

JUSTIFICATION OF CENTER LEG  
As Part Of  
DISTRICT OF COLUMBIA  
INTERSTATE HIGHWAY SYSTEM

DEPARTMENT OF HIGHWAYS AND TRAFFIC

PREPARED BY  
OFFICE OF PLANNING AND PROGRAMMING  
DEPARTMENT OF HIGHWAYS AND TRAFFIC  
DISTRICT OF COLUMBIA

April 28, 1961

**OFFICE COPY**

RETURN TO  
PLANNING RESEARCH SECTION  
OFFICE OF PLANNING AND PROGRAMMING  
DEPT. OF HIGHWAYS AND TRAFFIC

FILE NO: <sup>22</sup> 31. ~~34~~

GOVERNMENT OF THE DISTRICT OF COLUMBIA  
DEPARTMENT OF HIGHWAYS AND TRAFFIC  
WASHINGTON 4, D. C.

ADDRESS REPLY TO  
DIRECTOR OF HIGHWAYS AND TRAFFIC



April 28, 1961

Mr. John A. Hanson  
Division Engineer  
Bureau of Public Roads, Region Two  
Department of Commerce  
Room 1032, Pennsylvania Building  
425 Thirteenth Street, N.W.  
Washington 4, D.C.

Dear Mr. Hanson:

Transmitted herewith is a report in answer to your letter of March 9, 1961 in which you include the Bureau of Public Roads' determination removing the Center Leg from the District of Columbia Interstate System.

The District of Columbia Department of Highways and Traffic objects to this determination and, in this report, offers justification for the retention of the Center Leg as an essential part of our Interstate System.

We feel that this document warrants your careful consideration.

Sincerely yours,

*H. L. Aitken*  
H. L. AITKEN, Director  
Department of Highways  
and Traffic, D.C.

Attachment

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### PURPOSE

This document is in response to the letter of March 9, 1961 from Mr. J. A. Hanson, Division Engineer, Bureau of Public Roads to Mr. H. L. Aitken, Director, Department of Highways and Traffic, District of Columbia. A copy of this letter is attached as Appendix A.

The Department of Highways and Traffic objects to determination (3) of this letter:

"(3) The so-called "center leg" of the inner loop, along the general line of 3rd Street, West, is not a part of the Interstate System."

It is the Department's contention that the Center Leg is an essential link of the Interstate System and will herein offer justification for its retention.

Much of this data has been presented in previous submissions but will be included as part of this presentation to provide complete documentation.



## GENERAL INTRODUCTION

The basis for selection of Interstate routes was contained in the testimony "Criteria for Selection of Interstate Routes," submitted to the Subcommittee on Roads of the Committee of Public Works of the U.S. Senate on April 15, 1955 by C. D. Curtis, then Commissioner, Bureau of Public Roads. When the 2300 miles of Interstate System in and around urban areas was allocated under the above criteria, the Center Leg of the Inner Loop was approved as an integral part of the District of Columbia Interstate System.

The following selected sections of the above criteria are hereby quoted to show the initial basis for inclusion of the Center Leg on the Interstate System.

"The selection of routes for inclusion in the interstate system within and in the vicinity of cities is to a considerable extent a matter requiring local study and determination. Studies are made cooperatively by the State Highway department and appropriate local planning and highway authorities and officials, utilizing comprehensive surveys of the origin and destination of traffic to the maximum extent feasible."

Of the seven criteria listed therein the following have special application to the Center Leg.

"1. Connection with city approach routes

For the service of interstate system traffic and other traffic bound in and out of the city to and from exterior points, the routes selected should provide for convenient collection and delivery. Although the interstate routes must bear a proper relation in location and character to other parts of the street system, they will be the routes of principal service to the interstate system traffic."

The Center Leg provides connection to principal arteries serving the Central Business District for convenient collection and delivery of traffic to and from exterior points.

"2. Penetration of city

At the approaches to cities and particularly the larger cities, a very large part of the traffic on the Interstate system originates or is destined to the city itself. Distributing routes within cities should be provided in addition to circumferential routes which serve to bypass the traffic that is not destined for the city."

The Center Leg is required for efficient distribution of a large share of traffic, interstate in nature, that originates or is destined to the District of Columbia.

"5. Relation to traffic-generating focal points and transportation terminals

Railway terminals, both passenger and freight, wharves and docks, and airports generate large volumes of street and highway traffic associated with the essential interchanges between the several modes of transportation. The location of the interstate system routes at cities should be so placed as to give convenient express service to these various major traffic-generating locations within and in the vicinity of cities and also to the business center of the city and main industrial areas. The location of the Interstate system should permit and encourage a desirable coordination of highway transportation with rail, water and air transportation."

The Center Leg will provide convenient access to Union Station, the major passenger and freight railway terminal in the District. In addition, the Center Leg is favorably located with respect to the Central Business District, the Federal Triangle, the U.S. Capitol, the Municipal Government Center and the Northeast #1 Urban Renewal Area - an entirely new industrial renewal area of over 80 acres. All of these land uses are major traffic generators requiring safe and convenient access. The relation of the Center Leg to these land uses is shown on Figure 1.

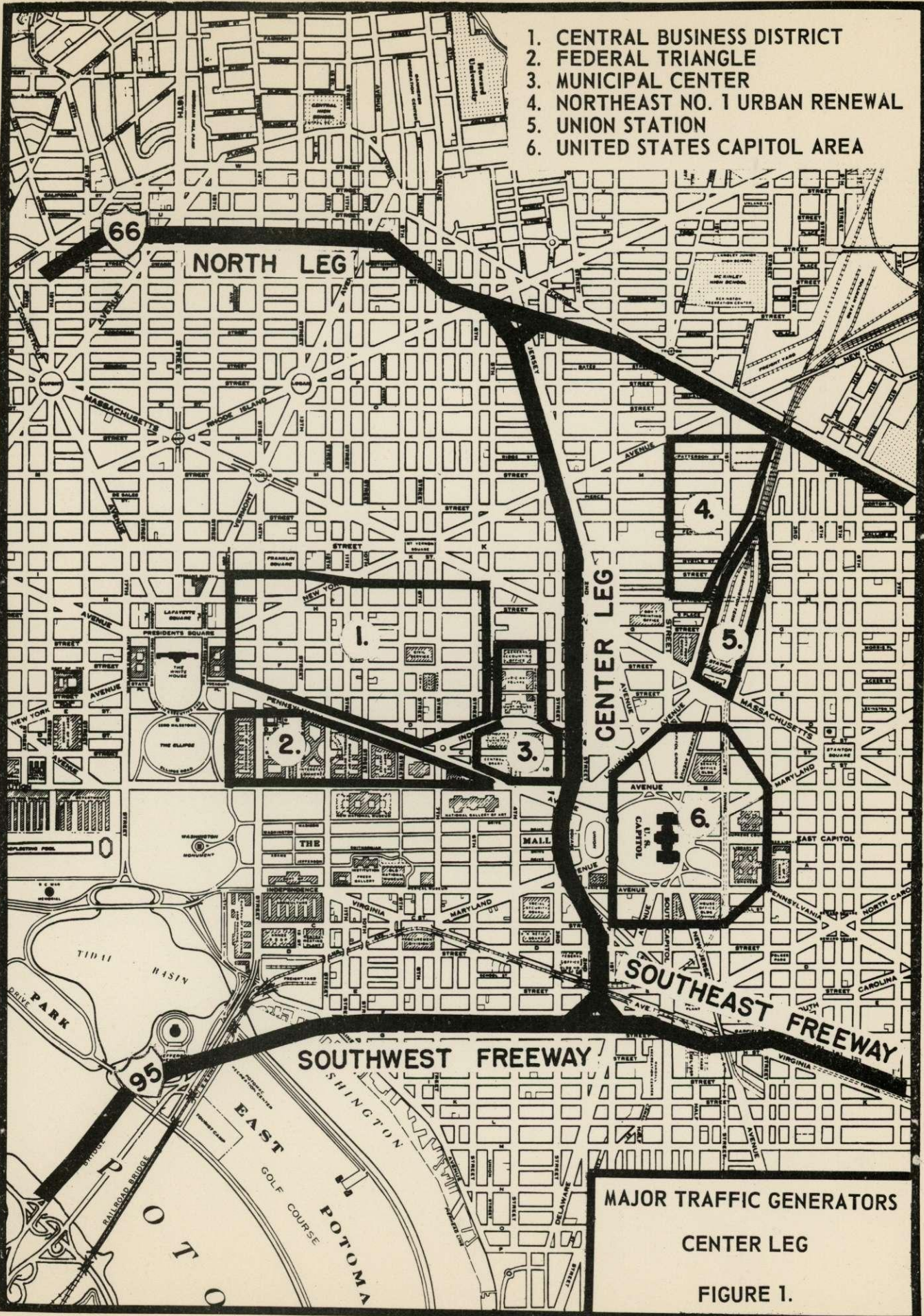
"6. Relation to urban planning

Interstate system routes will provide for only a small portion of the movement of traffic in most cities. The routes should be located and designed to be an integral part of the entire urban transportation plan."

Proposals for the entire Interstate System of the District of Columbia in-



1. CENTRAL BUSINESS DISTRICT
2. FEDERAL TRIANGLE
3. MUNICIPAL CENTER
4. NORTHEAST NO. 1 URBAN RENEWAL
5. UNION STATION
6. UNITED STATES CAPITOL AREA



MAJOR TRAFFIC GENERATORS  
 CENTER LEG  
 FIGURE 1.



cluding the Center Leg have been and are being coordinated with all local planning agencies concerned with the urban transportation plan, namely the National Capital Planning Commission, the National Capital Transportation Agency, and the National Capital Downtown Committee Inc.

"7. Civil defense

The interstate system routes to be provided in and near any city should be carefully studied and integrated with the planning for civilian defense."

The Center Leg has special impact relative to Civil Defense due to its potential use as an evacuation route serving the U.S. Capitol and the Senate and House Office Buildings.

From the foregoing, it can be seen that the Center Leg satisfies the criteria for selection of the interstate system. The Center Leg was initially approved on the basis of this criteria. The requested and approved changes for other sections of the District of Columbia Interstate System, have little or no effect on the need for the Center Leg in satisfying this criteria.



HISTORY OF DISTRICT OF COLUMBIA  
INTERSTATE HIGHWAY SYSTEM

The Interstate Highway system for the District of Columbia was developed in accordance with criteria established for this system. The general location of the routes into, through and around the Washington, D.C.-Md.-Va. Metropolitan area was approved by the Commissioner of Public Roads, September 15, 1955. This system appears in the publication "General Location of National System of Interstate Highway" by U.S. Department of Commerce, Bureau of Public Roads.

However, up to October, 1959 the District of Columbia and the State of Maryland had not officially agreed on coordinated locations for Interstate Routes 70S and 95. By letter of October 28, 1959 the District of Columbia transmitted to the Bureau of Public Roads a map indicating the tentative location of the Interstate System from the southeasterly side of the Anacostia River northeastward toward the Kenilworth Avenue interchange and an alternate location for the Interstate System from the same point of beginning northward, essentially via 11th Street to Florida Avenue thence via a corridor to a point in the District of Columbia - Maryland line between Sargent Road and 24th Street Northeast. This alternate route would comprise what are known as the East Leg and the Northeast Expressway. Informal discussions held with officials of the Maryland State Roads Commission indicated that agreement could be reached for a location within this alternate corridor. It was requested that the Bureau of Public Roads advise as a matter of policy on its position with reference to a proposal, if officially submitted, for such a shift in the Interstate System.

In a letter of January 27, 1960 the Bureau of Public Roads stated that

"We are agreeable to your suggested plan of removing from the Interstate System that portion of presently approved Interstate Route 295 (Anacostia Freeway) from the Anacostia Bridge interchange (11th Street) to the Maryland State line and to relocate it along 11th Street east."

The Bureau further stated that:

"We are also agreeable to the removal from the Interstate System of that portion of Interstate Route 95 (New York Avenue Corridor ) to the east of 11th Street as part of the suggested plan. From the north leg of the Inner Loop, Interstate Route 95 would generally follow along one of the several routes (Northeast Freeway) now being studied to the Maryland State line."

On April 25, 1960 the Department of Highways transmitted to the Bureau of Public Roads for formal approval, a revised description and general location of the Interstate System in the District of Columbia. This requested system differed from the previously approved system in only three respects:

- (1) Interstate Route 295 change as indicated above.
- (2) Interstate Route 95

Previously Approved Route - That portion from a point on North Leg of Inner Loop in vicinity of intersection of Florida and New York Avenues northeast, thence northeasterly along New York Avenue Corridor to the Maryland State Line.

Requested Route - Beginning at same point as above, thence along the North Leg, paralleling Florida Avenue and 11th Street, Northeast, thence northerly to a control area on the D.C.-Maryland line between Sargent Road and 24th Street Northeast.

- (3) Interstate Route 266 -

An additional route to provide for Interstate commercial traffic which is prohibited from Route 66, Theodore Roosevelt Bridge, by letter of the President of the United States in approving the Theodore Roosevelt Bridge legislation (Route 266 has been placed upon the Approved System



as of letter of March 20, 1961 from Bureau of Public Roads.)

By letter of June 10, 1960, Mr. John Hanson, District Engineer, Bureau of Public Roads, stated that the April 25 request was reviewed by the Washington Office and that he has been advised that before formal action would be taken on any route description approvals, the matter of deletion from the Interstate System of the Center Leg of the Inner Loop must be given further consideration. It was stated that:

"Such deletion fits logically into your overall plan to substitute a routing along the proposed east leg of the Inner Loop in place of that portion of the Anacostia Freeway (Interstate Route 295) and New York Avenue (Interstate Route 95), extending northeasterly from the east leg of the Inner Loop."

Such deletion was being considered, according to the Bureau letter for the following reasons:

1. ...."viewpoint of reasonable Interstate System development"
2. ...."a matter of equitable compromise inasmuch as the new Interstate route on the 11th Street leg of the Inner Loop would involve costly construction and the new routing via Three Sisters Island, as requested in lieu of Key Bridge, would also involve substantial additional Interstate funds."
3. ...."the Highway Acts' mandate to apply standards uniformly among the States would require the 4th Street line (Center Leg) to be deleted if the 11th Street line is approved as there is no other city with an additional route across an inner belt."

The District of Columbia Department of Highways and Traffic answered by letter of June 21, 1960 that ".....This Department is inalterably opposed to deleting the center leg from the Interstate System."

This letter listed in great detail the events leading up to the April 25, 1960 submission of the revised description and enumerated the following major points:

1. The possibility of the deletion of Center Leg came as a surprise



as there has been very close cooperation between the Department and both the District and Regional Offices of the Bureau in the development of the Interstate routes and this question had never been raised previously.

2. Deletion of the Center Leg from the Interstate System does not fit into an overall plan of substituting a route along the East Leg in place of the Anacostia Freeway and New York Avenue and is not appropriate from the viewpoint of reasonable Interstate development.
3. The Bureau's statement to the effect that the Highway Act's mandate to apply standards uniformly among the States would require the deletion of the Center Leg from the system....."as there is no other city with an additional route across an inner belt" is not borne out by the approved routes in urban areas. Interstate systems in several cities are much more complicated and extensive than that in the Washington Metropolitan Area.

These points will be developed more fully in this presentation.

On July 6, 1960 the Bureau of Public Roads replied, enclosing a letter from the Commissioner of Public Roads which designated the Interstate System, in accordance with the general location shown on map dated May 25, 1960 prepared by the District of Columbia, to be used as the basis for preparation of the 104(b)5 estimate. This system included the center leg as a portion of I-95. This letter further stated that:

"The letter is issued with the understanding that changes will be made later, based upon the results of the consultant's study of Interstate routings from Maryland, into the District of Columbia."

"The study to be undertaken should not only cover possible separate corridors of Routes 70S and 95 into Washington, but should



also consider the possibility of combining these two routes from the outer belt to the inner belt into a single centrally-located penetrating route. The study should also consider whether the central leg of the inner belt is justified and should go into the question of justification for a bridge via Three Sisters Islands in place of Key Bridge."

Two of the three items proposed above to have been included in the above-mentioned study have been resolved as follows:

1. Possibility of combining Routes 70S and 95 into a single penetrating route. The Bureau of Public Roads' letter of March 9, 1961 extends an interstate route northward from the 11th Street corridor and Florida Avenue to an appropriate connection with Maryland Interstate Route 95. This determination is interpreted to eliminate the possibility of combining Routes 70S and 95 into a single penetrating route.
2. Justification for a bridge via Three Sisters Islands in place of Key Bridge - The Bureau of Public Roads in a letter of March 20, 1961 advised that Commissioner Armstrong's letter of June 20, 1960, which designated Route 266, constituted approval of Route 266 to the Interstate System, and also advised the Department to proceed with studies of alternate locations for this route.

It has been interpreted that these two determinations thereby divorce these items from the consideration of the Center Leg as part of the Interstate System, although all three items were linked together initially.

It is the Department's contention that the deletion of the Center Leg from the Interstate System was an arbitrary decision, made without detailed analysis of the current relationships of the Center Leg to the interstate criteria as compared to the original compliance with criteria and subsequent approval.



### COMPARISONS WITH OTHER CITIES

The Bureau of Public Roads, in their statements prior to the determination deleting the Center Leg from the District of Columbia Interstate System, indicated that this system was more extensive than other cities. In order to test this a comparison was made with eleven representative cities, both larger and smaller than the District, across the Nation.

The basis for selection of metropolitan areas for this comparison was having Interstate systems similar in some respect to the District's. The size ranged from Columbus, Ohio to Los Angeles with the District of Columbia at the median. Several areas with population close to that of the District were included.

This examination was made for both urban areas and center cities and includes mileage and map comparisons. Cost estimates for cities were not available so only some generalized statements concerning cost are included in this report.

As the District of Columbia is for all practical purposes 100 percent developed, the District's portion of this system is that of a central city area, and as such is best compared to only that portion within the corporate limits of similar center cities. The term center city as used herein includes the area within the corporate limits of the city at the center of the metropolitan area.

In addition the Washington Metropolitan Area System, including Maryland and Virginia portions, is compared to other metropolitan area interstate systems.

In the following discussion the District of Columbia Interstate System is taken to be that designated for the 104(b)5 study and includes the Center

Leg. This system is shown as Figure 2 on the following page. The Center Leg is included in this analysis in order to compare this urban system to other systems to justify the retention of the Center Leg as part of the District of Columbia Interstate System.

#### MILEAGE COMPARISON

Total mileage of interstate systems in urban areas by itself is not a true measure due to differences in population, area and densities. Therefore, for this comparison ratios were developed for each city and urban area. These ratios are in terms of interstate mileage per 100,000 population and mileage per square mile.

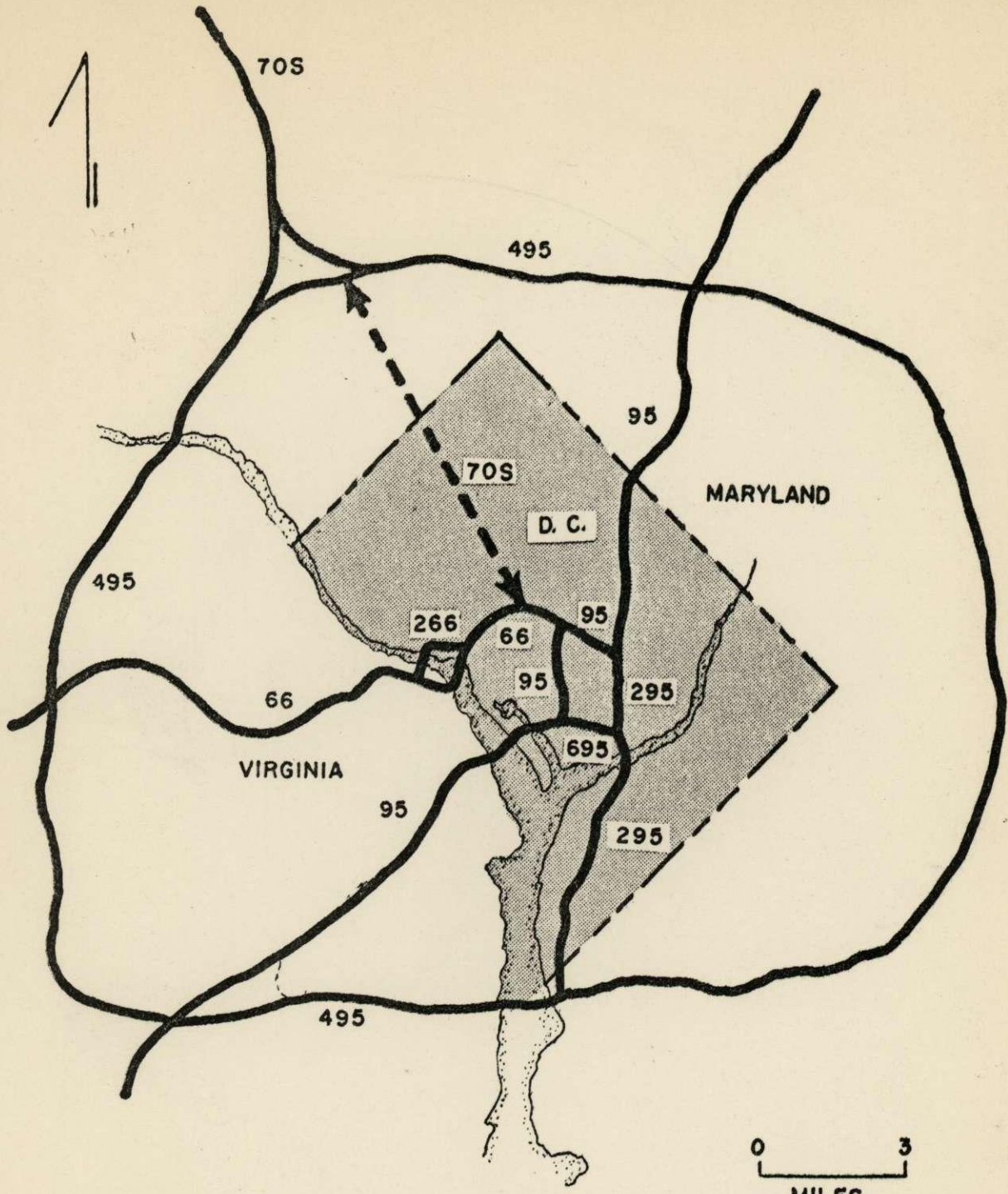
The interstate mileage for each city and its urban area was measured on prints of the latest urban area maps on file at the Bureau of Public Roads.

#### CENTER CITY

The Interstate mileage - population ratio, Table I, within the center city corporate limits ranged from a low of 1.5 miles per 100,000 population, for Philadelphia to a high of 11.7 for Atlanta. The District of Columbia ratio, 3.7 miles per 100,000 population, ranked sixth of the twelve. Of the four cities nearest in population to that of the District, two had less mileage per 100,000; St. Louis 2.8 and Boston 3.4, and two had more; Minneapolis-St. Paul 4.4 and Cleveland 4.9.

The Interstate mileage - land area ratio, Table I, within the center city corporate limits ranged from a low of 0.22 miles per square mile, Kansas City, to a high of 0.57, Cleveland. The District of Columbia ratio, 0.46 ranked tenth of the twelve. Of the four cities nearest in population to the District, two had a lower ratio than did the District; Minneapolis-St. Paul 0.33 and St. Louis





WASHINGTON URBAN AREA  
DESIGNATED INTERSTATE SYSTEM  
SECTION 104(b)(5) ESTIMATE  
FIGURE 2



0.34, and two had a higher ratio; Boston 0.50 and Cleveland 0.57.

This comparison shows that the Interstate System for the District of Columbia, in terms of mileage is not more extensive than other cities but rather represents average conditions.

#### METROPOLITAN AREA

A similar comparison of Interstate mileage for metropolitan areas is shown in Table II.

The Interstate mileage - population ratios ranged from a low 3.1 miles per 100,000 population, Philadelphia to a high of 11.9 for Atlanta. The Washington D.C.-Maryland-Virginia Area ratio, 5.5, ranked fifth lowest of the twelve areas. Of the four areas nearest in population to the Washington Area one had a lower ratio than did the Washington area; Cleveland 4.7, and three a higher ratio; St. Louis 6.7, Minneapolis-St. Paul 7.5, and Boston 7.7.

The Interstate mileage - land area ratios for the metropolitan areas ranged from a low of 0.037 miles per square mile, Philadelphia, to a high of 0.258, Boston. (The Boston ratio is somewhat distorted as the outer belt encompasses considerably more area than is contained in the metropolitan area.) The Washington area ratio, 0.074 miles per square mile, ranked sixth of the twelve areas. Of the four areas nearest in population, two ranked lower in mileage-area ratios; St. Louis 0.054 and Minneapolis-St. Paul 0.065; and two ranked higher; Cleveland 0.124 and Boston 0.258.

TABLE I

<u>Center City Corporate Limits</u>	<u>1960 Population</u>	<u>Land Area(1)</u>	<u>Interstate System Mileage(2)</u>	<u>Interstate Mi.- Population Ratio</u>	<u>Interstate Mi.- Land Area Ratio</u>
	<u>1,000s</u>	<u>Sq. Mi.</u>	<u>Mile</u>	<u>Mi/100,000 Pop.</u>	<u>Mi/Sq. Mi.</u>
Los Angeles	2,479	451	115	4.6	0.26
Philadelphia	2,003	127	30	1.5	0.24
Detroit	1,670	140	48	2.9	0.34
Cleveland	876	75	43	4.9	0.57
Minneapolis-St. Paul	796	106	35	4.4	0.33
Washington	764	61	28	3.7	0.46
St. Louis	750	61	21	2.8	0.34
Boston	697	48	24	3.4	0.50
Cincinnati	502	75	22	4.4	0.29
Atlanta	487	130	57	11.7	0.44
Kansas City	476	81	18	3.8	0.22
Columbus	471	39	16	3.4	0.34

(1) As reported in 1950 Census. Atlanta is the only city in this group that has annexed substantial area since 1950. Land Area for Atlanta was approximated for this tabulation.

(2) Interstate System Mileage within the limits of the center city was measured from latest available BPR maps showing general location of National System of Interstate Highway - Urban Areas.



TABLE II

<u>Metropolitan Areas</u>	<u>1960 Population S.M.S.A. (1)</u>	<u>Land Area S.M.A. (2)</u>	<u>Interstate System Mileage (3)</u>	<u>Interstate Mi.- Population Ratio</u>	<u>Interstate Mi.- Land Area Ratio</u>
	<u>1,000s</u>	<u>Sq. Mile</u>	<u>Mile</u>	<u>Mi./100,000 Pop.</u>	<u>Mi/Sq.Mi.</u>
Los Angeles	6,743	4,853	264	3.9	0.054
Philadelphia	4,343	3,550	133	3.1	0.037
Detroit	3,762	1,965	165	4.4	0.084
Boston	2,589	770	199	7.7	0.258
St. Louis	2,060	2,520	137	6.7	0.054
Washington	2,002	1,488	110	5.5	0.074
Cleveland	1,797	688	85	4.7	0.124
Minneapolis - St. Paul	1,482	1,721	111	7.5	0.065
Cincinnati	1,071	730	75	7.0	0.102
Kansas City	1,039	1,643	88	8.5	0.054
Atlanta	1,017	1,138	121	11.9	0.106
Columbus	683	538	74	10.8	0.138

(1) S.M.S.A. - Standard Metropolitan Statistical Area

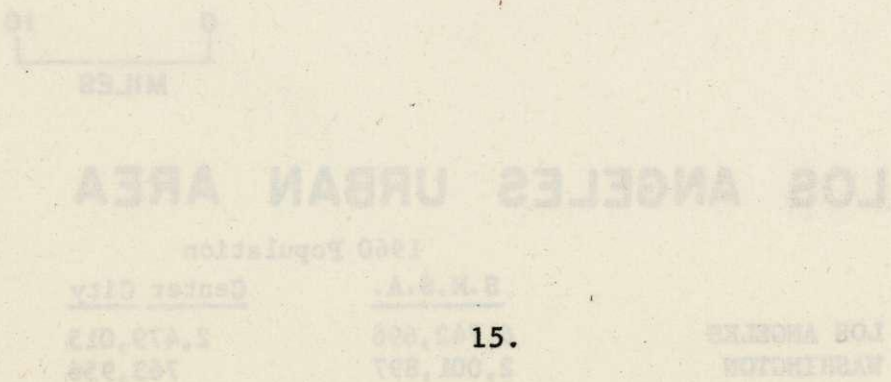
(2) S.M.A. - Standard Metropolitan Area as reported in 1950 Census. Generally similar 1960 S.M.S.A.

(3) Interstate Mileage for metropolitan area was measured from latest available B.P.R. maps showing general location of National System of Interstate Highways - Urban Areas. Metropolitan area system was taken as all routes within and including the outer belt. Where no clearly defined outer belt existed, mileage includes radials and by-pass routes extended out to a point where an outer belt might have been located.

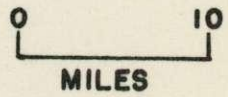
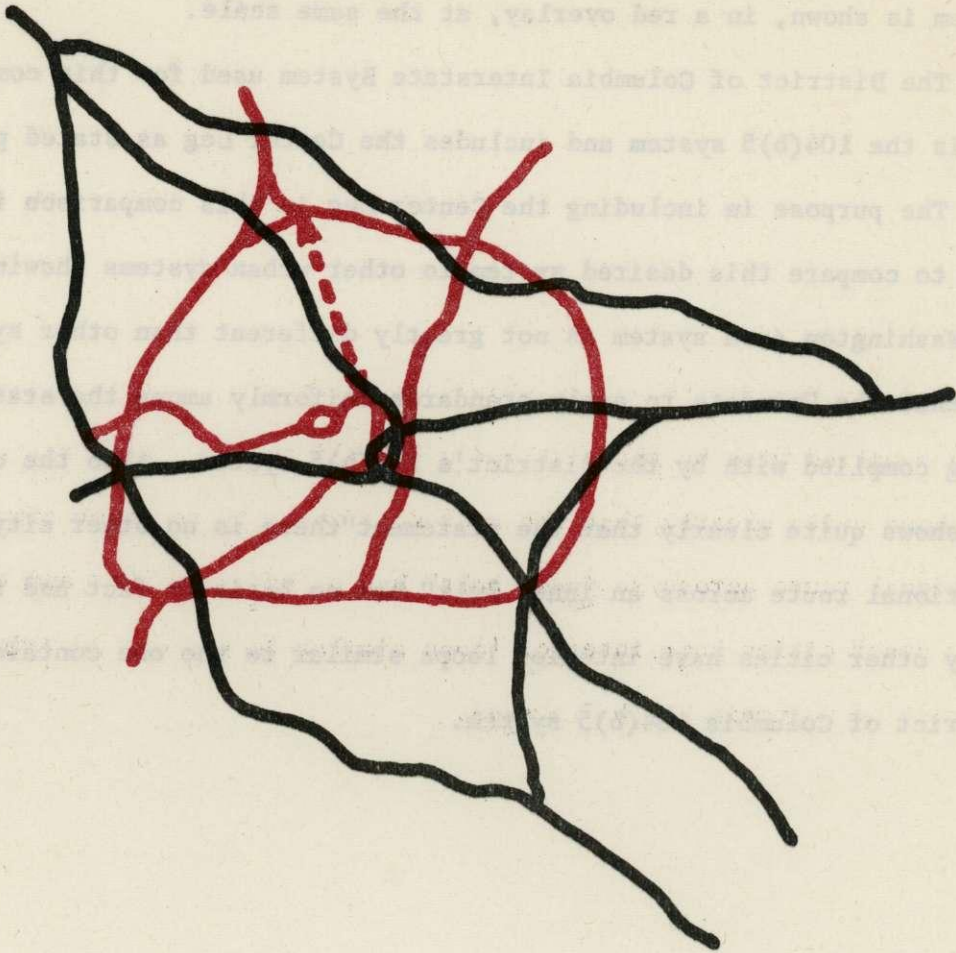
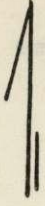
MAP COMPARISON

The following series of maps shows the Interstate system for the Washington, D.C.-Maryland-Virginia Urban Area in relation to the systems for the other urban areas. For each urban area, the Washington area system is shown, in a red overlay, at the same scale.

The District of Columbia Interstate System used for this comparison is the 104(b)5 system and includes the Center Leg as stated previously. The purpose in including the Center Leg in this comparison is to be able to compare this desired system to other urban systems showing that the Washington area system is not greatly different than other systems and that the "mandate to apply standards uniformly among the states" is being complied with by the District's 104(b)5 system. Also the comparison shows quite clearly that the statement "there is no other city with an additional route across an inner belt" has no basis in fact and to the contrary other cities have interior loops similar to the one contained in the District of Columbia 104(b)5 system.







# LOS ANGELES URBAN AREA

1960 Population

	<u>S.M.S.A.</u>	<u>Center City</u>
LOS ANGELES	6,742,696	2,479,015
WASHINGTON	2,001,897	763,956



Los Angeles, California

Los Angeles was selected for this analysis because its system includes both an outer and an inner loop. The inner loop is formed by four interstate radials intersecting near the Central Business District. The outer loop is formed by three by-pass routes.

The population is more than three times that of the District, with respect to both the central city and the metropolitan area.

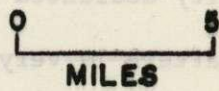
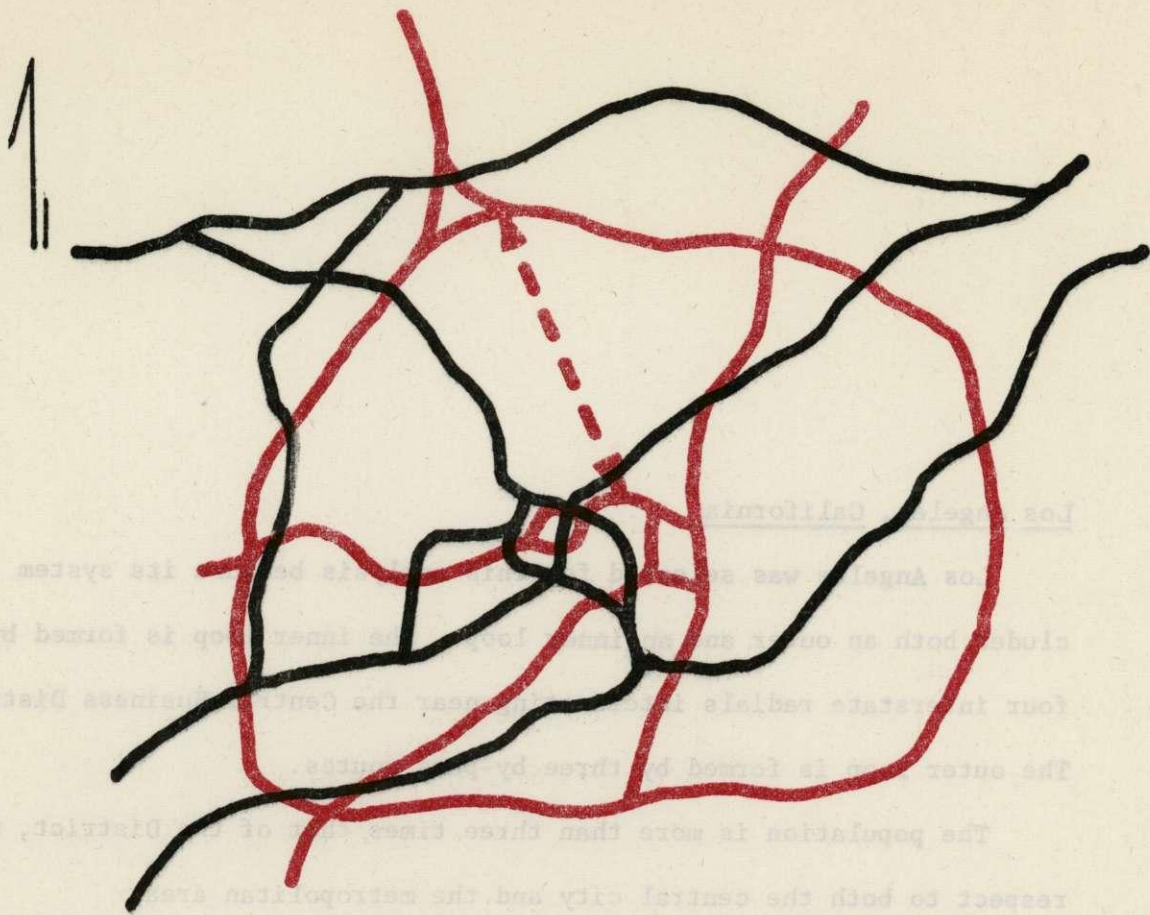
The total interstate mileage within the center city, as measured on B.P.R. Urban Area maps, is 115 miles, or 4.6 miles per 100,000 population, as compared to 28 miles total and 3.7 miles per 100,000 population for the District of Columbia.

As expected, Los Angeles has one of the most extensive interstate systems, on a mileage-population ratio since it is commonly known as the city dedicated to the automobile. This occurs even though the system pattern is very simple with little or no duplication of routes.

PHILADELPHIA URBAN AREA  
1960 Population

Center City	U.S.A.	PHILADELPHIA
2,002,512	199,242,4	1,001,987
707,936	199,100,1	





# PHILADELPHIA URBAN AREA

1960 Population

	<u>S.M.S.A.</u>	<u>Center City</u>
PHILADELPHIA	4,342,897	2,002,512
WASHINGTON	2,001,897	763,956

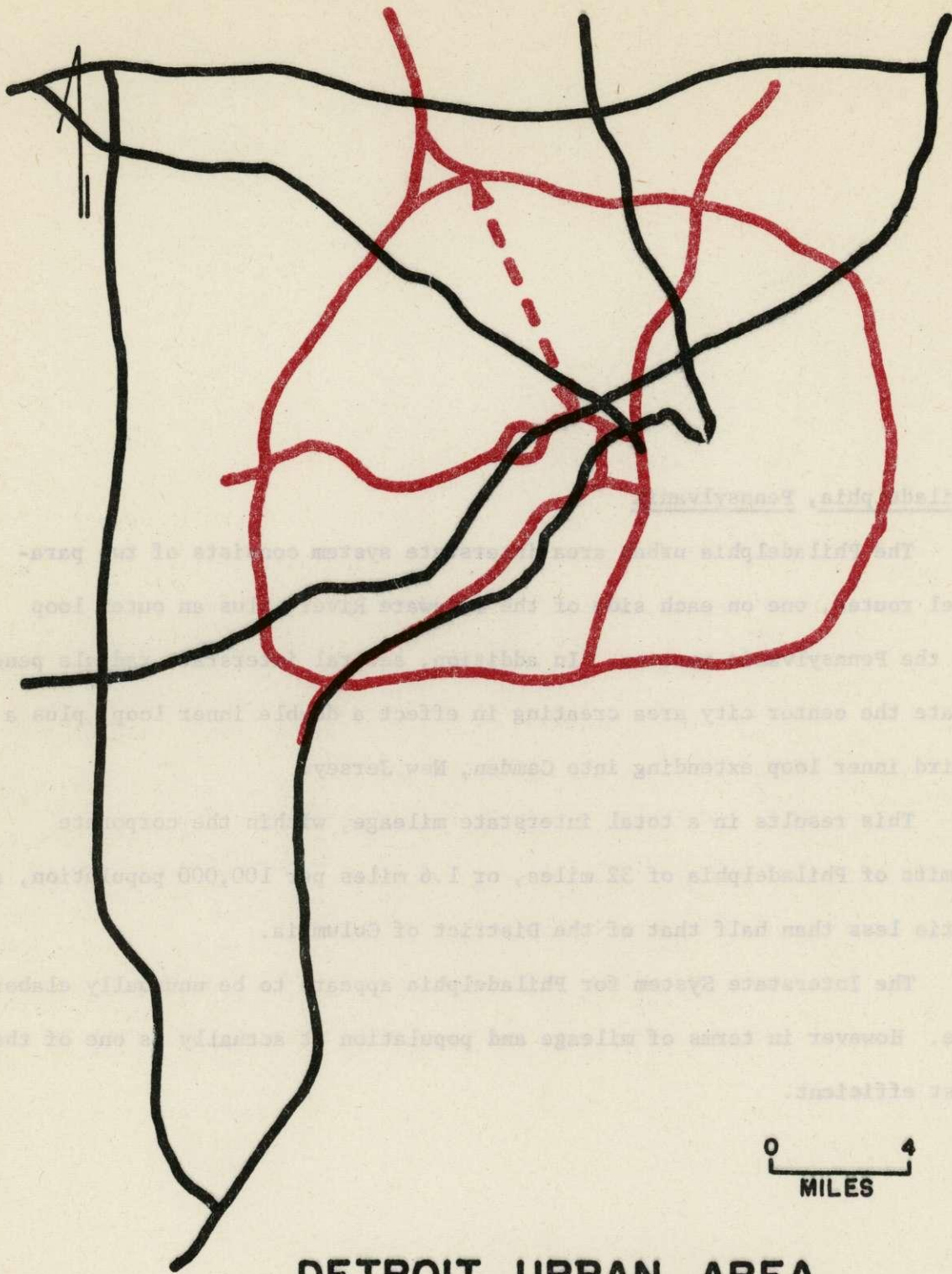
Philadelphia, Pennsylvania

The Philadelphia urban area interstate system consists of two parallel routes, one on each side of the Delaware River, plus an outer loop in the Pennsylvania portion. In addition, several interstate radials penetrate the center city area creating in effect a double inner loop, plus a third inner loop extending into Camden, New Jersey.

This results in a total interstate mileage, within the corporate limits of Philadelphia of 32 miles, or 1.6 miles per 100,000 population, a ratio less than half that of the District of Columbia.

The Interstate System for Philadelphia appears to be unusually elaborate. However in terms of mileage and population it actually is one of the most efficient.





## DETROIT URBAN AREA

1960 Population

	<u>S.M.S.A.</u>	<u>Center City</u>
DETROIT	3,762,360	1,670,144
WASHINGTON	2,001,896	763,956

Detroit, Michigan

The City of Detroit, and its urban area are about double the population of that of the District of Columbia. Due to Detroit's location along the U.S.-Canadian border, its interstate system is required to serve only a half circle.

The outer loop consists of two by-pass routes west and north of the city. Five interstate radials penetrate the center city. These radials form a partial inner loop with an additional route across the loop very similar to the pattern for District of Columbia.

The total interstate mileage within the Detroit corporate limits is 48 miles, or 2.9 miles per 100,000 population. This ratio is about 20 percent less than the District of Columbia ratio of 3.7 miles per 100,000 population. Thus very similar systems can result in different efficiencies measured in mileage-population ratios.

CLEVELAND URBAN AREA

1960 Population

CLEVELAND DISTRICT

1,796,322

876,030

720,292

D.C.

1,796,322

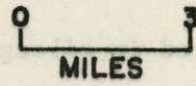
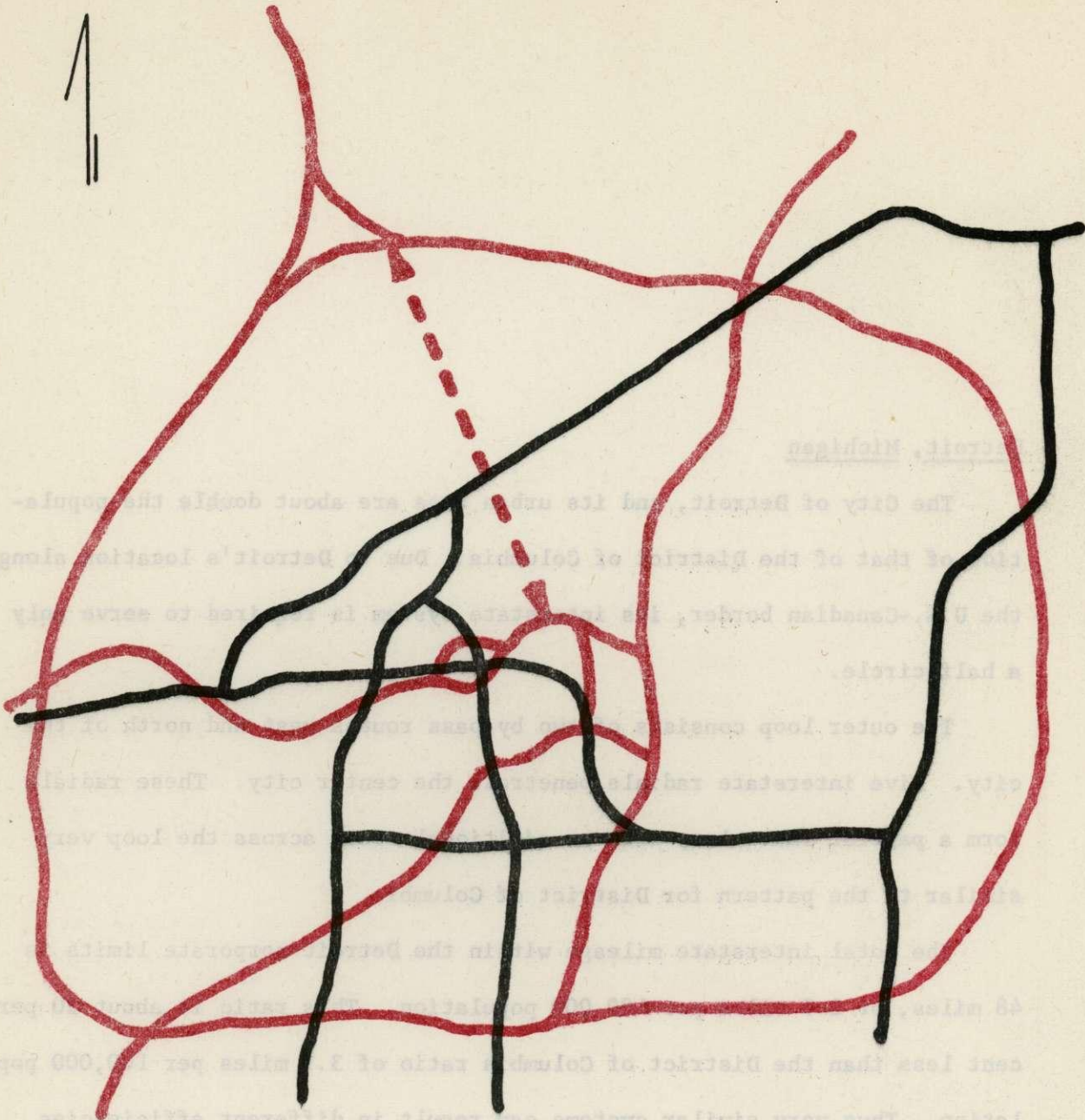
876,030

720,292

CLEVELAND

WASHINGTON





## CLEVELAND URBAN AREA

1960 Population

	<u>S.M.S.A.</u>	<u>Center City</u>
CLEVELAND	1,796,595	876,050
WASHINGTON	2,001,896	763,956

Cleveland, Ohio

Cleveland is slightly larger than the District of Columbia and its metropolitan area slightly smaller. Due to its location along Lake Erie, the Cleveland Urban area Interstate System is required to serve only a half circle.

The outer loop consists of two by-pass routes. A section of the Ohio Turnpike forms a third by-pass route which is not a part of the Interstate System. Five interstate radials penetrate the central portions of the city forming in effect a double inner loop.

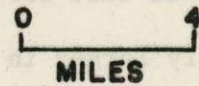
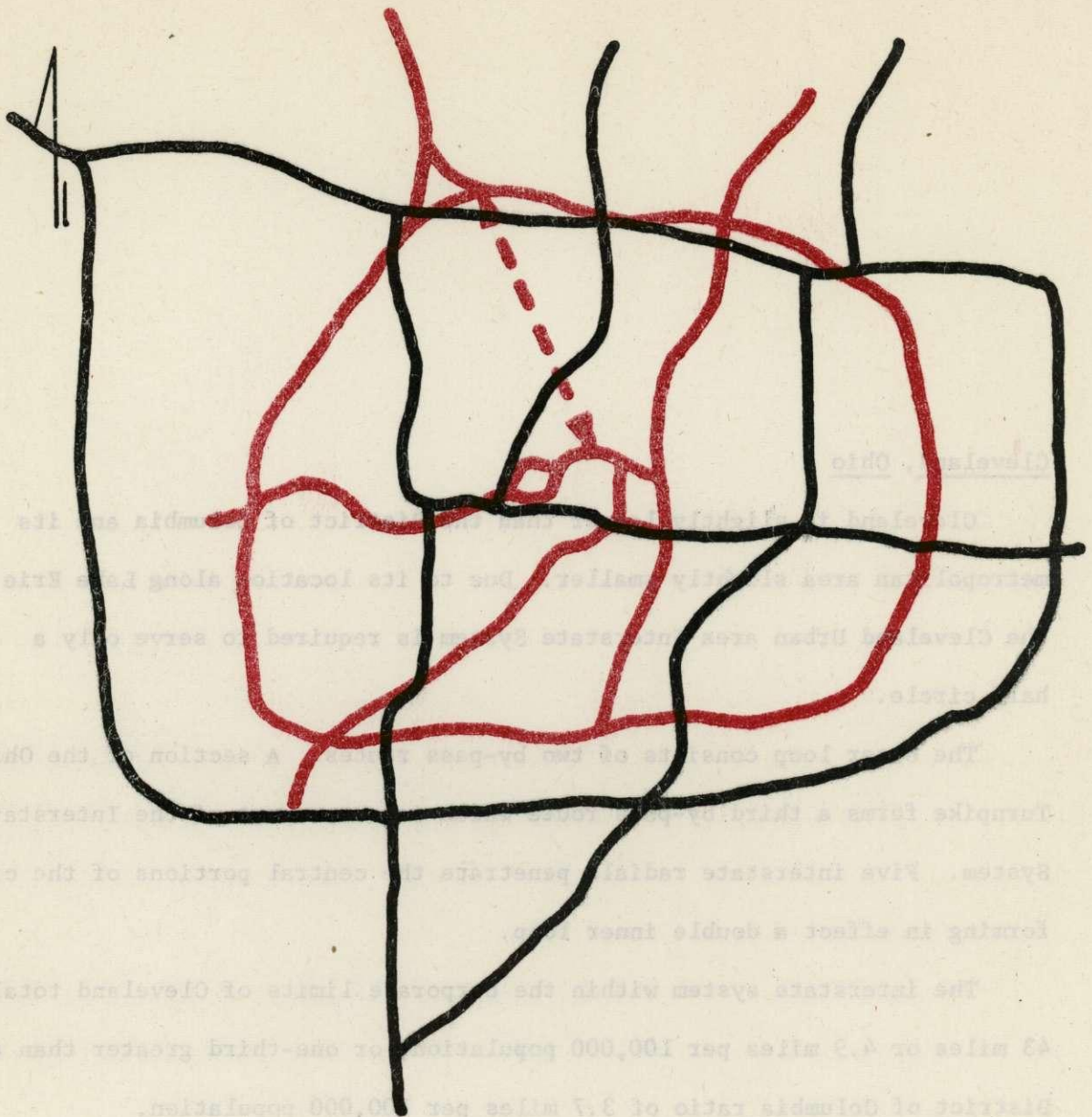
The interstate system within the corporate limits of Cleveland totals 43 miles or 4.9 miles per 100,000 population, or one-third greater than the District of Columbia ratio of 3.7 miles per 100,000 population.

Thus the District of Columbia system can be considered to be less extensive than that for Cleveland, a city with similar characteristics and only slightly larger in population.

MINNEAPOLIS - ST. PAUL URBAN AREA

1960 Population	1960 Interstate Miles	1960 Interstate Miles per 100,000 Population
1,482,000	43	4.9
1,000,000	37	3.7





## MINNEAPOLIS - ST. PAUL URBAN AREA

	1960 Population	
	<u>S.M.S.A.</u>	<u>Center Cities</u>
MINNEAPOLIS - ST. PAUL	1,482,030	796,283
WASHINGTON	2,001,896	763,956

Minneapolis-St. Paul, Minnesota

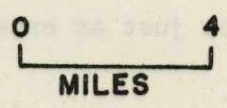
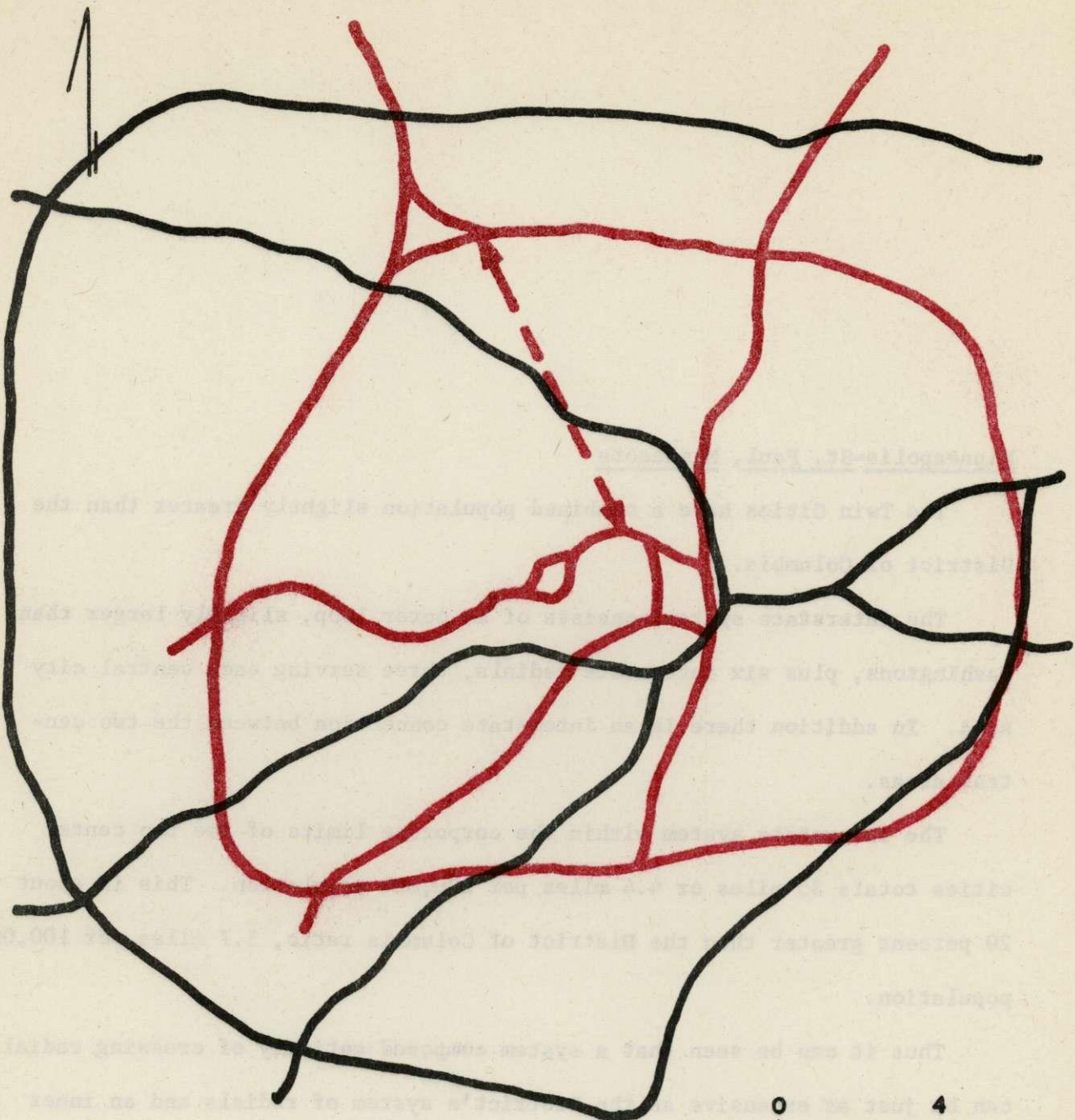
The Twin Cities have a combined population slightly greater than the District of Columbia.

The interstate system consists of an outer loop, slightly larger than Washingtons, plus six interstate radials, three serving each central city area. In addition there is an interstate connection between the two central areas.

The interstate system within the corporate limits of the two center cities totals 35 miles or 4.4 miles per 100,000 population. This is about 20 percent greater than the District of Columbia ratio, 3.7 miles per 100,000 population.

Thus it can be seen that a system composed entirely of crossing radials can be just as extensive as the District's system of radials and an inner loop.





## ST. LOUIS URBAN AREA

	1960 Population	
	<u>S.M.S.A.</u>	<u>Center City</u>
ST. LOUIS	2,060,103	750,026
WASHINGTON	2,001,896	763,956

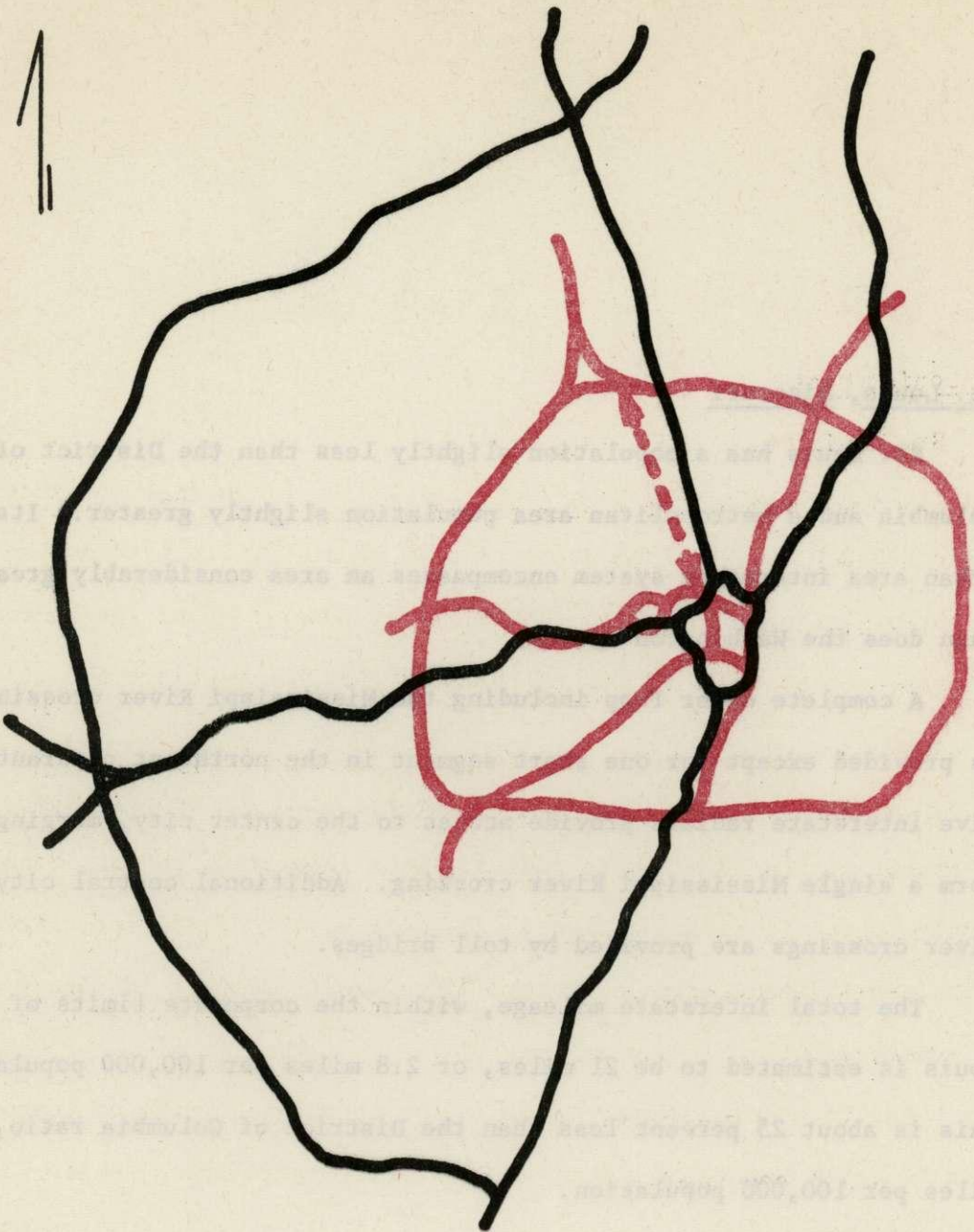
St. Louis, Missouri

St. Louis has a population slightly less than the District of Columbia and a metropolitan area population slightly greater. Its' urban area interstate system encompasses an area considerably greater than does the Washington system.

A complete outer loop including two Mississippi River crossings is provided except for one short segment in the northeast quadrant. Five interstate radials provide access to the center city, merging to form a single Mississippi River crossing. Additional central city river crossings are provided by toll bridges.

The total interstate mileage, within the corporate limits of St. Louis is estimated to be 21 miles, or 2.8 miles per 100,000 population. This is about 25 percent less than the District of Columbia ratio, 3.7 miles per 100,000 population.





# BOSTON URBAN AREA

1960 Population

	<u>S.M.S.A.</u>	<u>Center City</u>
BOSTON	2,589,301	697,197
WASHINGTON	2,001,897	763,956

Boston, Massachusetts

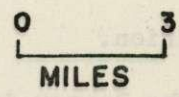
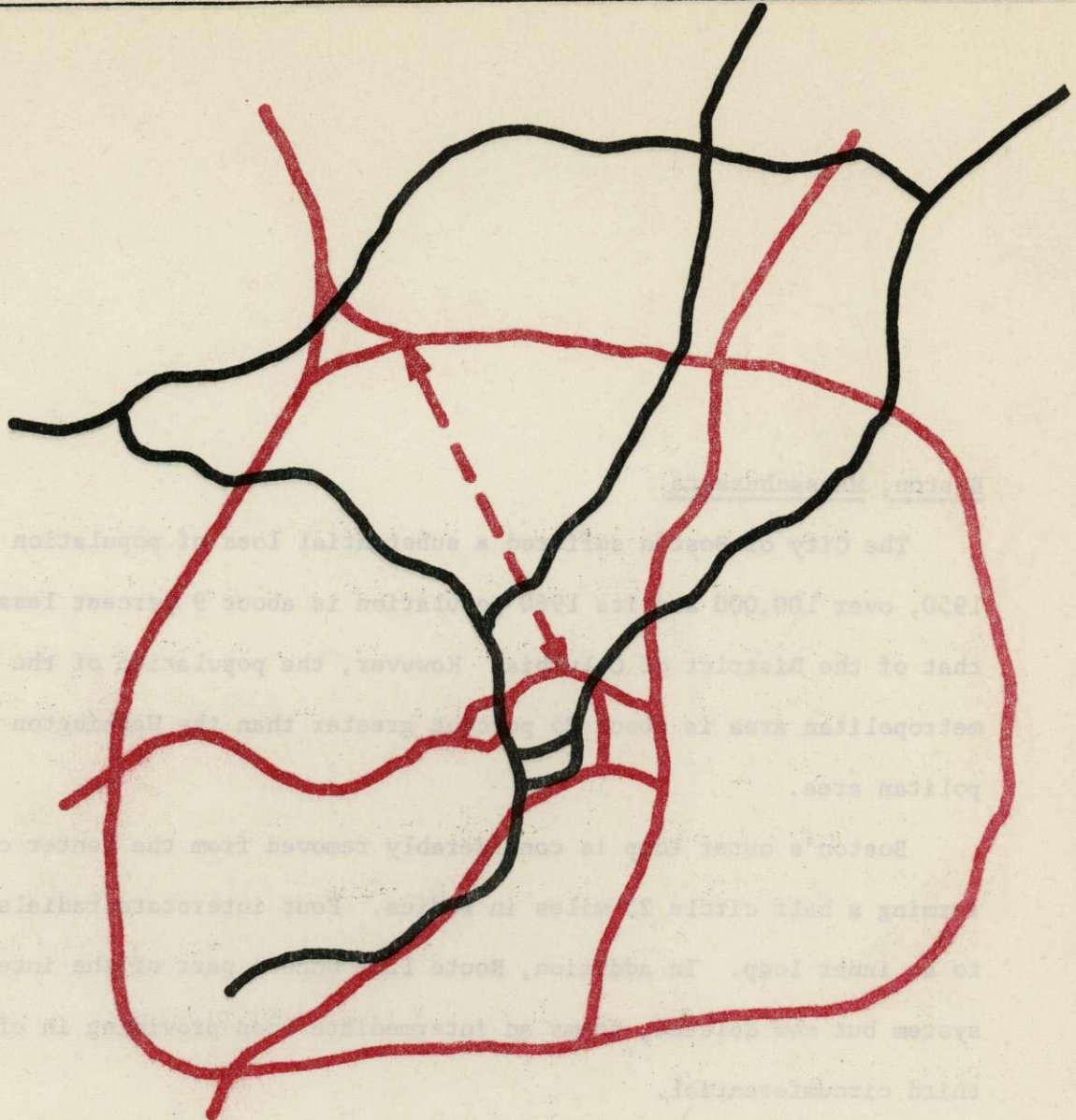
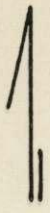
The City of Boston suffered a substantial loss of population since 1950, over 100,000 and its 1960 population is about 9 percent less than that of the District of Columbia. However, the population of the Boston metropolitan area is about 25 percent greater than the Washington metropolitan area.

Boston's outer loop is considerably removed from the center city, forming a half circle 25 miles in radius. Four interstate radials connect to an inner loop. In addition, Route 128, once a part of the interstate system but now deleted, forms an intermediate loop providing in effect a third circumferential.

The total interstate mileage, within the corporate limits of Boston is estimated to be 24 miles, or 3.4 miles per 100,000 population, which is slightly less than the District of Columbia ratio, 3.7 miles per 100,000 population.

The Boston interstate system is similar to the District's, both with respect to pattern and mileage.





# CINCINNATI URBAN AREA

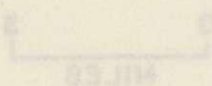
1960 Population

	<u>S.M.S.A.</u>	<u>Center City</u>
CINCINNATI	1,071,624	502,550
WASHINGTON	2,001,896	763,956

Cincinnati, Ohio

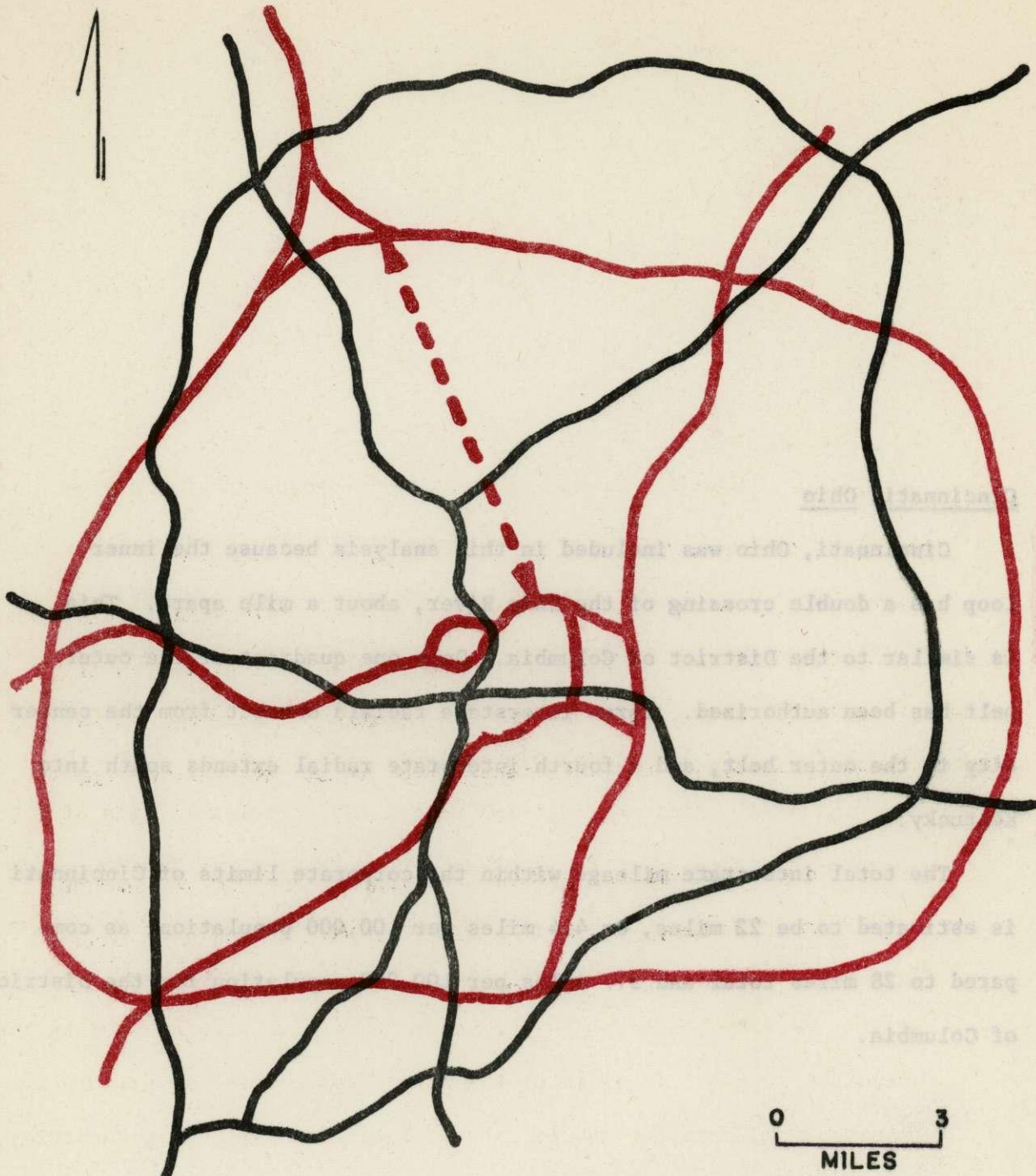
Cincinnati, Ohio was included in this analysis because the inner loop has a double crossing of the Ohio River, about a mile apart. This is similar to the District of Columbia. Only one quadrant of the outer belt has been authorized. Three interstate radials connect from the center city to the outer belt, and a fourth interstate radial extends south into Kentucky.

The total interstate mileage within the corporate limits of Cincinnati is estimated to be 22 miles, or 4.4 miles per 100,000 population, as compared to 28 miles total and 3.7 miles per 100,000 population for the District of Columbia.



1960 Population	
Center City	287,423
Greater City	767,226
S.M.R.A.	1,017,128
Atlanta	2,007,204
Washington	2,007,204





## ATLANTA URBAN AREA

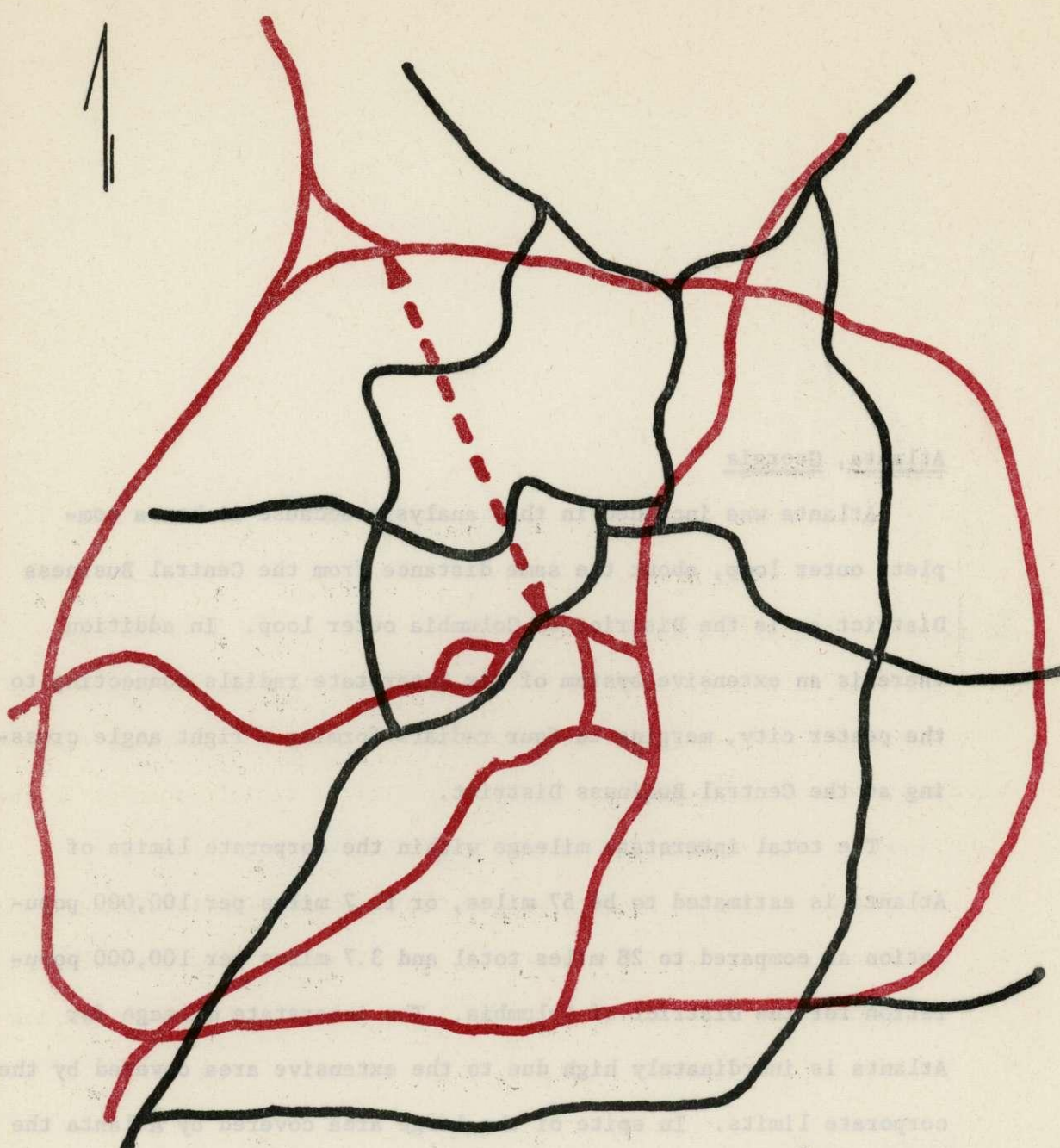
	1960 Population	
ATLANTA	<u>S.M.S.A.</u>	<u>Center City</u>
WASHINGTON	1,017,188	487,455
	2,001,896	763,956

Atlanta, Georgia

Atlanta was included in this analysis because it has a complete outer loop, about the same distance from the Central Business District as is the District of Columbia outer loop. In addition, there is an extensive system of six interstate radials connecting to the center city, merging to four radials forming a right angle crossing at the Central Business District.

The total interstate mileage within the corporate limits of Atlanta is estimated to be 57 miles, or 11.7 miles per 100,000 population as compared to 28 miles total and 3.7 miles per 100,000 population for the District of Columbia. The interstate mileage for Atlanta is inordinately high due to the extensive area covered by the corporate limits. In spite of the large area covered by Atlanta the interstate mileage per square mile of land area is 0.44, practically the same as the District of Columbia 0.46 miles per square mile.





## KANSAS CITY URBAN AREA

	1960 Population	
	<u>S.M.S.A.</u>	<u>Center City</u>
KANSAS CITY	1,039,493	475,539
WASHINGTON	2,001,896	763,956

Kansas City, Missouri

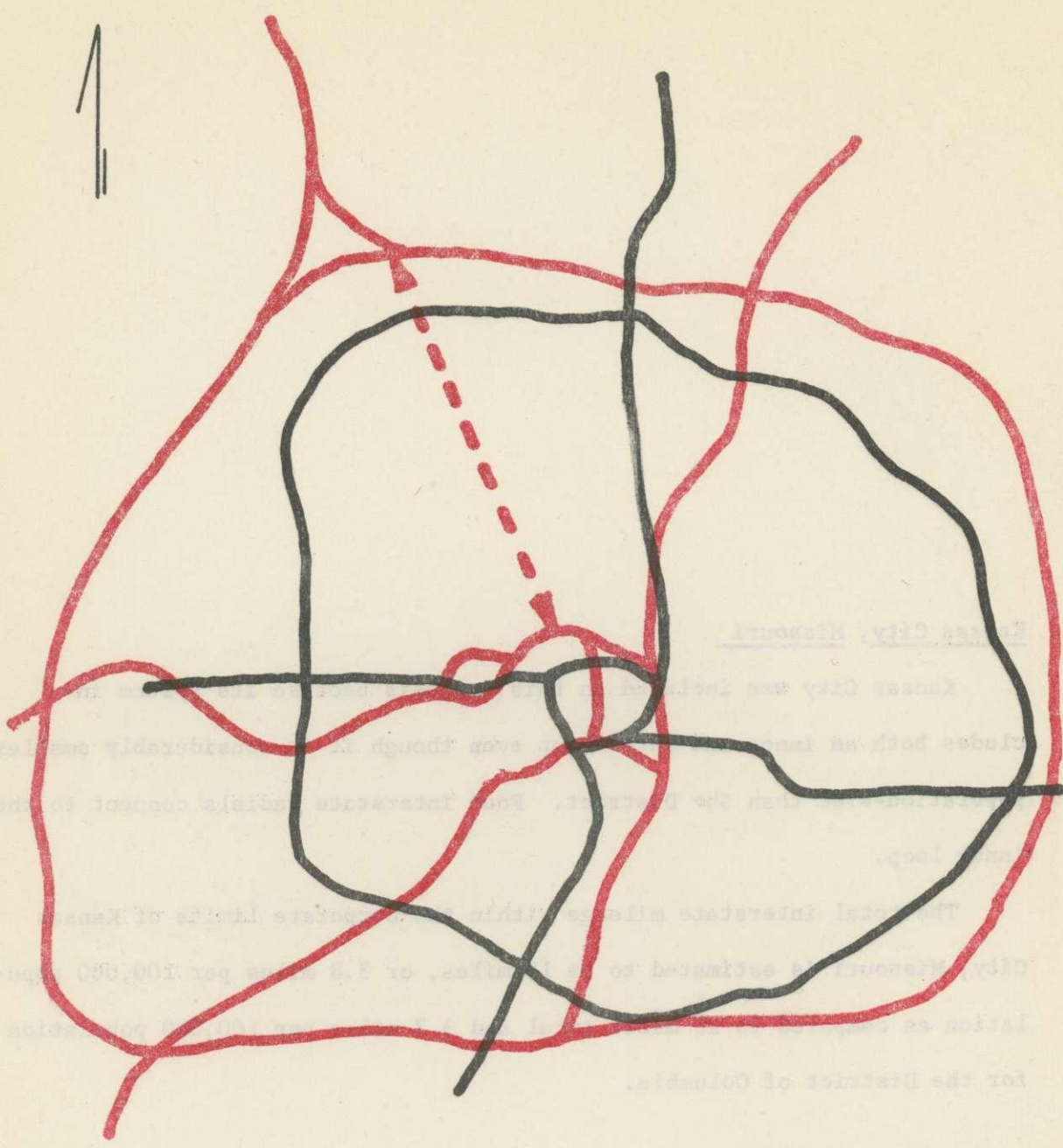
Kansas City was included in this analysis because its system includes both an inner and outer loop even though it is considerably smaller population-wise than the District. Four interstate radials connect to the inner loop.

The total interstate mileage within the corporate limits of Kansas City, Missouri is estimated to be 18 miles, or 3.8 miles per 100,000 population as compared to 28 miles total and 3.7 miles per 100,000 population for the District of Columbia.

COLUMBUS URBAN AREA

1960 Population	
Washington	2,000,000
Columbus, Ohio	500,000
District of Columbia	400,000





## COLUMBUS URBAN AREA

1960 Population

	<u>S.M.S.A.</u>	<u>Center City</u>
COLUMBUS, OHIO	682,962	471,316
WASHINGTON	2,001,896	763,956

Columbus, Ohio

Columbus also was selected for this analysis as its system includes both an inner loop and an outer loop. Four interstate radials connect to the inner loop. While the population of Columbus is less than the District of Columbia, the interstate systems are similar and therefore can be compared for extensiveness.

The total interstate mileage within the corporate limits of Columbus is estimated to be 16 miles, or 3.4 miles per 100,000, as compared to 28 miles and 3.7 miles per 100,000 population for the District.



### COST COMPARISONS

The District of Columbia Interstate System has been cited as being excessive in cost as compared to other cities. This apparently is based on per mile costs in other areas as compared to the District. The Section 104(b)5 needs estimates for other areas are not available for the Department to make a determination of the accuracy of this statement. However, whether or not this is the case, there are many elements which tend to increase the District of Columbia costs as compared to other areas. These are listed below.

1. District of Columbia routes are limited to a central city which is 100 per cent developed. These routes do not include any extension into suburban or rural areas as might be the case with other urban areas. Therefore, none of the economies of location in an area of less density occur.

2. All Interstate routes are generally on new right-of-way, requiring the acquisition of many expensive improvements. While there is an extensive park system within the District, this land and other large public holdings for the most part are not available for highway purposes. This factor further limits land availability and as a competitor for space in a limited area tends to result in higher right-of-way costs.

3. The extensive city street system that exists within the District requires numerous grade separation structures in order to maintain local access.

4. The District of Columbia boundary extends to the Virginia shoreline of the Potomac River. Therefore the entire cost of the Potomac River crossings must be borne by the District of Columbia. These structures would necessarily have a high unit cost per mile.

5. The District of Columbia has an obligation to construct facilities in keeping with its role as the Nation's Capital. As such the District of Columbia is constantly before the eyes of the Nation and the World. This imposes conditions that tend to increase the cost of highway construction, i.e.:

- (a) Special architectural and aesthetic treatment for structures.
- (b) Park-like settings for roadways. This requires for the most part depressed roadways in order to avoid obstructing views.

All of the above items increase the unit cost of construction of highways. However it is not the objective of this document to argue the total or unit costs of the District of Columbia Interstate System. This cost has been estimated on the basis of preliminary plans, in cooperation with the Bureau of Public Roads, to serve the needs of the community in accordance with the interstate criteria.



### SUMMARY

The Department of Highways and Traffic is of the opinion that the Interstate System as presented in the 104(b)5 Needs Estimate, with two exceptions, is the most desirable system. The two exceptions are the Route 70S and the Route 266 locations, each of which is to be the subject of independent study in accordance with previously mentioned Bureau of Public Roads determinations.

The desired system, including the Center Leg, is the shortest in total mileage of any District of Columbia system proposed to date. It is 28.1 miles total length as compared to 28.9 in the 108(d) system.

The Bureau of Public Road's statement in reference to the Highway Act's mandate to apply standards uniformly among the States and requiring the Center Leg to be deleted from the system as there is no other city with an additional route across an inner belt, is not valid for the following reasons:

1. A portion of the inner belt is not a part of the Interstate System and therefore the Center Leg does not cross an Interstate inner belt as implied in the Bureau's statement.
2. The Bureau of Public Roads criteria for Selection of Interstate Roads specifies that detailed studies are required in order that sound decisions can be reached and that:

"There is no standard pattern of cities of metropolitan area. The requirements for mileage of highways of interstate system characteristics adjacent to, into and through urban areas vary according to their area, topography, physical barriers such as rivers and other bodies of water, location of industries, commercial developments and residential sections, volumes and types of highway traffic, existing street, boulevard and other highways, and other similar factors."

In addition to the above, it might be pointed out that the District of

Columbia will be constructing other similar facilities to meet the needs of interstate and local commerce without recourse to interstate funds. These include Glover-Archbold Parkway, Intermediate Loop and a portion of the Anacostia Freeway.

The mileage and map comparisons in this report show that the District of Columbia Interstate System:

- (1) is not more extensive than other cities, and that,
- (2) other systems have an inner loop system similar to the one proposed by the District of Columbia; for example, Detroit, Philadelphia, and Cleveland.

The final subject relative to a comparison of systems is cost. If the unit cost of the District Interstate System appears to be high when compared to other states, such a comparison does not furnish justification for the deletion of one section of that system in order to reduce the total cost. This report lists the various reasons for possible higher cost of constructing the Interstate System for the District. The higher costs encountered in the District are strictly a function of these reasons and not because the system is more extensive than required to satisfy the criteria.

Any attempt to lower the cost by deletion of a portion of the system would defeat the original purpose in the establishment of the interstate system and the criteria for route selection.

In conclusion, we are confronted with especial obligations to provide a proper setting for the Nation's Capital. In this respect the District of Columbia is not exactly comparable to any other area. It has been pointed out in the past that the Bureau bear in mind the peculiar status of the District of Columbia because of the responsibility of the Federal Government for certain



financial assistance to the area.

It is therefore requested that the Bureau reconsider its decision to delete the Center Leg from the Interstate System in order that we may proceed with important planning, design and construction of this extremely vital freeway at the very door-step of the Capitol, and which must serve as a "back-bone" for the planning for revitalization of the business district of the area.

APPENDIX A  
COPY  
U. S. DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

Region Two

District of Columbia  
Interstate System

Washington, D.C.

March 9, 1961

Mr. H. L. Aitken  
Director  
Department of Highways and Traffic  
District Building  
Washington 4, D.C.

Dear Mr. Aitken:

A determination has been made by Public Roads on the inclusion of certain routes in the Interstate System after considering the information and supporting documentation that has accompanied your submissions to date requesting approval of Interstate System locations.

These determinations are as follows:

- (1) The general corridor of 11th Street, East, between the Anacostia Bridge interchange south of the Anacostia River and Florida Avenue NE, is included in the Interstate System. This route forms the east leg of the inner belt. It is reasonable and proper that it be extended northerly to an appropriate connection with Maryland Interstate Route 95.
- (2) The New York Avenue corridor enroute to the Kenilworth Interchange is not a part of the Interstate System.
- (3) The so-called "center leg" of the inner loop, along the general line of 3rd Street, West, is not a part of the Interstate System.

These actions have been taken in order to permit the District of Columbia to proceed with the establishment of final locations for these routes as part of the Interstate System on which the development of plans and ultimate advancement of construction can be based.

Very truly yours,

(signed)

J. A. HANSON  
Division Engineer