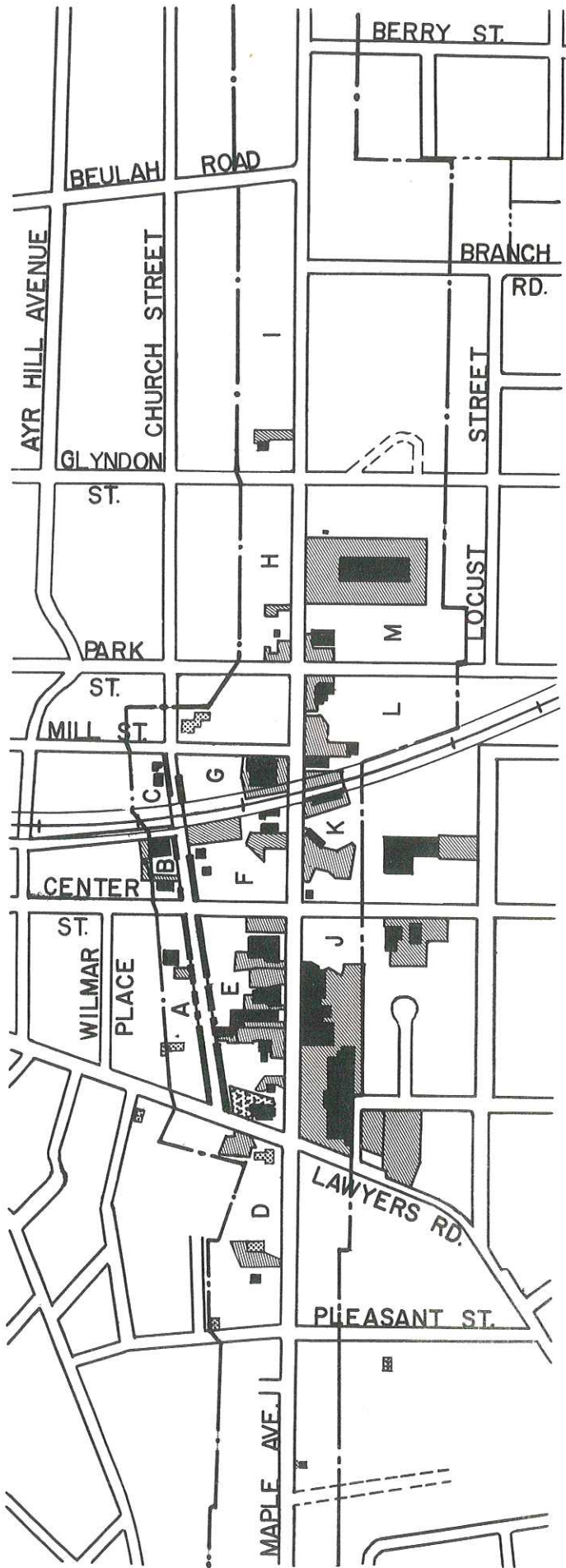
Two maps which will be referred to from time to time are: Existing Parking and Parking Facilities and Destinations. The survey results which are given here were compiled under late afternoon parking conditions on a normal shopping day. The Central Maple Avenue area from Glyndon Road to Pleasant Street contains 316 parking spaces of which only one hundred and nine were occupied. The block between Church Street and Maple Avenue southwest of Center Street embraces almost half of these parking spaces with fifty spaces being occupied. The southern side of Maple Avenue indicates similar circumstances existing there. Of 694 parking places we find 108 occupied. Additional parking facilities are adjacent to the Town Hall and the Vienna Elementary School. Church Street is also available for on-street parking.

Another important aspect of the parking plan is the comparison of retail area and parking area. The current retail area covers approximately four acres while the corresponding parking area embraces some nine acres.

On the other hand, by 1980 these figures will have increased considerably. The business and commercial area will comprise some 11 acres while proportionate parking space will demand some 40 acres. With careful planning and proper use of all off-street parking, including planned parking lots, adequate parking facilities will become a permanent reality for Vienna.

The Existing Parking Map will indicate on a percentage basis the current parking situation for the central business district. The use of the off-street parking system as a means to free the streets of automobiles and thus insuring the central business district of an open, uncluttered atmosphere should be the prime objective of this system. Vienna is a city that, at present, enjoys such a state of affairs even though on-street parking is also practical.

Close examination of the Parking Facilities and Destination Map will indicate in more detail the present parking situation. It will be noted that the shopper or employee will seldom have to walk any great distance from his car to store. This is an advantage that few communities of today can enjoy in their respective central business districts. Therefore, careful planning that takes into consideration all anticipated changes or trends in the central business district is mandatory. If such planning is omitted, then there can be no assurance that a good parking condition such as exists at present in Vienna



# VIENNA

## PARKING FACILITIES AND DESTINATIONS

TOWN PLANNING COMMISSION  
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CITY PLANNING CONSULTANTS  
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 PLATE NO. 9

— CURB PARKING

▨ PUBLIC

▩ PRIVATE PARKING LOTS  
 (SCATTERED INDIVIDUAL OFF-STREET PARKING  
 PLACES ARE NOT SHOWN AROUND PERIPHERY  
 OF BUSINESS DISTRICT)

■ PRINCIPAL DESTINATIONS OF PARKERS

▤ CHURCHES

MASTER  
 PLAN STUDY  
 SCALE OF FEET



SURVEY TAKEN: 4 TO 5 P.M.  
 THURSDAY, NOVEMBER 22, 1957

will not be destroyed by the advancement of the retailing trade.

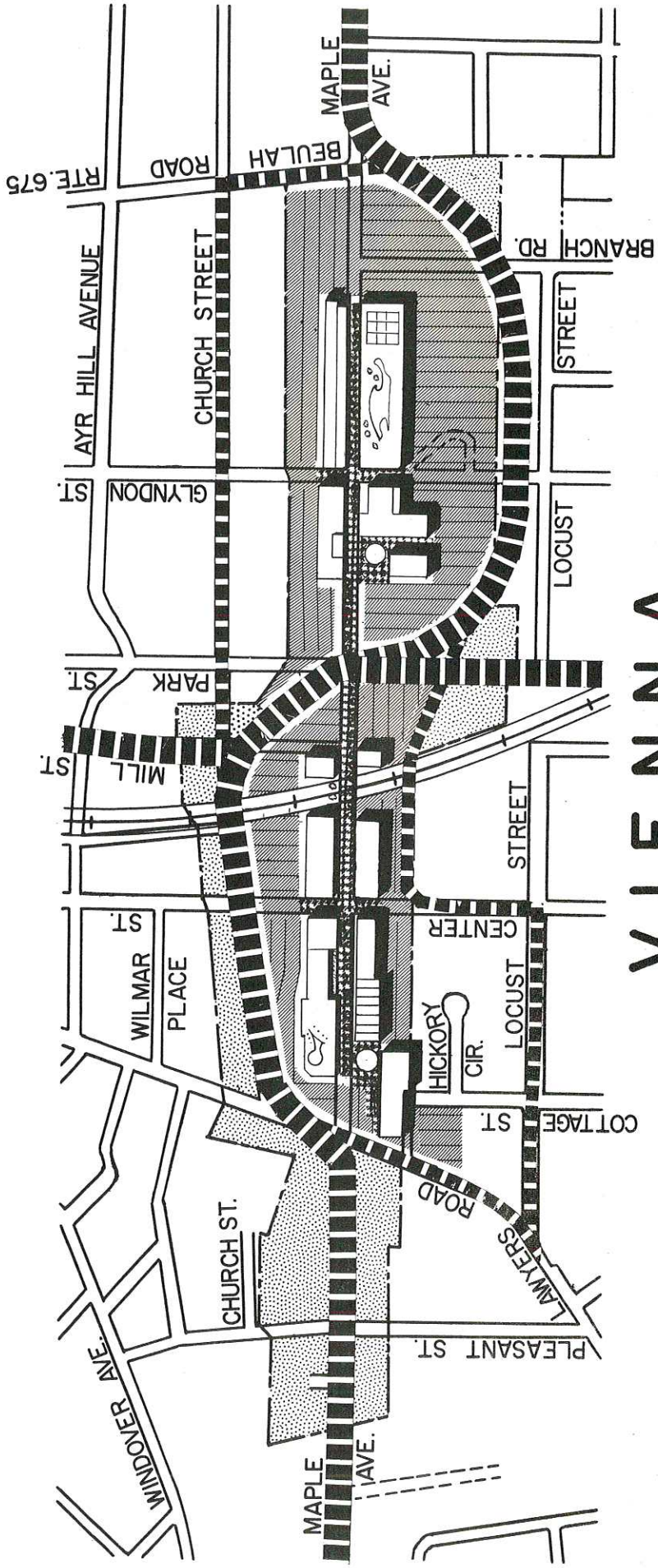
Great efforts have been made to adjust the central business districts of our cities to the requirements of the auto. Despite large amounts of money spent on the elimination of through traffic, the improvement of auto services, provisions for off-street parking, and control of curb parking, there have been few indications of any noticeable improvement in traffic conditions. The effect has certainly not been to entice great numbers to work and shop in densely congested areas.

The increasing problems of the downtown area can be blamed largely on the unchecked manner in which auto traffic has grown and dominated the scene. The clash of pedestrian versus vehicle has resulted in tangled traffic and confusion for both. People, not autos, are the purchasers of goods and the transactors of business. If movement and activity became difficult or uncomfortable, if shopping became a nuisance, ultimately, growth will stagnate and degeneration will occur.

Shops, to be successful, must be accessible to customers, and customers are pedestrians. This is the key to the planning of a shopping center. All problems must be considered from the pedestrian's point of view. This concept is illustrated in the many attractive neighborhood shopping centers which have sprung up across our country in recent years. These have been designed and built with the realization of the importance of the pedestrian, his comfort, his convenience, and also his reaction to the very design and construction of the shopping center. Advertisers have always preyed on man's aesthetic sense by skillfully packaging their goods in hopes of attracting buyers. Now this concept has expanded to include making the whole shopping area a pleasant place in which to be: one which will in itself attract buyers. Not only is the shopper provided with sufficient parking and easy access, but also he or she is presented with a shopping area which is beautiful, commodious, and restful.

The promotion of the aesthetic qualities of the shopping district is a problem to be considered by the shop owners of Vienna. We can only recommend protection against the two fundamental traffic problems of the growing shopping district, accessibility and parking.

The area zoned for business in the center of Vienna has always been more or less divided into areas of about equal size by the important intersection of Maple Avenue and Park Street. The location of new stores with large parking lots in each of these



# VIENNA

## PROPOSED PARKING - SHOPPING CENTERS

- STREETS TO BE CLOSED
- PRIMARY HIGHWAYS
- COLLECTOR STREETS
- SIDEWALKS
- PARKING AREAS
- DRIVE-IN AND OTHER TYPES OF BUSINESSES

TOWN PLANNING COMMISSION  
VIENNA, VIRGINIA  
1958

CITY PLANNING CONSULTANTS  
GARLAND A. WOOD & ASSOCIATES  
PLATE NO. 10

MASTER  
PLAN STUDY  
SCALE OF FEET



commercial areas has further increased this separation. This division must be considered in a future plan. Furthermore, we cannot depend solely on the zoning ordinance to provide parking for the future shopping center. It is necessary to prepare a plan for the entire area.

### The Recommended Plan for the Shopping Centers

The Generalized Major Street Plan illustrates our recommendations for the central business district. We propose that there be constructed an alternate Route 123, which will travel first along the outside edge of one-half of the shopping center, then cross to the other side via Park Street, and lastly continue along the edge of the other half of the business district to reach Maple Avenue once again. The "S-shaped" road thus formed definitely sets up two separate business districts. The highway along the railroad becomes the middle bar of this S as it crosses this area. By this means both of these pathways of travel escape the two shopping areas by passing between them. Because of this sigmoid course, every portion of each business district is readily accessible to the highways and the collector streets. Within the commercial area, on the other hand, it is proposed that only low speed shopping traffic be permitted and much of the automobile-pedestrian conflict is thus eliminated. We would like to propose that ultimately, when the two shopping centers are completed, Maple Avenue for these few blocks within this area be open only to pedestrian traffic.

The following objectives (see Plate Number 10) should be carried out in conjunction with the closing of Maple Avenue within the shopping center:

1. Provide a perimeter street completely around the shopping centers.
2. Route all passenger cars and trucks into this traffic perimeter unless it wishes to park or serve the centers.
3. Route buses through a portion of each shopping center.
4. Acquire and clear all property necessary for parking.
5. Provide service and off-street loading facilities.
6. Remodel the rear of each building and regulate the design of additional buildings.

B U S I N E S S   A R E A   &   P R O P O S E D   P A R K I N G

TABLE NUMBER 3

Blk.No. In Shop. Center	Total Area Zoned C-2 Ac.	P R E S E N T			Ratio Pkg. to Bus.	No. of Pkg. Spaces
		Busi- ness Ac.	Parking Areas & Drive	Other Areas in Ac.		
A	1.74	.11	.1	1.53	.91:1	2
B	.71	.18	.2	.33	1.11:1	25
C	.59	.06	.0	.53	--	--
E	5.59	.85	1.34	3.40	1.58:1	148
F	3.24	.13	.59	2.52	4.54:1	77
G	4.32	.30	.55	3.47	1.83:1	26
H	3.65	.02	.19	3.44	9.50:1	12
I	5.41	.03	.16	5.22	5.33:1	11
J	5.60	1.50	3.10	1.00	2.07:1	350
K	2.15	.24	1.39	.52	5.79:1	50
L	1.91	.19	.73	.99	3.84:1	55
M	23.59	.66	.55	22.38	.83:1	139
Total	58.50*	4.27	8.90	45.33		895**

Blk. No. In Shop. Center	Total Area Zoned C-2 Ac.	P R O P O S E D			Ratio Pkg. to Bus.	Possible No. of Pkg. Spaces
		Busi- ness Ac.	Parking Areas & Drive	Other Areas in Ac.		
A	1.74	.37	1.37	.0	3.70:1	129
B	.71	.16	.55	.0	3.44:1	52
C	.59	.12	.47	.0	3.92:1	44
E	5.59	1.50	2.91	1.18	1.94:1	196
F	3.24	.70	2.11	.43	3.01:1	90
G	4.32	.15	2.13	2.04	14.20:1	88
H	3.65	.85	2.70	.10	3.18:1	304
I	5.41	1.65	3.66	.10	2.22:1	532
J	5.60	1.50	3.35	.75	2.23:1	364
K	2.15	.70	1.15	.30	1.64:1	131
L	1.91	.20	1.51	.20	7.55:1	183
M	23.59	3.10	18.79	1.70	6.06:1	1,602
Total	58.50*	11.00	40.70	6.80		3,725

\* Block D has 9.3 Acres making a total of 67.8 Acres.

\*\* Additional parking spaces are adjacent to the school and Town Hall.

7. Design attractive walks, unobstructed by traffic, between the stores.
8. Provide a cooperative organization of business and land interests inside the shopping center to coordinate the improvements.

In modern surroundings, which provide comfort, convenience, rest, and beauty, the shopper will experience the maximum enjoyment while shopping. A lasting impression of great advertising value will also result.

## VI. TRUCK AND RAILROAD

### Freight Via Truck Routes

The modern high speed highways and increased numbers of trucks are eating into the freight carrying business of the railroad. Before the days of the motor truck, the Washington and Old Dominion Railroad brought freight to the center of Vienna without using the streets. Today, in some of the stores in Vienna, none of the products come by railroad. The increase in the use of trucks has been phenomenal since they came into general use about the time of World War I. In 1950, there were about ten times as many trucks in Virginia than thirty years earlier. The total vehicle miles of truck travel in Virginia during 1957 was 4,083,355 miles. This was 20% of the total miles of travel in the state, including passenger cars.

In 1957, even though only 924 trucks passed daily on Route 123, which is less than 14% of the traffic, the situation should not be thought of lightly. As shopping expands in the future, the number of trucks will increase also. If these trucks are allowed to drive into town over any street, it will not only adversely affect the neighborhood peace and safety but will cause deterioration of the thin pavements of some residential streets, especially after spring thaws.

It is, therefore, recommended that as the primary highways of the Generalized Major Street Plan are improved they be designated as truck routes. At the same time the Town Council should pass an ordinance restricting motor trucks passing through the neighborhoods from all other streets. Such an ordinance should prohibit the use of all streets in Vienna, other than primary highways, by private carriers for hire, common carriers, and motor trucks, except for the purpose of receiving passengers or goods or making deliveries.

### Off-Street Loading Within Buildings

Another problem currently facing the central business district of many communities is on-street loading and unloading. This situation naturally becomes acute if a serious on-street parking problem for automobiles already exists. The larger the truck, the more serious the problem becomes. When such vehicles are forced to double park to unload their goods, then the situation demands immediate and careful attention. When a truck is forced to double park, whether for a short time or a sustained period, a hazardous, as well as annoying, condition results. This



deprives the motorist of the right-of-way, creates congestion, robs the shopper of valuable parking space, and crowds the pedestrian from the sidewalk. The best solution to this problem is to draft laws requiring new businesses to provide, within the lines of their buildings, space for off-street loading.

#### Plan the Shopping Center Loading

A system of back door service entrances may be brought into service by planning ahead. If a community does not start early to control this problem, the day will be reached when the only solution is to restrict all loading to non-shopping hours. It is true such a program would not contribute to the economical management of small shops, but the problem is there and the longer a community waits to begin tackling its problems, the more unfavorable are the possible solutions available.

It is, therefore, recommended that a unified plan of off-street loading facilities with necessary driveway be planned for the future stores in the shopping center.

#### Zoning for Off-Street Loading

The Zoning Ordinance is another means of assisting in the control of off-street loading. Section 12-13.3 of the Ordinance requires that every hospital, institution, commercial or industrial building hereafter erected shall provide off-street loading space.

## VII. TRANSIT AND AIR TRANSPORTATION

### Commuter Service

The subject of short distance vehicular transportation in the form of one-way and round trip commuter service is rapidly becoming an important one in many metropolitan areas of the nation. The need for this type of transportation, as well as a solution to the problem, becomes more complicated in areas such as those which contain small towns and consolidated communities within the metropolitan area. This condition, when it arises, places an increased importance upon regularly scheduled commuter service.

Long distance, rapid transit and bus service that operates on a regular schedule can provide transportation for the daily commuter into the nucleus of a large city and return him to his home. The short distance bus service, however, designed especially for the commuter, is often a better solution due to its portable capacity. Naturally, all of the methods of transportation mentioned above are designed for the purpose of providing a safe, sure, quick, and economical passage for the big city commuter.

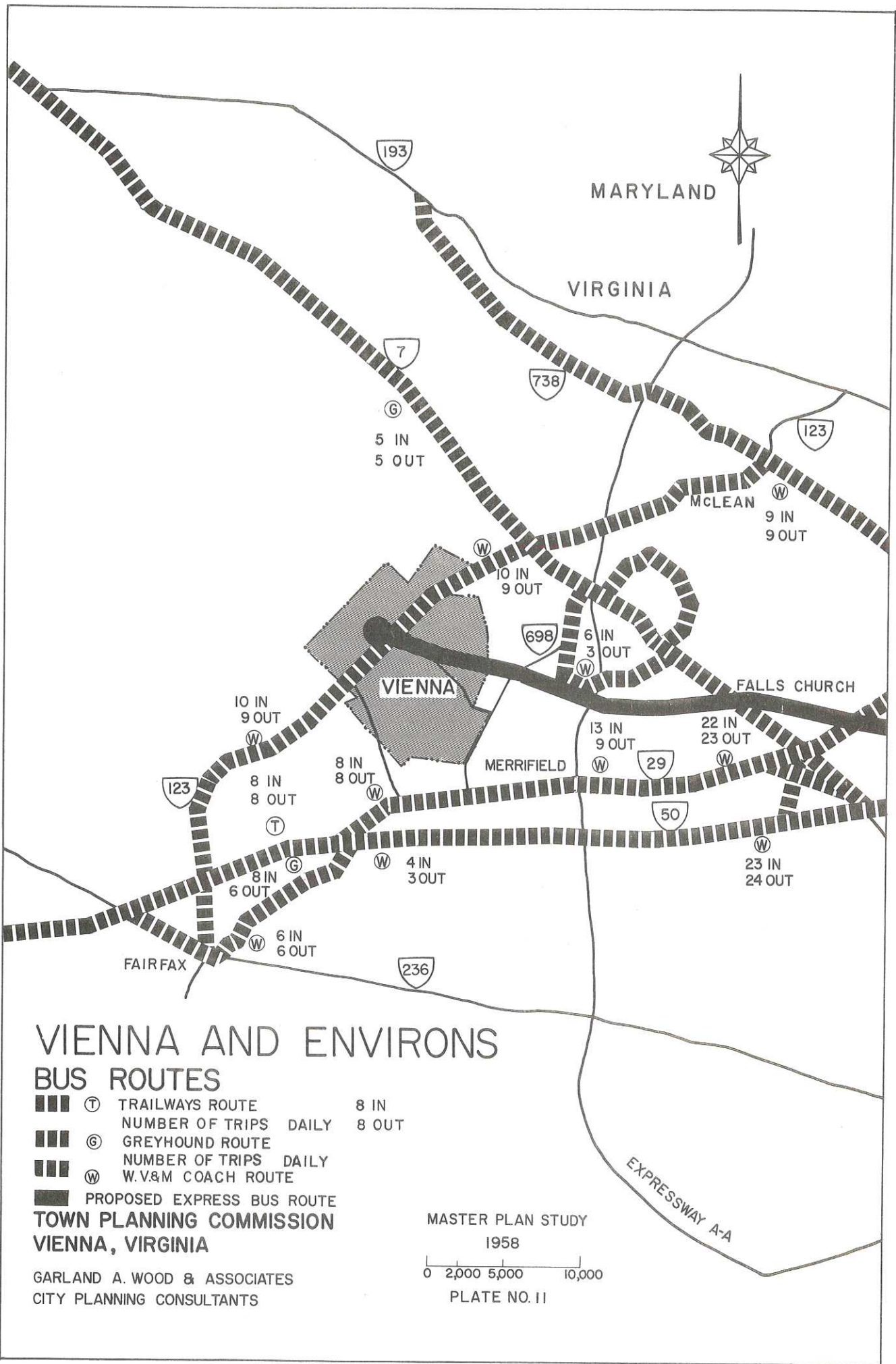
There are two additional advantages to the commuter system or short distance public transportation. Every commuting individual leaves his private automobile behind. This aids greatly in relieving the traffic situation and, by the same token, helps in no small way to alleviate the parking problem in the central business districts or large metropolitan centers.

### Existing Transit Service

In the case of Vienna we do not find the commuting system to be an acute problem. There are three bus companies currently serving the Vienna area. They are: the Virginia Trailways, Pennsylvania Greyhound Lines, and the Washington, Virginia and Maryland Coach Company. The location of the routes they follow is shown on Plate Number 11.

The Virginia Trailways system operates eight trips daily each way between Washington and Charlottesville. This line operates on Route 29-211 through Fairfax County.

The Greyhound Lines operates through Fairfax County over the same route, and approximately the same number of trips each day are offered. It also operates five trips daily over Route 7 to



# VIENNA AND ENVIRONS BUS ROUTES

- (T) TRAILWAYS ROUTE                      8 IN  
 NUMBER OF TRIPS    DAILY            8 OUT
- (G) GREYHOUND ROUTE  
 NUMBER OF TRIPS    DAILY
- (W) W.V.&M COACH ROUTE
- PROPOSED EXPRESS BUS ROUTE

**TOWN PLANNING COMMISSION  
VIENNA, VIRGINIA**

GARLAND A. WOOD & ASSOCIATES  
CITY PLANNING CONSULTANTS

MASTER PLAN STUDY  
1958  
0 2,000 5,000 10,000  
SCALE  
PLATE NO. 11

Leesburg, and these lines pass close to the city limits of Vienna.

The Washington, Virginia and Maryland Coach Company operates over the same routes as the other two companies. In addition one route serves Vienna using Virginia Route Number 123.

### Future Transit

In the future, inter-city transit service should be improved for the residents of Vienna. Express buses should pick up and discharge passengers at a designated bus stop and parking area at the shopping center and travel over express routes to Washington. These rapid transit buses should operate on separate roadways, if possible, within the right-of-way to be acquired for Expressway II. This route is not at present constructed. The end of it in Vienna is proposed in this report as a primary highway. It parallels the Old Dominion Railroad. For its location, see Plate Number 11. The detailed design of this expressway will normally be decided just prior to construction, and this highway within the town limits of Vienna may become part of the expressway.

The preliminary design of this express bus, the method of purchasing the necessary right-of-way and the financing of its construction and operation, are being investigated by the staff of the National Capital Regional Planning Council and its consultants. The Council's resulting report will probably include a three phase report on a transit system: (1) expansion of our present system of highways and mass transit, (2) a system which, in addition to our expanded highways, would include express buses to operate on special lanes provided on the proposed free-way for their operation, and (3) a high-speed rail system or some modified system to supplement the highways. Parking will also be considered in this study, and included will be special transit service for commuters between the parking areas and the downtown section. The population trend will be used to establish the population for the years 1965 and 1980.

This report, when completed, will contain valuable information concerning the future transit facilities of all small towns and communities of the entire Washington metropolitan area. It is logical to assume that special emphasis will be placed on the area lying on the west bank of the Potomac River, that being the Alexandria, Fairfax County, Arlington area. This vicinity has realized tremendous growth during the past ten year period and continues to spread to the west.

## Airport Facilities

The need of any community for airport facilities is naturally dictated by the size and nature of the community. Other important factors determining the necessity of an airport would be geographic location and the actual demand for flying facilities. Since all aircraft can be reduced to two basic types, either commercial or private, it would be wise to investigate the demand for the services of both before serious steps are taken to construct an airport in Vienna.

In a town the size of Vienna, situated not far from Washington, the demand for air facilities is likely to be confined to accommodations for private planes, company-owned, executive type planes, and flight instruction. Multiple engine aircraft of the commercial lines will naturally proceed to Washington National Airport or Washington Virginia Airport, and the three military air bases, one naval and two air force, will continue to handle the remainder of any multiple engine aircraft.

Vienna's need for an airport is lessened still more by the proximity of the Falls Church Airport and the new airport to be built by the federal government on the north side of Route 50 at Chantilly (located about six miles from Vienna), the plans for which are now in preparation.

The most logical suggestion which can be made for the benefit of Vienna is the construction of a major thoroughfare, connecting Vienna with the Chantilly airport. This would reduce a great deal the traveling time to and from town and this airport. It would be wise, also, to investigate fully the many and varied uses of the helicopter for inter-city passenger, mail, and express delivery service.

It would be possible to construct a heliport in the central business district of Vienna. Contrary to popular belief, in commercial operations the helicopter is forced for reasons of safety and economy to use a relatively flat approach and take-off angles and avoid hovering. This naturally requires approach and take-off space, but the seven degree standard for the obstruction clearance slope into the landing strip over a distance of 1500 feet on each side of the 400 foot landing strip could take place over parked cars in the shopping center parking lot.

A portion of the golf course near the hilltop might also be reserved for use as the site of a heliport.

It is, therefore, recommended that efforts be made to obtain a suitable location for heliport landing strips and aviation easements on the golf course and in the shopping center.

Note: Other parts of the Master Plan will follow soon.

