HIGHWAY AND TRANSPORTATION PLAN

ATLANTA GEORGIA

1946

Highway and Transportation Plan for Atlanta, Georgia

PREPARED FOR THE

STATE HIGHWAY DEPARTMENT OF GEORGIA

AND THE

PUBLIC ROADS ADMINISTRATION, FEDERAL WORKS AGENCY

by

H. W. LOCHNER & COMPANY

and

DE LEUW, CATHER & COMPANY

Chicago, Illinois

January 1946

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January 10, 1946

Mr. George T. McDonald, Director
State Highway Department of Georgia
Atlanta, Georgia

Dear Sir:

Your desire for a comprehensive highway and transportation plan for the Atlanta Metropolitan Area has culminated in a report, respectfully submitted herewith, which was prepared in accordance with our agreement of December 14, 1944.

This report includes all phases of transportation. H. W. Lochner and Company prepared the traffic analyses, expressway location and design, and estimates of cost. De Leuw, Cather and Company dealt with transit improvements and the railroad passenger terminal. The two companies developed jointly the plans for a major street system and its physical and operational improvements. A supplementary report on joint truck terminals, based on a recent survey, will be made in the near future.

Throughout the entire study we received whole-hearted support and valuable suggestions from you and the staff members of the State Highway Department. We are grateful for the advice and counsel of Public Roads Administration officials from State, regional and national offices. We also wish to express our appreciation for the assistance of officials and members of the various departments of the City of Atlanta, and of DeKalb and Fulton Counties, the Atlanta Council of the Boy Scouts of America, the Atlanta Chamber of Commerce, the Georgia Power Company, the various railroad and trucking companies and numerous individuals and organizations.

Mr. W. Earl Andrews of Andrews and Clark, Engineers, New York City was retained by us to secure the benefit of his experience on expressway design, construction and operation in the New York area. He has reviewed all phases of this report, with special attention to expressway location and design, and is in full accord with all recommendations.

There is every indication that Atlanta is approaching a period of great growth and prosperity. Improved highway and transit facilities are essential if the community is to capitalize on its natural assets. Failure to take prompt action would not only retard growth but add to the overall cost of the capital improvements required. We respectfully urge vigorous action on a sound program of financing and construction to translate the plans embodied herewith into reality.

Respectfully submitted,

H. W. Lochner
H. W. Lochner & Company

C. E. De Leuw
De Leuw, Cather & Company

SUMMARY OF REPORT

ATLANTA, CAPITAL OF THE SOUTHEAST

Atlanta is the capital of southeastern United States largely by virtue of its position as a transportation center. The entire city is a terminal area, and its future prosperity depends on the successful integration of its various transportation facilities. The proposed expressways which would be the urban portions of the interstate highways, form a logical starting point for such comprehensive planning of all future traffic and transportation improvements.

It is estimated that the population of the city proper will increase from 300,000 (1940) to 400,000 by 1970. In the same period the population of the metropolitan area will increase 50 per cent from 500,000 to 750,000. Traffic volumes will increase even more, proportionately, it is predicted.

Traffic movements within and across the Atlanta metropolitan area were studied exhaustively through surveys made by the State Highway Department in 1940-41, a home interview survey in 1944-45, and a study of automobile parking in the central business district, conducted in 1945 with the cooperation of the Boy Scouts of America. The location and relative importance of the major flows of traffic were determined from these data and the quantities expanded to a 1970 basis by various pertinent factors.

EXPRESSWAYS

The proposed Interstate Highway System contemplates major arteries radiating from Atlanta towards Spartanburg, Chattanooga, Birmingham, Montgomery, and Macon. In addition, the State Highway Department recommends a sixth route to Augusta.

Expressways carry all types of highway traffic at reasonable speeds with a high degree of safety. Access is limited to carefully selected and designed locations, and all cross interferences are eliminated. In Atlanta they should be constructed below surface grade, in general, on broad rights-of-way with side slopes landscaped with the flowering trees and bushes for which the city is noted. Incidental improvements along the rights-of-way would include small playgrounds and parks. Two traffic lanes in each direction divided by a broad center mall would be provided, in most sections with space for a third lane at a later date where estimates of future traffic indicate the need.

Expressways constructed on air rights above railroad tracks would be two or three times as expensive as the depressed type of construction and would be unfeasible for a number of physical reasons as well.

Preliminary locations and designs were completed for a system of expressways. A Downtown Connector would extend around the north, east and south sides of the central business district. From this Connector routes would extend to the west; to the north, with a branch to the northeast; to the east; and to the south—all connecting with the interstate highways on the Federal system. The estimated cost of this system is approximately $48,000,000.

IMPROVEMENT OF EXISTING TRAFFIC FACILITIES

While 60 per cent of the traffic with downtown destinations would eventually use the expressways, there will continue to be large numbers of vehicles on the local streets. The present street system is entirely unsuited to the needs of modern automotive travel.

A network of streets has been selected for gradual improvement through widening, elimination of jogs, separation of grades, and preferential treatment in traffic control so as to create an arterial street system. This arterial street system should be extended into the metropolitan area in advance of future development.

A number of railroad grade crossings on the streets comprising the arterial street system should be eliminated during the next several years.

Numerous street extensions and other improvements of major scope are needed to correct Atlanta's difficult street pattern. Some of the more important of these projects would be in the central business district. Estimates of the cost and a recommended table of priorities of construction have been prepared and are detailed in the report. The total cost of the major street improvements is somewhat less than $13,000,000.

Many improvements can and should be made in the local street system without expenditure of capital funds. Channelization of several intersections including three along Peachtree Street in the central business district would do much to improve the fluidity of traffic movement and the convenience of pedestrians.

A one-way street system for the central business district has been prepared to simplify traffic movement, make full use of available roadways and permit better timing of traffic control signals. Modifications in the pair of one-way streets extending to the north side are also recommended in the report.

It appears that the expressway system and the major street improvements could be financed within a ten to twelve-year period by anticipated Federal grants, reasonable allocations of State highway funds, and the bonding power of the city and county governments.

PARKING FACILITIES

The shortage of conveniently located parking space in the central area of Atlanta is one of the city's most important problems. This shortage will become even more acute as the city grows and as the expressways are completed.

A comprehensive parking survey in the downtown area was made during the progress of the study. The information gathered permits determination of the most attractive locations for parking facilities and estimates of the quantity of space which parking demand would support.

It is recommended that the business of providing off-street parking remain a private enterprise. It may be necessary, however, to create a Parking Authority in order to acquire the necessary land and to finance physical improvements at low interest rates. All curb parking in the downtown area should be eliminated as fast as off-street facilities can be built.

Parking problems in the outlying business districts, particularly in Buckhead and Decatur, can be solved by the elimination of angle parking and double parking on the streets, and the provision of off-street space supported by the merchants of the business community.

IMPROVEMENT OF THE TRANSIT SYSTEM

Comprehensive data on which to base plans for improvements to the transit system were obtained from a market survey conducted by the Georgia Power Company during 1944.

Prior to our survey the policy was established of substituting motor or trolley buses for essentially all streetcars in Atlanta. This policy is wholly sound and is the basis for many of the other improvements recommended, such as channelization, one-way streets, and sidewalk widening.

The proposed city-wide routings involve no drastic departures from the present system. A recommendation of major importance, however, is that a belt line of bus routes be established around and at a distance of one to two miles from the central business district to integrate the various radial routes. This belt line would attract approximately 42,000 riders per day. Proposed routings in the central business district would provide better distribution and have been planned to fit into the one-way street system and other suggested improvements.

The key to the downtown routing of buses is a proposed urban bus terminal on air rights above the railroad tracks south of Marietta Street between Forsyth and Broad Streets. This structure would provide a modern terminal for bus passengers near the heart of the business district, would permit convenient transfer between routes and would remove a substantial volume of bus traffic from the congested downtown streets.

Express buses should operate over all of the proposed expressway routes to provide fast public transportation between the central business district and the various parts of the city and surrounding territory. This operation would permit substantial savings in time and also relieve the local streets of a large volume of bus traffic.

RAILROAD PASSENGER TERMINAL

Atlanta has the unfortunate situation of two railroad stations, requiring transfer of many passengers between them daily. Traffic to and from both stations must intermingle with the general confusion and congestion of the central business district. As part of our study we investigated the feasibility of a single union passenger station.

After study of three potential sites, one was selected which lies along the existing tracks of the N. C. and St. L. Railway and the Southern Railway north of North Avenue and west of Marietta Street. A preliminary plan was developed at this site which appears to be ideal from the standpoint of accessibility to the various railroads, the ample space which could be provided for traffic movements in and around the station, and in its location with respect to major traffic generators in the city.

HIGHWAY AND TRANSPORTATION PLAN FOR ATLANTA, GEORGIA

Transportation makes Atlanta the financial, agricultural, and industrial capital of Southeastern United States. In addition to the eight major railroad lines serving the city, there are nine air lines and sixteen state and Federal highways. Buses and trucks operate over these highways, along with private automobiles. This comprehensive transportation system makes it possible for people or goods from Atlanta to reach all parts of the Southeast in a few hours.

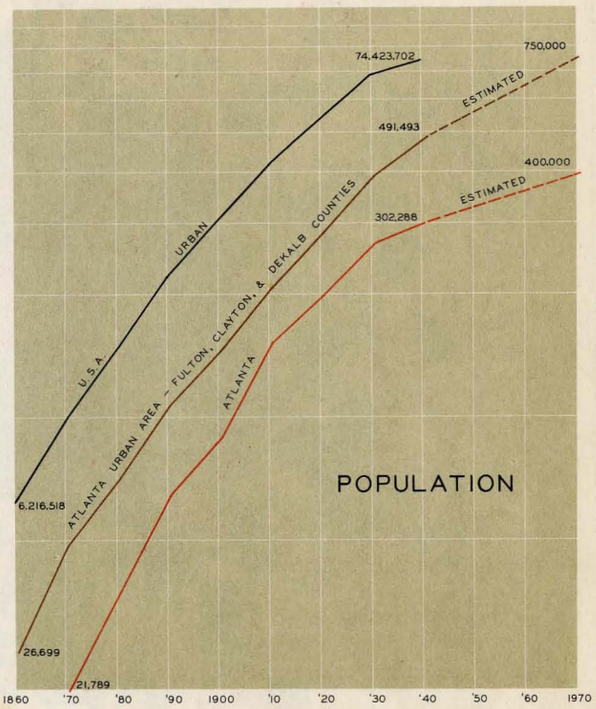
The entire metropolitan area can be considered the terminal of this vast network of transportation arteries. In most cases even goods brought in by railroad must be trucked over the city streets before reaching ultimate destinations. Passengers arriving by bus, airplane, and railroad use the local streets to reach their homes, hotels, or places of business. Thousands of people travel daily from their homes to banks, stores, offices and factories, which exist primarily because transportation brings them goods or raw materials and distributes their products.

The purpose of this report is to integrate the multitudinous traffic and transportation facilities of the terminal area so that they will function efficiently with each other and as a part of a comprehensive system. The study is made timely by a proposal to construct a 34,000 mile network of interstate highways under the sponsorship of the Public Roads Administration, Federal Works Agency. Atlanta's importance is attested by the fact that five of the proposed highways would enter the city, with a sixth route to Augusta being proposed by the Georgia State Highway Department.

Pertinent Trends

Important new transportation facilities must take into consideration probable maximum traffic on them during their useful life. Future volumes will depend not only on population but also on the distribution of people within the metropolitan area, and on the type and amount of transportation they will demand.

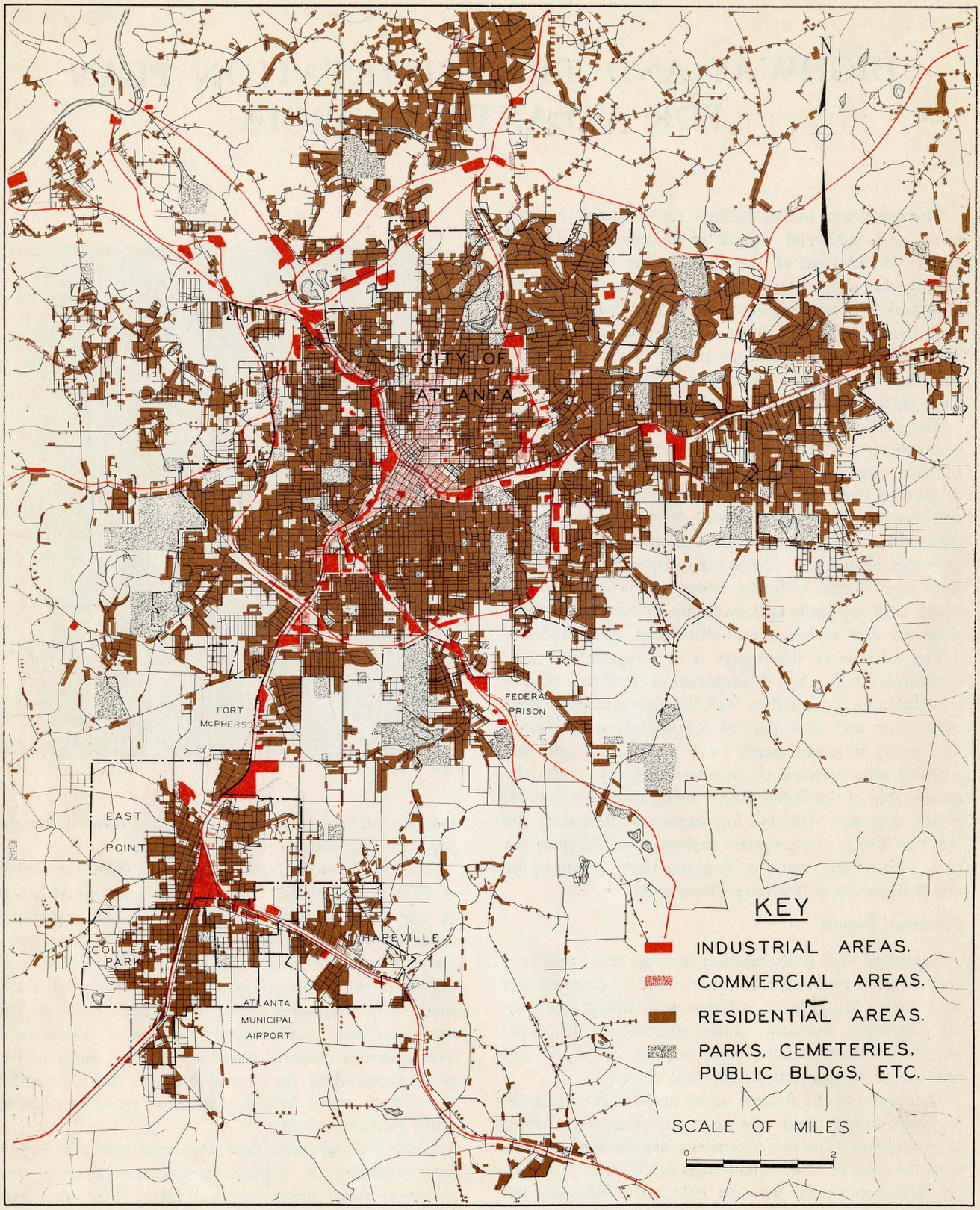
Population of the Atlanta urban area has been increasing at a more rapid rate than the average in other urban centers. The rate of increase has also been greater than the total of other urban areas in Georgia. Atlanta's population increased between 1930 and 1940 while the rural population of the state decreased. Considering these trends as well as the strategic location of Atlanta and its many attractive features, it is estimated that the metropolitan area will grow from a 1940 population of 500,000 to approximately 750,000 by 1970. At that time



the city probably will have increased from its present population of 300,000 to about 400,000.

A study of building permits issued during the period of 1939 to 1941 shows that the most rapid growth was in the areas beyond the city limits. The remaining unoccupied desirable home-sites within the city limits are mainly in the outskirts. The homes of medium and high cost were located principally to the north, east, south and southwest, while the homes built to the northwest were predominately of a more modest type. The extensive housing projects replacing slums in the areas surrounding the central business district enabled the city to retard loss of population in these conveniently located sections.

Choice of industrial sites was once governed largely by availability of railroad freight transportation and proximity to an ample supply of labor. The automotive age of transportation, however, has led many companies in Atlanta and elsewhere to locate sizeable plants in semi-rural areas. This policy generates a great deal of highway traffic, and in time will cause dispersal of population.



The map of PRESENT LAND USE IN THE ATLANTA AREA shows few remaining undeveloped residential neighborhoods within the city. Beyond the city the principal development has occurred to the north, east and south.

The larger industrial plants are located along the railroads, many of the newer ones outside the city.

There has been a steady growth in number of motor vehicles registered in the Atlanta metropolitan area. While the ratio of number of persons per registered vehicle has shown a tendency to stabilize, automobile ownership will doubtless be stimulated during the coming years by improvements both in vehicles and in highways.

Considering all these factors on the basis of the best data available, it is predicted that traffic flows in the 1965-70 period will be slightly greater than 150 per cent of those found in prewar surveys. Traffic volumes based on these estimates have been used in designing the facilities recommended in this report.

A 50 per cent increase in traffic would overload existing streets unbearably. Accidents would increase and rush hour speeds would drop to a crawl.

Traffic Studies

Traffic studies used in preparing this report were principally those conducted by the State Highway Department of Georgia in cooperation with Atlanta, Fulton County and the Public Roads Administration, and those made by the State Highway Department together with the Public Roads Administration during 1944-45.

The earlier study covered external traffic crossing the limits of the metropolitan area. It revealed the movements of rural and inter-city traffic in the prewar period. The external survey was conducted through interviews with the drivers of both passenger cars and trucks on all of the principal highways leading from the city. The heaviest movement of such traffic was found to be in a north-south direction. The largest amount of through traffic moved between the northwest and the south, indicating need for a by-pass route west of the city proper to relieve local streets of such traffic.

The 1944-45 survey of local traffic was made by interviews at a controlled sample of homes in each section of the city, to determine what trips had been made by each member of the family on a representative weekday. Similar interviews were conducted with truck operators to establish the pattern of truck movements within the city. The major flows of traffic this study revealed, are those to and from the downtown area. In addition, however, there are important movements between the various residential neighborhoods and from them to the outlying shopping centers and to the numerous industrial sections. The 1945 parking study, described later, was also a valuable source of information on the origins of vehicles with destinations in the downtown area.

Combining the data from the various surveys, expanded to anticipated 1970 volumes, a traffic flow map was prepared. It showed not the number of vehicles using existing streets, but rather the number that would move between various points in the city if direct routes were available. The various routes grouped themselves logically into five major arteries and a number of minor ones. The major routes all converge on the central business district. Based on volume of traffic at the maximum point, their order of importance would be as follows:

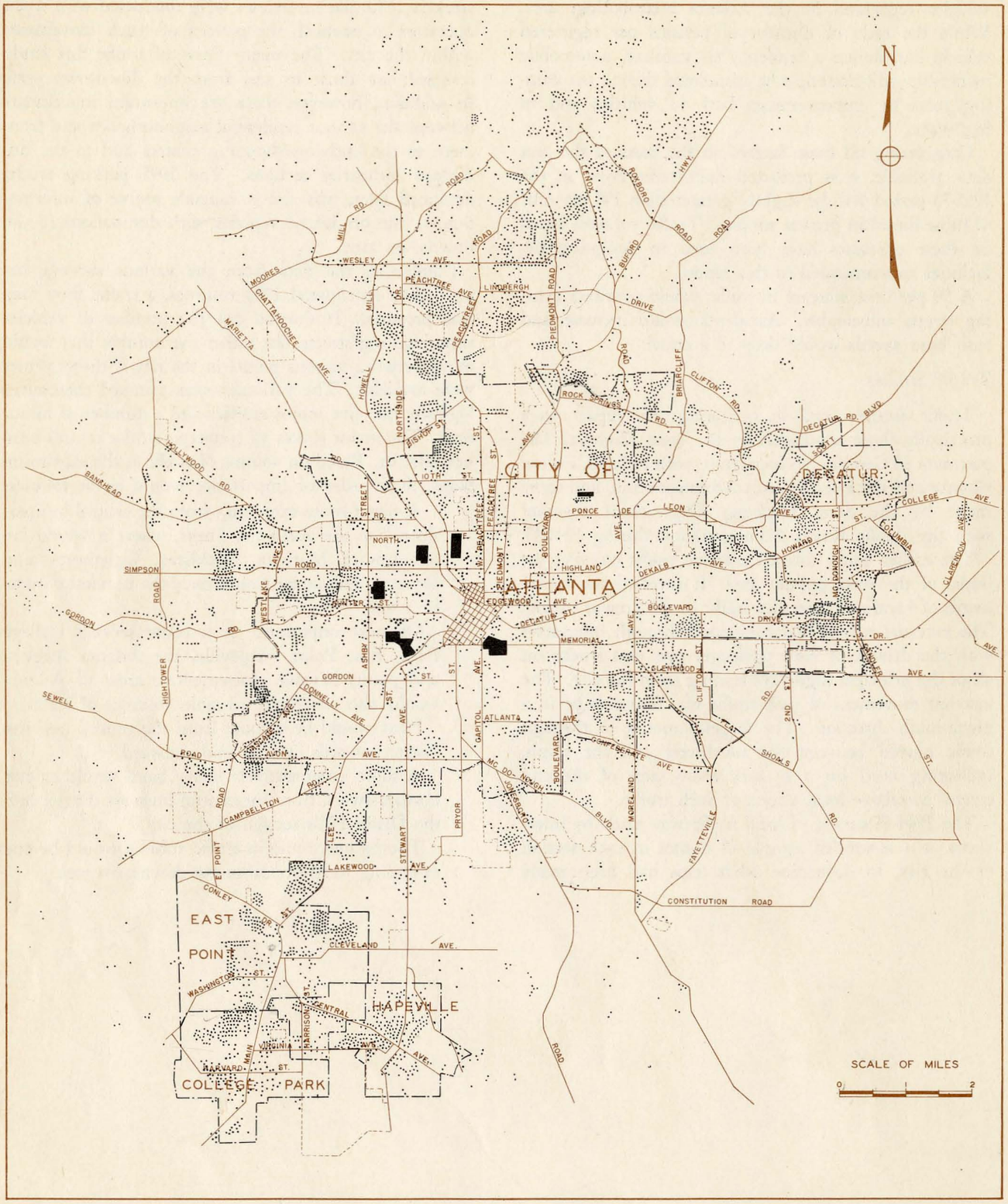
A north route extending from the central business district to the north city limits, where it would fan out toward Marietta, Buckhead, Oglethorpe and beyond. This route would carry the heaviest volume of traffic.

Of next importance is a route serving College Park, East Point, Hapeville, the Atlanta Airport, and points beyond. Intermediate areas of Atlanta would also contribute sizeable volumes of traffic.

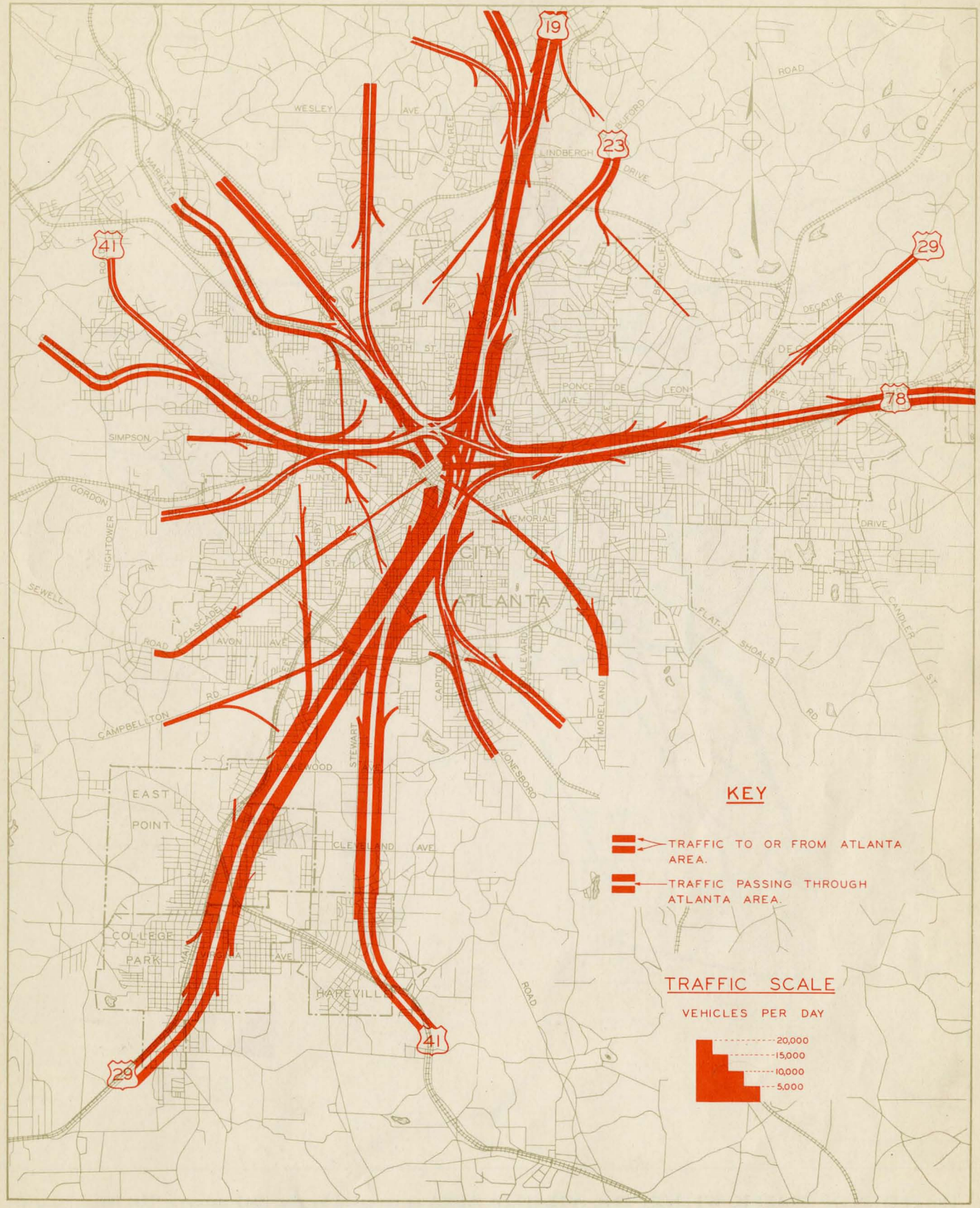
Next would be a route from the central business district towards Decatur and eastward.

A short, comparatively heavy band would extend northeastward from the central business district into the Druid Hills section of the city.

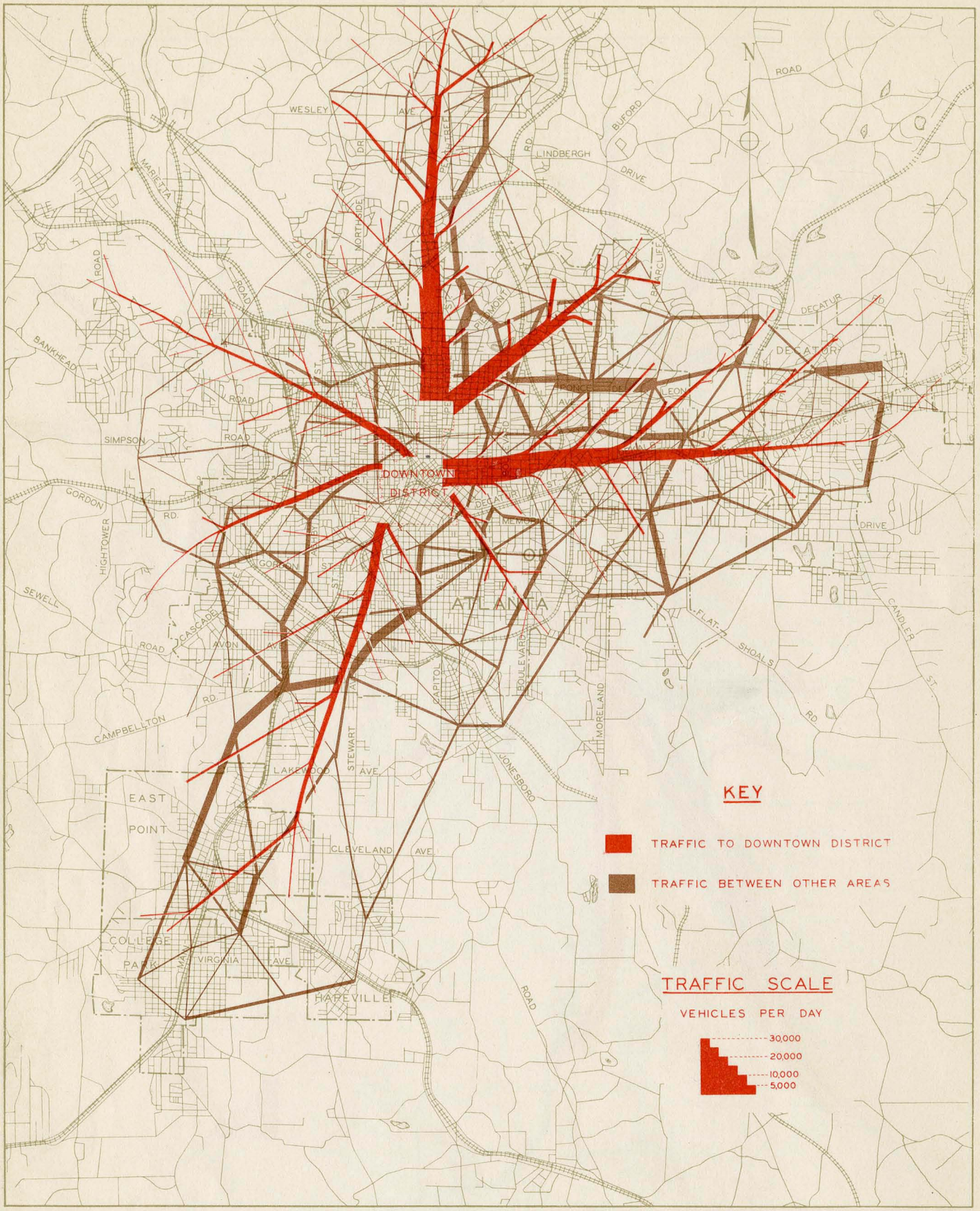
The lightest route in traffic volume would be one extending westward from the downtown area.



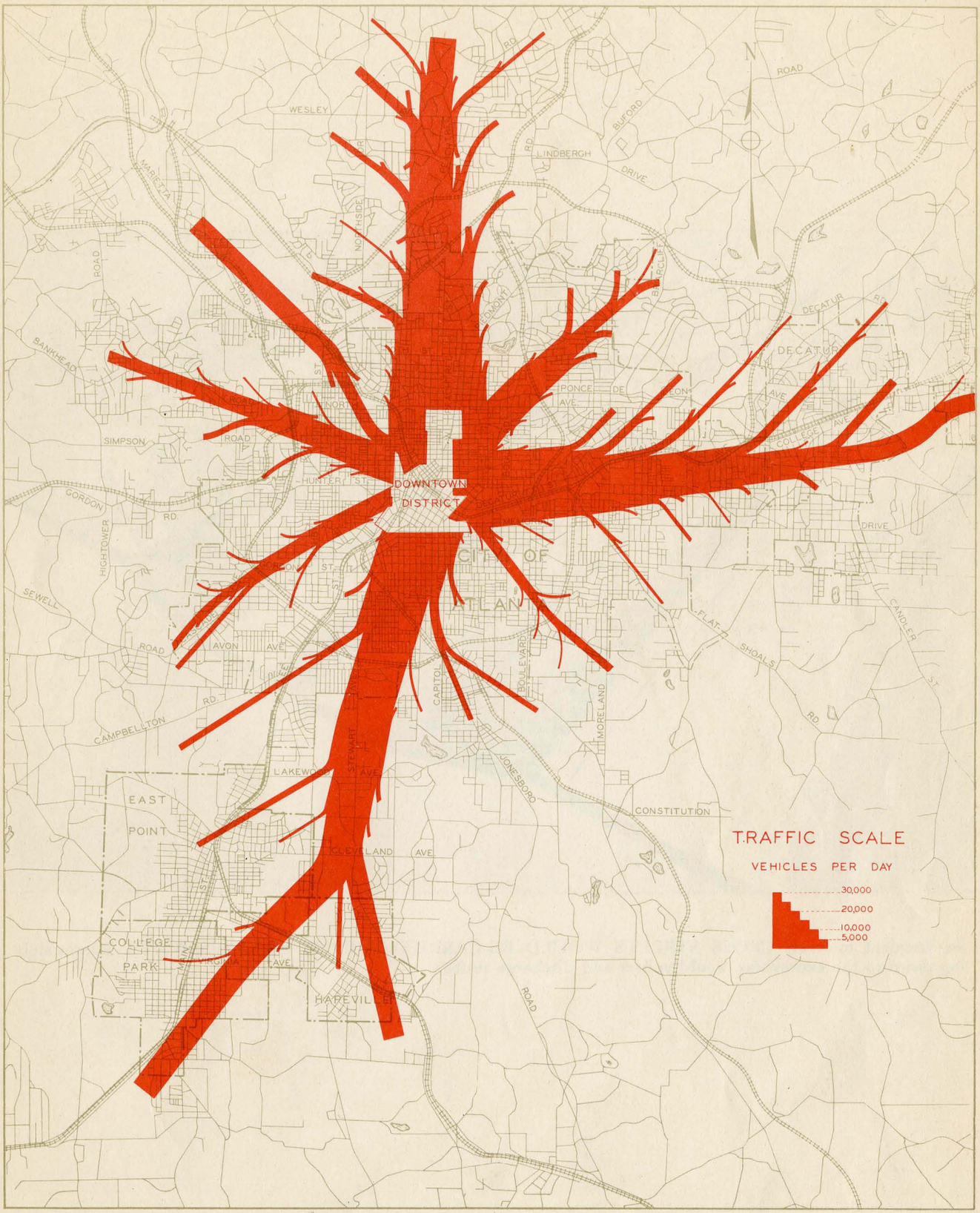
The location of BUILDING PERMITS ISSUED DURING 1939, 1940 and 1941 indicates the probable future trend of development. Homes of medium and high values were built to the north around Buckhead, to the east in and around Decatur, and to the south in East Point, College Park and Hapeville. Modest homes were located to the northwest of the business district.



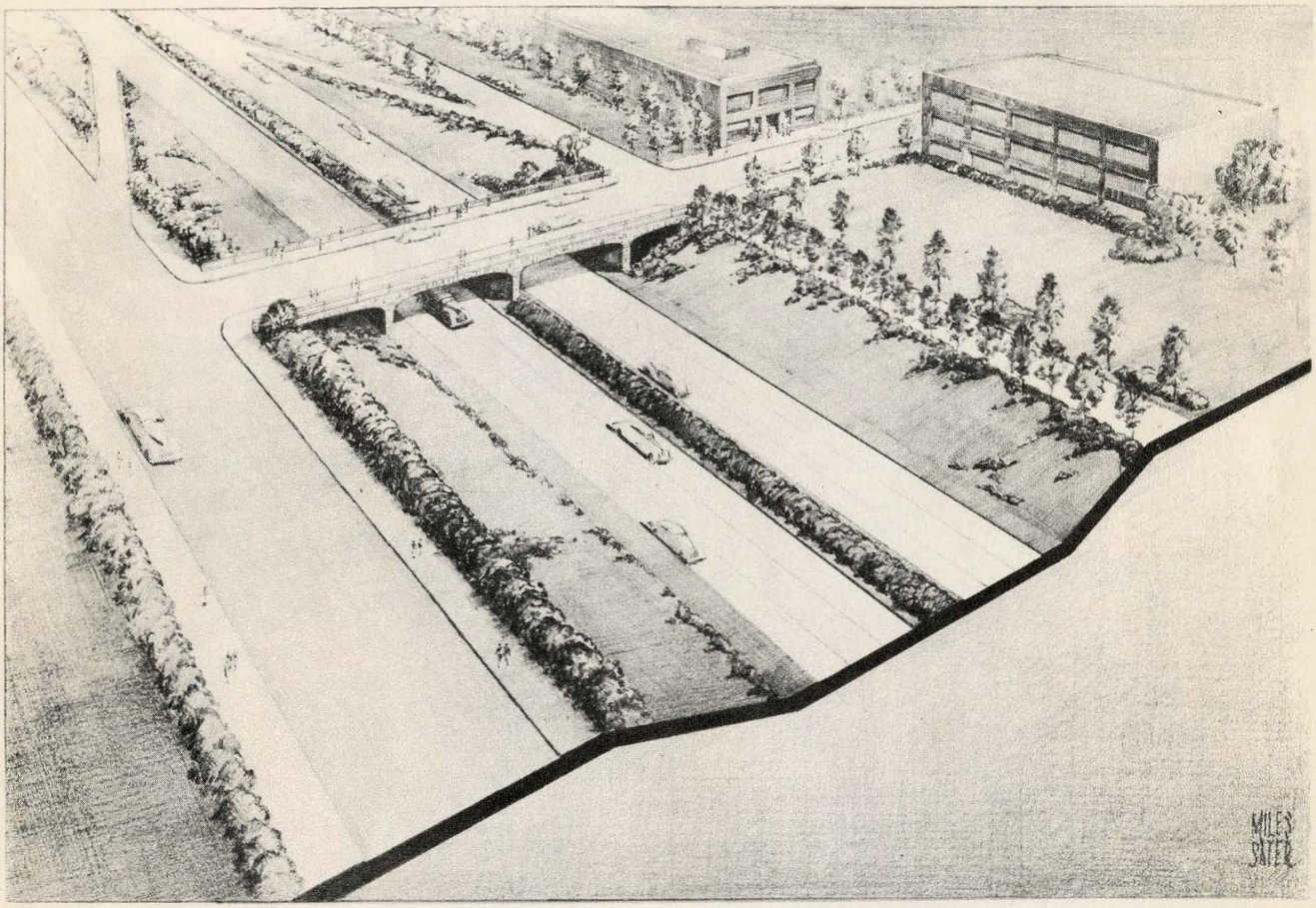
A map of the TRAFFIC ENTERING AND LEAVING THE ATLANTA AREA as obtained from the 1940-41 survey. The largest volumes are in a north-south direction. A by-pass route to the west of the city would serve the through traffic flowing from northwest to south and southeast.



The FLOWS OF TRAFFIC WITHIN THE ATLANTA AREA as revealed by the 1945 surveys. The largest movements are those to and from the downtown district. The other important flows are those between residential neighborhoods, shopping districts and industrial areas. 50% of the traffic entering the central business district passes through without making a stop. A more adequate street system between the various neighborhoods would remove the majority of those vehicles from downtown congestion.



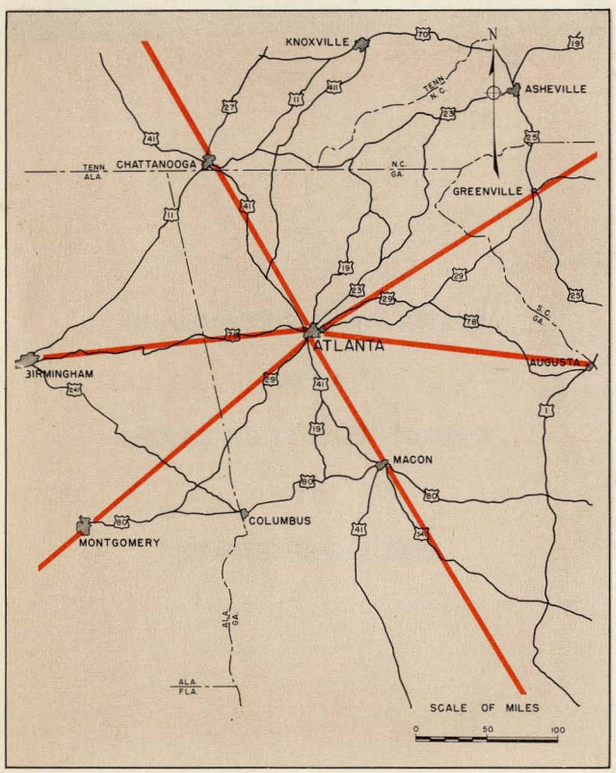
The ESTIMATED 1970 MAJOR TRAFFIC MOVEMENTS IN THE ATLANTA AREA based on the anticipated growth of the area and increased ownership and use of vehicles. The volumes being some 150% of the present day figures, are far beyond the capacities of existing streets. Expressways located along the lines of the traffic bands will provide safe and rapid travel.



At frequent intervals CROSS STREETS WOULD BE CARRIED OVER THE EXPRESSWAYS. Ramps sloping down to the expressway would collect and discharge traffic.

LOCATION AND DESIGN OF EXPRESSWAYS

The five interstate routes proposed by the Interregional Highway Committee radiate from Atlanta northeasterly towards Spartanburg, northwesterly towards Chattanooga, westerly towards Birmingham, southwesterly towards Montgomery and southeasterly through Macon to Florida. The Georgia State Highway Department has recommended a sixth route to Augusta. It was our purpose to so locate these expressways as they enter and penetrate to the heart of the Atlanta metropolitan area that they would serve the greatest feasible number of vehicles making trips within the urban area. With this in mind, routes were sought as close to the alignment of the major flows of both internal and external traffic as it was possible to place them. Consideration had to be given to cost of right-of-way, topography, and the need to allow for the natural and desirable development of both residential and industrial areas.



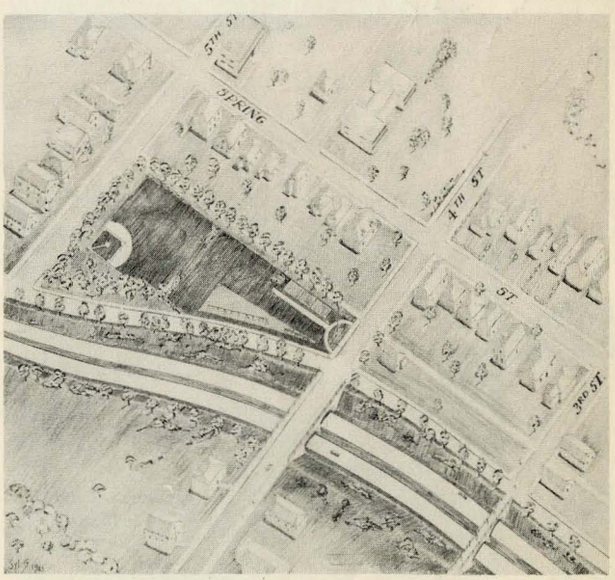
The PROPOSED FEDERAL INTERSTATE ROUTES APPROACHING ATLANTA are to be projected into the city to best serve local traffic.

Expressway Characteristics

The function of an expressway is to carry large volumes of highway traffic including automobiles, trucks, and urban and interurban buses at reasonable speeds and with a high degree of safety. To accomplish this the roadways are insulated from developments along their routes. In the developed areas where cross streets are frequent, the expressways are continuously depressed. Pedestrians are not permitted on the roadways, and cross streets and railroad tracks are carried over or under expressways. Traffic wishing to use an expressway has access at specially designed structures spaced one-half mile or more apart.

Expressways are not by-passes or tourist facilities. They are utilitarian highways to serve primarily the traffic moving about the metropolitan area or traffic with either origin or destination in the urban center. Acquisition of rights-of-way approximately 300 feet wide permits relatively flat side slopes. These are landscaped to give a park-like appearance to the entire improvement, enhancing the value of all property along the route. Atlanta is especially fortunate in having a long growing season and a great variety of flowering trees and bushes ideal for this purpose.

The neighborhoods in Atlanta through which it would be feasible to purchase suitable rights-of-way, being the most depreciated and least attractive, are most in need of this rejuvenation. The urban sections of the expressway would be largely of the depressed type. The



View of the PROPOSED DEPRESSED NORTH EXPRESSWAY AND INCIDENTAL PARK AREA between Fourth and Fifth Streets.

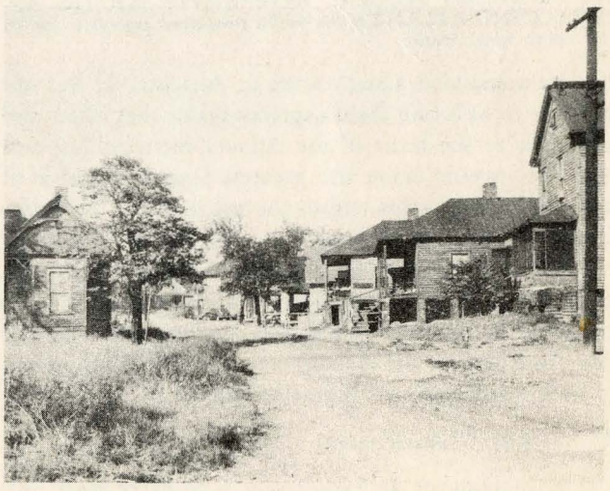
VIEWS OF SUB-STANDARD

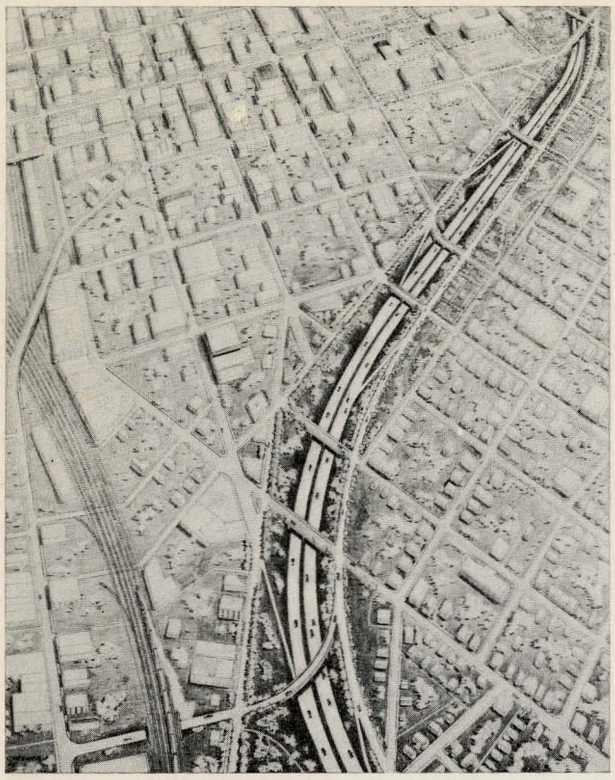
AREAS

WHICH WOULD BE RAZED

BY

THE EXPRESSWAYS





Sketch of the SOUTH EXPRESSWAY BETWEEN MEMORIAL DRIVE AND WOODWARD AVENUE showing the ramps to collect and discharge traffic to the downtown area. A new connection from Peters Street passing under the Central of Georgia Railroad and over the expressway is indicated in the foreground. Memorial Drive with Whitehall Street and the new service drive to the south of the expressway would be operated as one-way streets between the new Peters Street connection and the junction at Capitol Avenue.

noise of traffic would be absorbed by the trees and bushes or deflected upward by the side slopes. Beyond the intensely developed areas the highways would return to approximate surface grade, with separations at the cross streets and railroads. Profile and alignment in these more open areas could be made to blend with the topography.

Adjacent to the rights-of-way for the recommended type of expressway there would be several small parcels of land acquired which would not be needed for highway purposes. These small plots should be converted into playgrounds for small children, athletic fields for the larger boys and girls, and neighborhood parks for adults. These incidental improvements would add little to the cost of the entire project but would increase its attractiveness and benefits immensely.

The traffic studies indicate that four-lane divided roadways on each of the recommended routes would be adequate for a number of years. There would be sufficient right-of-way, however, and bridges would be so built that a third lane in each direction could be added whenever traffic volumes justified.

Interchanges have been planned at the confluence of the various expressway routes. These interchanges would be of the directional type for the more important movements. Connections to the local street system would be provided at necessary intervals, generally by ramps connecting the express roadways with parallel one-way service drives or with cross streets.

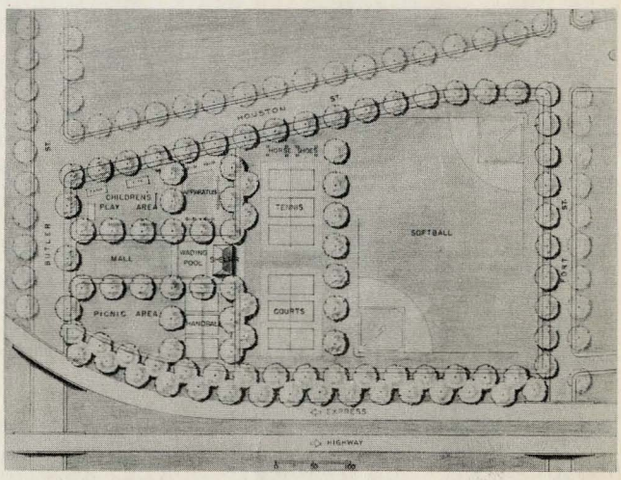
Use of Railroad Rights-of-Way

The suggestion has been made that certain of the railroad rights-of-way radiating from the downtown district could serve as routes for highways constructed above the tracks. This idea has been propounded in a number of cities and almost universally found undesirable and unfeasible. The notable exceptions are in New York City where high property values and high densities of traffic make multiple levels of transportation arteries practical in limited instances.

Building highways over Atlanta's railroads would be contingent on replacement of all passenger and freight engines with either diesel or electric locomotives. Such highways with the required clearance of 22 feet above the tracks, would be 30 feet or more above ground level in many cases. Required ramps to and from the highways would have to be of abnormal length, eliminating a considerable portion of present and potential industrial sites adjacent to the railroad tracks.

In the downtown area the elevated highway would become an unattractive barrier with its long ramps requiring the revamping of many streets and the demolition of numerous buildings. It is highly undesirable, furthermore, to carry such a highway to the center of a congested area, unloading its traffic onto local streets with insufficient capacity and along which property is too valuable to use for parking facilities. It is far better to distribute expressway traffic around the edges of the business district where it can be intercepted by economically placed parking lots and garages.

An elevated highway over a railroad, exclusive of the cost of air rights and the expensive industrial properties



PLAYGROUND AREA PROPOSED along the East Expressway between Butler and Fort Streets. Numerous incidental parks and playground areas can be developed in depreciated neighborhoods.

needed for ramps, is estimated at a minimum of $4,000,000 per mile. Where railroad air rights have been acquired in other cities for various purposes they have cost from 25 to 35% of the fee valuation of the underlying property. Contrasted with this, the depressed method of building expressways recommended for Atlanta is estimated to cost slightly less than $1,500,000 per mile, including right-of-way.

A basic design of depressed roadways in broad rights-of-way would give Atlanta an economical and attractive system of expressways. It would be functionally sound and could readily incorporate many small parks and playgrounds as incidental improvements.

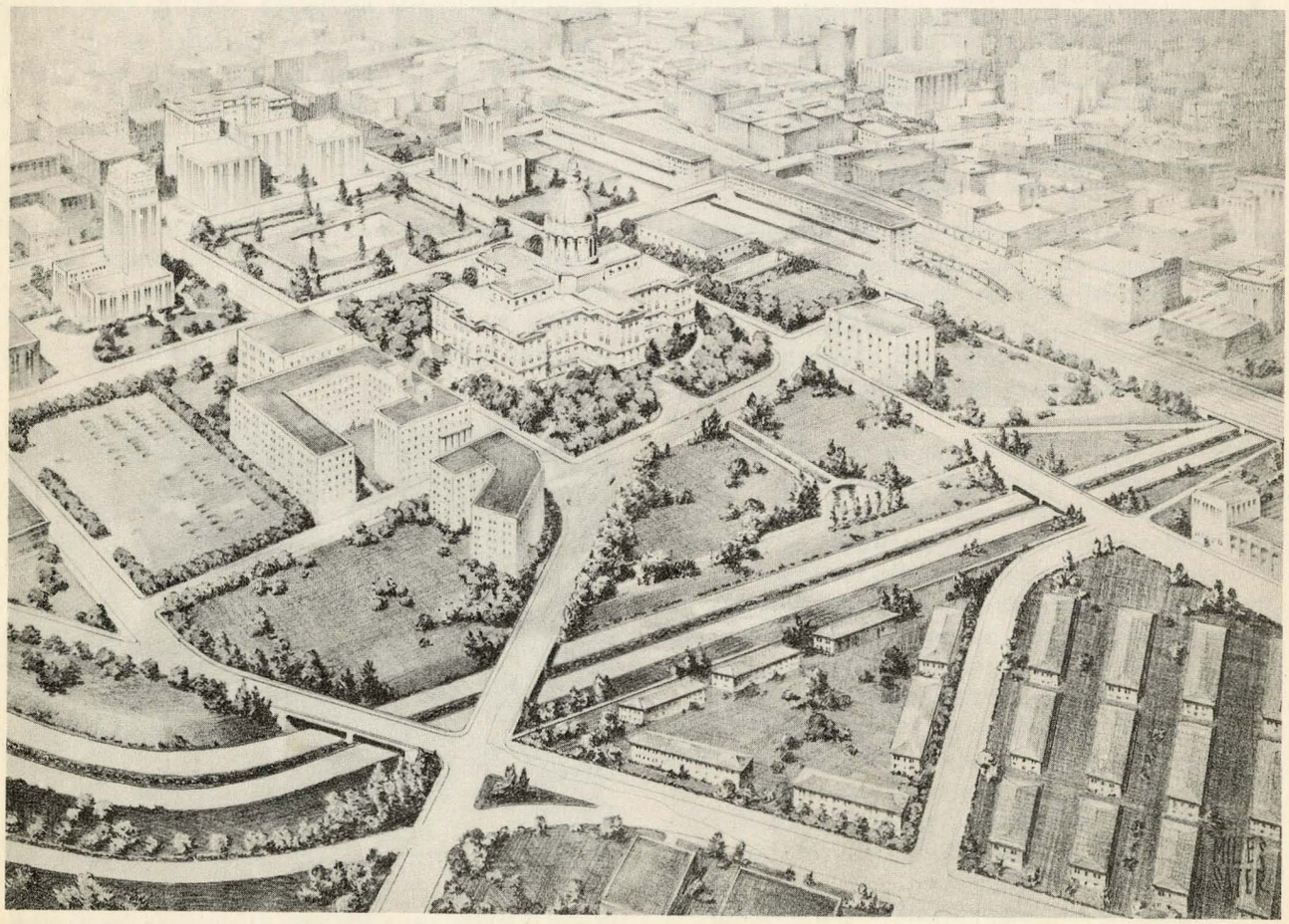
The Recommended System

A system of expressways has been planned, the locations of which follow closely the ideal routes of the major traffic flows as determined by the various studies. The core of the system would be a Downtown Connector extending around the north, east and south sides of the downtown area. The general location of the expressways can be grasped most easily by referring to plan drawings immediately following this section of the report. Specific details of location, access facilities and interchanges will be found on the plans in the Appendix.

One expressway would extend northward from the Downtown Connector on the approximate line of Williams Street. In the vicinity of Peachtree Street and Brookwood Drive it would branch to the northwest and northeast. The northwest route would connect with the recently constructed four-lane highway through Marietta, passing Bell Field en route. The northeast fork would serve Buckhead, Oglethorpe and other north side communities, the Naval Air Section and Lawson General Hospital, connecting with Piedmont Road and Buford Highway.

The easterly expressway would join the Connector in the vicinity of Courtland Street and Auburn Avenue. It would serve the heavily populated east side of Atlanta directly and be accessible over the proposed major street system to the northeast and southeast sections of the city. On reaching Decatur it would swing northward, serving that suburb admirably. The route would connect with Lawrenceville Road via Scott Boulevard and would form a part of the proposed route to Augusta.

The south route, approximately on the line of McDaniel Street through the city, would give convenient access to the Atlanta Airport and serve the suburbs of East Point, College Park and Hapeville. It would divide in the rural area south of the airport to connect with future



The DOWNTOWN CONNECTOR EXPRESSWAY is located to the east of the State capitol and office buildings. The wide landscaped highway right-of-way would become a part of an attractive development of the civic building group.

interstate highways southeasterly through Macon to Florida and southwesterly to Montgomery.

The west side route would lie just north of Simpson Street and extend from about Spring Street where it would join the Connector, to Hightower Road where it would connect with a future interstate highway to Birmingham.

The traffic studies also indicated need for a by-pass highway connecting the northwest branch of the North Expressway with the southwest branch of the South Expressway. This by-pass should be located approximately on the line of Hightower Road as shown on the appended plans. It would not require expressway design characteristics since it would pass through relatively undeveloped territory and would carry moderate volumes of traffic.

The table shows estimated costs of the various sections of the recommended expressway system. Allowance has been made for contingencies. The items are arranged in the suggested order of construction to give priority to units which could be used most effectively by the public, pending completion of the entire system. They are as follows:

EXPRESSWAY	SECTION	LENGTH	ESTIMATED COST		
		(In miles)	Right-of-way	Construction	Total
North	Spring St. near Simpson St. to Peachtree St. at Brookwood Drive	2.1	$ 2,400,000	$ 2,600,000	$ 5,000,000
South	Capitol Ave. at Memorial Drive to University Ave.	2.4	1,930,000	3,970,000	5,900,000
Downtown Connector	Capitol Ave. at Memorial Drive to Spring St. near Simpson St.	1.7	4,420,000	5,460,000	9,880,000
East	Downtown Connector to DeKalb Ave. at East Lake Drive	4.3	1,990,000	5,760,000	7,750,000
South	University Ave. to Atlanta Airport	6.4	180,000	5,640,000	5,820,000
North	N. E. Extension Peachtree St. to Buford Highway	3.4	260,000	2,690,000	2,950,000
West	Downtown Connector to Hightower Road	4.7	770,000	3,790,000	4,560,000
North	N. W. Extension Peachtree St. to New Marietta Hwy.	5.0	410,000	3,240,000	3,650,000

(*Continued on next page*)

East	DeKalb Ave. at East Lake Drive to Scott Blvd. at Decatur Road	2.5	580,000	1,610,000	2,190,000
	TOTAL	32.5	$12,940,000	$34,760,000	$47,700,000

Extensive field reconnaisance, as well as study of topographical maps, real estate maps, and tax assessors' records, aided in the selection of most desirable routes from the standpoint of profile, alignment, and right-of-way cost. The neighborhoods through which the expressways would pass are so depreciated that much of the improvement could aptly be classed as slum clearance. Atlanta has made a noteworthy start toward replacing such dwellings with modern group housing, and the program would be given further impetus by construction of expressways.

Revenue Bond Financing of Expressways

Consideration has been given to the financing of a portion of the expressway system by the sale of revenue bonds and the operation of the expressways as toll roads. For purposes of estimate a toll of 10 cents per vehicle has been used, with a 30-year retirement period for the bonds at a 2½ per cent interest rate. It has been found that the toll revenues would support a capital investment of approximately 20 million dollars, or approximately 40 per cent of the estimated cost of the expressway system.

Revenue financing and toll operation has the single advantage of immediately raising the necessary funds for the rapid completion of the improvements. It has several disadvantages including the question of public support, the denying of the benefits of the expressways to those who are unable or unwilling to pay tolls, and an increase in the total cost of the improvement because of the recurring annual toll collection and administration costs. In view of the above facts and the apparent ability to finance the program by other means within a reasonable period of time, it is recommended that the revenue bond financing not be employed.

Expressway Design Standards

The expressways have been planned in accord with the most modern highway design standards as developed by the Federal Interregional Highway Committee. In the acquisition of the rights-of-way the privilege of access of adjacent properties should be eliminated and compensated for, or provided on the service or frontage roads. All express lanes should be 12 feet wide, and pavements should be flanked by 10 foot stabilized shoulders on the right-hand side.

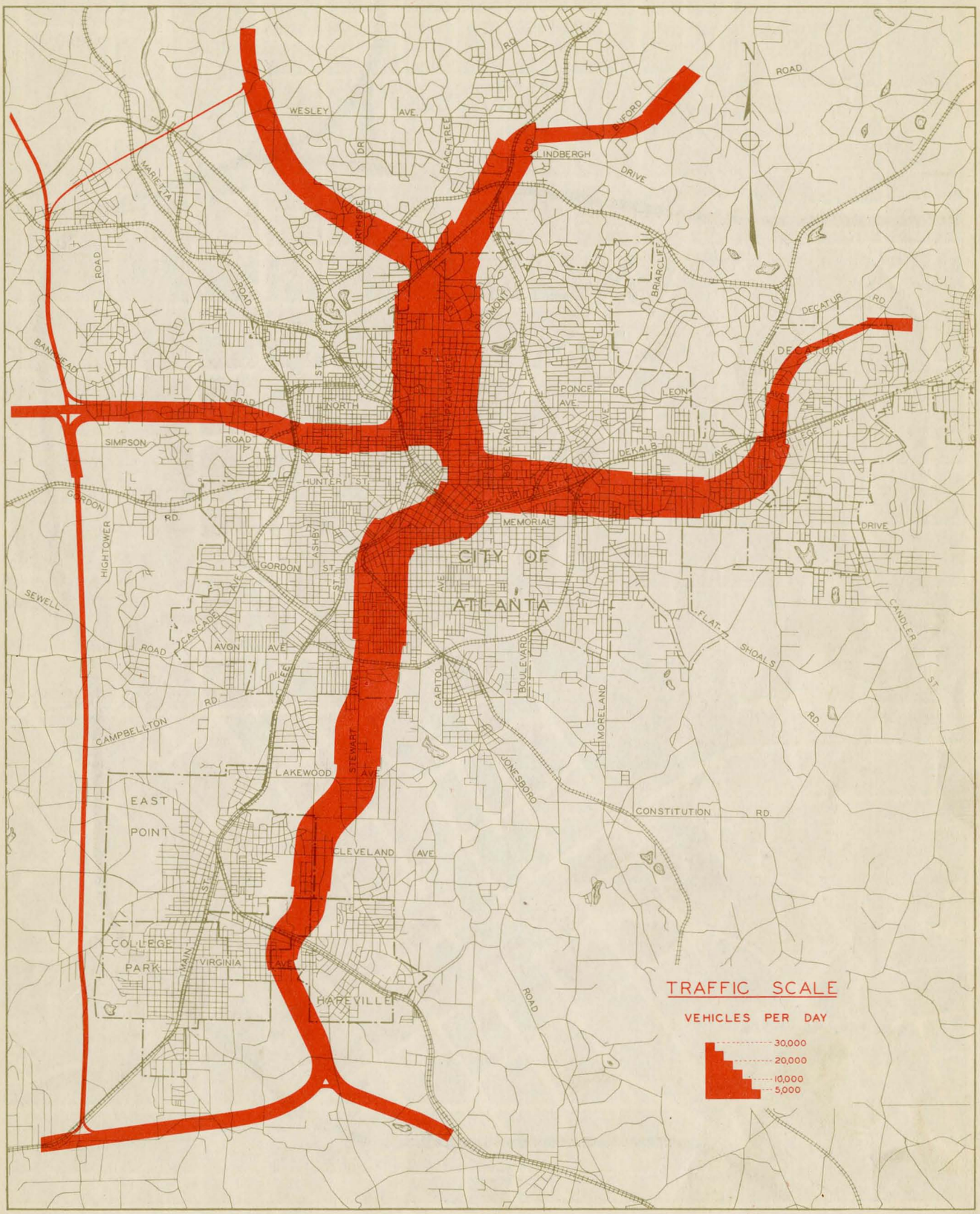
The routes would initially have two lanes of pavement in each direction except for that section of the Downtown Connector between the interchange with the East Expressway and that with the North and West Expressways, where two three-lane pavements would be provided. The third lane would be, in effect, a continuous accelerating and decelerating lane.

Provision has been made for an additional lane of pavement within those sections of the expressways where estimated future traffic will warrant greater capacity as follows: on the North route from the Downtown Connector to the point where the route diverges to the northeast and northwest near Brookwood Drive; on the South route from downtown to Lakewood Avenue; on the East route from downtown to College Avenue; and on the West route from downtown to Ashby Street. It is contemplated that the third lane in those sections would be constructed in the dividing strips, planned for initial construction at 44 feet, which would reduce them to 20 feet in width. Beyond those points the preliminary plans show a uniform 20 foot divider.

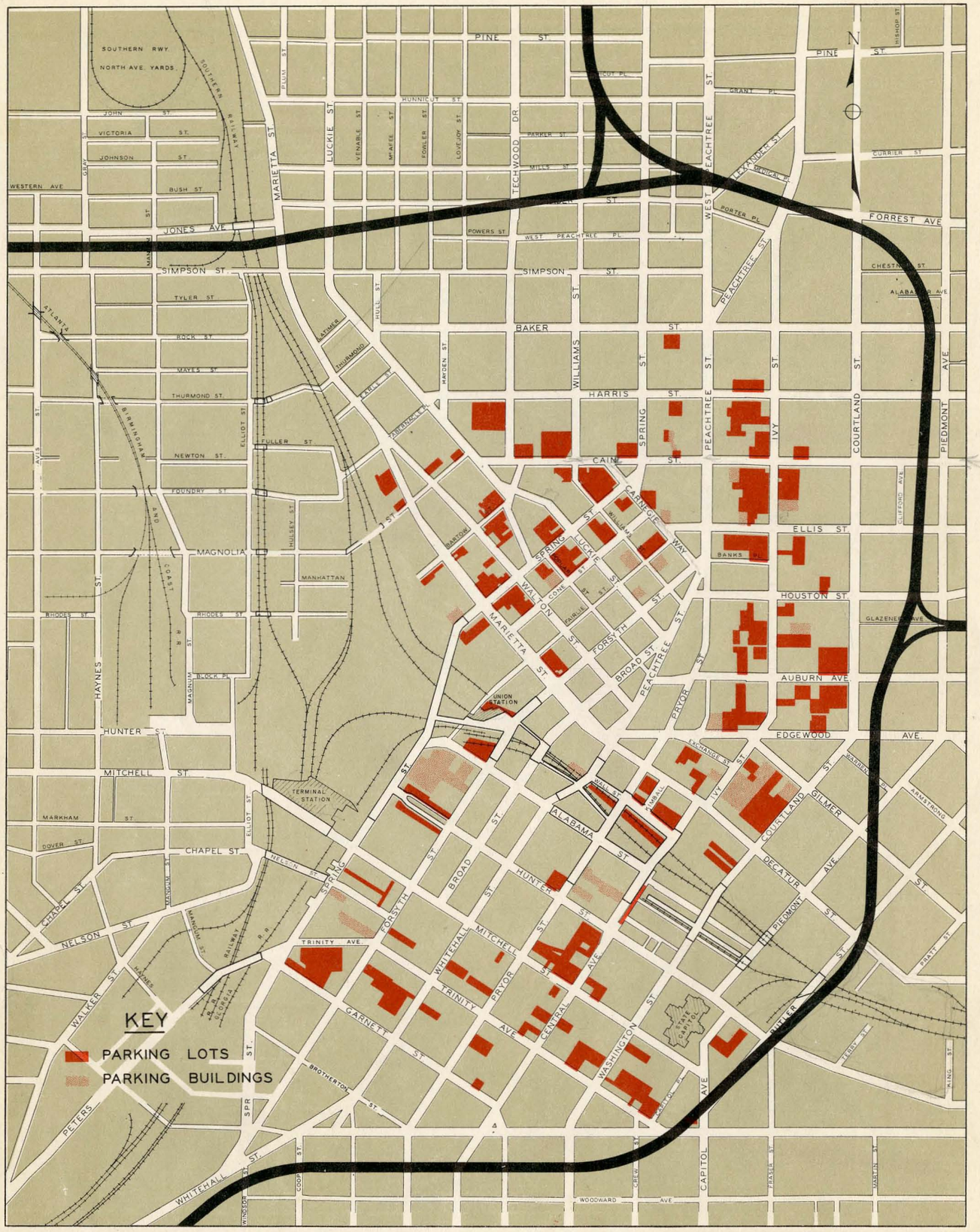
The preliminary plans show single alignments and profiles. In the detailed planning of the expressways the two pavements should be considered as individual, separate roadways as to grade and alignment which in numerous instances would result in a variation of the dividing strip. This type of planning would blend the expressways into the rolling topography.

Design standards of 50 miles per hour were used in the portions of the expressways close to the downtown area, but these were increased to 60 miles per hour in the outlying sections of the routes. The maximum horizontal curve utilized is 7 degrees and the maximum pavement grade is 5 per cent. Ramp pavements have been planned with a minimum width of 16 feet with maximum grades of 6 per cent for up-ramps and 8 per cent for down ramps. In detail planning all horizontal curves sharper than 2 degrees should be designed with approach transition curves. Fourteen foot vertical clearances have been planned at all structures. Ramps and access drives have been located and designed to accommodate the estimated future traffic volumes at each location.

Ample allowance has been made for adequate landscaping, highway lighting, drainage and signing systems in preparing estimates of cost.



The DAILY VOLUMES of 1970 TRAFFIC WHICH WOULD USE THE EXPRESSWAY SYSTEM and the by-pass route to the west of the city.



The MAJORITY OF EXISTING OFF-STREET PARKING FACILITIES are located along the eastern and southern margins of the downtown district. Downtown expressway traffic would have convenient access from the expressway to the parking areas, thereby minimizing vehicular movements on the streets within the district.

RECOMMENDED EXPRESSWAY SYSTEM

NEW MARIETTA HWY.
MARIETTA
MILL RD.
WESLEY AV.
PEACHTREE RD.
BUFORD
LA VISTA RD.
RD.
N
COLLIER RD.
NORTHSIDE DR.
PEACHTREE
HOWELL
RD.
CLAIREMONT RD.
MEDLOCK BLVD.
ROCK SPRING RD.
HOLLYWOOD RD.
14TH ST.
10TH ST.
PIEDMONT
BRIARCLIFF
DECATUR
SCOTT
GRAND AV.
BANKHEAD AV.
TECHWOOD DR.
PEACHTREE
CITY OF ATLANTA
PONCE DE LEON AV.
DECATUR AV.
HOWARD COLLEGE AV.
FORREST AV.
HIGHLAND
DE KALB AV.
SIMPSON ST.
HIGHTOWER RD.
HUNTER ST.
ST.
BOULEVARD DR.
MEMORIAL DR.
WOODWARD AV.
GLENWOOD AV.
CANDLER AV.
GORDON ST.
ASHBY ST.
WASHINGTON ST.
GEORGIA AV.
2ND AV.
CASCADE AV.
UNIVERSITY AV.
MORELAND AV.
CLIFTON ST.
2ND RD.
UTOY RD.
CAMPBELLTON RD.
FORT McPHERSON
FEDERAL PRISON
LEE ST.
CAPITOL AV.
LAKEWOOD AV.
RD.
CONSTITUTION RD.
SYLVAN RD.
AV.
PRYOR
CLEVELAND AV.
EAST POINT
SEMMES ST.
HOGAN RD.
STEWART
JONESBORO RD.
MCDONOUGH RD.
COLLEGE PARK
VIRGINIA AV.
THAPEVILLE
ATLANTA MUNICIPAL AIRPORT
MACON RD.
CONLEY
MOUNTAIN VIEW RD.
F. D. ROOSEVELT HWY.
RIVERDALE RD.
SCALE OF MILES
0
1
2

IMPROVEMENT OF EXISTING TRAFFIC FACILITIES

Atlanta suffers from a dearth of streets acceptable to present day traffic. Rights-of-way are almost universally too narrow, the few existing wide rights-of-way are short and widely scattered, and many important streets lack continuity. Throughout the city jogs and dead-ends are the rule rather than the exception. The city is faced with the choice of spending rather large sums for improvements to its street system or the loss of larger sums through traffic congestion and accidents.

Numerous improvements to the existing street system are needed to increase its efficiency. The elimination of the jog between Central Avenue and Ivy Street at Decatur Street is one of those improvements.

Lack of continuous crosstown streets funnels many drivers unwillingly into the central district. While it is estimated that the proposed expressways would carry 60 per cent of the traffic actually having destinations in the downtown area, the traffic surveys showed that one-half of the vehicles entering this busiest zone passed through without stopping. Provision of adequate crosstown routes would free downtown streets for the more useful trips of terminating vehicles.

The expressways together with the crosstown arterial streets, would unburden numerous serviceable but presently overloaded streets radiating from the central zone. The close-in areas such as West End would thereupon find the ease of reaching the central business district and other parts of the city markedly improved.

Arterial Street System

A major street plan has been prepared to correct serious deficiencies in the street pattern of the city, its various subdivisions, and nearby suburban communities. The function of the arterial streets would be to serve as feeders to the expressways, to carry local traffic which will always be greater in total volume than expressway traffic, and to permit improvements in the speed and regularity of urban bus operation.

Selection of routes has been based on a policy of effecting a grid system of streets running both north-south and east-west. The spacing between streets designated as part of the system has been based primarily on traffic volumes moving in the areas involved, with the criterion that there should be a major street at least every mile even in the lightly populated regions of the metropolitan area. In the selection of individual streets consideration has been given to alignment, grades, continuity and opportunities for future widening as influenced by the type of existing improvements.

A standard right-of-way width of 80 feet should be established for all major streets except those of unusual importance. Arteries such as the Vine Street improvement, a proposed new north-south connection between Northside Drive and Stewart Avenue should have as great a right-of-way width as conditions warrant and permit. The standard roadway should be approximately 60 feet wide, permitting two lanes of moving traffic in each direction as well as parking at each curb.

It will be obvious that such a program of street widening would be prohibitive if carried out rapidly. It is recommended, therefore, that setback ordinances be passed affecting every street designated in the major street system so that the necessary property can be acquired over the next ten to twenty years at reasonable cost. In the meantime it will be possible for these streets to serve with reasonable efficiency through prohibition of parking on one or both sides of the various streets, and during rush hours only or at all times, as necessary.

All new subdivisions should be made to conform to the standards and the layout of the arterial street system, and few local streets should be permitted to enter major streets. Off-set intersections along arterials, moreover, should be prevented in the future. As the metropolitan area grows, major streets should be carried into the new territories on the established alignments.

It is proposed that the designated major streets be made attractive to the public and safe to use by preferential treatment with funds recurrently available for street traffic purposes. The pavement on each of the arteries should be maintained in first-class condition,

crowns should be kept low, excessive warping at cross streets avoided, and radius of curb returns at intersecting streets increased. Modern street lighting providing the maximum in traffic safety should be installed throughout the system. Traffic signs, signals, and markings should be applied to the degree necessary to assure the safe and expeditious movement of traffic and the protection of pedestrians.

Grade Separations

There are so many grade crossings of streets with railroads in Atlanta that to recommend elimination of all of them would jeopardize the entire program. There are a number located on the proposed major streets, however, which will continue to be serious hazards and impediments to the free flow of traffic until they are eliminated. It is recommended that grade separations be built at these locations, and sketches to this end have been prepared and estimates of costs have been made.

Major Street Improvements

A number of street extensions, some of them in the central business district, would partially correct Atlanta's haphazard street pattern, and permit movement of traffic with freedom heretofore lacking.

An additional thoroughfare to the north side, badly needed in rush hours, could be realized by improving access from the central business district to Techwood Drive. Widening of Bartow and Cain Streets would be involved as well as the street extensions illustrated herewith. The proposed widenings would greatly improve connections from the west side to the north and northeast sides of the city, thereby relieving Spring Street and encouraging much truck traffic to by-pass the central business district.

Extension of Luckie Street from Peachtree to Ivy Street would serve the dual purpose of providing an outlet from the heart of the business district, serving as a part of the proposed Pryor-Ivy one-way street hereinafter described. Fortunately the required right-of-way is largely vacant or occupied by obsolete buildings.

Extension of Broad Street for a distance of two blocks south from Mitchell Street would permit distribution of traffic over the proposed one-way traffic arteries on Trinity and Garnett. Broad Street would then serve a much more useful purpose and the traffic load on Spring, Forsyth, and Whitehall Streets would be substantially reduced.

Extension of Hunter Street westward from its terminus at Spring Street is recommended. This would require a long viaduct over the railroad tracks and the widening of the westerly section of Hunter Street. This improvement would relieve the Mitchell Street viaduct and improve the circulation of all traffic between the west side and the downtown area.

Atlanta has several very useful low level streets built in past years at considerable cost. These streets would serve a great many more vehicles if the double deck pavement in Alabama Street were extended from Whitehall Street to Spring Street. This improvement has been contemplated for a number of years, and the benefit which would accrue from its accomplishment should no longer be postponed.

In addition to the physical improvement discussed above, a number of other jog eliminations, street extensions and street widenings are also recommended. Preliminary plans for these street improvements are contained in the Appendix. Suggested priority of construction appears in the following table in four groupings:

MAJOR STREET IMPROVEMENTS
First Priority

Project Number			
1.	Central Ave.-Ivy Street	Elimination of jog at Decatur Street	$ 10,000
2.	Courtland Street-Juniper Street	Elimination of jog at North Avenue	50,000
3.	Luckie Street Extension	Peachtree Street to Ivy Street	700,000
4.	North Avenue	Grade separation N. C. & St. L. etc. at Marietta Street	1,890,000
5.	North Avenue-Ponce de Leon Avenue	Connection at Myrtle Street	70,000
6.	Ponce de Leon Avenue-Covington Road	Connection at East Limits of Decatur including grade separation Georgia R. R.	130,000
7.	Vine Street	Northside Drive to Stewart Avenue including North Avenue-Bankhead Highway connection and grade separations at N. C. & St. L. R. R. and A. B. & C. R. R. near Bankhead Highway and C. of G. R. R. at Peters Street	2,000,000
8.	Wesley Avenue Extension	To Piedmont Road	60,000
			$ 4,910,000

MAJOR STREET IMPROVEMENTS

Second Priority

Project Number			
9.	Bartow Street-Techwood Drive	Cain Street to Marietta Street	$ 230,000
10.	Broad Street Extension	Mitchell Street to Garnett Street	230,000
11.	Cain Street	Techwood Drive to Marietta Street	135,000
12.	Garnett Street	Corner cut-off at Spring Street	15,000
13.	Moreland Avenue	Grade separation Georgia R. R. at DeKalb Avenue	450,000
14.	Tenth Street-Virginia Avenue	Grade separation Southern Ry. at Boulevard	360,000
15.	Hunter Street Viaduct	Spring to Elliott	840,000
			$ 2,260,000

Third Priority

Project Number			
16.	Alabama Street Extension of double deck street	Whitehall Street to Spring Street	$ 700,000
17.	Boulevard grade separation at Decatur Street	Including realignment of Baskill Street	700,000
18.	Hunter Street-Memorial Drive	Connection at Grant Street	20,000
19.	Tenth Street Widening	Spring Street to Peachtree Street	170,000
20.	West By-pass route	Marietta Access Road to U. S. Route 29 south of College Park	1,000,000
			$ 2,590,000

Fourth Priority

Project Number			
21.	Ashby Street Extension	White Street to Sylvan Road including grade separation L. & N. R. R. and C. of G. R. R. near Lee Street	$ 660,000
22.	Beverly Road-Rock Springs Road	Connection at Piedmont Avenue, including grade separation Southern Ry.	390,000
23.	Magnolia Street	Mangum Street to Vine Street	310,000
24.	Clifton Road	DeKalb Avenue to Hardee Street including grade separation Georgia R. R. at DeKalb Avenue	690,000
25.	Highland Avenue-Lake Avenue	Connection at Elizabeth Street	65,000
26.	Juniper Street Extension	12th Street to Peachtree Circle	200,000
27.	Marietta Street grade separation	N. C. & St. L. etc. at Brady Street	200,000
28.	Piedmont Avenue	Southern Ry. grade separation reconstruction	150,000
			$2,665,000
		TOTAL OF MAJOR STREET IMPROVEMENTS	$12,425,000

FINANCIAL PROGRAM

Estimated cost of the above recommended expressway system and major street improvements totals $60,000,000. The construction of the street and highway improvements as recommended would involve extensive adjustments of utilities, temporary re-routing of traffic, and interruptions to all forms of transportation. To minimize disruptions, the recommended improvements should be programmed over a period of not less than ten to twelve years.

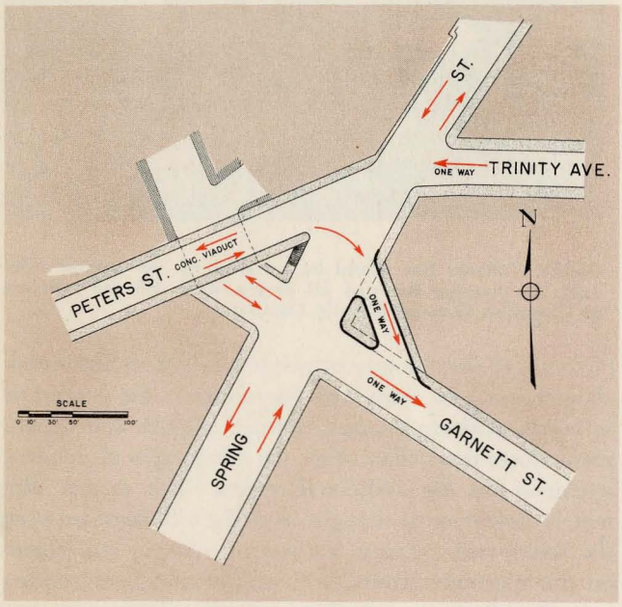
The benefits of the recommended traffic facilities would accrue not only to the operators and passengers of vehicles but to the city and environs as well. They would appear as time savings, increased land values and lowered costs of doing business. In short, they would add to the wealth of the area and make for more pleasant living. Therefore, the cost of the improvements might well be shared through taxes by the property owners as well as motorists.

At the present time the City of Atlanta and Fulton County have unused debt incurring powers of approximately $19,000,000 and $22,000,000 respectively, totaling some $41,000,000. It is estimated that during the next 20 to 25 years Atlanta's population will increase one-third—from 300,000 to 400,000 and that of the urban area from 500,000 to 750,000, an increase of 50 per cent. Should the corporate limits of Atlanta be extended to include a larger portion of the urban areas, its population increase would be at a more rapid rate. The debt incurring powers of the governmental units will grow proportionately with the population increases.

It appears that the recommended improvements could be financed within a ten to twelve years period, with a continuation of Federal funds to aid in the construction of highway improvements in urban areas and such State funds as could equitably be allocated to the Atlanta area, together with funds which might be raised by local governmental agencies. Experience in other large cities has shown that construction of a single unit of expressway, allowing the public to use and appreciate it, has been followed by public demand for completion of the system and a willingness to provide the necessary funds.

OPERATIONAL IMPROVEMENTS

Other substantial betterments could be made without capital outlay by use of funds regularly available. This classification includes such work as channelization of intersections, relocation of sidewalk obstructions and installation of one-way regulations.



Establishing TRINITY AND GARNETT as a pair of one-way streets would require the physical changes shown to enable a right turn from northbound Peters Street viaduct into eastbound Garnett Street.

Channelization

Channelization of several intersections in and near the central business district is proposed. The layouts contained in this report include a number of critical locations which govern the capacity and fluidity of movement on the entire downtown street system. The captions with each illustration describe the purpose of the proposed improvement. Channelization is one of the inexpensive expedients which could be widely applied in Atlanta in connection with the arterial street system.

Sidewalk Improvements

Pedestrian traffic is of the utmost importance to the prosperity of the retail area. Sidewalks in some instances are woefully lacking in the capacity needed for comfortable circulation of shoppers, workers, and other sidewalk users. After conversion to trackless trolleys and buses and transfer of loading stations from safety islands to the sidewalks, the need for more sidewalk space will be keenly felt. Removal of car tracks will make it feasible to sacrifice some roadway width in order to increase the width of the sidewalks. Under the conditions existing in downtown Atlanta, width of one-way streets should be in multiples of approximately 10 feet. Width of two-way streets should be in multiples of approximately 20 feet. For example, a 48 foot roadway for two-way traffic could well afford to sacrifice 6 to 8 feet for sidewalk widening when that street is being repaved.

Consideration should also be given to the possibility of reducing the number of such sidewalk obstructions as newstands, trash baskets, fire hydrants, and police and fire call boxes, particularly those at or near street intersections. Street lighting fixtures, for example, could be suspended from buildings. Georgia Power Company has eliminated a number of trolley poles in the downtown area over a period of years by attaching span wires to buildings. This program should be expanded. Other obstacles could be relocated in mid-block where they would be less of an impediment to the free flow of sidewalk traffic than they are when located near intersections where pedestrian traffic is heaviest.

One-Way Street System

Extensive use of one-way streets is recommended because of the increased ease and safety of traffic movement which follows proper application of this inexpensive expedient. One-way movement simplifies the progressive timing of traffic control signals, permits full use of streets having an odd number of lanes, reduces the potential number of conflicts at intersections, eliminates exposure to head-on and opposite direction sideswipe accidents, and in other ways overcomes some of the shortcomings of urban streets designed for a much different type of traffic than they are now called upon to bear.

The traffic flow map directs attention to the heavy movement of traffic to and from the north and northeast sections of the city. This traffic has been served in recent years by one-way operation on streets paralleling Peachtree Street. The results have not been wholly satisfactory, however, because of offsets in alignment and because the system did not extend far enough to the north.

The system herewith recommended would start at the Central Connector Expressway in the section paralleling Memorial Drive. The northbound roadway could consist of Pryor Street as far as the proposed Luckie Street Extension, thence run to and north in Ivy Street to Peachtree Street and terminate at the junction of Peachtree and West Peachtree near Nineteenth Street. The complementary southbound roadway would start at Fifteenth Street and Peachtree Circle. Using a new street extension on the line of Juniper Street it would connect with existing Juniper at Twelfth Street along Juniper Street and thence proceed by way of a corner cutback at North Avenue to Courtland Street, which becomes Washington Street at the railroad. The one-way movement would end at the eastbound service drive of the

Sidewalks in Atlanta are unnecessarily cluttered with trash baskets, utility poles and other obstructions to free movement of pedestrians.

Orillia, Ontario has solved its problem of too narrow sidewalks by clearing them of all obstructions. Picture courtesy of Canadian General Electric Company.

expressway which would be parallel to and just north of Woodward Avenue.

This pair of streets would be capable of carrying a substantial volume of traffic at reasonable speeds if treated as arterials with better traffic signal control, modern street lighting, lane markings, control of parking, and other improvements. Even with completion of the North Expressway and its northeast branch, the proposed system of one-way streets would continue to be heavily used by traffic having destinations of short distance from the central business district.

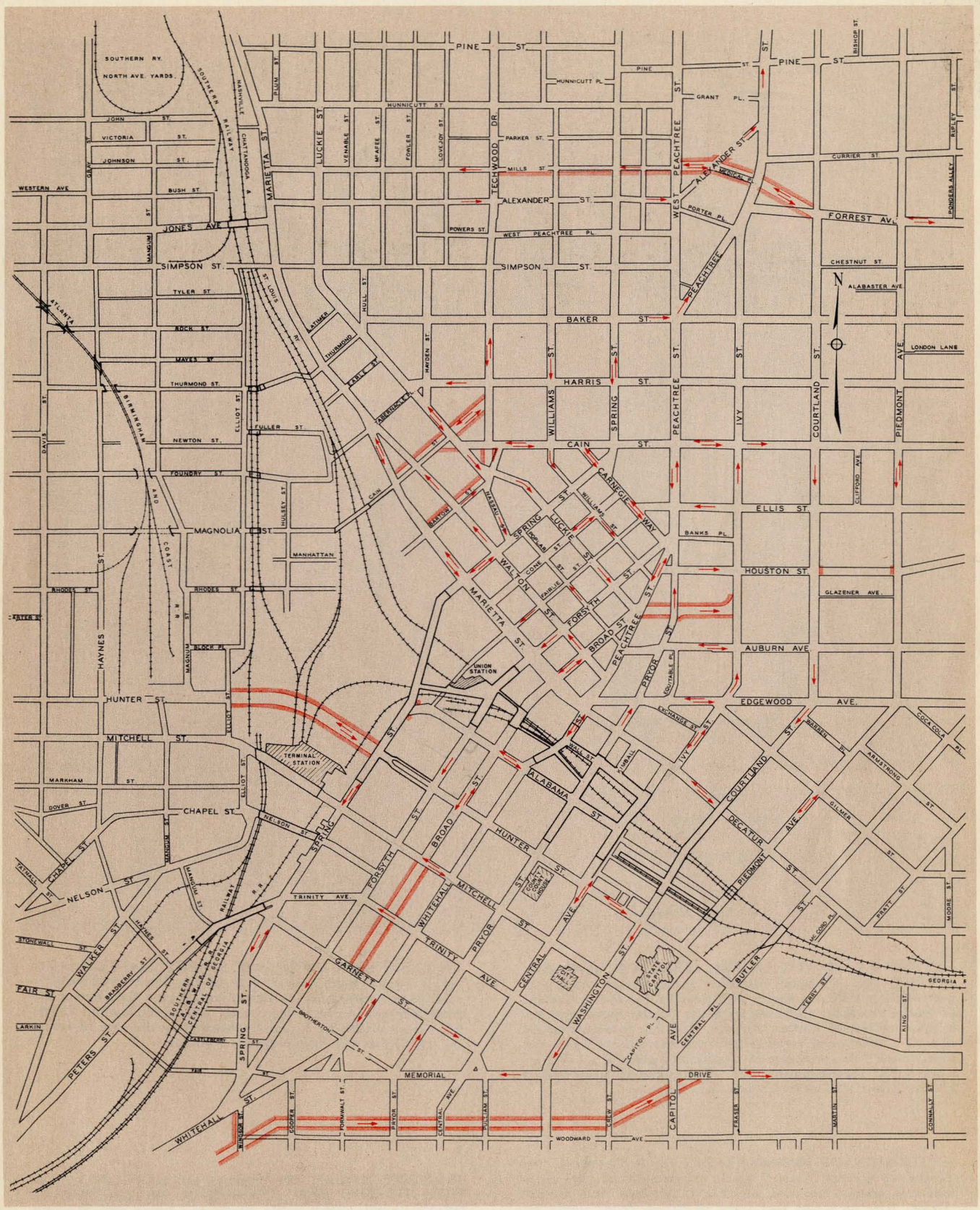
Direction of movement on this pair of one-way streets should be reversed from that on the present Ivy, Central Avenue and Courtland-Washington System. Connections between these streets and the north side expressway could be provided at reasonable cost under the directions of movement proposed, whereas if the directions were continued as at present the additional right-of-way cost for the access ramps would approximate one million dollars.

It has been suggested that Ivy Street be made one-way southbound in the morning and one-way northbound in the afternoon to serve the predominate flow of traffic. This idea has been used in other cities with varying results, but usually at the cost of increased number and severity of accidents. If applied to Ivy Street the plan would be confusing to bus passengers as well as motorists. The major difficulty, however, would be to provide access with the Downtown Connector Expressway for the alternating flows on Ivy Street without high costs for right-of-way and structures.

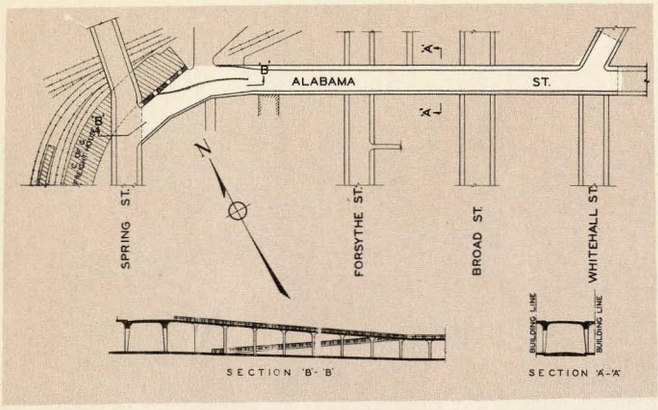
A conservation system of one-way streets has been designed for the central business district. A more complete use of the one-way principle was tested, but roundabout routing to reach such important traffic generators as hotels, parking garages, railroad stations and department stores more than offset the advantages of one-way operation on the additional streets. The system ultimately developed is thought to strike a balance between the safety and capacity features of one-way movement on the narrower streets, with the flexibility of routing gained with two-way traffic on the broader streets.

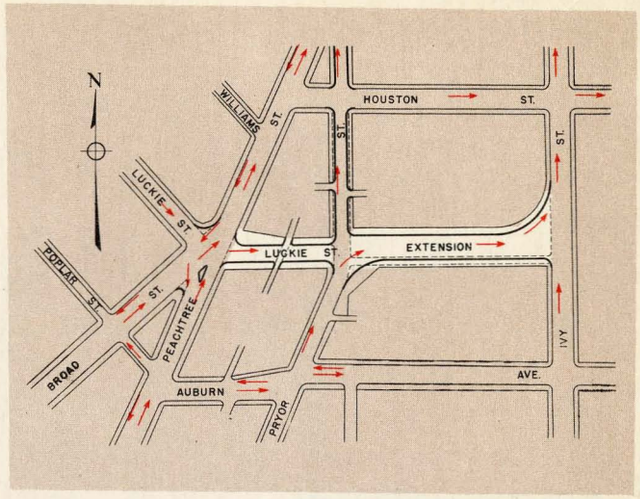
The major pair of east-west one-way streets in the new plan would be Luckie Street and its proposed extension eastbound, and Walton Street westbound. Cain Street would become two-way to give necessary flexibility to the system, and Marietta, Edgewood and Decatur would also remain two-way. South of the railroad tracks, Garnett and Trinity would form a pair of one-way streets between the Peters-Spring thoroughfare and Memorial Drive, tying these two important arteries to the central district and to each other. Another pair of east-west one-way streets would parallel the Downtown Connector Expressway between Spring Street and Capitol Avenue, using a new roadway just north of the present Woodward Avenue for eastbound traffic and Memorial Drive for westbound traffic.

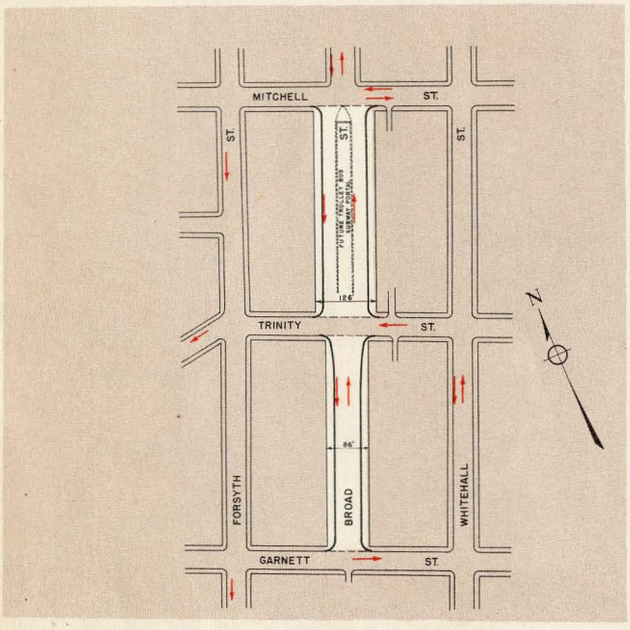
The north-south movements on Pryor, Ivy, Courtland and Washington have already been described. The only other major north-south one-way movement would be southbound on Forsyth Street. This change would increase the capacity of Forsyth, aid in breaking the traffic bottleneck at its intersection with Peachtree and Carnegie, and permit full utilization of a proposed urban bus terminal discussed in the transit section of this report.

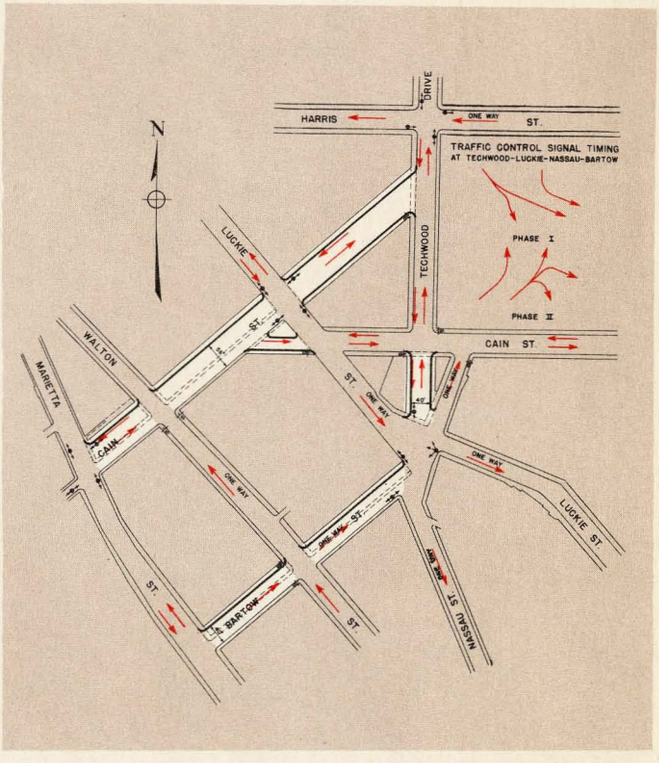


Establishment of a SYSTEM OF ONE-WAY STREETS is virtually the only way that Atlanta can overcome the handicap of narrow roadways, irregularity of pattern, and complicated intersections in its area of greatest traffic concentration. Widely applied elsewhere, the principle has seen limited use in Atlanta because of the need for two-way street car operation on a number of arteries.









LEGEND

Existing Curbs to Remain
Existing Curbs to be Removed
New Curbs
Traffic Control Signals– Pedestal Mounted (Pedestrian "Walk" Lights not Shown)
Stop Sign

SCALE

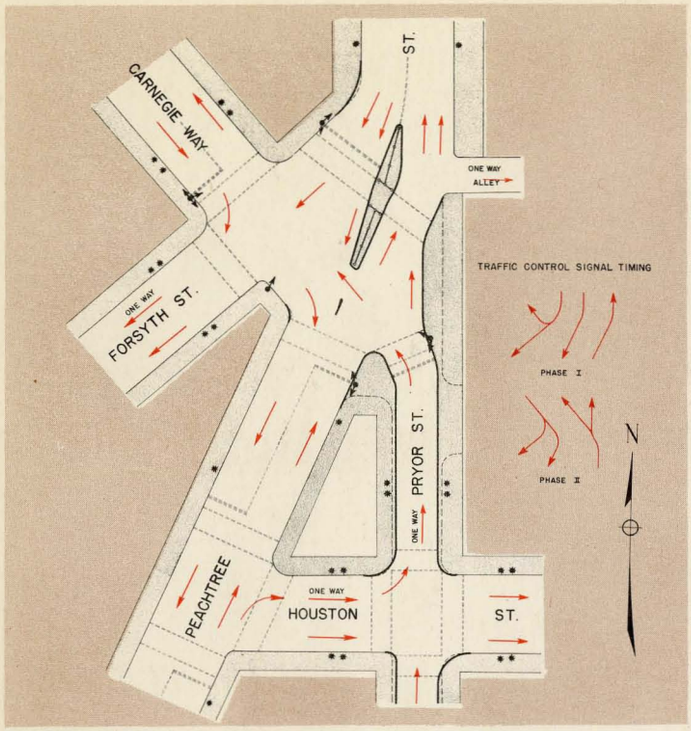
0 100 200 300

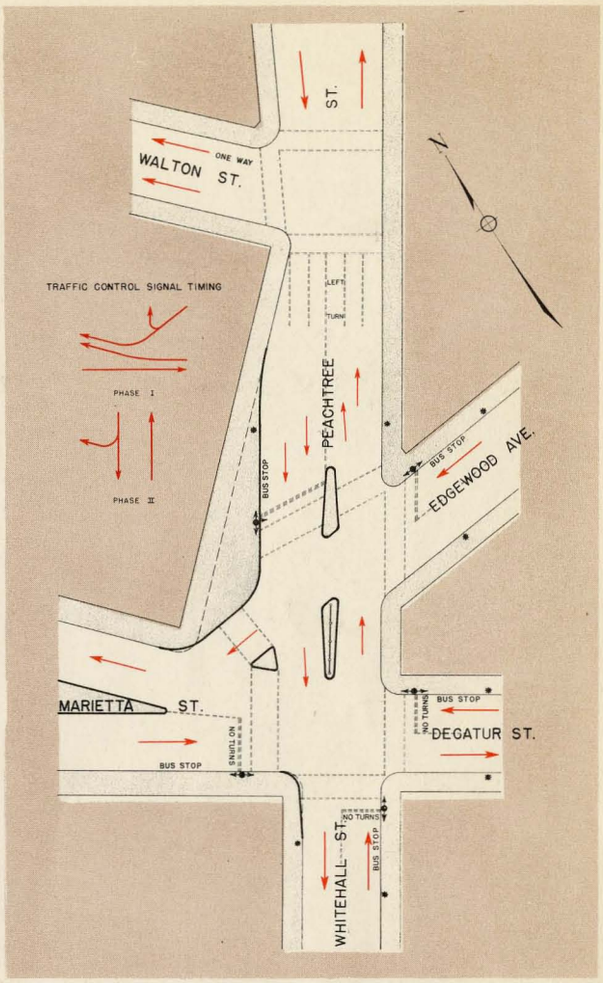
EXTENSION OF THE LOWER LEVEL OF ALABAMA STREET from Whitehall Street to Spring Street would connect existing low-level streets and provide for the movement of trucks between freight depots along Spring Street and the warehouses east of Central Avenue. This improvement would remove a substantial number of truck movements from surface streets. Hunter Street in particular would be relieved of truck traffic, permitting the more efficient use of the proposed Hunter Street viaduct over the railroad tracks.

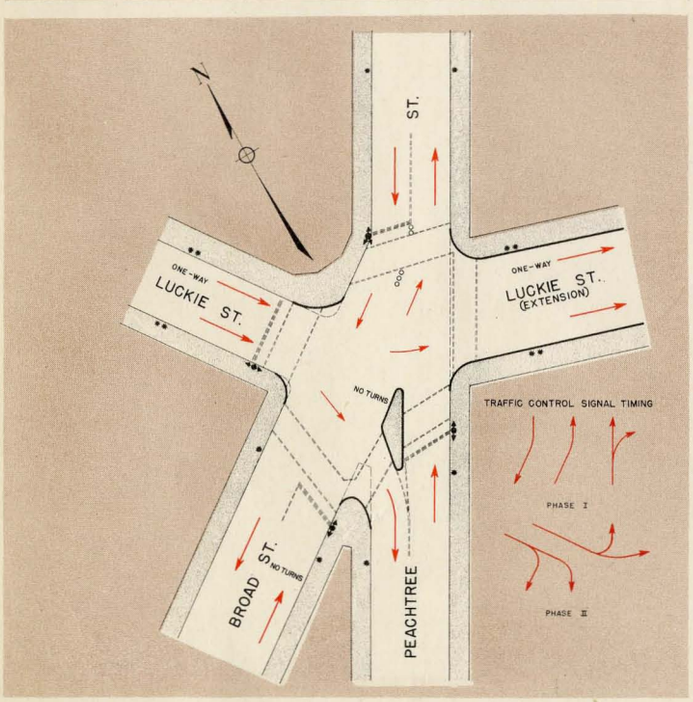
AN EXTENSION OF LUCKIE STREET from Peachtree to Ivy is vitally needed as a link in the Pryor-Ivy-Peachtree northbound one-way street system and to give the heart of the downtown area access to Ivy Street. The traffic load on Peachtree Street should be materially reduced by the ease of reaching Ivy Street via the proposed extension.

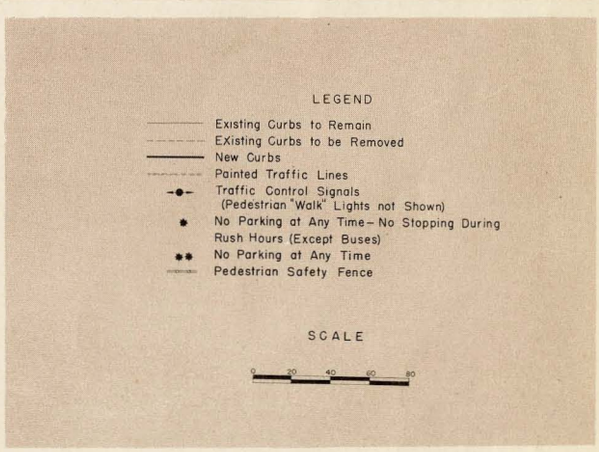
EXTENSION OF BROAD STREET for a distance of two blocks south from Mitchell would provide connections to the one-way arteries planned on Trinity Avenue and Garnett Street. The increased usefulness of Broad Street would improve the circulation of all transportation to the southerly portions of the city. The value of long-range planning is illustrated by the fact that the future portal of a trolley bus subway would be located in Broad Street between Mitchell and Trinity. By acquiring a wide right-of-way initially, the portal could be built eventually without sacrificing roadway or sidewalk widths.

PROPOSED STREET WIDENING OF CAIN AND BARTOW STREETS AND EXTENSION OF TECHWOOD DRIVE would permit ready access to Luckie and Marietta Streets and thus provide a much needed additional major thoroughfare leading north from the downtown area. The improvement would also provide a direct and continuous artery from the freight depots, industrial plants and residential areas west of the railroad tracks to the north and northeast sides, by-passing the congested downtown area.









Channelizing the INTERSECTION OF PEACHTREE, FORSYTH AND PRYOR STREETS AND CARNEGIE WAY and establishing one-way southbound traffic on Forsyth Street would permit two-phase operation of traffic signals. Narrowing the Pryor Street roadway to 20 feet by adding to the width of its sidewalks would encourage traffic bound for the north and northeast sides to turn right at Luckie Street Extension to Ivy Street, thus avoiding the portion of Peachtree Street heavily used by pedestrians.

A plan has been prepared whereby the three key intersections along Peachtree Street could be operated with two-phase timing of traffic control signals. This plan requires CHANNELIZATION OF THE INTERSECTION OF PEACHTREE, LUCKIE AND BROAD STREETS. The traffic island would furnish mid-street protection for pedestrians. It would also divert southbound Peachtree vehicles into Broad Street so that northbound traffic on both Broad and Peachtree could merge, moving on the same traffic signal phase as southbound traffic.

Restoration of street paving after removal of car tracks will offer a timely opportunity for the CHANNELIZATION AT FIVE POINTS (INTERSECTION OF PEACHTREE-MARIETTA-DECATUR-EDGEWOOD-WHITEHALL). Channelization is simply arrangement of curb lines and the building of mid-street islands to provide for the movement of vehicular traffic in appropriate and predictable paths, and to furnish havens of refuge for pedestrians crossing wide roadways. Intended movements of traffic are made easy and obvious while prohibited movements are made difficult or physically impossible.

RECOMMENDED
ARTERIAL STREET
SYSTEM

MARIETTA
ACCESS RD.
WESLEY
RD.
COLLIER
RD.
MILL
NORTHSIDE DRIVE
PEACHTREE RD.
HOLLYWOOD RD.
BANKHEAD AVE.
14TH ST.
10TH ST.
HOWELL
ST.
AVE.
PEACHTREE
PIEDMONT
CITY OF ATLANTA
PONCE DE LEON AVE.
FORREST AV.
HIGHLAND
SIMPSON ST.
HUNTER ST.
GORDON ST.
ASHBY
WASHINGTON ST.
AVE.
CAPITOL
BY-PASS
WEST
CASCADE AV.
UTOY RD.
CAMPBELLTON RD.
FORT McPHERSON
LEE ST.
LAKE-WOOD AVE.
EAST POINT
HOGAN RD.
SEMMES
SYLVAN
STEWART
PRYOR
COLLEGE PARK
VIRGINIA AVE.
HAPEVILLE
ATLANTA MUNICIPAL AIRPORT
F. D. ROOSEVELT
MOUNTAIN VIEW RD.
RIVERDALE RD.
MACON
CONLEY RD.
HWY.
JONESBORO RD.
BUFORD RD.
AVE.
LA VISTA RD.
ROCK SPRING RD.
BRIARCLIFF
CLAIREMONT RD.
MEDLOCK RD.
DECATUR BLVD.
SCOTT
HOWARD
COLLEGE
AVE.
GRAND AVE.
DE KALB AVE.
BOULEVARD DR.
DRIVE
MEMORIAL
GLENWOOD AVE.
CANDLER RD.
ORMEWOOD AVE.
BOULEVARD
MORELAND AVE.
CLIFTON ST.
2ND AVE.
CONSTITUTION RD.
MCDONOUGH RD.
FEDERAL PRISON
DECATUR
N
SCALE OF MILES
0 1 2

Recommended Arterial Street System shown in RED with its improvements in BLACK. Project numbers refer to tabulations on pages 18 and 19.

PARKING FACILITIES

The end of gas rationing dramatically called attention to the shortage of conveniently located parking space in the central area of Atlanta. Thousands of additional vehicles daily would be drawn to the downtown district by the construction of expressways. Street space for the movement of these vehicles will force the prohibition of practically all curb parking. The city should promptly and actively encourage provision of the necessary additional off-street parking facilities.

Parking Studies

Although provision of parking space is best conducted as a private enterprise, it is virtually impossible for an individual to make the studies necessary as a basis for selecting a proper site, deciding how much capacity to provide, and planning connections to and from proposed traffic arteries. Therefore, a study was made in connection with this report to gather enough pertinent data to permit the planning of parking facilities on a sound and business-like basis.

The study was made with the help of the Boy Scouts of America. A total of 1300 Boy Scouts and adult Scout supervisors had assignments in the survey and the accompanying cordon count. Essentially every motorist parking in the downtown area on the day of the survey was interviewed by a Scout. Through the interview and additional observations, it was determined where each motorist lived, where he went after parking, how far he walked, how long he parked, and what parking fee he paid, if any. Information from the parking study was mechanically tabulated and analyzed so that the results of 30,904 individual interviews have been summarized in simple and useful form.

Quantity and Location of Additional Parking Places

The parking survey reported a total of 2,812 curb spaces and 12,144 off-street spaces in Atlanta's central business district. These spaces were used by an average of 32,000 passenger vehicles daily. With the elimination of driving restrictions and the availability of new automobiles this number is expected to approach 40,000 cars.

If curb parking were to be eliminated the parking demands of these 40,000 vehicles would severely overtax every available off-street parking facility, even if all spaces were put to their most effective use. Approximately 2,000 additional spaces will be needed if this increase in destinations is to be adequately accommodated. In addition, about 7,000 more spaces will be required in the downtown area by the time the expressway program has been completed.

Parallel parking is allowed on the south side of Ponce De Leon Avenue in the business district of Decatur, with diagonal parking on the north side. The pavement is not sufficiently wide to accommodate diagonal parking and avoid traffic congestion.

These additional spaces should be located to intercept traffic approaching the downtown area before it enters the heart of the district. This is especially true of the all-day parkers who enter and leave the area during the morning and evening rush hours. Any new parking facilities should be placed so that they are within acceptable walking distance from the eventual destinations of the auto drivers. The walking distance for off-street parking now averages from 400 to 500 feet. Although this distance should be kept to a minimum it will be difficult to provide this same measure of convenience when destinations in the downtown district are almost double the present amount.

The area recommended for future development of additional parking facilities lies along the fringe of the area of most destinations in downtown Atlanta. This area lies west of Forsyth, from the railroad south to Mitchell; south of Hunter from Forsyth east to Pryor; the block bounded by Hunter, Pryor, Alabama and Central; the blocks on either side of Central between the railroad and Decatur; the blocks on either side of Ivy from Decatur north to Harris; and the blocks on either side of Spring Street from Harris south and southwest to Marietta.

Approximately four-fifths of all the destinations within the central business district are located within the area

surrounded by this ring of proposed parking places. About 1,800 additional parking places will be required in this area to effectively serve the center of the downtown district when curb parking is eliminated. An additional 5,500 spaces will have to be provided in this area of development for the increased number of vehicles entering the downtown district by 1970.

Diagonal parking is allowed on both sides of the principal streets in the Buckhead shopping area. Through traffic is forced into one lane in each direction, which is often interrupted by cars backing out of the parking spaces, resulting in annoying and costly congestion.

Further expansion of parking facilities within the congested part of the downtown area has not been considered in making these estimates of future needs. As the area develops the number of available parking places will more probably decline. Almost 25 per cent of these existing spaces, however, at the present time are being used by all-day parkers. Thus, although the total number of spaces may decline, the present number of parkings can be accommodated by catering almost exclusively to short-time parkers.

The estimates of anticipated parking demands in the central business district were also based on the assumption that the city will be reasonably successful in obtaining the maximum use of all acceptable parking facilities in the area. This effectiveness in the use of available places can be acquired eventually by economic necessity, by the workings of an all-over parking plan, or by a combination of both. The availability of desirable parking spaces for various types of users is customarily controlled by the adjustment in parking charges, subsidies or other aids from interested merchants and the regulation of the operating hours of the facilities. Failure to get the greatest use from the parking spaces provided will add at least 20 per cent to the estimates of future requirements.

It is impossible to give specific recommendations as to the types of facilities to be provided. These are generally dictated by both present and future economic considerations. The development of numerous parking facilities of medium size close to the concentrations of destinations is preferable to a few large facilities more remotely located. Parking garages are usually erected when ground space is expensive or where land area does not provide spaces at street level to satisfy the local parking demand. It is advisable, whenever possible, to use the frontage of parking buildings for stores and shops so that the attractive continuity of business streets will be maintained.

It is suggested that the additional sites be initially developed as parking lots with the thought that inexpensive parking garages might later be constructed as the need arises. It is generally believed that the establishment of parking lots should be limited to locations of medium or low property values. They can, however, be placed on relatively expensive sites if labor is economically used and a turnover of at least 3 or 4 cars per space is assured. Grades of the streets adjacent to several potential parking sites would make multiple level parking possible without interior ramps.

Labor cost is the major factor in parking charges where all-day storage prevails. The relaxation of wartime driving restrictions and contemplated street improvements should bring about an increase in the number of persons who regularly drive to work. Attractive monthly rates could be offered by cutting the use of labor to a minimum in outlying lots where spaces could be assigned and parking done by the individual.

Locations of recommended parking expansion in the area surrounding the Capitol, city hall, and other public buildings in the civic group are not offered. A general improvement plan is contemplated for this civic area and parking facilities will be provided as an integral part of this plan. Any off-street parking lots which are absorbed in the consummation of this plan must be replaced in some convenient location. It is estimated that 700 additional spaces will be needed around the civic group when the program of major street improvements and expressway construction has been completed.

A small proportion of the drivers going to the downtown district park their cars at outlying bus stops, completing their trips by bus. Provision for the accommodation of those drivers might be made by the establishment of parking lots adjacent to the proposed express bus stops along the expressways and at the locations where the buses will leave the local street system and enter the expressways. Such accommodations would encourage people to leave their automobiles and board express buses to save parking fees downtown and to get closer delivery to stores and office buildings than most centrally located parking lots would provide. Property for the outlying parking lots might appropriately be purchased in connection with acquisition of expressway rights-of-way.

Financing and Operating

Private capital should be forthcoming to finance all necessary off-street parking facilities. This is especially likely if responsible city officials give assurance that they do not intend to enter the parking field with subsidized facilities at rates the individual operator cannot meet. It may be necessary in order to get the program under way, for some public agency to establish a Parking Authority with power of condemnation in order to acquire the necessarily large parcels of land and in order to secure low interest rates. The parking structures built by this Authority, however, should be leased to private individuals for operation. A parking garage is self-supporting and attractive to the public only if it offers such services as washing, greasing, repairing, and the sale of tires, oil and gasoline. No public agency should be privileged to compete with private enterprise in these lines.

Use of Curb Space

Along with the provision of off-street parking space for automobiles should come a program to remove truck loading and unloading operations from the busy city streets. Not only does the curb loading of trucks interfere with the movement of traffic in the streets, but it also forces pedestrians to compete with boxes and barrels for the use of grossly inadequate sidewalks. A building ordinance should be passed requiring future large buildings to provide off-street truck docks. Existing buildings should be served during the night hours to as great an extent as possible.

All curb parking in the downtown area should be eliminated as fast as substitute off-street facilities can be built. There is no justification for the minor convenience afforded a small proportion of motorists accommodated at the curb at the expense of everyone attempting to move within the area by either public or private transportation.

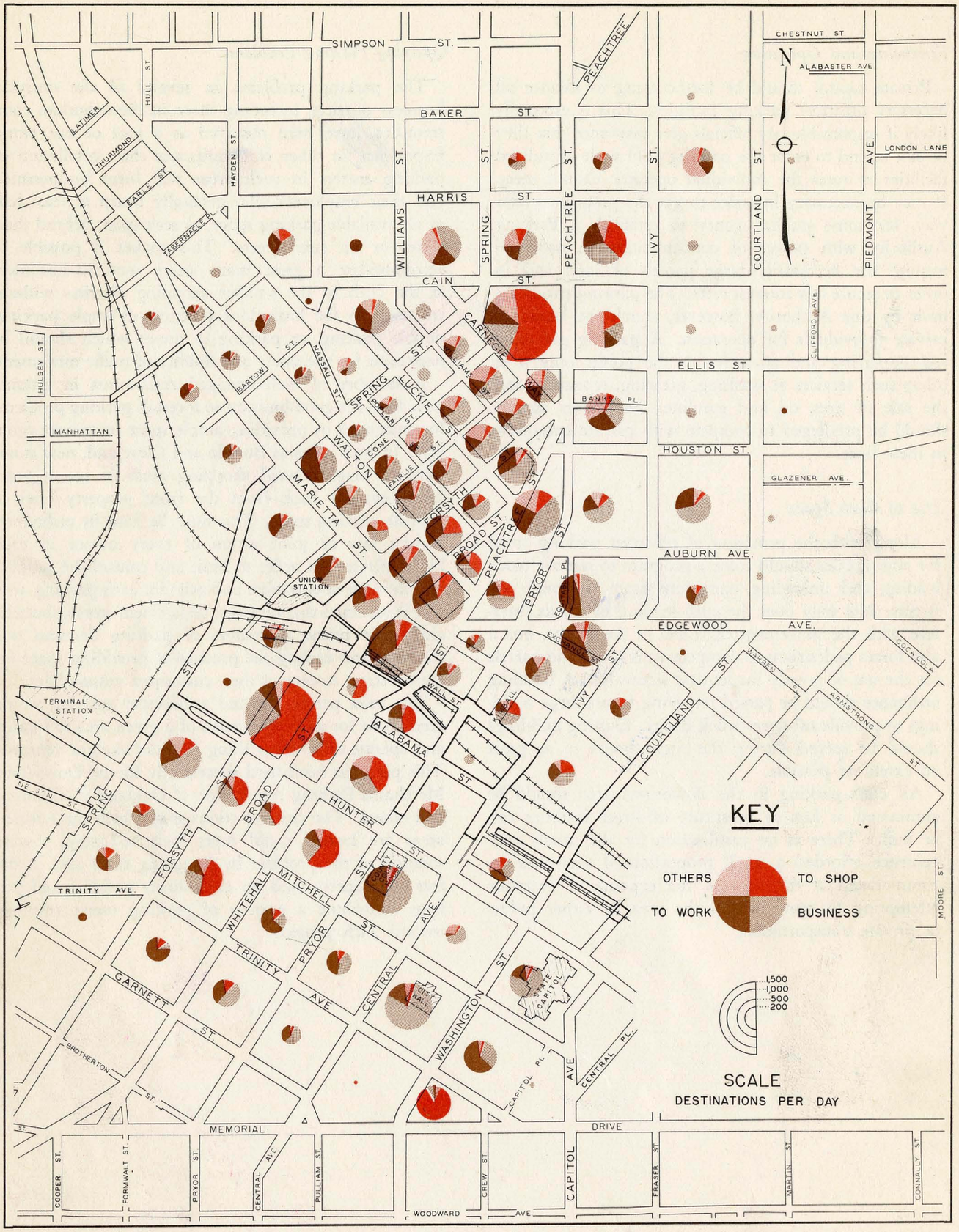
Outlying Parking Problems

The parking problems in several of the outlying business districts, including those in the suburban communities, have been observed as a part of our work. Experience in other cities indicates that installation of parking meters in such areas will force businessmen and their employees who generally usurp at least half of all available parking space, to seek space behind their stores or on side streets. This makes it possible to accommodate a great many more motorist-customers at the curb in the smaller shopping districts without resorting to the hazardous practices of angle parking, double parking, or parking in zones which should be kept clear for the safety and fluidity of traffic movement.

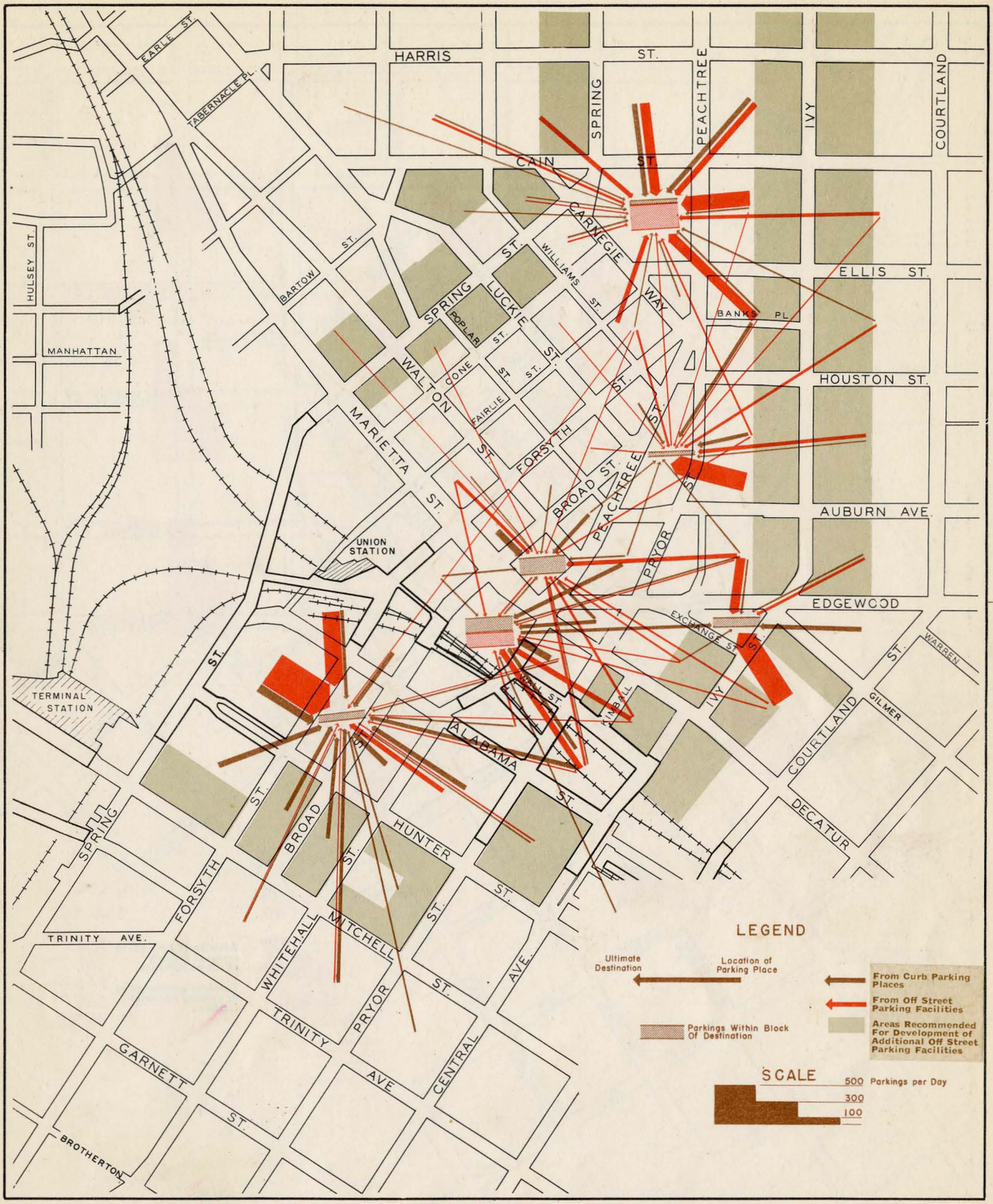
A number of well-managed restaurants in Atlanta have found it good business to forestall parking problems for customers by providing ample space on private property. In such cities as Buffalo and Cleveland, new stores built in neighborhood shopping areas in recent years have been set back from the front property lines to provide parking space. This must be done by ordinance, zoning law or joint action of every owner in each block affected, in order to limit and control the number and location of entrances and exits for each parking area.

It is assumed that outlying department stores, theaters, and other prime generators of parking demand will continue and expand the practice of providing space for the off-street storage of their customers' automobiles.

The most permanent and satisfactory solution would seem to be for all businessmen of a given area to finance and operate off-street parking facilities as joint ventures. This plan has been used successfully by the Downtown Merchants Parking Association of Oakland (California) and others. The cities or counties in which the business areas are located could meet their obligation toward solution of the problem by foregoing taxes and license fees on property used for community parking, and perhaps contribute a portion of parking meter revenues toward such projects.

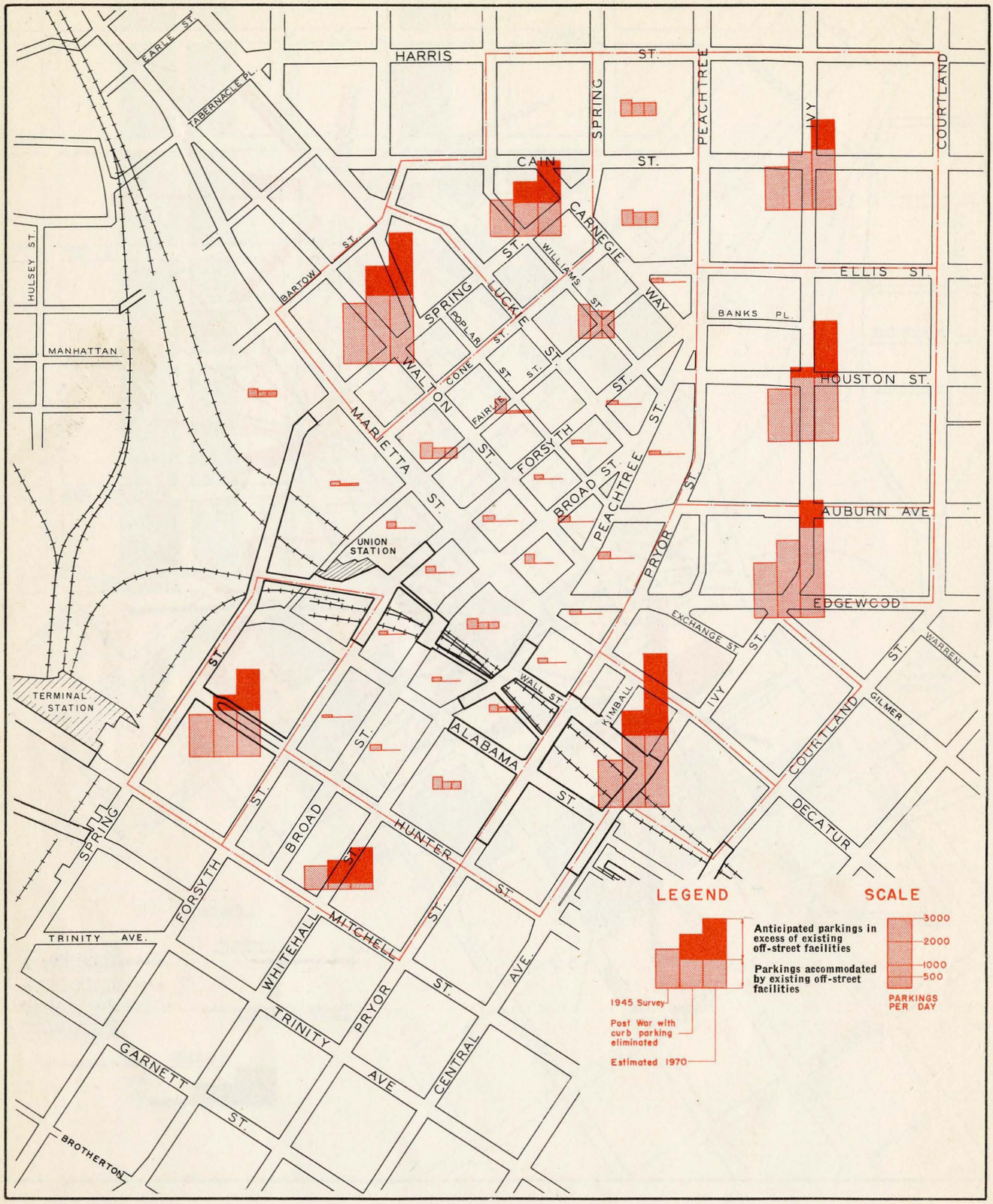


The downtown parking survey showed the DESTINATIONS OF ALL AUTO DRIVERS IN THE ATLANTA BUSINESS DISRICT. The largest points of destination lie in a bank of about two blocks in width along the general lines of Peachtree and Whitehall Streets.



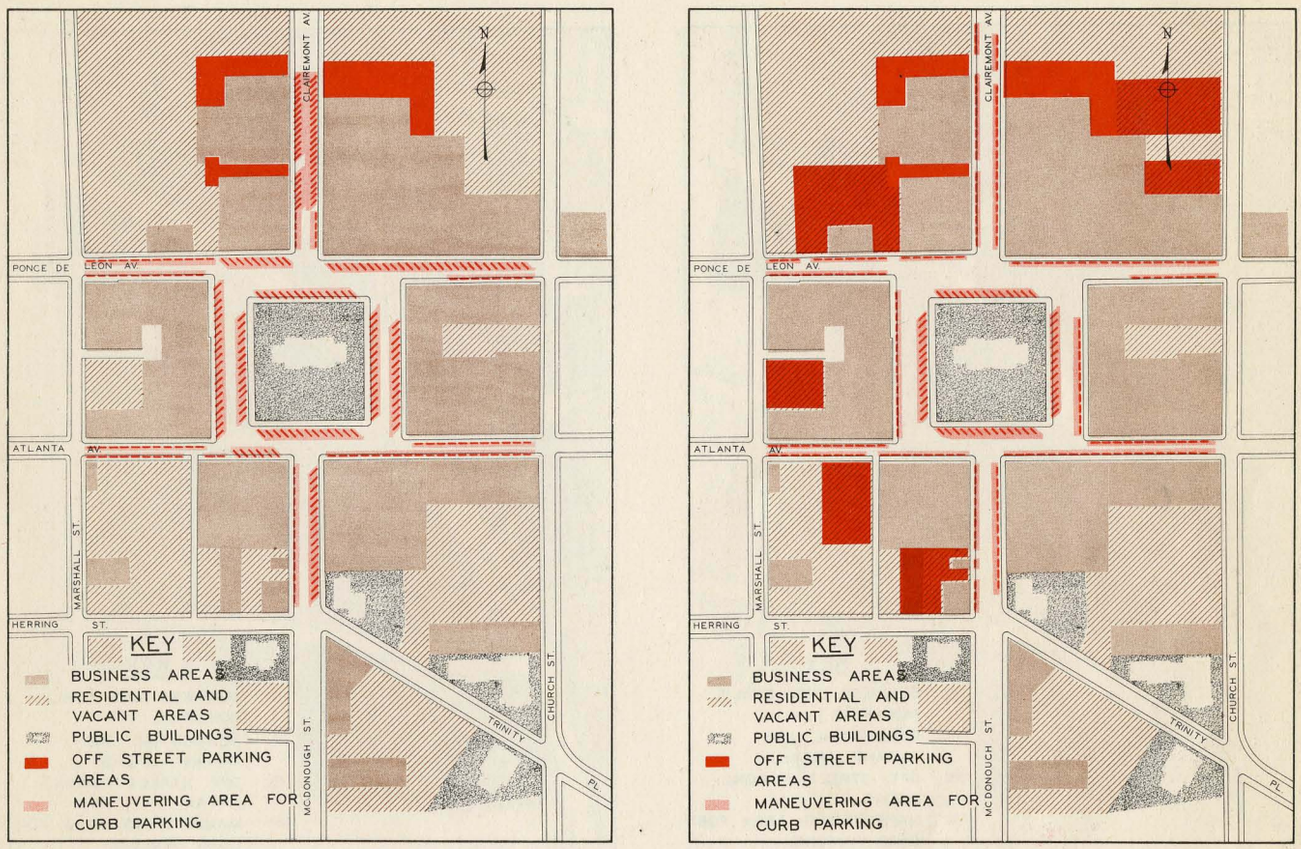
The downtown parking survey determined the VARIOUS DESTINATIONS OF ALL AUTO DRIVERS IN THE DOWNTOWN AREA AND THE LOCATIONS IN WHICH THEY PARKED THEIR CARS. For simplicity of illustration, only the point of largest destinations with their parking sites have been shown. The distances walked from parking location to destination were in general of equal length for curb parking and for off-street parking. The parking survey was conducted in May, 1945 during the period of gasoline rationing when there existed a reasonable balance between parking demand and convenient parking spaces.

The further development of additional off-street parking in the recommended areas would provide for the increased demand as evidenced upon the termination of rationing. Their development should proceed the inevitable elimination of curb parking in the downtown area.

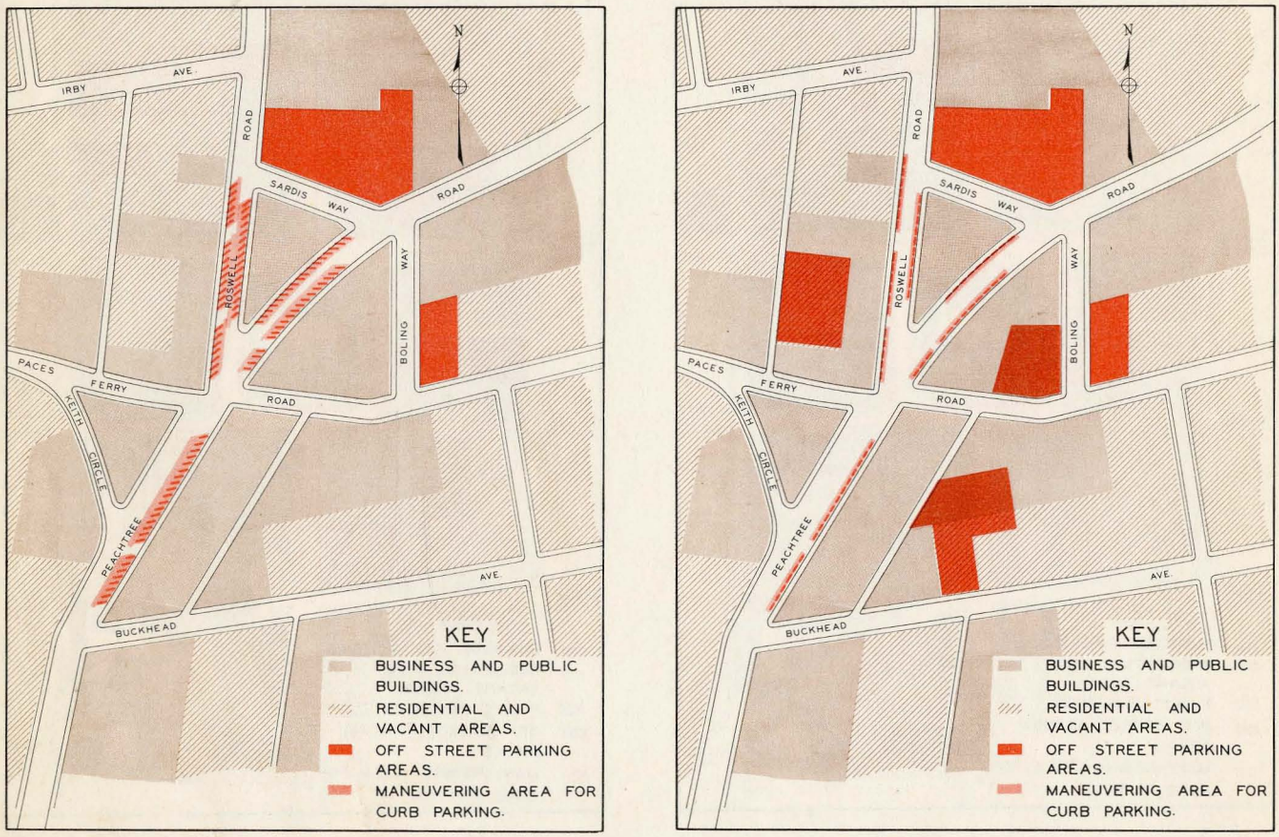


The ANTICIPATED AMOUNT OF OFF-STREET PARKING DEMAND FOR THE NEAR-TERM AND LONG-TERM PERIODS. As the downtown area of Atlanta expands it is unlikely that any appreciable quantity of off-street parking can be developed within the heart of the area. Therefore, the required additional facilities will of necessity be around the edges of the concentration of stores and office buildings.

The planning of the locations of the parking facilities and the control of their operation must be on an overall downtown basis. Through a control of the hours of operation and parking charges, the parking facilities most convenient to the stores and office buildings can be preserved for the shopping and short-term business trips. All-day parkers will find less expensive parking in those facilities along the fringes of the downtown area.



On the left, a graphic illustration of the PAVEMENT AREAS USED BY DIAGONAL PARKING AND MANEUVERING IN THE DECATUR BUSINESS DISTRICT. Insufficient width remains for through traffic. A substitution of parallel parking for diagonal parking would allow for a free flow of through traffic, as shown on the right. Additional off-street parking spaces can be developed in some of the indicated areas.



THE EXISTING AND RECOMMENDED USE OF PAVEMENT AREA IN THE BUCKHEAD SHOPPING AREA. At present cars entering and leaving diagonal parking spaces monopolize almost the entire pavement width, as shown on the left. Parallel parking with additional off-street parking areas, would provide ample accommodation and would allow a reasonable pavement width for through traffic, as shown on the right. Convenient sites for new off-street parking areas are shown.

IMPROVEMENT OF THE TRANSIT SYSTEM

Public transportation improvements were integrated with all other phases of the study so that the large number of Atlantans using this form of travel might enjoy benefits comparable to those envisioned for motorists. Modernization of the transit system, now actively in progress, make the suggestions as to routings, terminals and other physical changes especially opportune.

The transit modernization program, advanced plans and financing for which are ready, should not be delayed while expressways and the major street improvements are being designed and built. It will save much confusion and waste, however, if decisions can be reached quickly on the one-way street system, street extensions and other similar matters vitally affecting transit. Routes can then be selected which conform with ultimate routings insofar as existing conditions permit with the assurance that the carefully co-ordinated system will eventually prevail. The plans outlined in this report assume logical and practical development in this manner.

Transit Studies

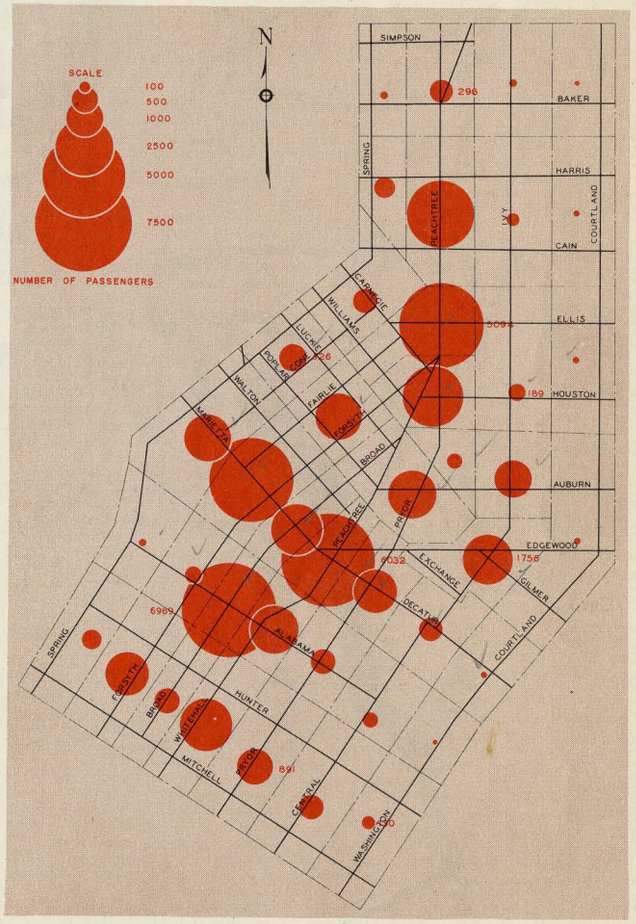
The Georgia Power Company made a Market Survey during 1944 which was of inestimable value during the progress of this investigation and report. The Market Survey consisted of interviews with a substantial sample of passengers on all routes of the system to determine origins and destinations, whether or not passengers transferred and to which lines, and other essential information. The size of the sample on the various lines was not constant, and so for the purpose of this report the returns were leveled off at one-third of one weekday's passengers on each of the several routes.

Analysis of the data secured made it possible to plan extensions, reroutings, crosstown service, and express bus service, and to estimate with some accuracy the number of patrons who would be benefited by each change. It was also possible to plan through routes, downtown terminals, and other improvements with the confidence that comes only with complete and accurate information.

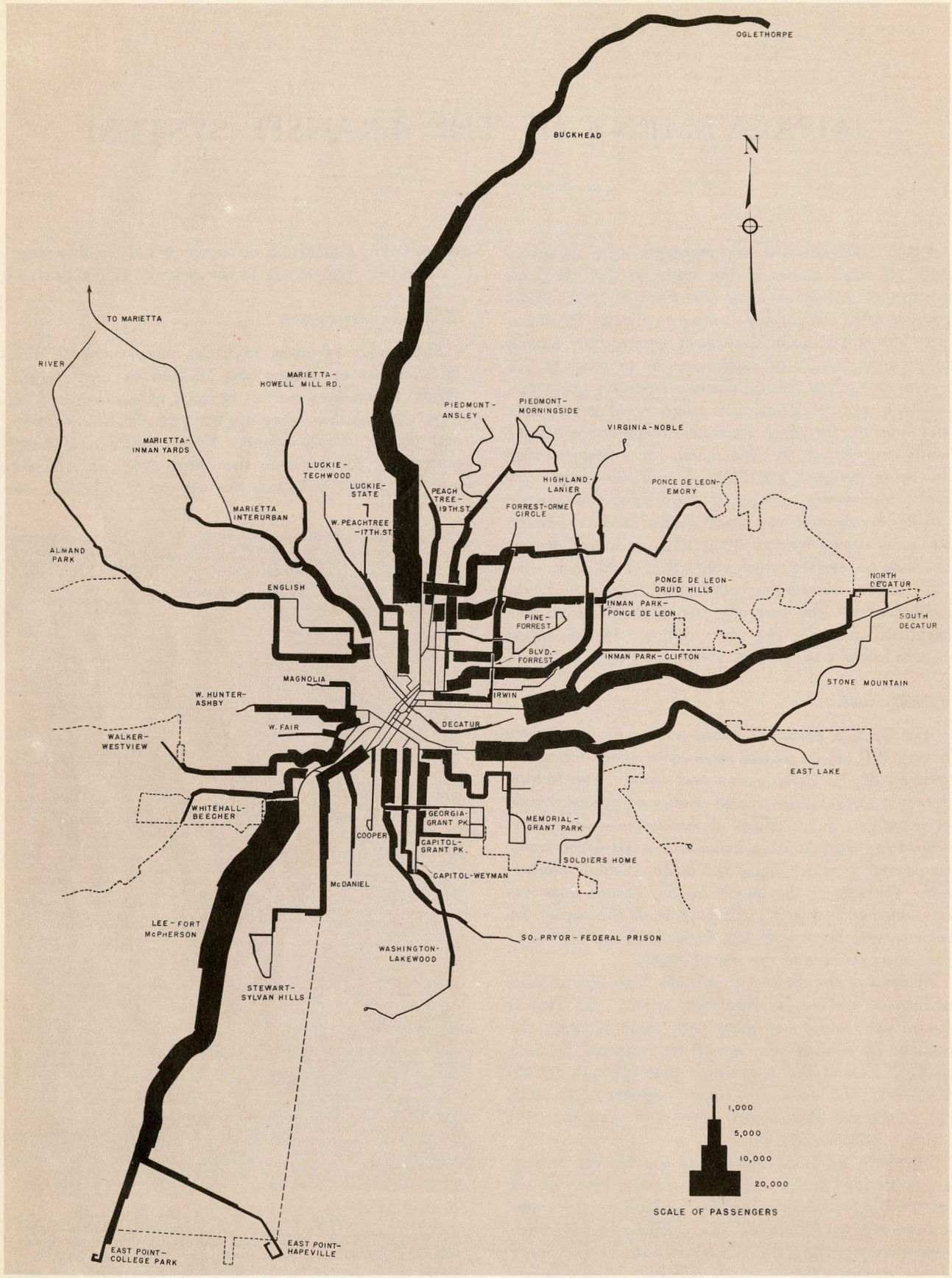
Supported by facts revealed by the Market Survey, it was decided that operation of express buses on all proposed expressways would be justified by the traffic such service would attract, that a strong belt of crosstown routes circling the downtown area at a distance of one to two miles is vitally needed, and that major benefits of convenience and regularity of service would result from construction of an urban bus terminal over the railroad right-of-way in the central business district.

Transit Modernization

Substitution of motor or trolley buses for essentially all streetcars in Atlanta was planned by the Georgia Power Company prior to the start of our study. We have checked this policy against probable future traffic and find it wholly sound. Trolley buses have been particularly popular with the riding public in Atlanta, and are especially appropriate for this city because of



Analysis of the Georgia Power Company Market Survey revealed the DESTINATIONS OF TRANSIT PASSENGERS IN THE CENTRAL BUSINESS DISTRICT. There are important focal points among the stores and shops along Peachtree Street, others caused by the office buildings around and west of Five Points, and a third group in the retail establishments south of the railway.



This map, showing relative NUMBER OF PASSENGERS INBOUND ON EACH LINE OF THE TRANSIT SYSTEM during 14 hours, shows that much riding takes place in a relatively small central core. Feeders reach out into thinner residential areas, and trunk lines tie the suburban towns to the primary city.

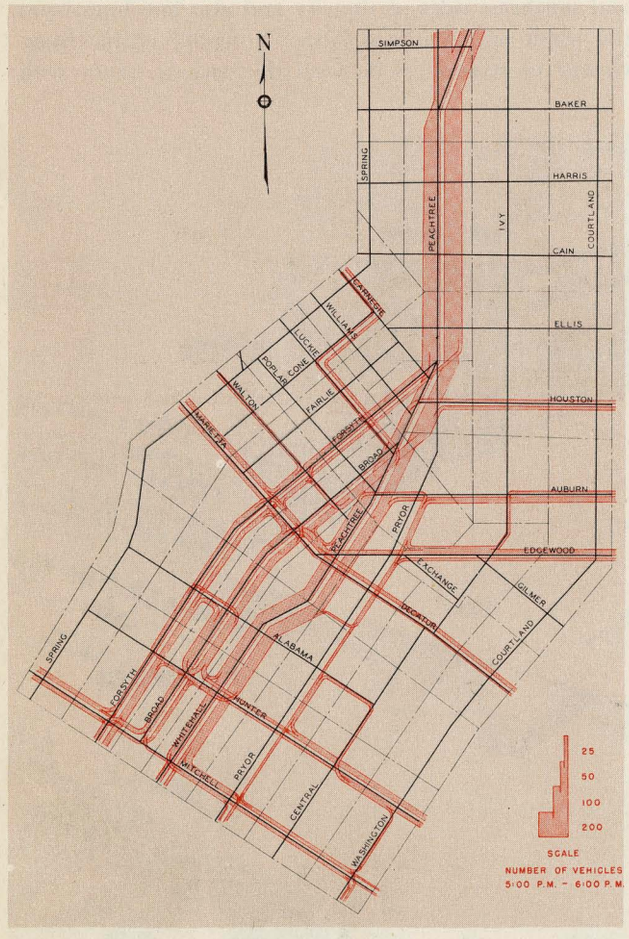
low power costs and the hilly terrain encountered.

Past experience in Atlanta indicates that modernization will attract 20 to 25 per cent additional patrons, other factors remaining constant. Experience in other cities suggests that much of this additional patronage will be riding which did not exist previously, rather than representing a shift from one mode of transportation to another. The American people seemingly have an insatiable appetite for travel, and the provision of additional or improved service invariably generates traffic which did not previously exist.

Routings—Initial Stage

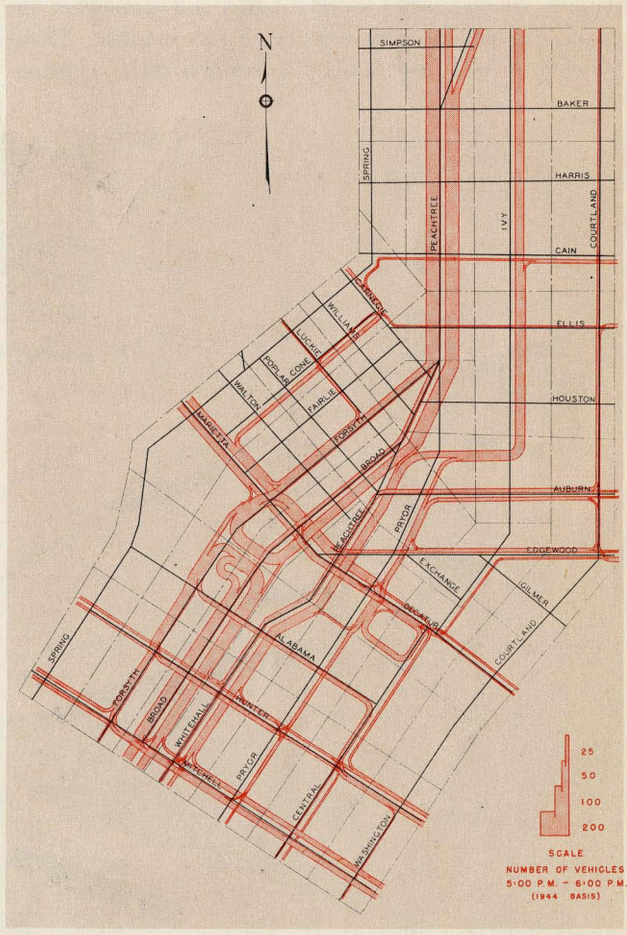
In the transition from rail to rubber-tired vehicles, service should continue on essentially the present routes in most cases. Several changes have been proposed to take advantage of new street extensions, widenings, or other physical improvements in connection with the major street plan or the construction of expressways. Other route changes are proposed to increase the coverage in rapidly growing portions of the metropolitan area.

Crosstown transit routes have been selected to integrate the radial routes and permit more direct travel by the large portion of patrons who have destinations other than the central business district. In general the routes used are Ashby Street on the west, Georgia Avenue on the south, Boulevard on the east, and Tenth and Fourteenth Streets on the north. After the improvement of Tenth Street by widening between Peachtree and West Peachtree, the crosstown route should follow Tenth Street the entire distance. It is the intention that these routes be operated as one continuous belt so that passengers can ride around any two sides of the square without



THE FLOW MAP OF TRANSIT VEHICLES IN THE CENTRAL DISTRICT (1944) shows heavy concentration along Peachtree Street. Use of adjacent streets is discouraged by long blocks, steep grades either side of Peachtree, and lack of continuity of available streets. Better distribution is obtained on the south side by the use of Broad and Forsyth as well as Whitehall.

Both street cars and buses now use the center lane and the same narrow safety islands. Streets become saturated with a flow of transit vehicles of only 75 to 80 per hour. When more are operated, speed is reduced to three or four miles per hour, and congestion for all street traffic becomes almost intolerable.



THE FLOW MAP OF TRANSIT VEHICLES IN THE CENTRAL BUSINESS DISTRICT AFTER SUBSTITUTION of motor buses or trolley buses for street cars. Curb loading and movement of transit vehicles in the curb lane would improve the convenience of passengers and facilitate the flow of all street traffic. Strict enforcement of parking prohibitions and the elimination of truck loading operations during rush hours will be imperative if the necessary number of transit vehicles are to move freely.

transfer. The route should be served initially with small buses to assure a close enough headway even in off-peak and evening hours to make the service attractive. It has been estimated that the belt line would attract approximately 42,000 riders per day initially, but this number might increase substantially because of the convenience of a service now entirely lacking.

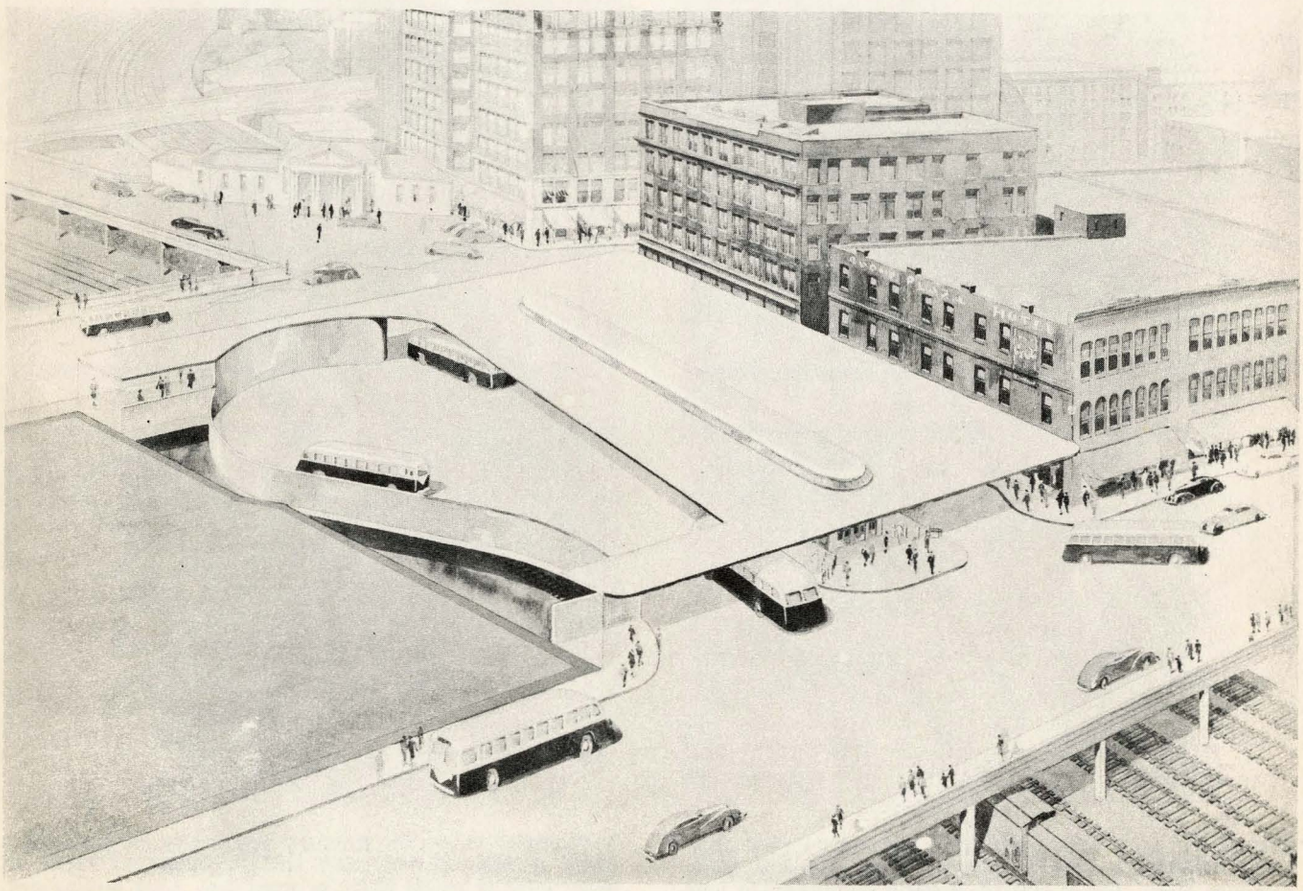
Proposed routing in the central business district would provide better distribution among available streets than at present with the track-tied routing of street cars. A new urban bus terminal over the railroad between Broad and Forsyth Streets would provide an off-street terminal for eight routes to the benefit of all street traffic and the convenience of a substantial portion of the bus riders. Adjustments have been planned to fit routings to the proposed one-way street system and also to utilize the street extensions and other physical improvements. Through-routing of various lines with comparable characteristics would retain and somewhat increase the benefits now realized in this manner. These benefits include provision for crosstown riders, elimination of turns by transit vehicles and reduction of the amount of overlapping service.

Depot routes and special shopper routes have been popular in Atlanta in recent years, and it is assumed that these services will be continued. Such routes have been omitted from the maps for the sake of clarity.

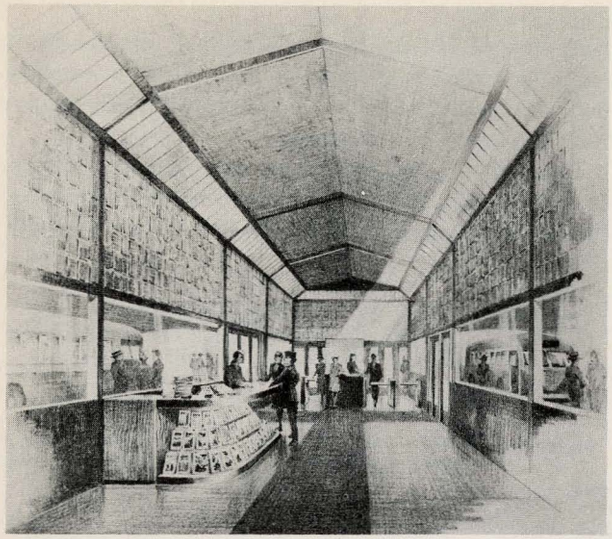
Urban Bus Terminal

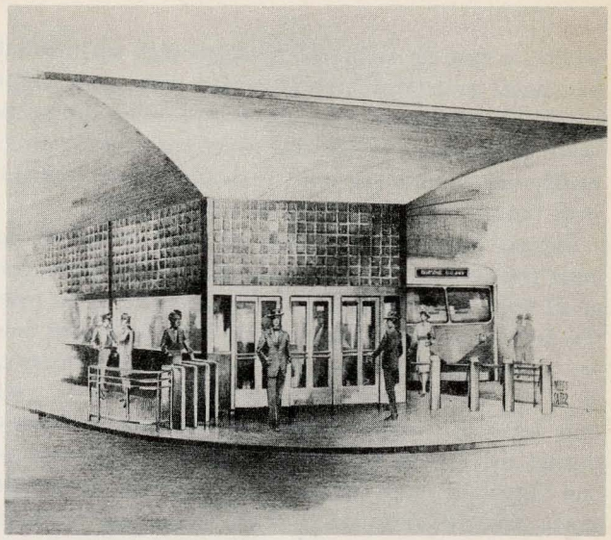
Atlanta has an unusual opportunity to provide terminal accommodations for a number of local bus lines near the center of its retail and commercial activity. Various uses have been proposed for the air-rights over the downtown railroad tracks but none would serve so many people nor do as much to relieve street traffic congestion as the proposed bus terminal between Broad and Forsyth Streets.

This terminal would serve three lines from the north and northeast sides of the city and also five lines from the south and southeast sides. It would enable interchange of passengers between the various routes with



Simple, modern architecture would distinguish the PROPOSED BUS TERMINAL and make it a good neighbor to new office and store buildings which would spring up in its vicinity, both on the railroad air rights and in the blocks now vacant or occupied by obsolete buildings. The structure could be inexpensive, yet durable and attractive. Construction of the terminal would not preclude the possibility of more intensive development of the railroad air rights at a later date by construction of additional floors for offices.





The possibilities of attractive ARCHITECTURAL TREATMENT OF THE BUS TERMINAL are shown by these delineations. This station would provide, in addition to the safety and convenience of off-street loading, various facilities for the convenience of the passengers. The heated enclosure with comfortable seats would be appreciated by patrons, especially during the winter months.

the greatest possible convenience and comfort without the need for paper transfers. Pre-payment of fares would permit speedy dispatch of buses, increasing the capacity far beyond that of an equivalent footage of curb space. The terminal would eliminate approximately 300 bus loading operations on the adjacent streets during the heaviest hour to the great benefit of general street traffic. In non-rush hours schedules could provide limited lay-over time at the downtown terminal, thus improving the regularity of outbound service.

The cost of the terminal, approximately $350,000, could be financed largely by rentals for its use and concessions in connection with it. The material benefits accruing to the city would indicate the equity of financing the terminal in part from general funds.

Several suggestions have been made for a Plaza over the downtown railroad tracks. The term apparently means different things to the sponsors of the various plans. To some it means an open-air parking space, to others, a new street, and to still others it means a park with grass, benches and fountains. A Plaza for one-level parking would cost approximately $1,600 per car-space exclusive of the value of the air-rights thus occupied. This would be at least three times as expensive as providing superior parking space in open-type garages on solid ground. Even several levels of parking over the tracks would involve a high unit cost because of the expensive deck construction for the ground level floor.

A new street above the railroad tracks would serve little useful purpose unless extended on a long and costly viaduct to the west side of the north-south railroad properties. Smoke elimination would entail continuous cost to the city unless railroad engines are replaced with diesel or electric locomotives. Thriving, tax-paying stores now occupying air-rights in one block would be liquidated.

Additional store and office buildings on the air-rights not yet occupied by stores or to be used by the proposed bus terminal would knit together the now divided downtown business. This valuable space, a portion of which is owned by the State of Georgia, would then be utilized in a manner of greatest value to the city. New property values would be created and the value of other downtown property would be stabilized.

Attention was given to the terminal problem of suburban and interurban buses. Only 27 suburban buses leave the downtown area in the heaviest hour at present, and they add little to congestion. By the time the number grows to a substantial amount, it is likely that the proposed railroad station will have been built at North Avenue. This would release the existing Union Station Plaza for use as a suburban bus terminal. Interurban buses as well as several of the suburban routes are served by a comparatively new depot on Cain, west of Spring Street. This depot is well located with respect to the proposed major streets and the suggested railroad passenger terminal.

Operation on Expressways

The proposed expressways would present an opportunity for fast public transportation from large sections of the metropolitan area. Semi-express service on local streets in Atlanta has proved popular, reflecting the demand for faster operation. The characteristic of this

service is that no stops are made to pick up inbound passengers or to discharge outbound passengers within a central zone extending about two miles from the heart of the city. While this expedient saves approximately one minute per mile, it should not be confused with the proposed operation on expressways.

Express buses would operate on local streets on the outer ends of routes, accepting or discharging passengers at all stops to within a distance of 2.5 to 5.5 miles from the downtown area. Buses would then be routed onto the expressway and from that point would operate at 30 to 40 miles per hour, with stops at one to two-mile intervals. Upon approaching the central business district the express buses would leave the expressways and distribute their passengers along the downtown streets and, in some cases, to the urban bus terminal.

Provision has been made for express bus stops in selecting the location and type of access and egress ramps along the expressways. The conventional stop would consist of an egress ramp leading from the express roadway to a parallel one-way service drive. The stop would be made at grade level, thus avoiding the need for passengers to climb up or down stairs. After interchange of passengers, the bus would proceed a short distance on the service drive and then use the access ramp provided for general traffic to return to the express roadway.

Provision of stations for bus stops at express roadway level has been suggested. While such design may be appropriate in some instances, it is not recommended for general use in Atlanta for a number of reasons. A special turnout lane for buses would have to be provided either at cross street bridges, in which case the length of bridges would be increased, or between bridges, in which passengers would have to walk considerable distances in order to reach streets important enough to be carried over or under expressways. Furthermore pedestrians would be permitted at expressway level under this plan and would have to climb stairs to and from the stations. The stations themselves would be expensive considering the number of passengers to be accommodated, and should be staffed with janitors and guards. However one station of this type would be needed on the East Expressway at Boulevard because of the numerous bridges in the vicinity.

Motor buses seem more appropriate than trolley buses for the proposed express service, despite the popularity of the electric vehicles in Atlanta. With the reduced number of stops in express service the rapid acceleration of the trolley bus loses much of its importance. The differential in maintenance costs which favors the trolley bus on routes using local streets also tends to disappear when vehicles operate at cruising speeds during a major portion of each trip. The problem of suspending the dual trolley wires required for electric bus operation is also a major consideration. Poles would be kept a minimum of 10 feet from the edge of the pavement, requiring either long spans or heavy bracket construction. Either design would be aesthetically inconsistent with the nature of expressways.

The following table gives the estimated daily volume of transit traffic and the probable rush hour headways on each expressway, based on the 1944 volume of traffic:

TRANSIT FLOW ON THE EXPRESSWAY SYSTEM IN THE MAXIMUM HOUR AND THE HEAVIER DIRECTION BASED ON 1944 VOLUMES OF TRANSIT RIDING

Expressway	Number of Bus Routes	Passengers at Heaviest Load Point	Size of Buses	Buses per Hour	Headways (Minutes Between Buses) All Routes Combined	Headways (Minutes Between Buses) Average—Ea. Route
North	2	1,150	36-seat	23	2.6	5.2
South	2	960	36-seat	19	3.1	6.2
East	4	1,200	32-seat	28	2.1	8.4
West	1	600	32-seat	14	4.3	4.3

Future Subway

Many cities have outgrown the capacity of their downtown streets and have built or are planning additional levels above or below surface grade. Atlanta, in fact, has several low-level streets in the vicinity of the railway rights-of-way which were built in connection with the construction of viaducts over the tracks. This is an expensive way of acquiring additional street space, but less so than street widening where land is valuable and highly developed.

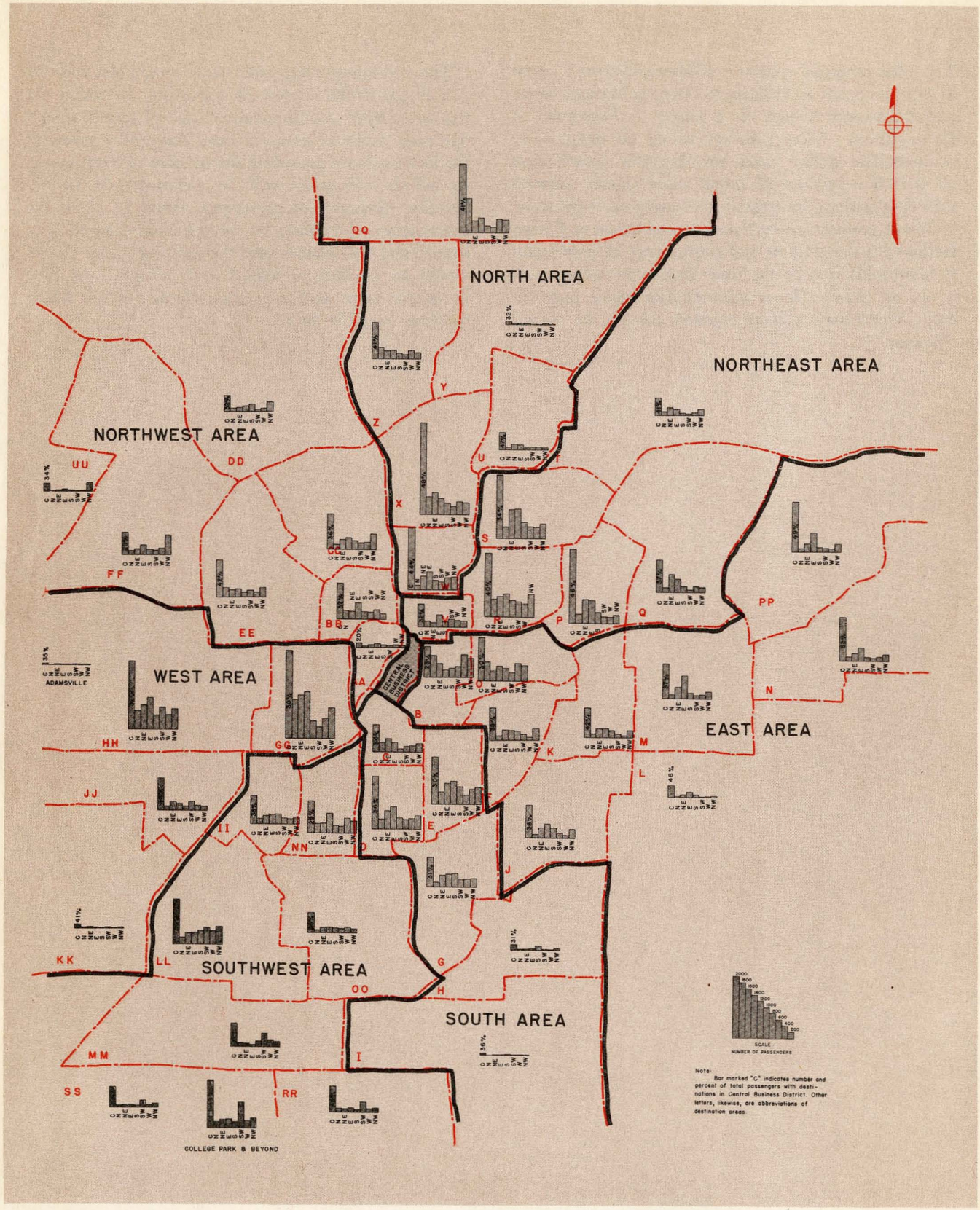
Several plans for extensive underpasses, double decking of Peachtree Street, and other applications of two-level technique have been brought to our attention during this study. Some proposals contemplated use by general street traffic. Because of the expense of such facilities they are generally built for the accommodation of transit vehicles alone, in order to keep a reasonable balance between the passenger capacity and the investment.

Atlanta will likely need transit subways at some future date when growth of the city and increased activity in the central area has offset the traffic benefits gained through the improvements herewith recommended. A realistic program must give priority to urgently needed projects, and postpone those which the city can forego temporarily. Atlanta needs many things at once, including the first units of the expressway system, several grade crossing eliminations and improvements to major streets. To strain the financial resources of the city with untimely projects might jeopardize the entire program. It is advisable to look forward to the time when underground structures will be needed, nevertheless, so that no work done in the interim will have to be undone.

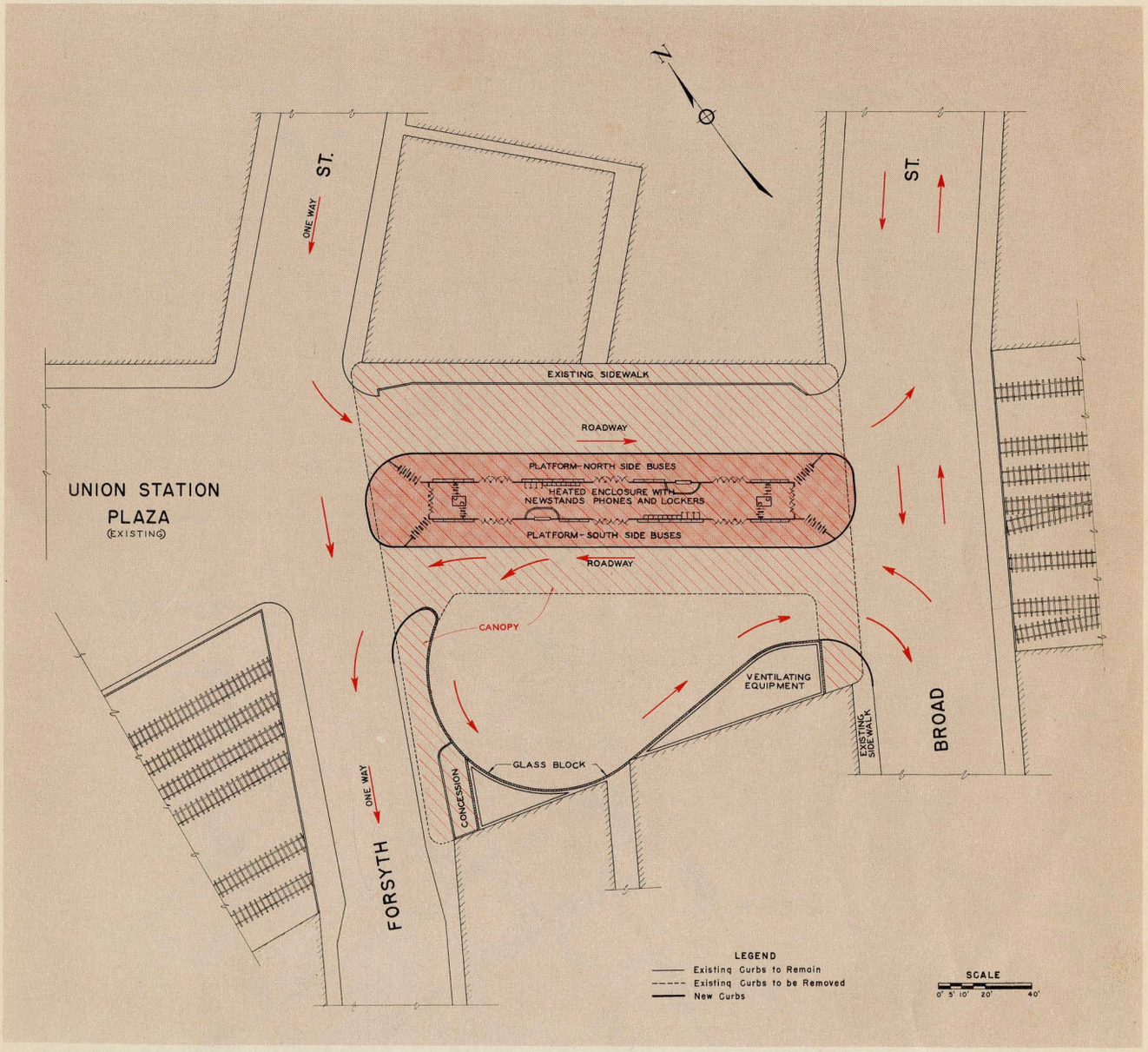
It is predicted that two subways will be needed eventually—one from a portal in West Peachtree Street at Alexander Street via Peachtree and Broad Streets to a portal in Broad Street, extended, at Trinity Avenue.

The other projected subway would extend from a portal in Marietta Street at Tabernacle Place via Marietta Street and Edgewood Avenue to a portal in Edgewood at Butler Street. These subways would be designed to accommodate trolley buses but otherwise would have all the characteristics of urban rapid transit subways including stations, underground connections to principal buildings, transfer connections between routes and other features for the comfort and convenience of passengers. It is probable that by the time these subways are built it will be practicable to accommodate motor buses in them, if necessary, without excessive cost for the control of fumes.

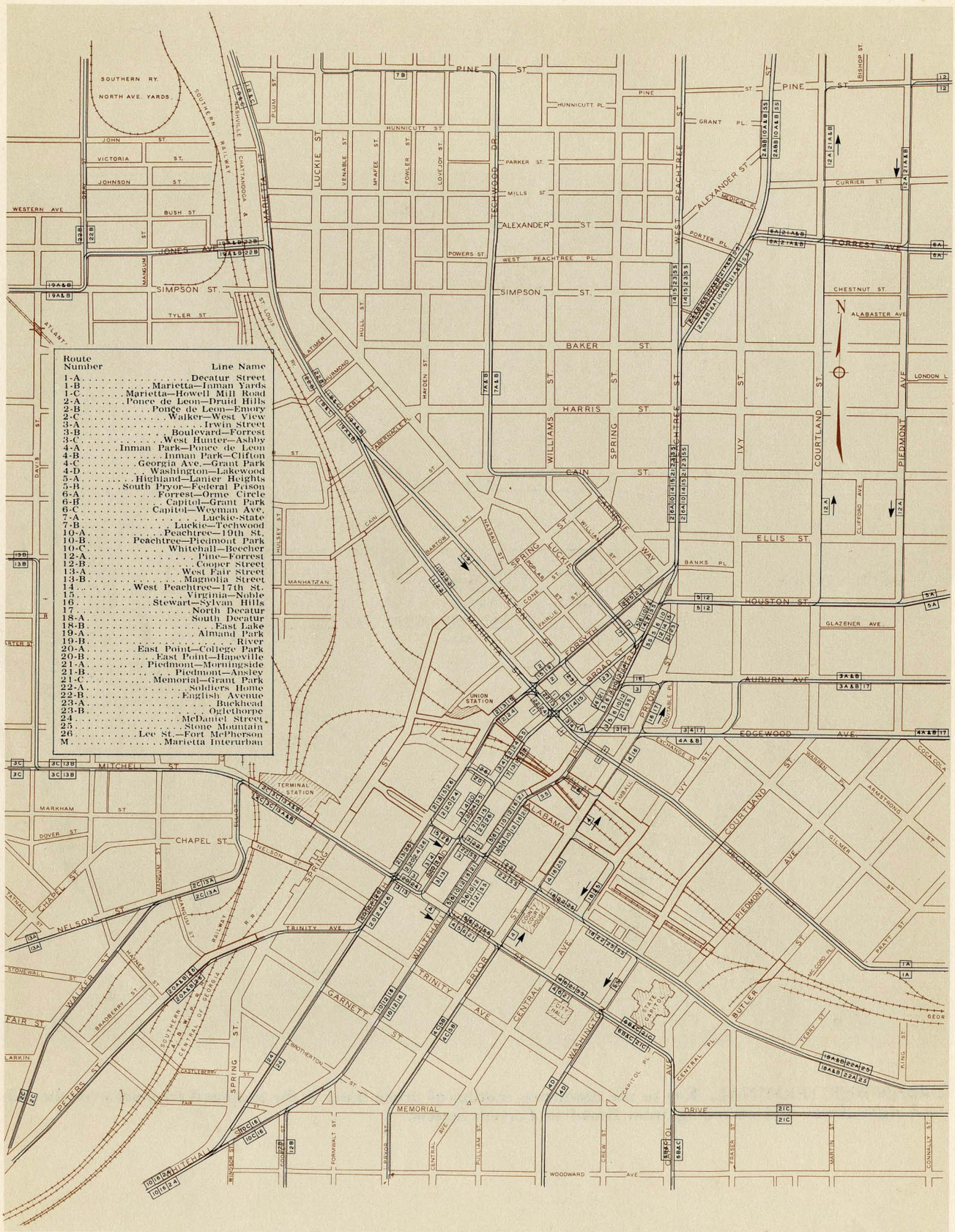
The two subways suggested above would cost approximately $16,000,000 at present day costs. In return for this investment a substantial mileage of transit vehicle operation could be removed from downtown streets in the heaviest hour, providing the increase in street capacity which eventually will be required. As further benefits, thousands of passengers would be given the convenience of loading in underground stations protected from the weather, and the speed of transit service would be doubled or tripled over what it will then be on the street surface in the sections through which subways would be built.



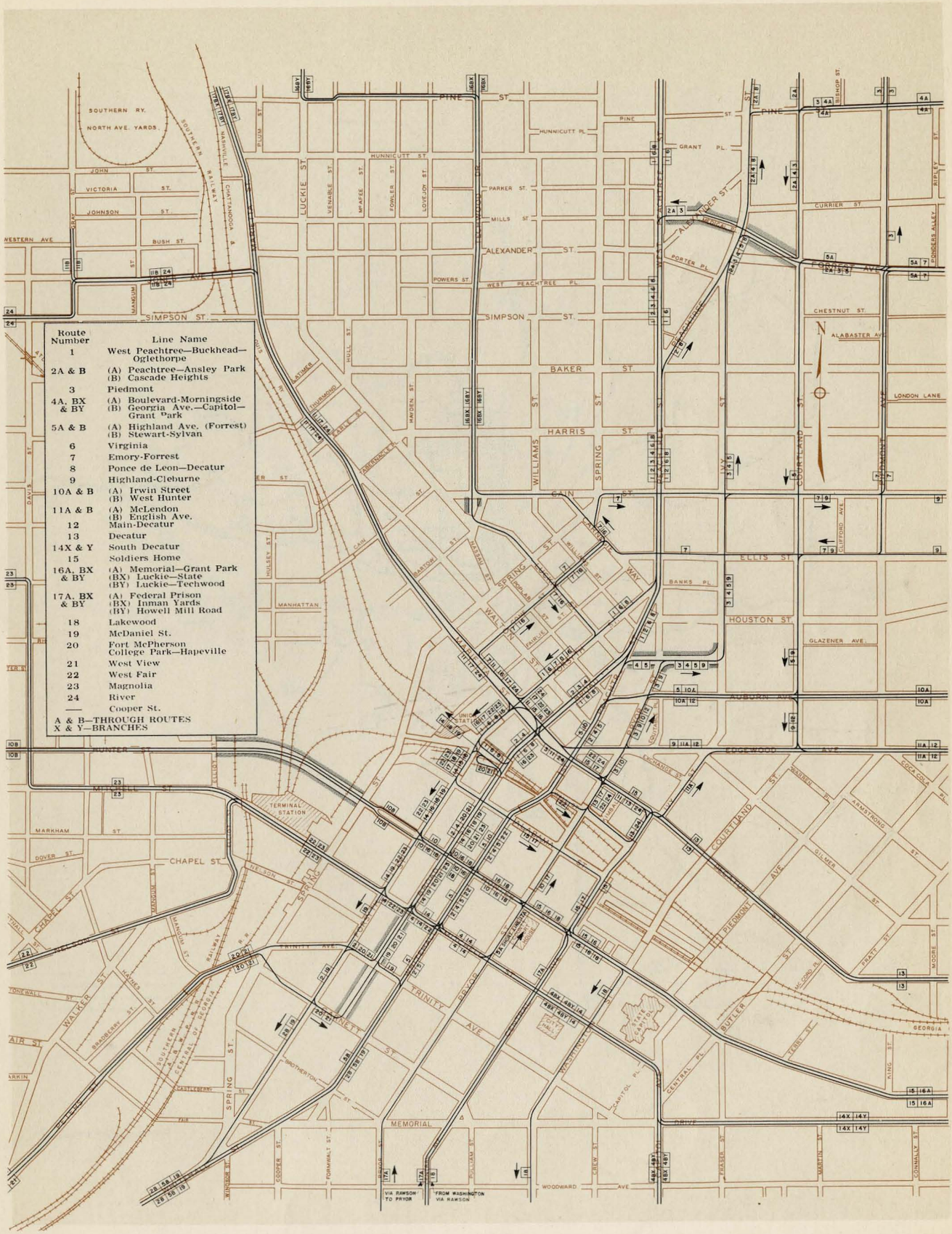
THIS ZONE MAP OF ORIGINATING TRANSIT PASSENGERS shows the sections of the city to which passengers are destined. In all zones there are more people with destinations in the central business district than in any other general area of the city, but still this group accounts for less than one-half of all passengers except in one zone. The next largest group, in most cases, is composed of people who are making local trips in the same general area of the city in which they live. There is no mass movement from any section of the city to any other section.



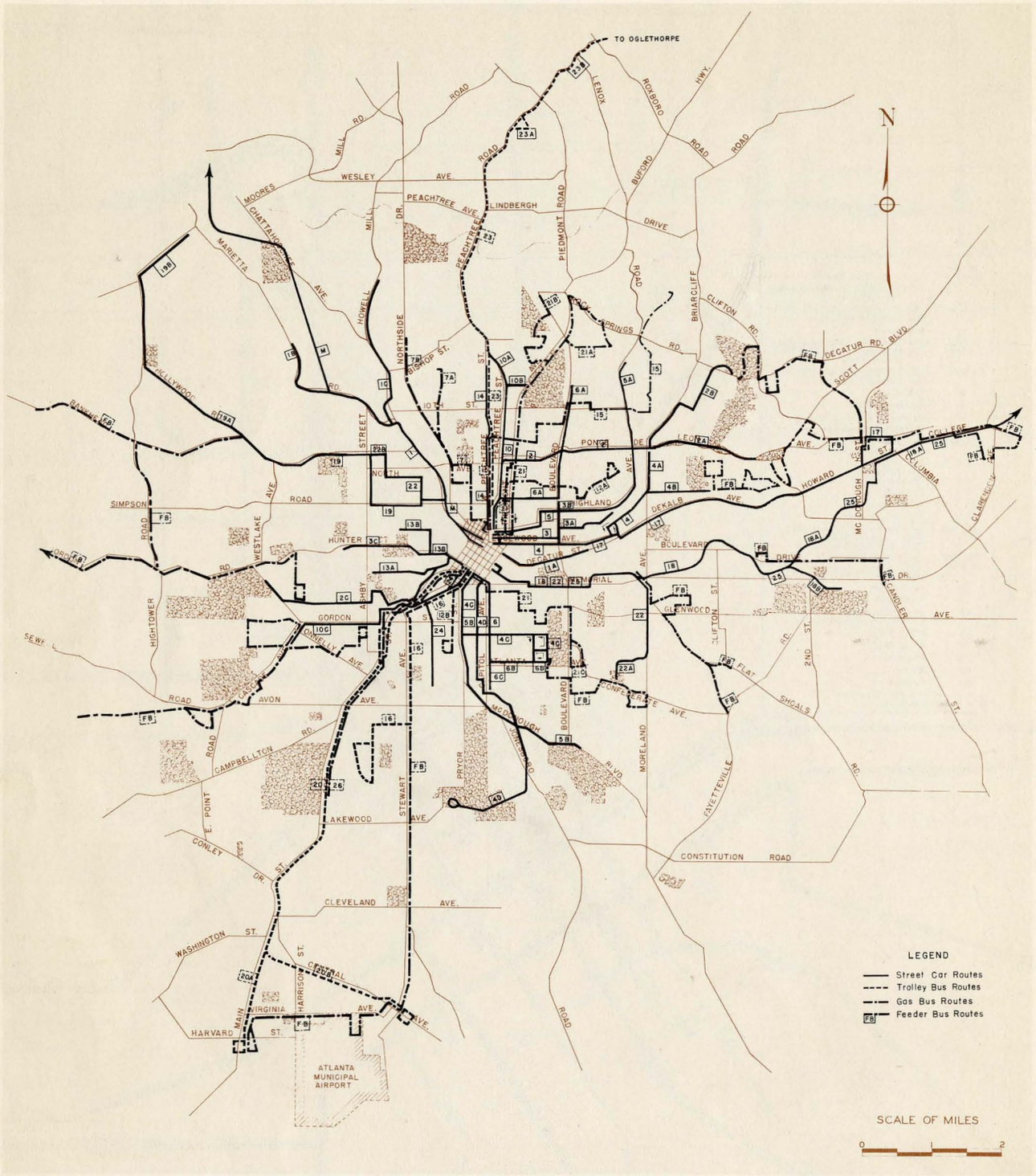
URBAN BUS TERMINAL. Key to the downtown routing of urban buses is the proposed terminal over the railroad right-of-way and extending from Broad to Forsyth Streets.



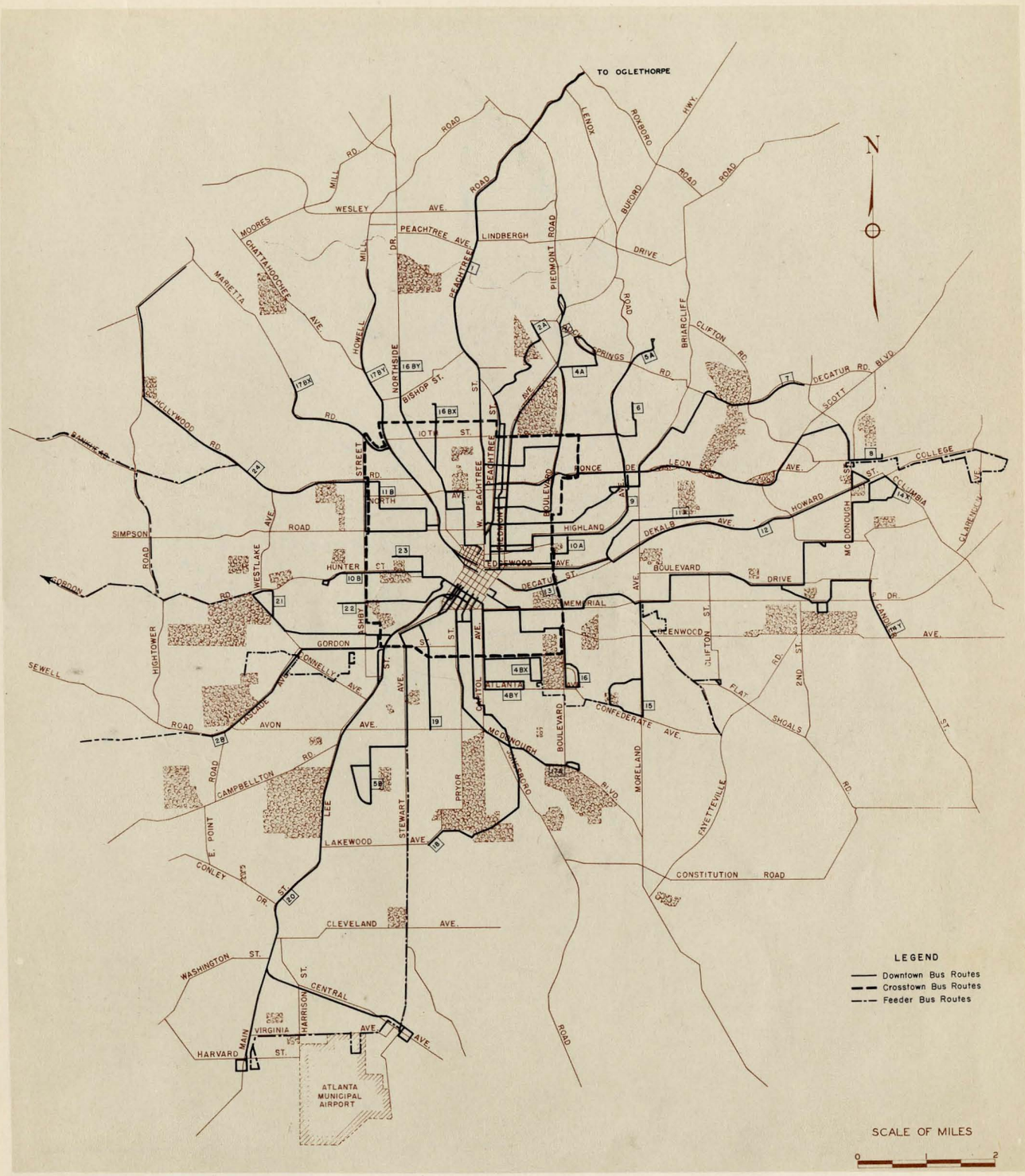
THE TRANSIT ROUTE MAP OF THE CENTRAL BUSINESS DISTRICT (1944) reveals the great concentration of service on Peachtree Street. It also shows the numerous turns at street intersections and the overlapping routes required to fit the demands for service to a heterogeneous street pattern and to the rigidity of costly track layouts.



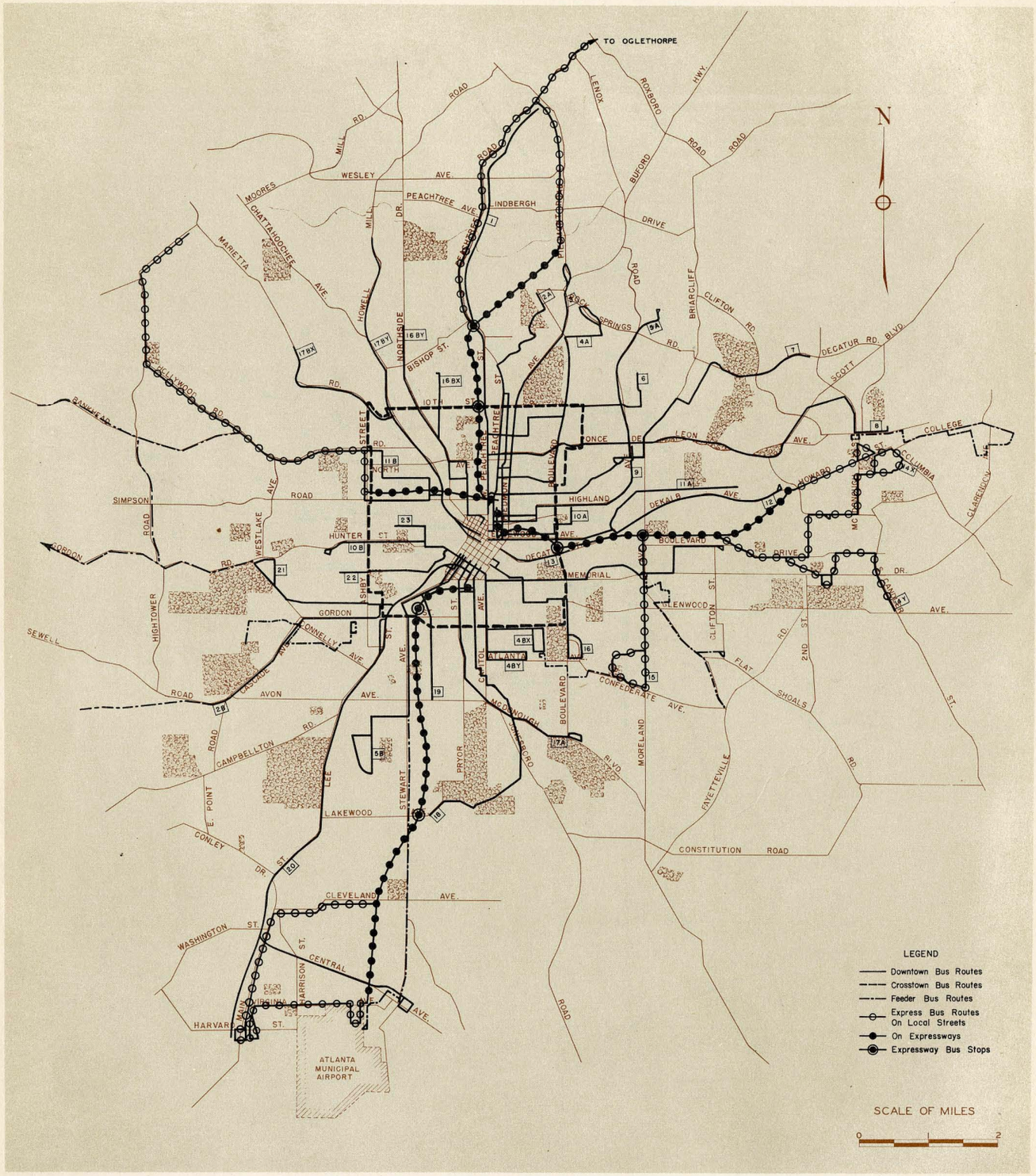
TRANSIT ROUTES IN THE CENTRAL BUSINESS DISTRICT AFTER MODERNIZATION would fit physical improvements in the street layout and utilize an urban bus terminal built on air rights over the railroad tracks between Broad and Forsyth Streets. Routes have been selected on the basis of the downtown shipping and working destinations of the riders on each route.



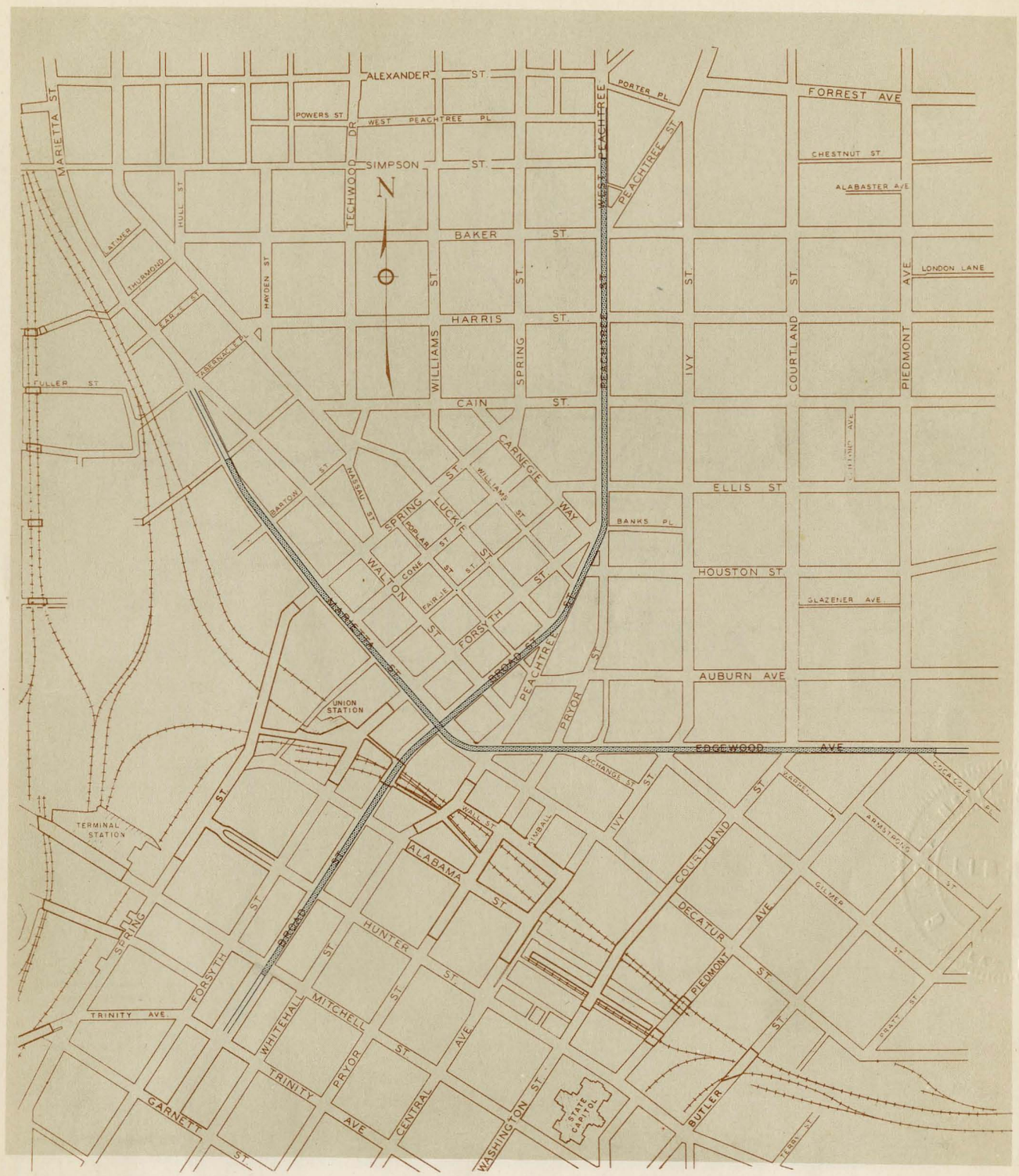
The chief characteristic of the EXISTING TRANSIT SYSTEM is that all routes (except feeder bus routes) converge on the central business district. The Market Survey of 1944 disclosed, however that only 38% of all inbound passengers have destinations in this central area. A great many people unwillingly ride through the area of greatest delays. They would be better served in many cases by crosstown transit lines.



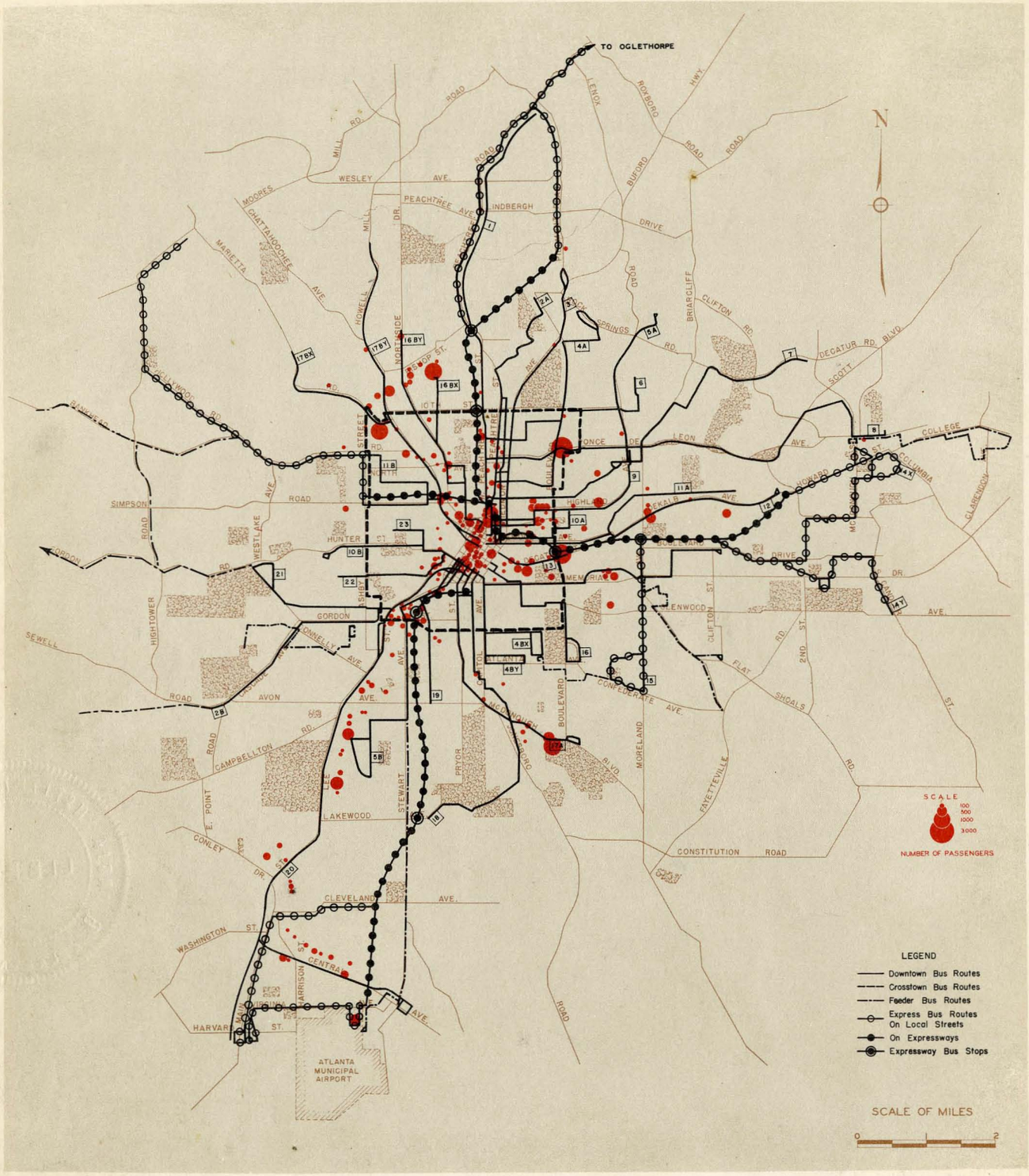
THE TRANSIT SYSTEM ROUTE MAP (PROPOSED—INITIAL STAGE) shows certain changes which would be necessary and desirable to adjust routes to proposed major streets, one-way streets and street extensions. Several changes which ultimately would become necessary because of construction of the expressways should be made initially to avoid a double upset in the habits of transit patrons. A belt line of cross-town routes intercepting all radial routes at a distance of one to two miles from the center of the city would save many patrons from circuitous riding and reduce the volume of bus traffic in the congested central area.



THE TRANSIT SYSTEM ROUTE MAP (PROPOSED—SECOND STAGE) shows recommended express bus service on the expressways. Transit patrons living in the outer areas and working or shopping in the central business district would be the principal beneficiaries. Express stops at approximately one-mile intervals, however, would permit patrons to use the express service to advantage in reaching certain outlying business centers and industrial areas. Approximately 20% of all transit passengers woulduse the express buses on the complete expressway system.



Physical improvements to the street system and modernization of the transit system should forestall the need for TROLLEY BUS SUBWAYS in the downtown area for a number of years. The time can be foreseen, however, when Atlanta and its traffic will grow to such proportions that subways along the routes indicated not only will be desirable but almost imperative.



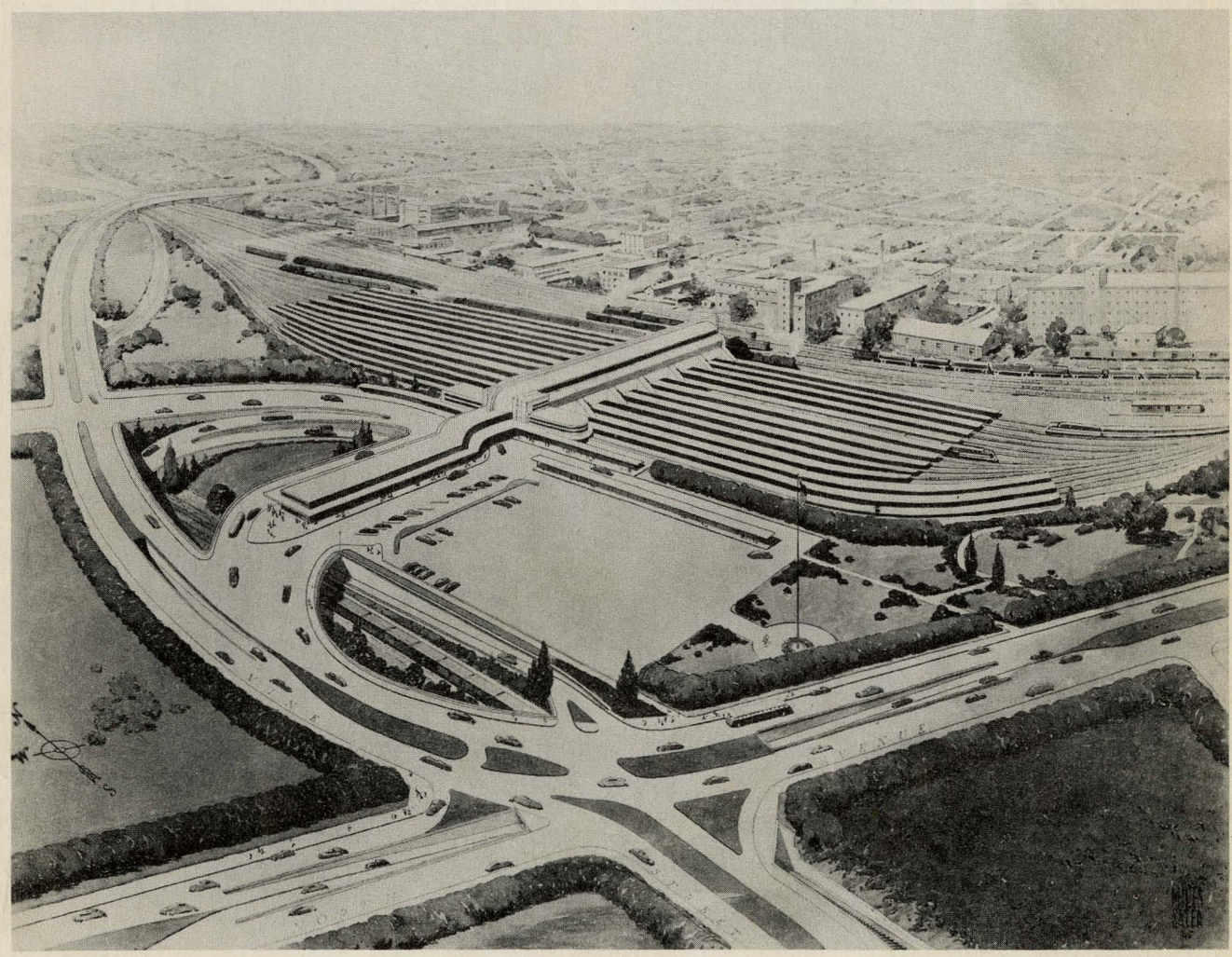
The areas of the circle on this SPOT MAP OF INDUSTRIAL EMPLOYMENT are proportional to the number of people working in commercial or industrial establishments at approximately the locations indicated. The map shows a wide-spread distribution of workers calling for a correspondingly wide network of transit routes to tie together the residential and employment areas.

RAIL PASSENGER TERMINAL

Atlanta is one of the most important railroad centers in the southeast for passenger traffic. Eight important railroads serve the city and there is much interchange of passengers between them as well as heavy travel to and from Atlanta for business and pleasure.

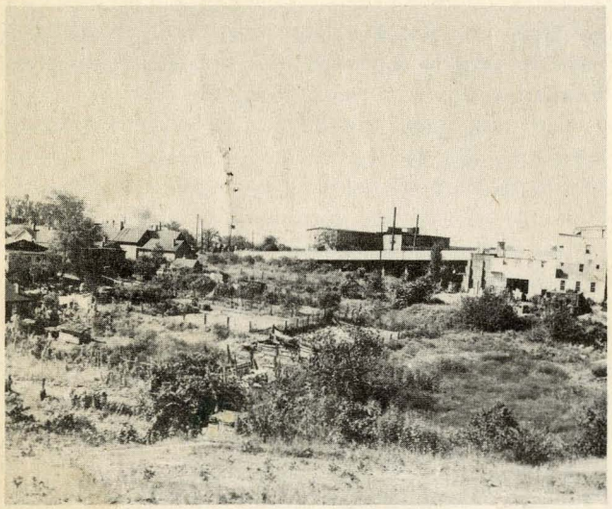
At the present time passenger traffic is divided between two downtown stations, with a number of trains being switched at considerable cost and nearly an hour's delay to serve both stations. Many passengers must go from one station to the other in changing trains, and the general confusion of a two-station town confronts travelers to a marked degree.

Our assignment in respect to railroad passenger terminals was to determine whether or not a single station to serve all railroads was reasonably practicable from the physical and operational standpoint, and if so, where such a station should be located. It was determined that a joint terminal would be feasible only if



The architecture of the PROPOSED RAILROAD STATION would be appropriate to the purpose it is to serve. The motivating plan in the design was to segregate various functions so that movement of incoming and outgoing passengers, visitors, employees, baggage, and mail would be carried on with minimum conflict. The station would be surrounded by parks and landscaped areas affording a pleasing first impression on visitors.

located along the tracks of the Southern Railway and the Nashville, Chattanooga, & St. Louis Railway at some point north of the present Terminal Building. Any other general locations would involve either excessive dead mileage of passenger train operation or too much interference with freight facilities and freight train movements.



This view of the site of the proposed railroad station shows the generally undeveloped nature of the neighborhood.

Available Sites

The first site studied lies just north of the present Union Depot and Terminal Station in the area bounded by Simpson Street on the north, Marietta Street on the east, and Elliott Street on the west. It was found that this site would be costly because of existing improvements. The principal objection to this location is that the cost would be excessive because of the piece-meal method of construction which would be required. A station so close to the business district, furthermore, would aggravate the traffic situation rather than relieve it.

The second site lies south and west of the Southern Railway and N. G. & St. L. Railway tracks in an area bounded on the south by North Avenue and on the west by a proposed new major thoroughfare connecting Northside Drive and Stewart Avenue along the line of Vine Street. This location was found to have numerous advantages and is herewith recommended.

This site is easily accessible over existing tracks to all railroads serving Atlanta. It is convenient to the Southern Railway's North Avenue Equipment Terminal and closer to the Seaboard Air Line and the N. C. & St. L. Yards than the present passenger stations. The wye tracks of the Southern, the S. A. L. and the N. C. & St. L. are only one mile north of the proposed site.

The tract needed for the station, roadways, parking space and landscaped areas is largely vacant or occupied by sub-standard dwellings. Land and demolition costs would be low, permitting good track layouts, wide platforms, ample traffic facilities, generous parking space, and broad lawns.

The station has been so arranged that trucks, taxicabs and private automobiles would approach the station on separate roadways. These vehicles would return to the traffic streams on the arterial streets serving the station, with a minimum of friction and conflict.

Passengers entering the station would normally pass through the waiting rooms, but could avoid them if they wished. Passengers leaving trains could reach buses, taxicabs or automobiles without entering the ticket concourse or waiting rooms.

Separate platforms would be provided for passengers and baggage to avoid mutual conflicts and reduce the length of station stops.

While the present direct transfer of mail bags from the Post Office to the Terminal could not be duplicated at the new station, the trip by truck via the proposed Hunter Street viaduct and Vine Street arterial would take only five minutes.

The cost of the property needed for the proposed station would be approximately $150,000. The construction cost including all track work would be about $4,500,000.

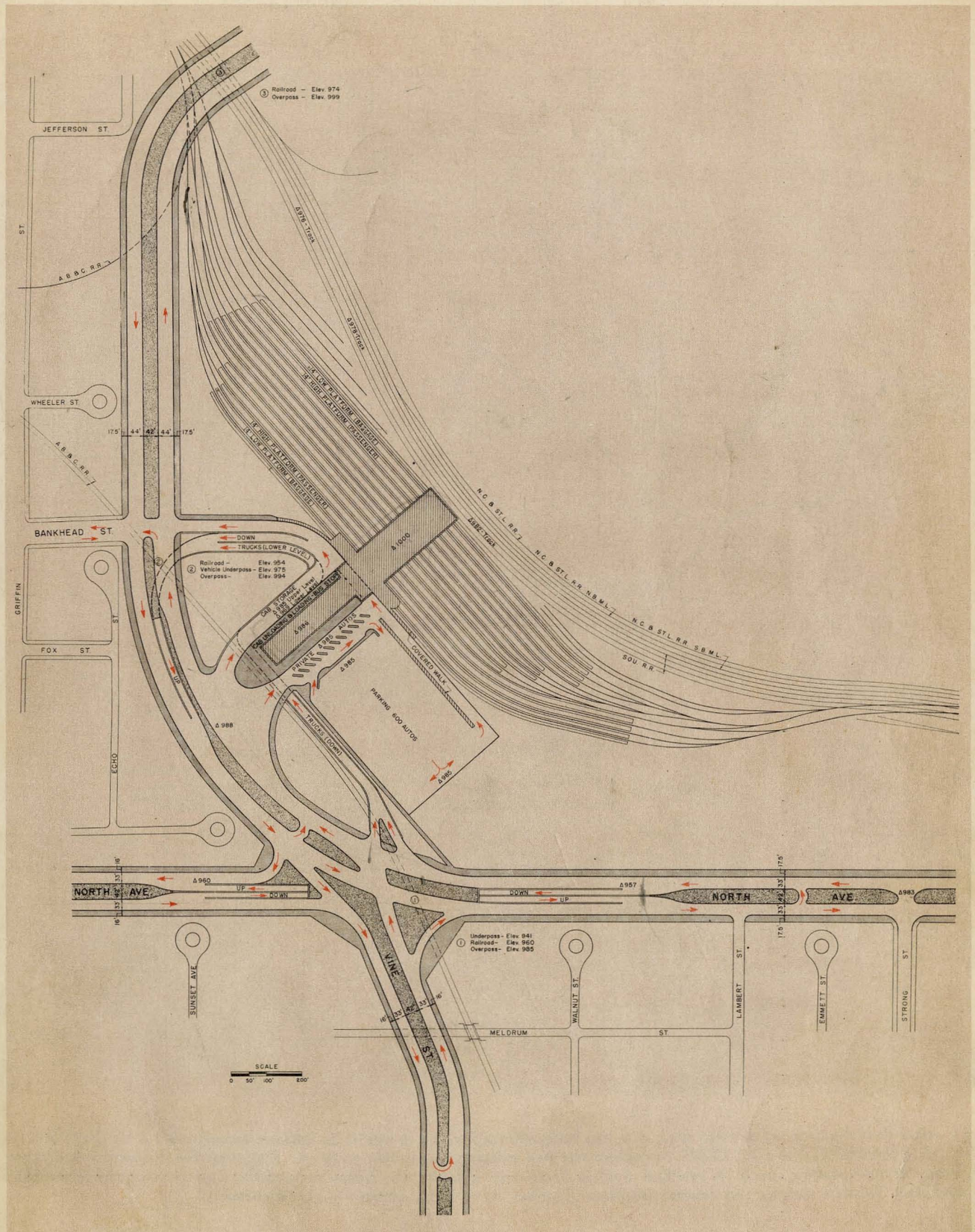
There would be no interference with freight or passenger train operations during construction. Present stations would be used until the overnight change-over to the new station.

The station could have 10 or more tracks, with capacity for 18 to 20 passenger cars each. All tracks would run through the station and connect to main line tracks at both ends except the short spurs for the spotting of sleeping cars. The station would provide adequately for Atlanta's needs within the predictable future.

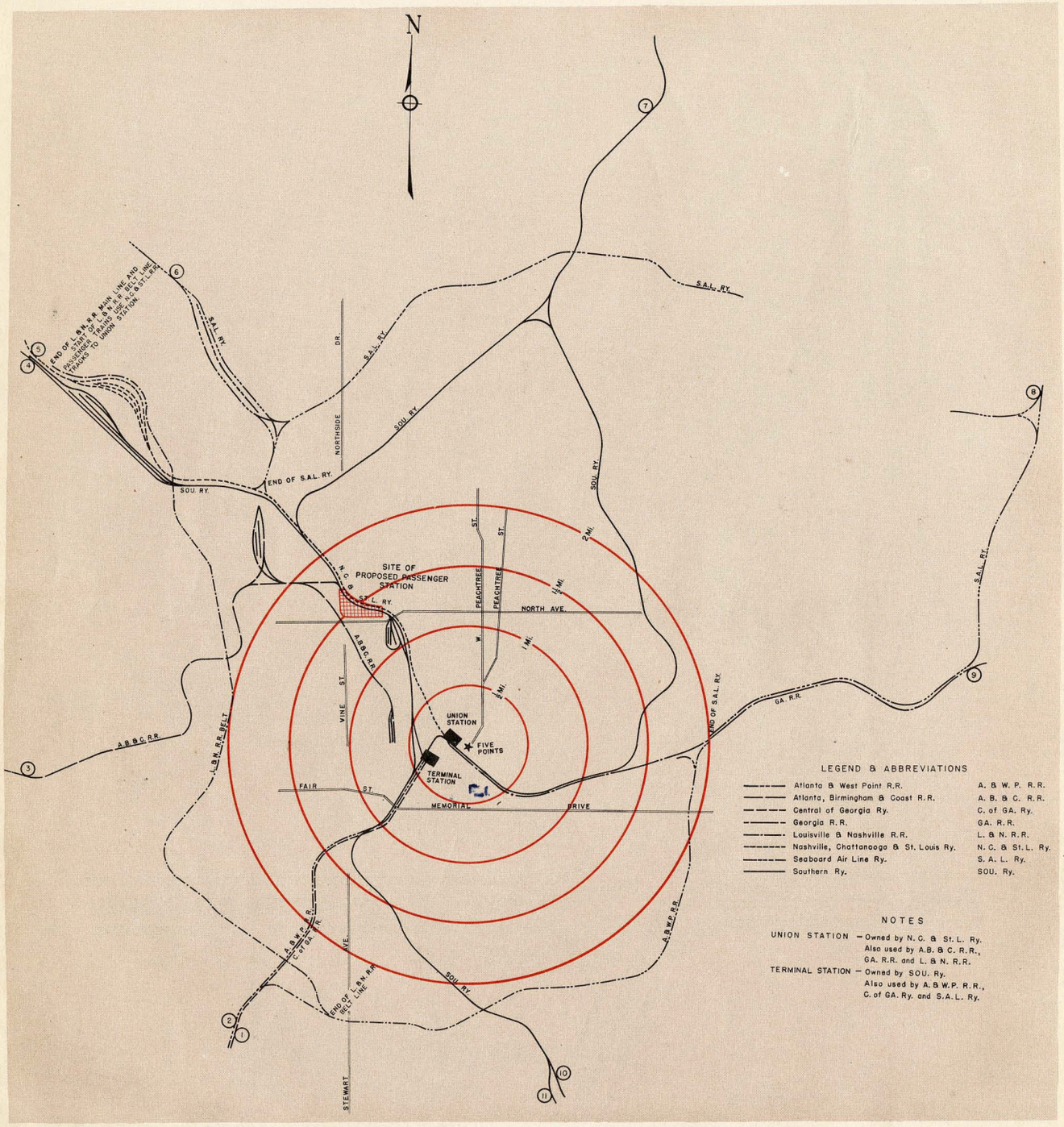
While the proposed station would be one and one-half miles from the central business district, it would be closer in point of time than the present stations are during periods of heavy traffic. The center of population of the city, moreover, is some distance north of the business district, as is the center of gravity of the city's hotels.

The proposed major street system would serve the new station and upon the completion of the expressways would tie it to the airports, the bus terminal, and the suburbs. From the traffic standpoint the net result of building the new station would be to reduce the total vehicle-miles of travel, particularly on the more congested streets.

Shifting passenger business from the existing downtown stations would release valuable space for expansion of freight terminals. Truck movements to and from these terminals would be largely over the lower-level street system and would not interfere with the movement of other traffic in the downtown area.



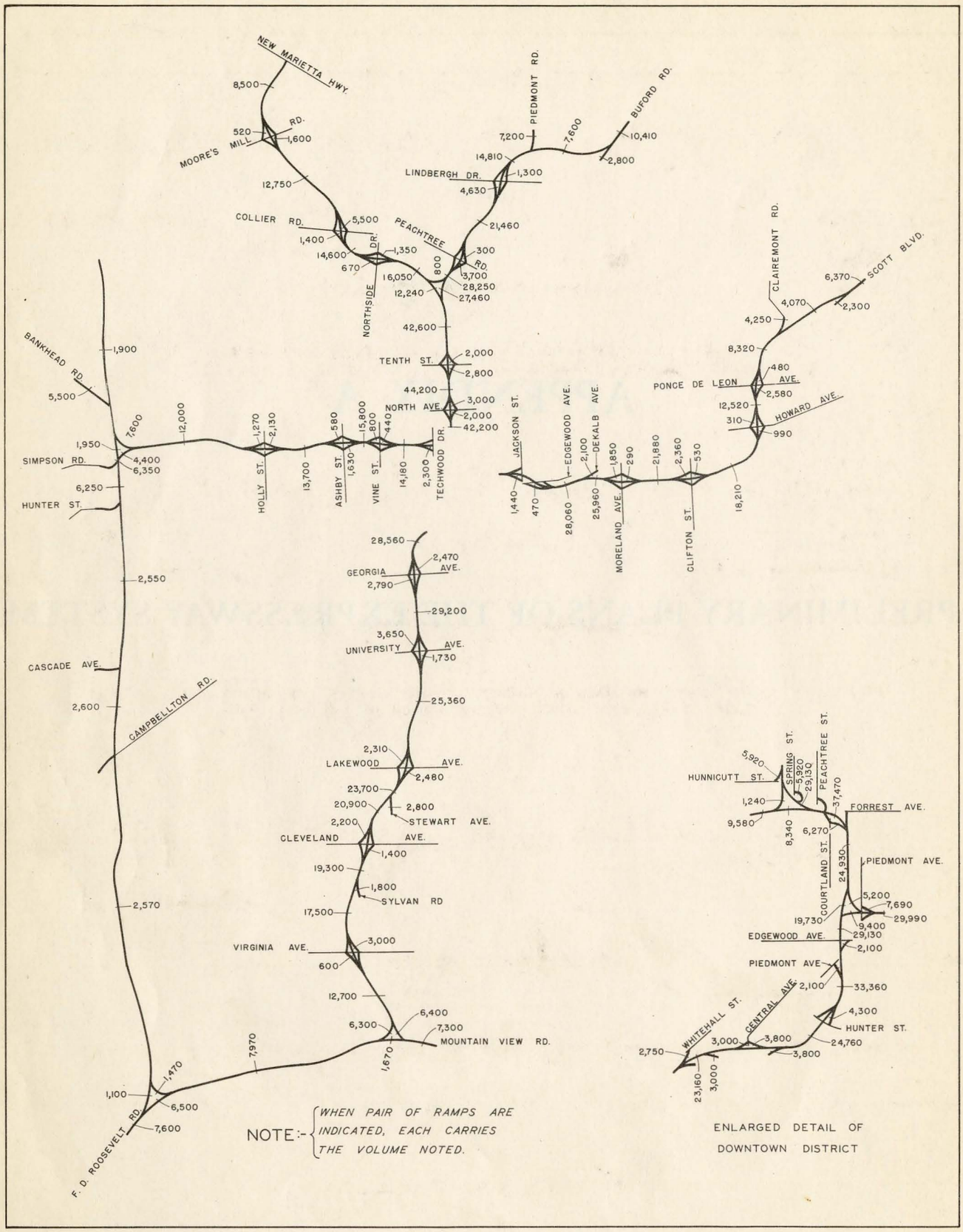
The PROPOSED RAILROAD PASSENGER STATION would be readily accessible to each of the eight railroads serving Atlanta. The station would relieve the downtown area of a great deal of street traffic, yet incoming passengers could reach the central area or any part of the city quickly.



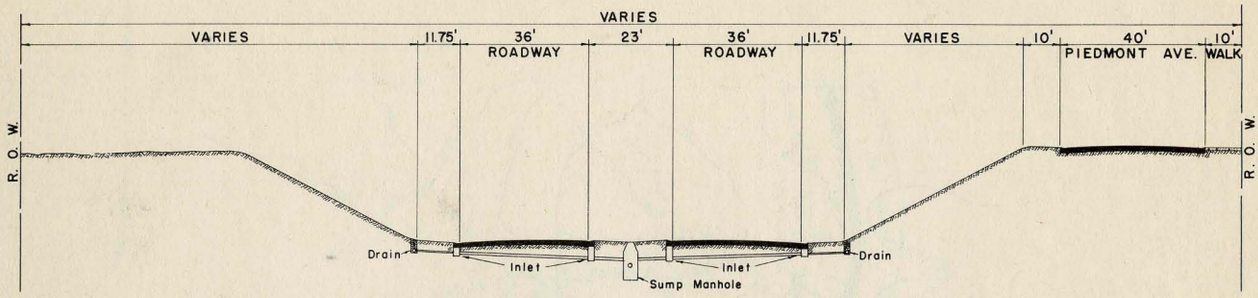
After investigation of several sites, one has been selected where it would be feasible to construct a UNION RAILROAD PASSENGER STATION to replace the two existing downtown stations. Removed from downtown congestion, the new station could be reached quickly from any hotel or residential area of the city. Stations in other cities similarly located outside of central business districts have been outstandingly successful.

APPENDIX A

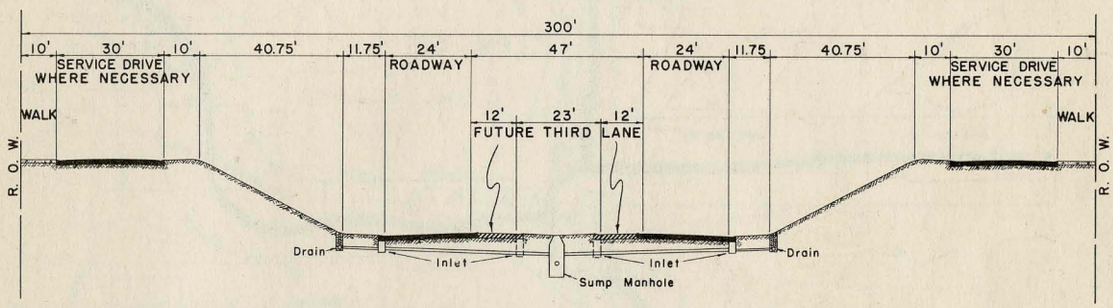
PRELIMINARY PLANS OF THE EXPRESSWAY SYSTEM



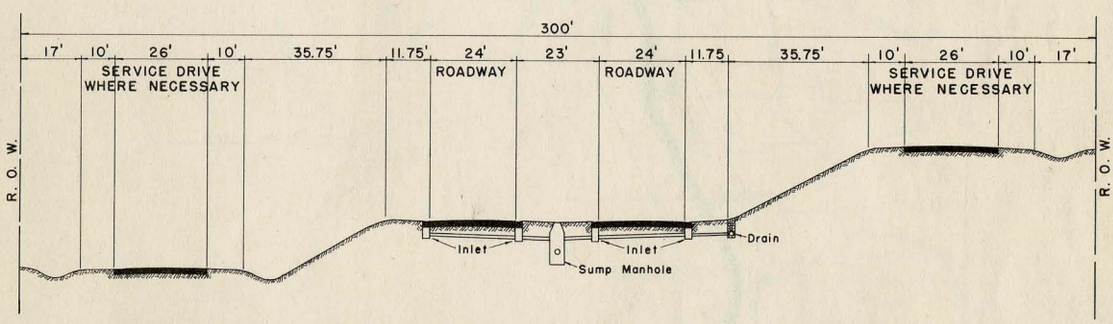
The ESTIMATED 1970 TRAFFIC VOLUMES WHICH WOULD USE THE EXPRESSWAYS AND THE ENTERING AND LEAVING RAMPS. The number of pavement lanes and ramp locations and width have been designed to accommodate the indicated volumes.



DOWNTOWN CONNECTOR BETWEEN EAST AND WEST ROUTE INTERCHANGES.
THREE LANES OF PAVEMENT IN EACH DIRECTION TO BE BUILT INITIALLY.

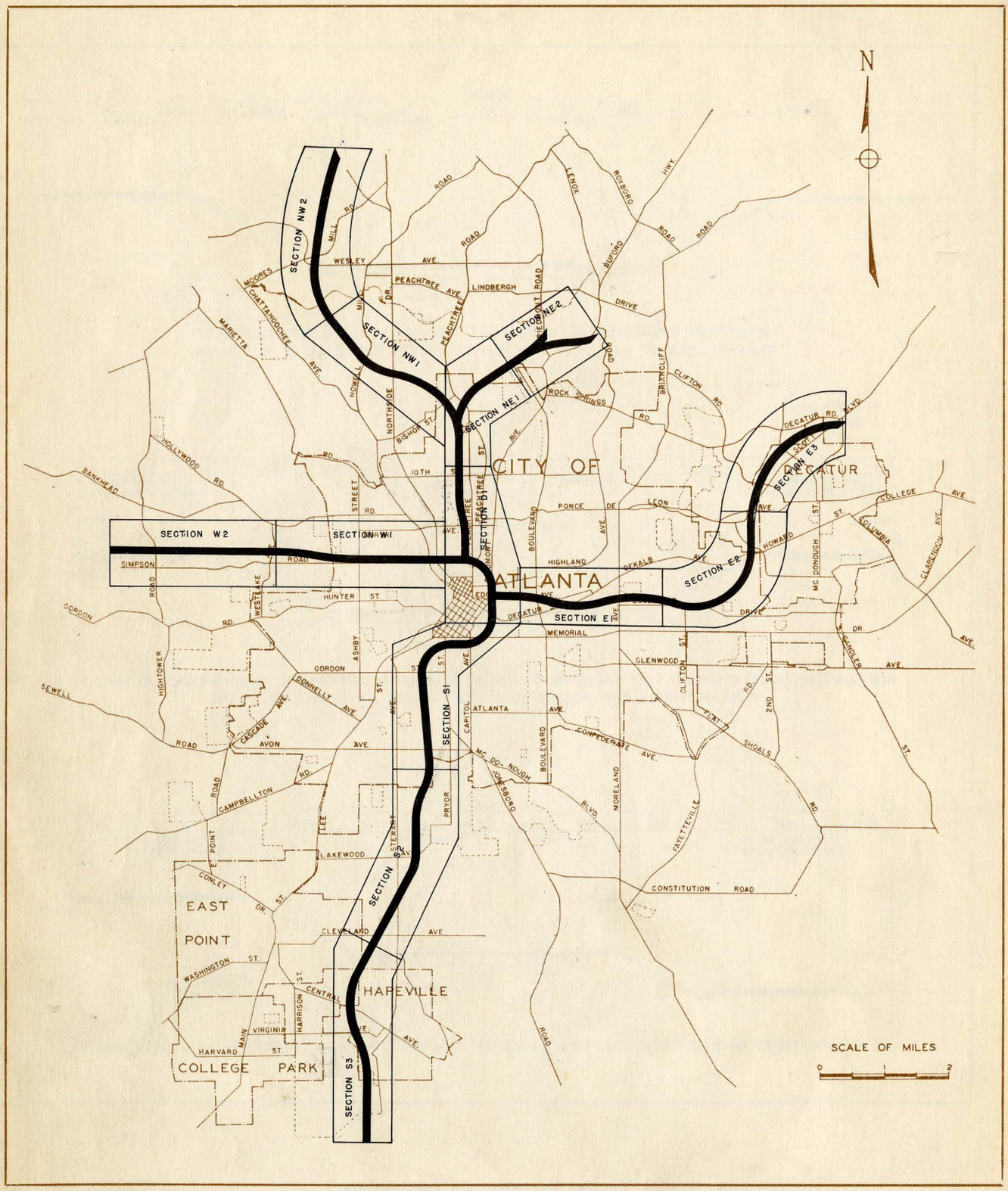


PORTIONS OF ROUTES WHERE TWO LANES OF PAVEMENT IN EACH DIRECTION ARE RECOMMENDED INITIALLY,
WITH PROVISION FOR FUTURE CONSTRUCTION OF AN ADDITIONAL LANE.



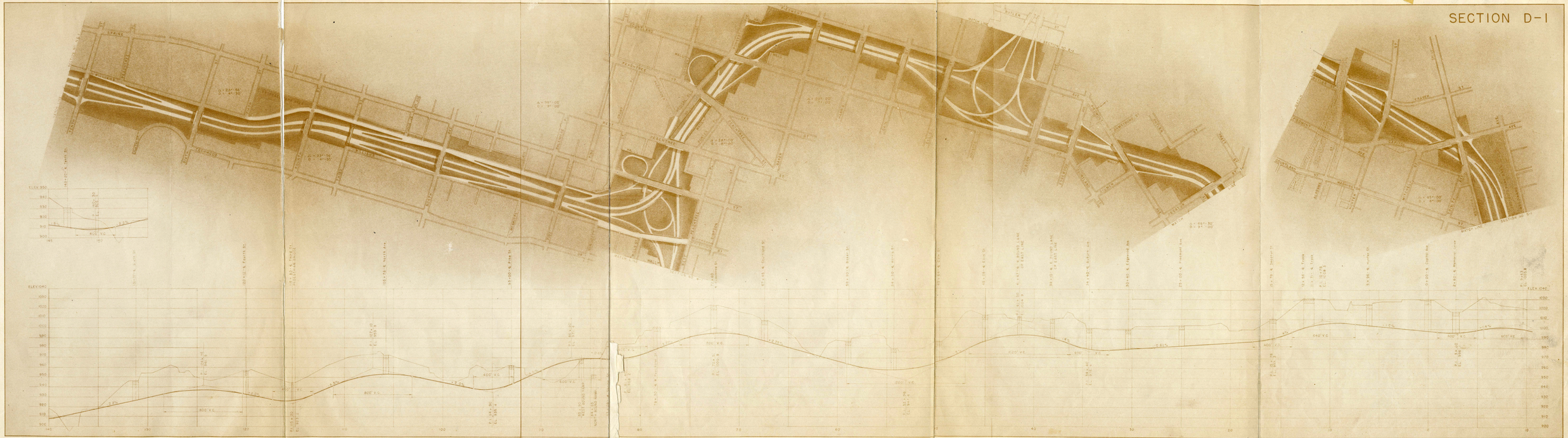
OUTLYING PORTIONS OF ROUTES WHERE TWO LANES OF PAVEMENT IN EACH DIRECTION WILL BE ADEQUATE.

Typical Expressway Cross-sections.

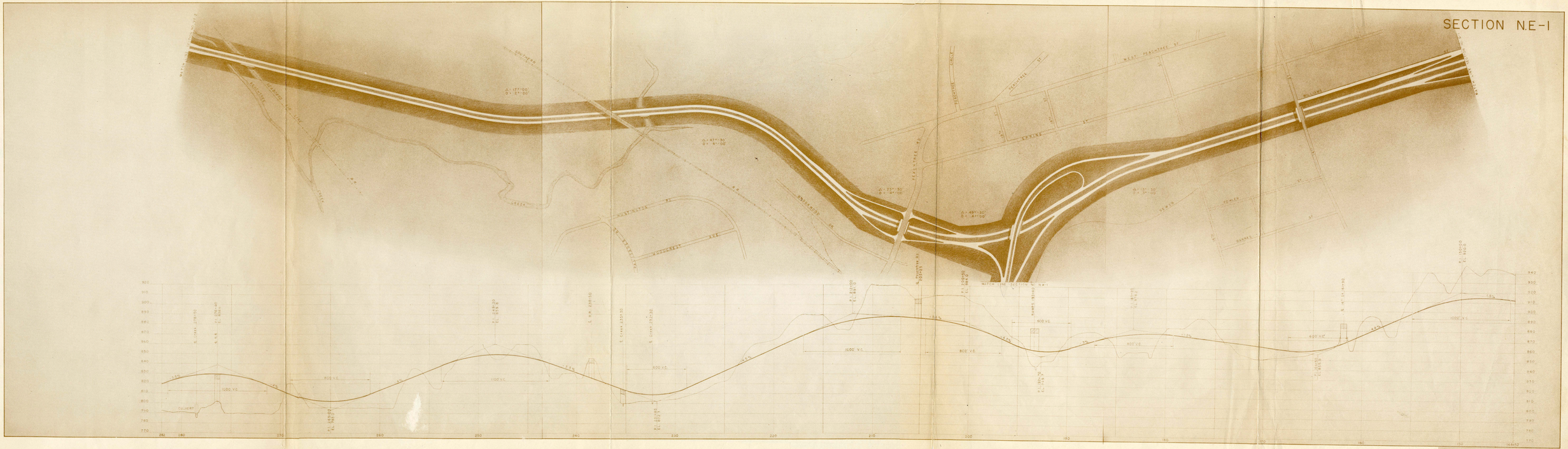


Key map of the Expressway preliminary plans.

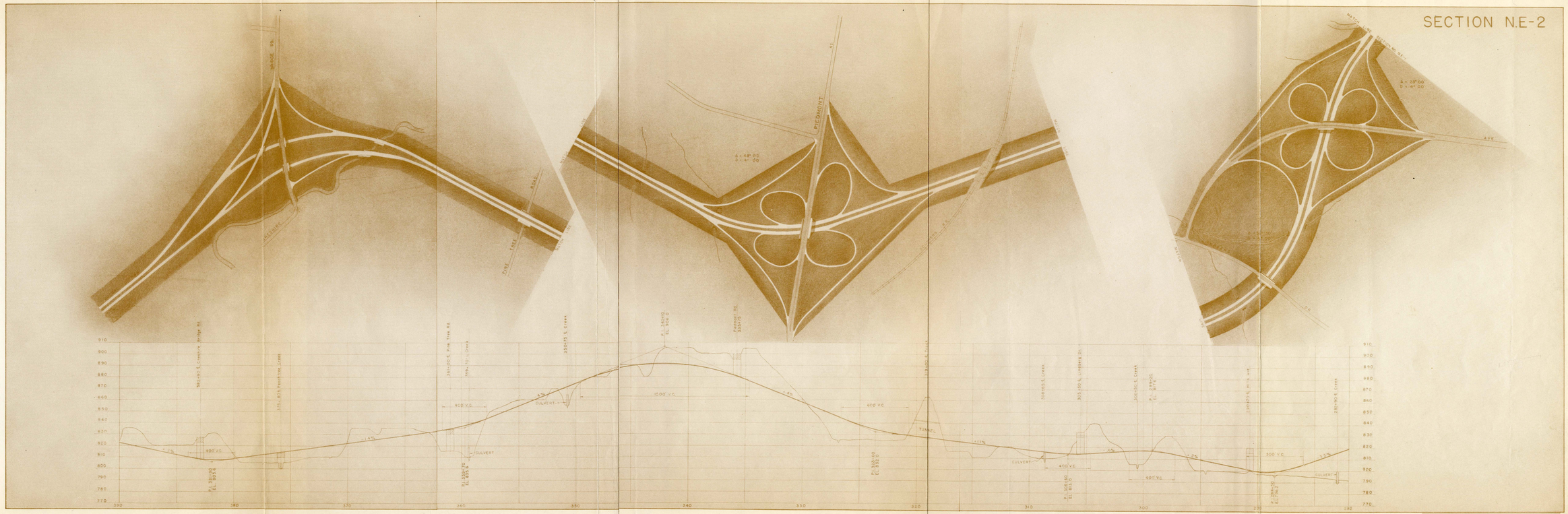
SECTION D-1



PREPARED BY H.W. LOCHNER & CO., ENGINEERS, CHICAGO, ILL.


SECTION N.E-1
MATCH LINE SECTION NO N-1
PREPARED BY H.W.LOUDON & CO. ENGINEERS, CHICAGO, ILL.

SECTION N.E-2



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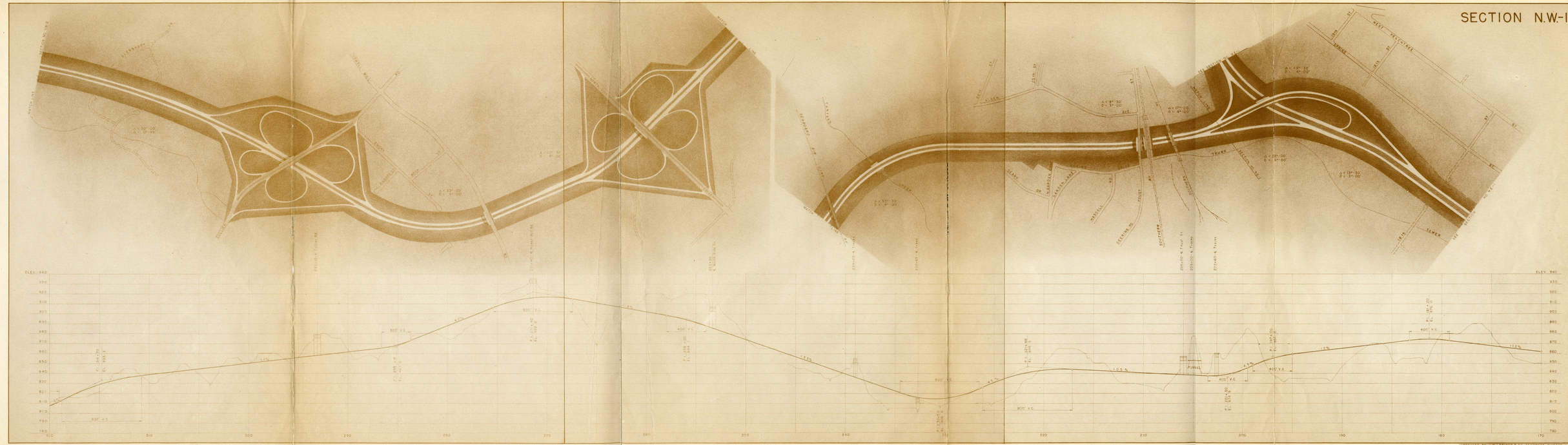
SECTION N.W.-1



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SECTION N.W.-2


ELEV.
900
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770
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430
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410
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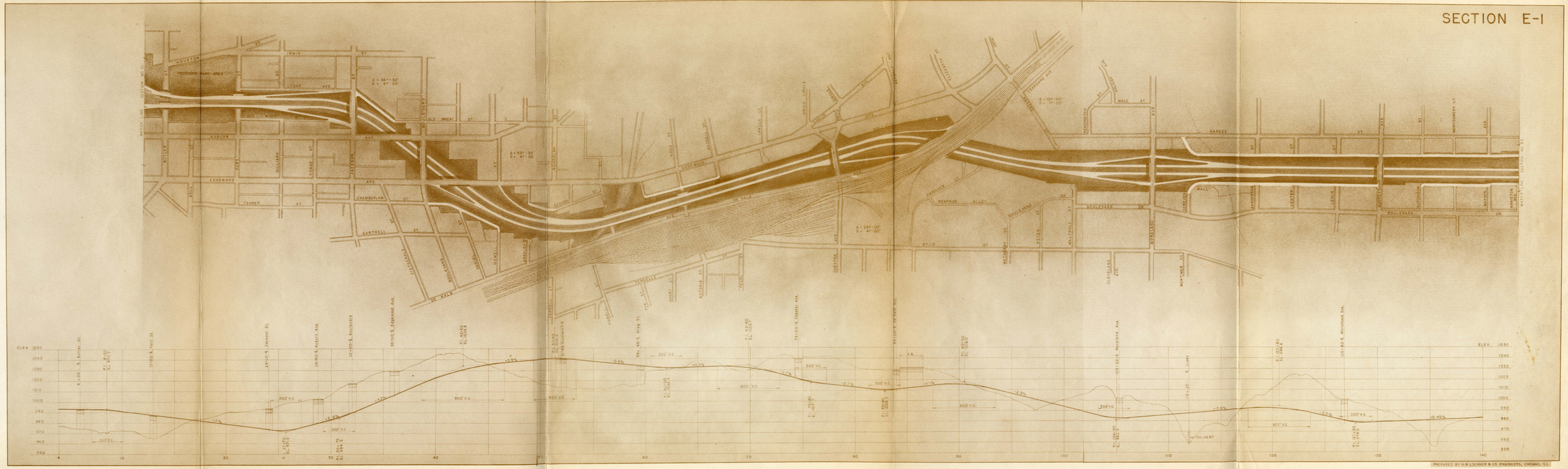
390
380
370
360
350
340
330
320
300' V.C.
600' V.C.
1200' V.C.
400' V.C.
1400' V.C.
WEST
SOUTH
CREEK
PEARL
MAPLE
ELM
OAK
WILLOW
ASH
PINE
CHERRY
WALNUT
BIRCH
CHESTNUT
SHELL
PEARL ST.
WILLOW ST.
ELM ST.
MAPLE ST.
WEST ST.
SOUTH ST.
CREEK
WATER LINE
PREPARED BY H.W. LOCHNER & CO., ENGINEERS, CHICAGO, ILL.

SECTION E-1



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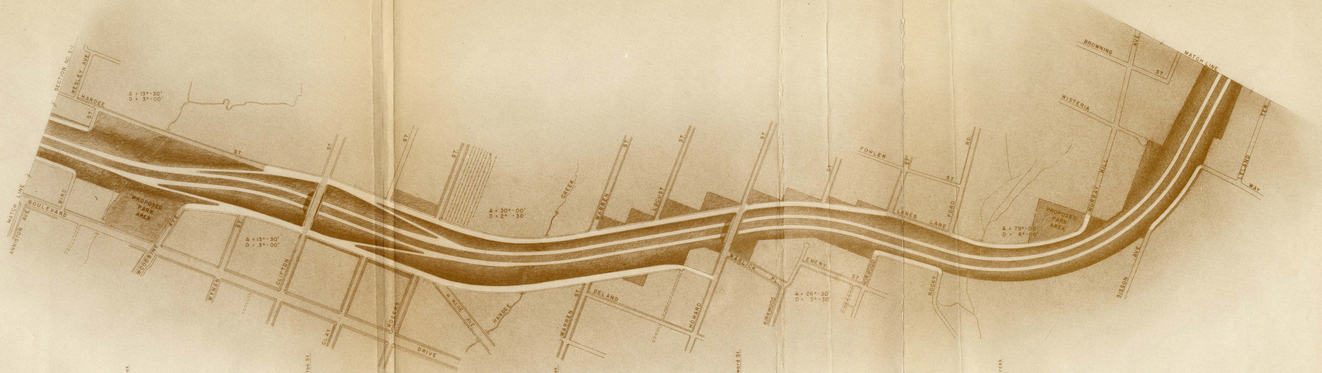
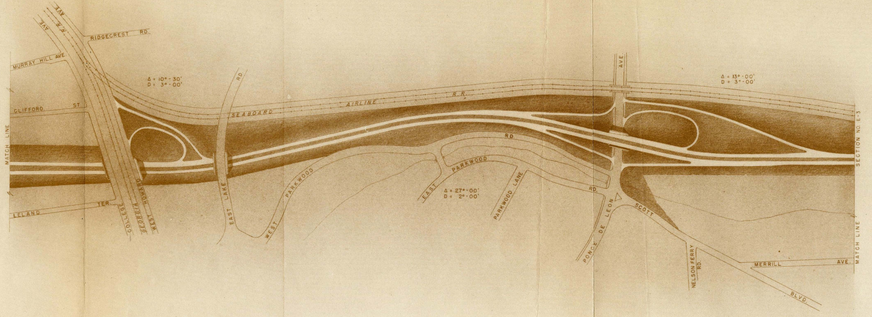
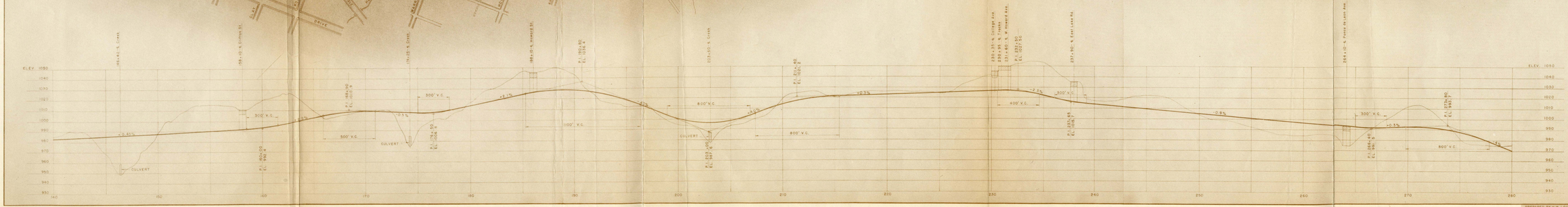
SECTION E-2







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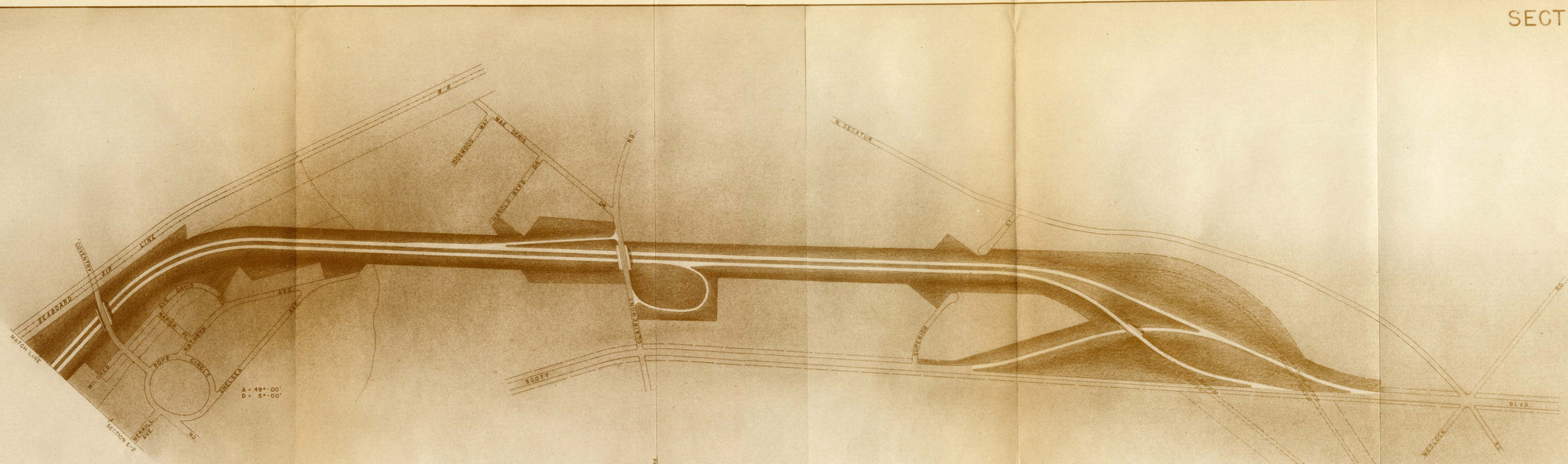
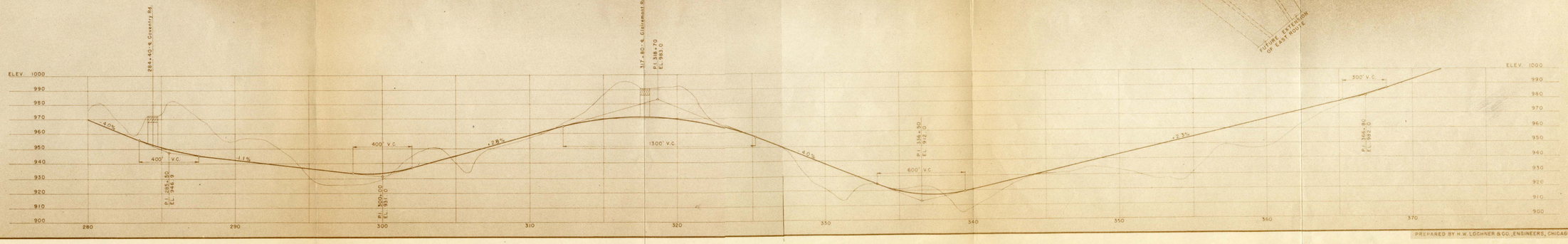
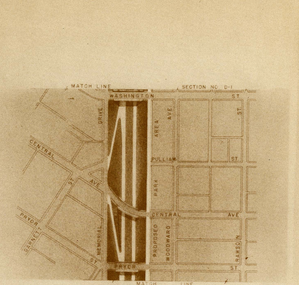
SECTION E-3

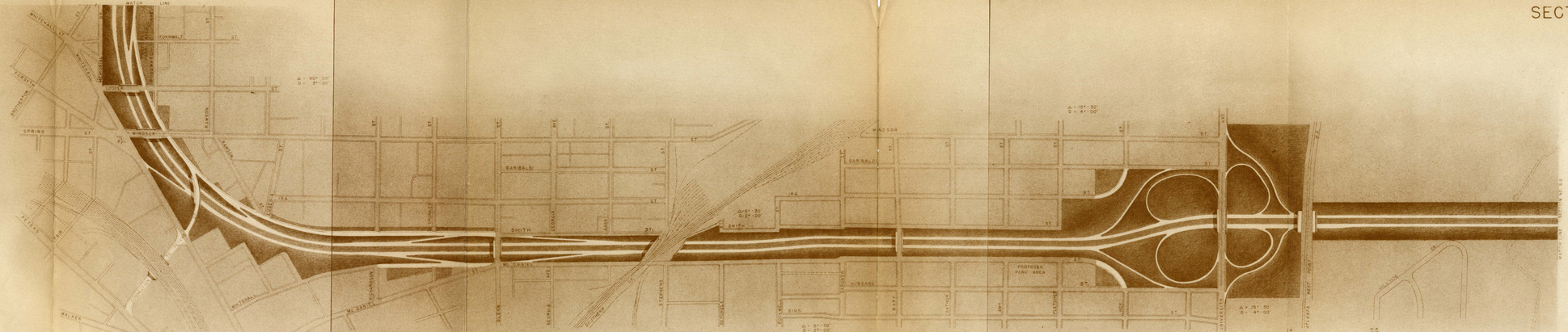


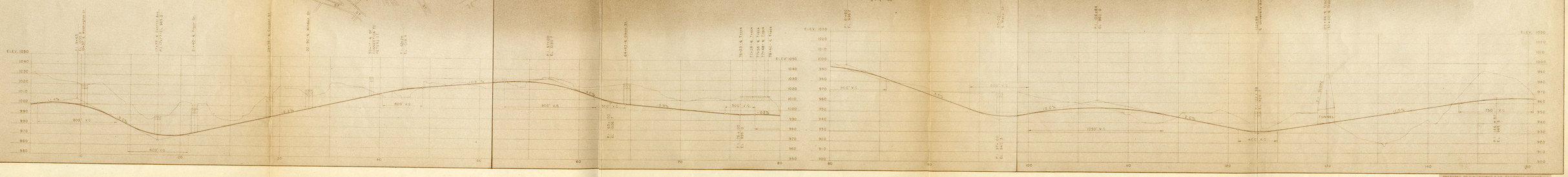


PREPARED BY H. W. LOCHNER & CO., ENGINEERS, CHICAGO, ILL.

SECTION S-1







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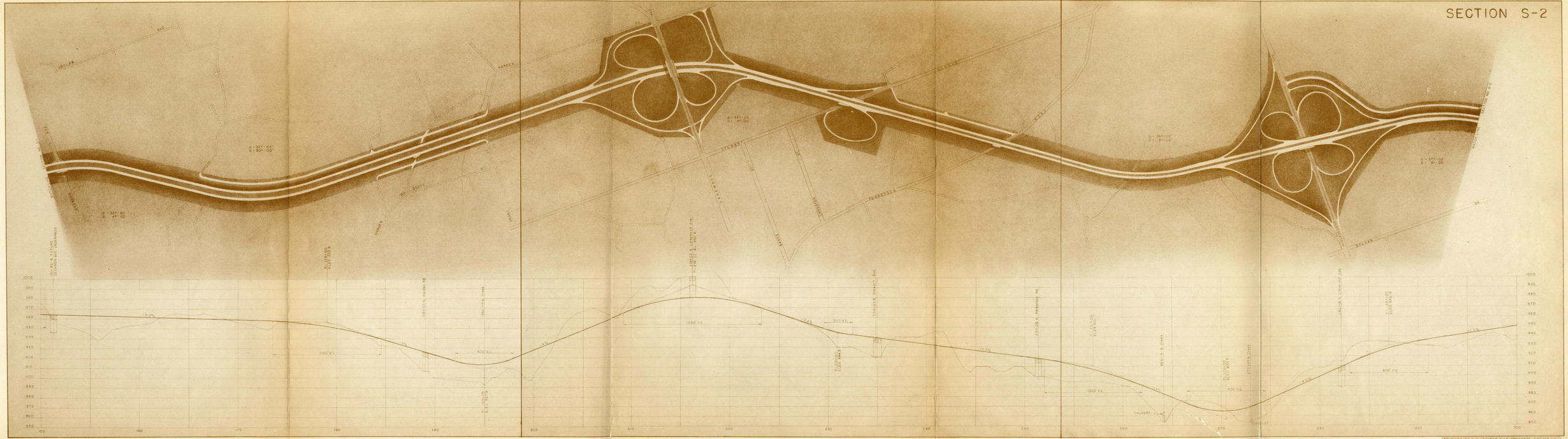
SECTION S-2



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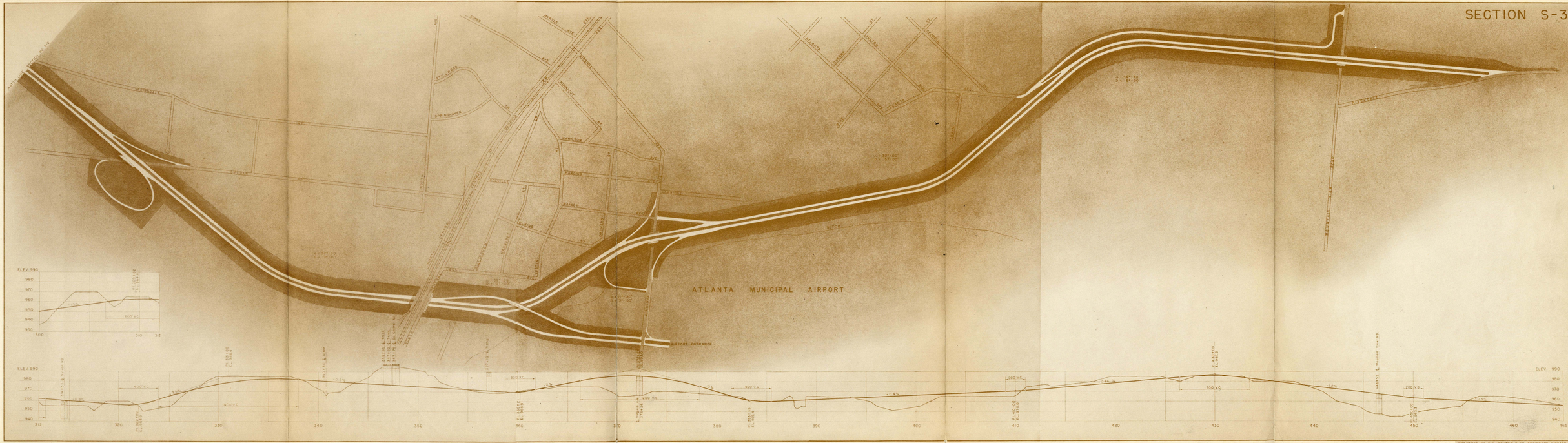
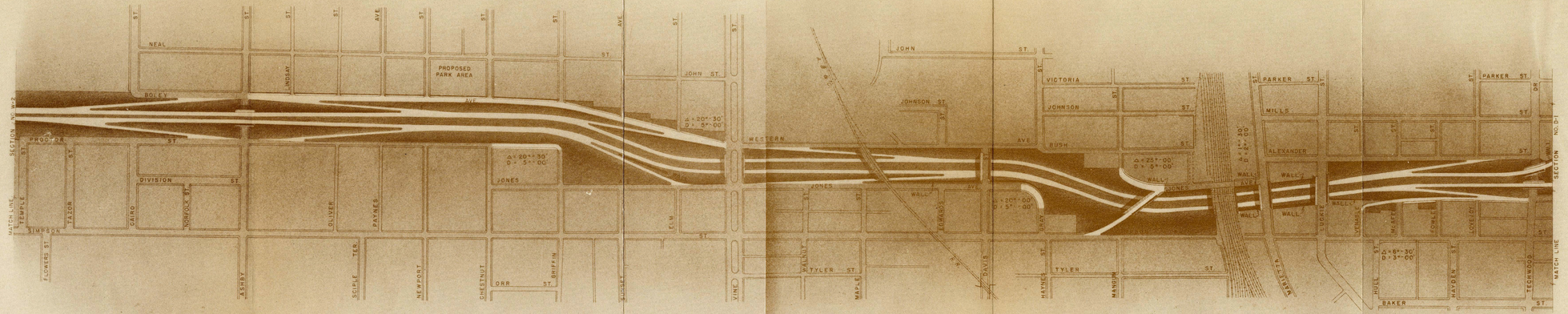
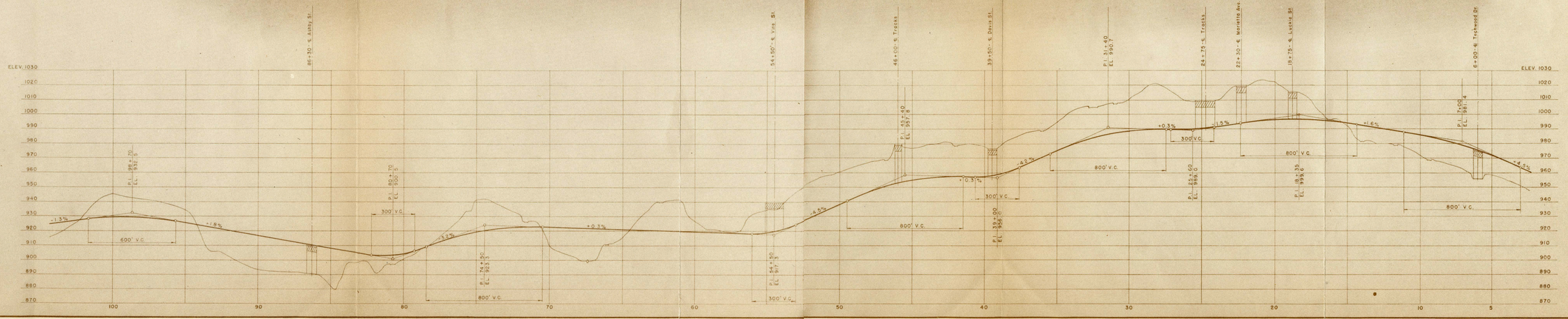


PREPARED BY R.W. LOCHNER & CO., ENGINEERS, CHICAGO, ILL.

SECTION W-I





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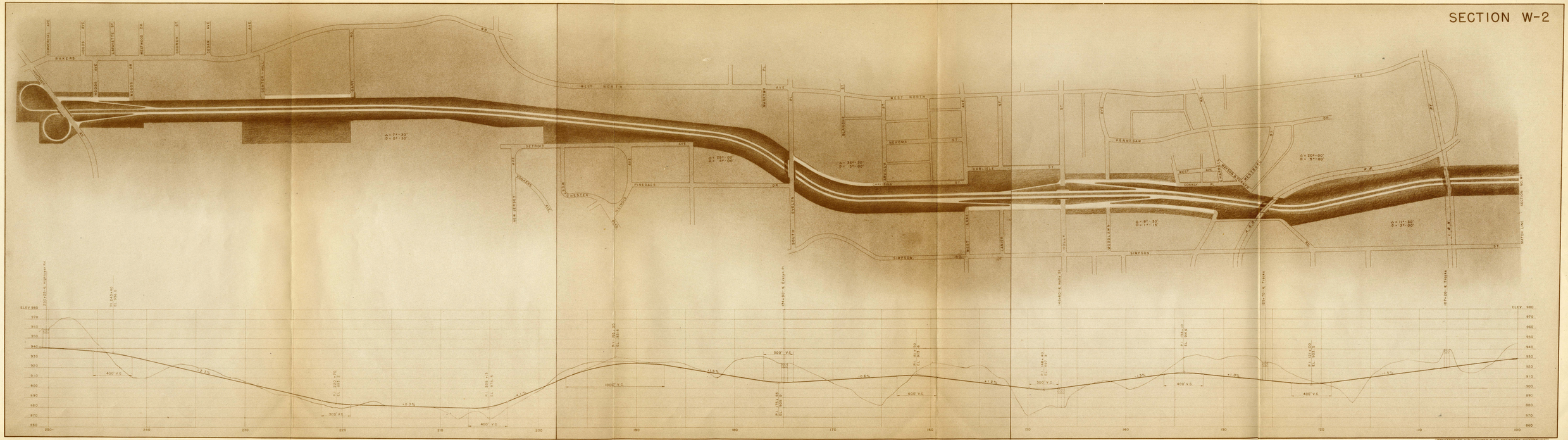
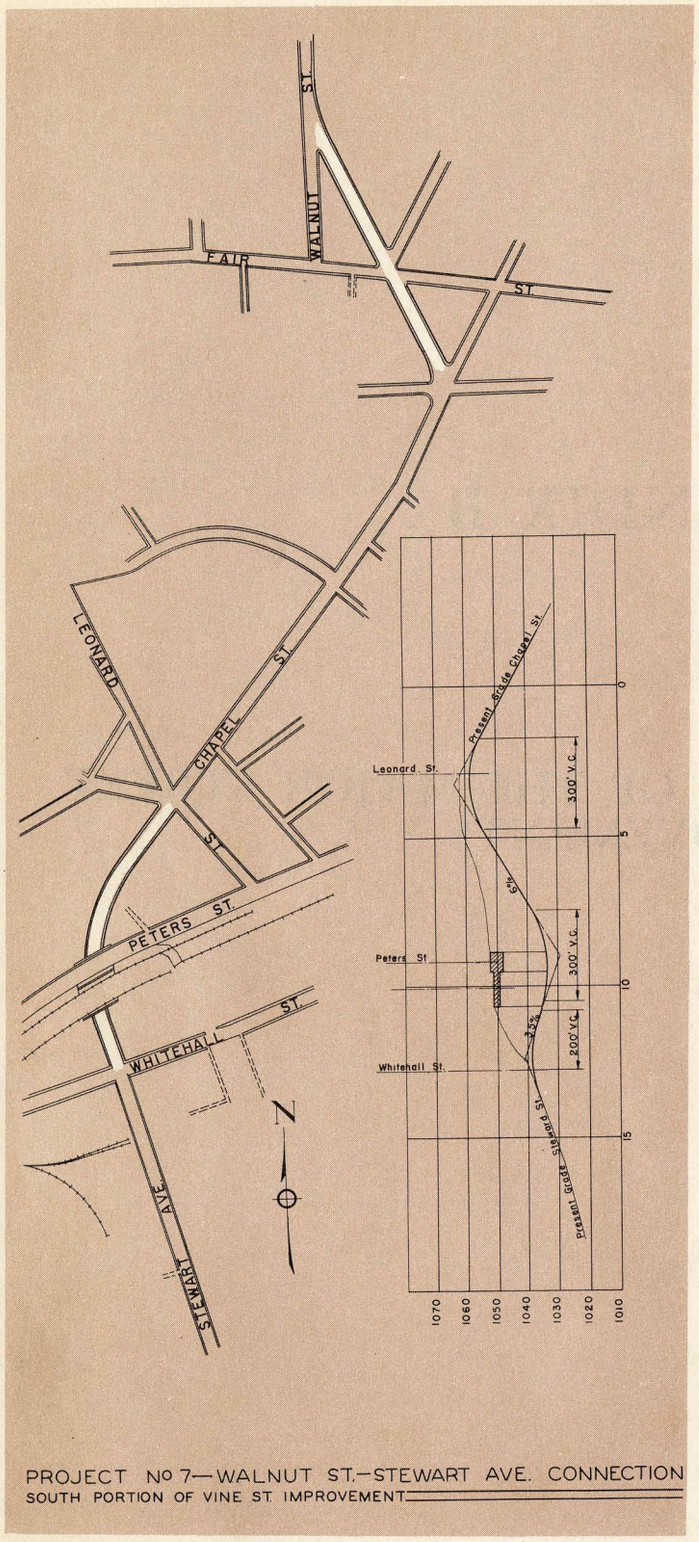
SECTION W-2



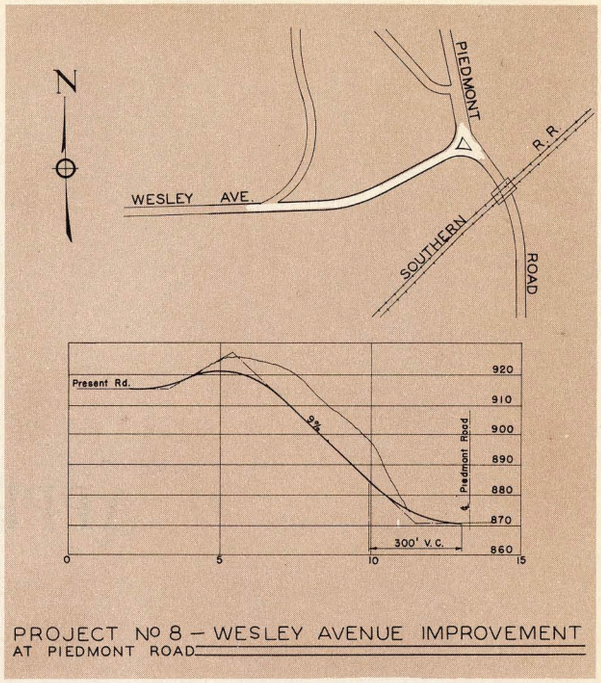
PREPARED BY H.W. LOCHNER & CO. ENGINEERS, CHICAGO, ILL.

APPENDIX B

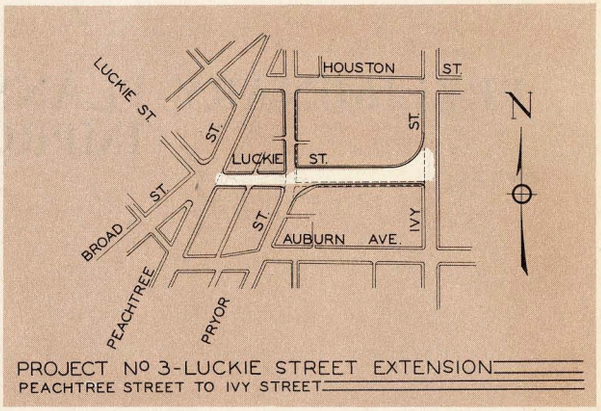
PRELIMINARY PLANS OF THE MAJOR STREET IMPROVEMENTS



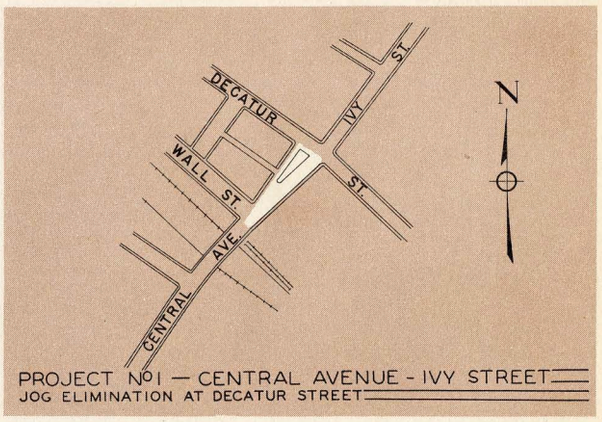
PROJECT No 7—WALNUT ST.—STEWART AVE. CONNECTION
SOUTH PORTION OF VINE ST. IMPROVEMENT



PROJECT No 8 — WESLEY AVENUE IMPROVEMENT
AT PIEDMONT ROAD



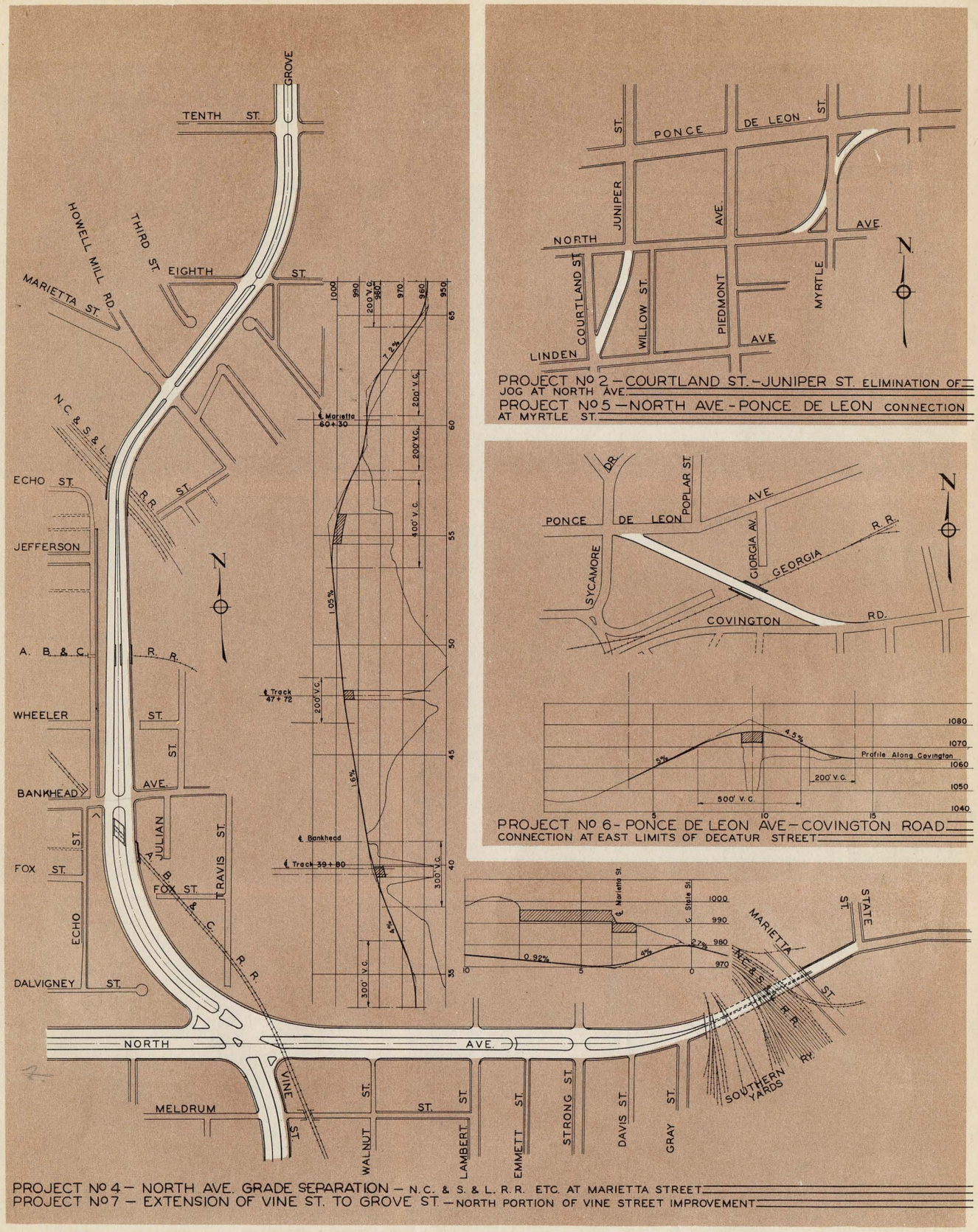
PROJECT No 3-LUCKIE STREET EXTENSION
PEACHTREE STREET TO IVY STREET



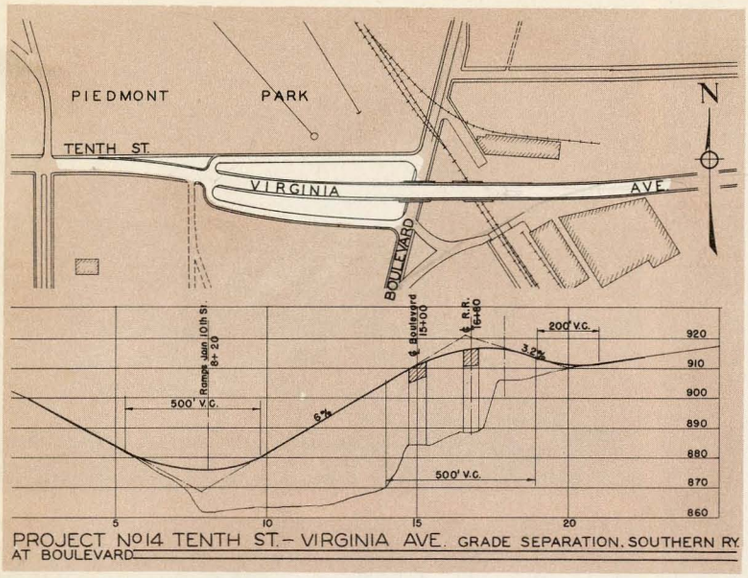
PROJECT No 1 — CENTRAL AVENUE - IVY STREET
JOG ELIMINATION AT DECATUR STREET

SCALE
0 200 400 600 800

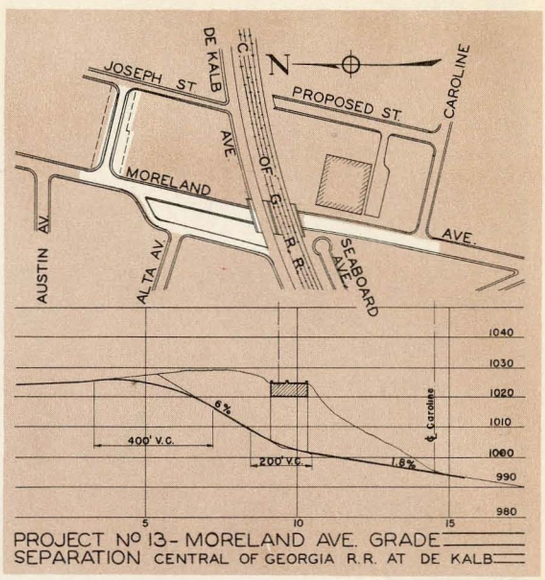
MAJOR STREET IMPROVEMENTS—First Priority



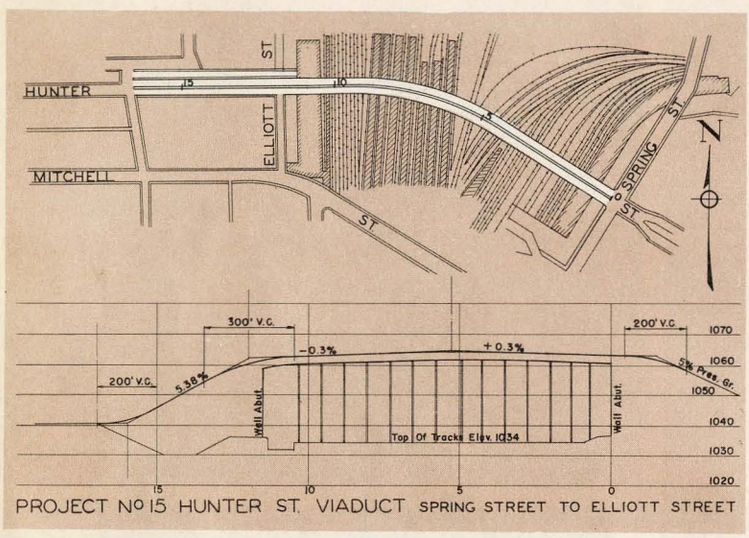
MAJOR STREET IMPROVEMENTS—First Priority



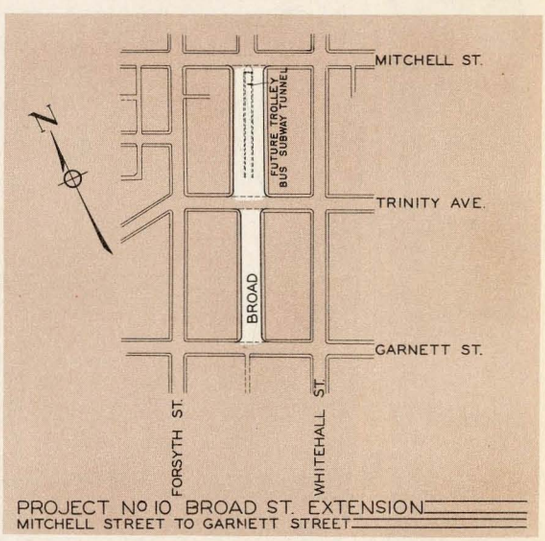
PROJECT Nº 14 TENTH ST.– VIRGINIA AVE. GRADE SEPARATION, SOUTHERN RY. AT BOULEVARD



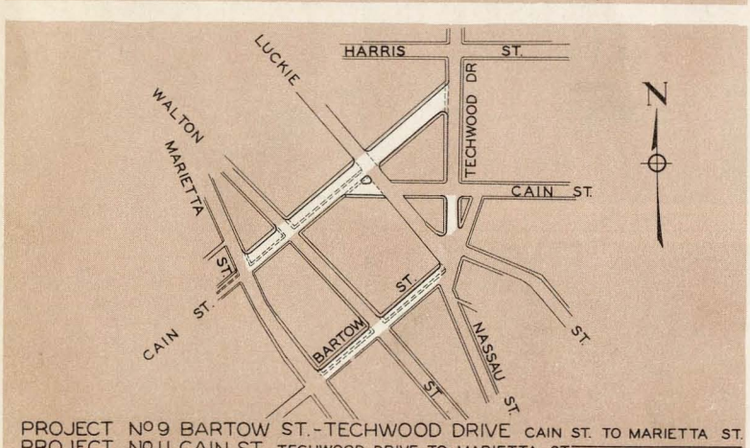
PROJECT Nº 13 – MORELAND AVE. GRADE SEPARATION CENTRAL OF GEORGIA R.R. AT DE KALB



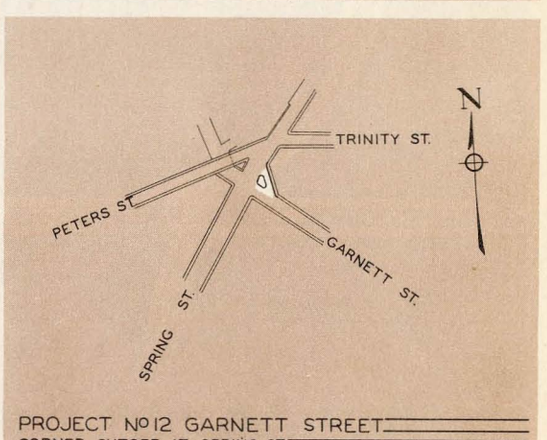
PROJECT Nº 15 HUNTER ST. VIADUCT SPRING STREET TO ELLIOTT STREET



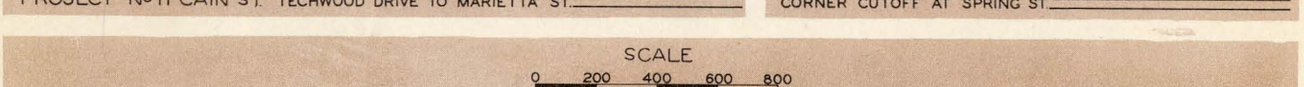
PROJECT Nº 10 BROAD ST. EXTENSION MITCHELL STREET TO GARNETT STREET



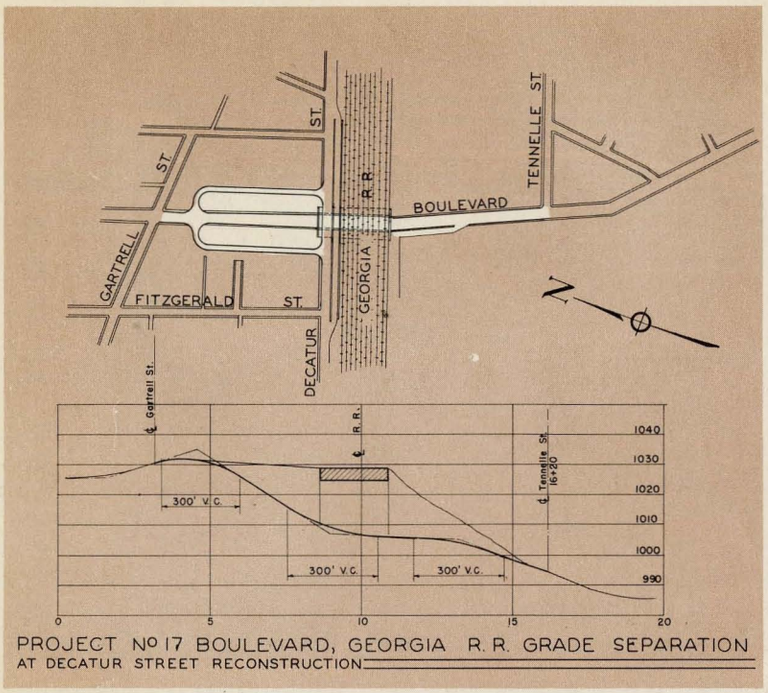
PROJECT Nº 9 BARTOW ST.–TECHWOOD DRIVE CAIN ST. TO MARIETTA ST.
PROJECT Nº 11 CAIN ST. TECHWOOD DRIVE TO MARIETTA ST.



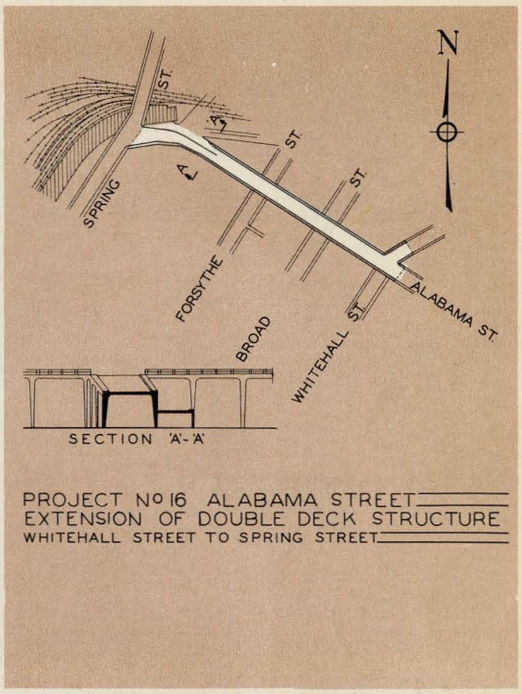
PROJECT Nº 12 GARNETT STREET CORNER CUTOFF AT SPRING ST.



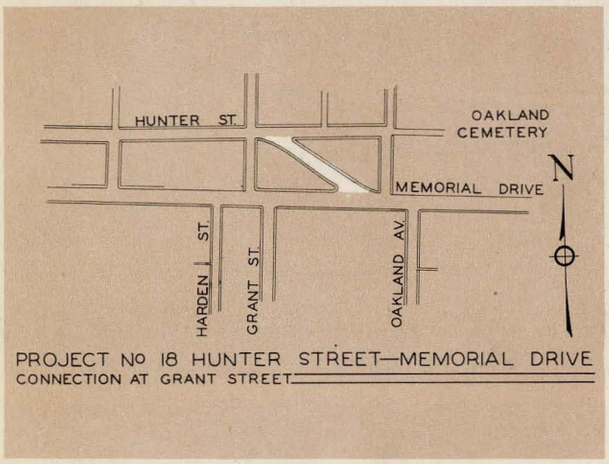
MAJOR STREET IMPROVEMENTS—Second Priority



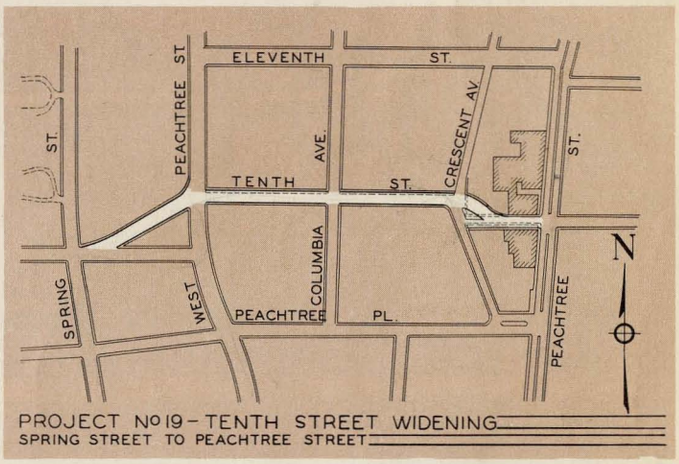
PROJECT Nº 17 BOULEVARD, GEORGIA R. R. GRADE SEPARATION
AT DECATUR STREET RECONSTRUCTION



PROJECT Nº 16 ALABAMA STREET
EXTENSION OF DOUBLE DECK STRUCTURE
WHITEHALL STREET TO SPRING STREET



PROJECT Nº 18 HUNTER STREET—MEMORIAL DRIVE
CONNECTION AT GRANT STREET

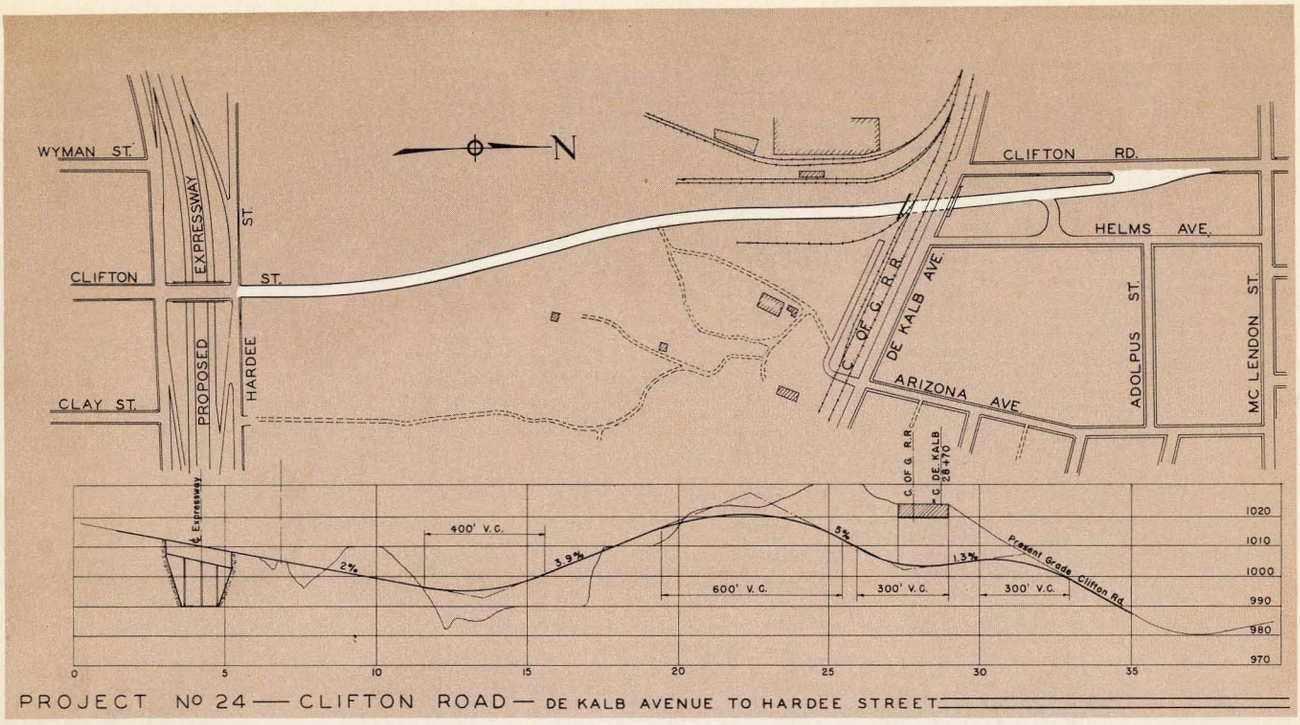


PROJECT Nº 19 - TENTH STREET WIDENING
SPRING STREET TO PEACHTREE STREET

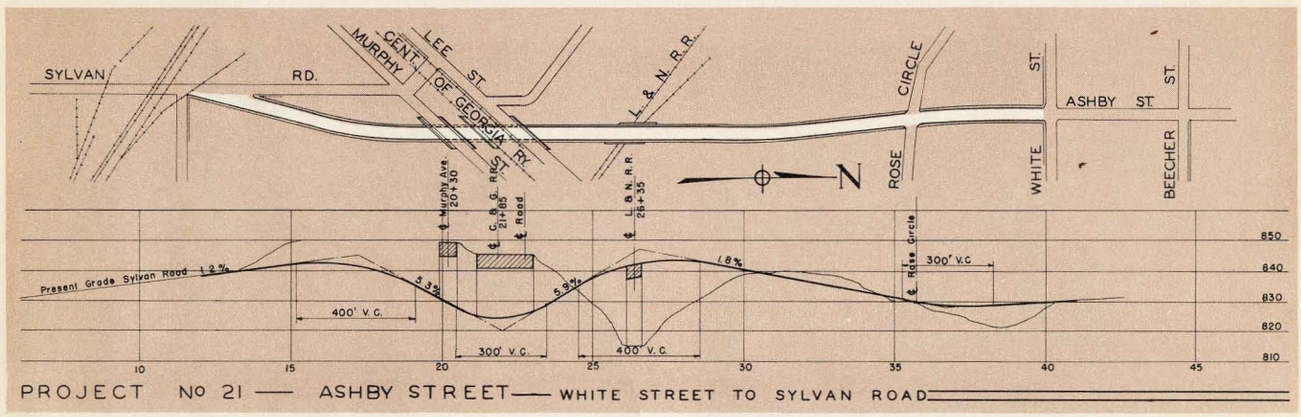
Included in the third priority of major street improvements is the West By-Pass Route (Project Number 20) along the general line of Hightower Road extending from the Marietta Access Road to U. S. Route 29 south of College Park. A preliminary plan for that route is not shown as it has been determined by the Georgia State Highway Department.

SCALE
0 200 400 600 800

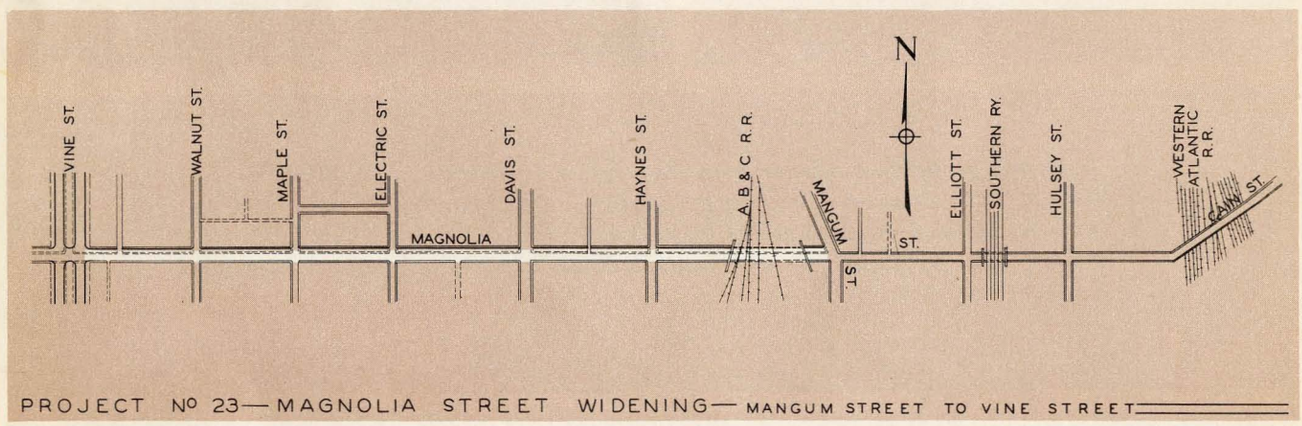
MAJOR STREET IMPROVEMENTS—Third Priority



PROJECT Nº 24 — CLIFTON ROAD — DE KALB AVENUE TO HARDEE STREET



PROJECT Nº 21 — ASHBY STREET — WHITE STREET TO SYLVAN ROAD

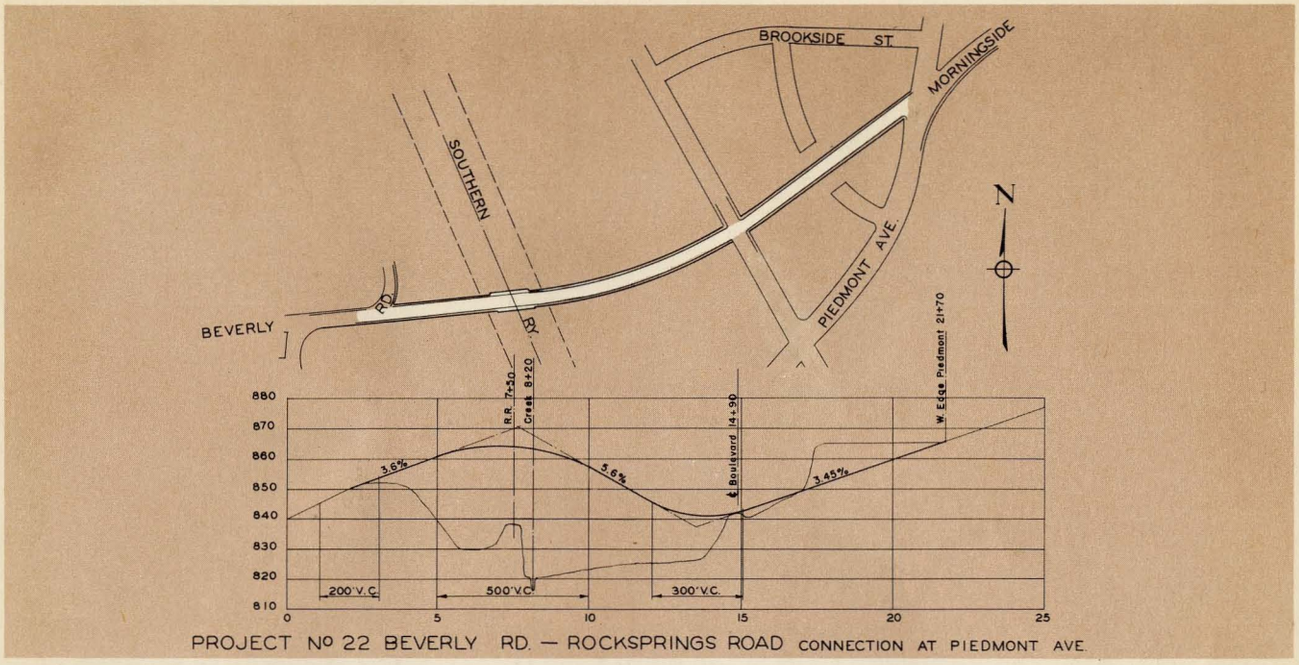


PROJECT Nº 23 — MAGNOLIA STREET WIDENING — MANGUM STREET TO VINE STREET

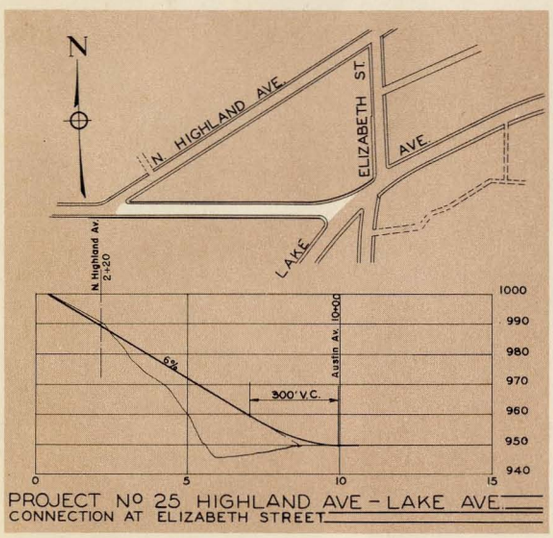
SCALE

0 200 400 600 800

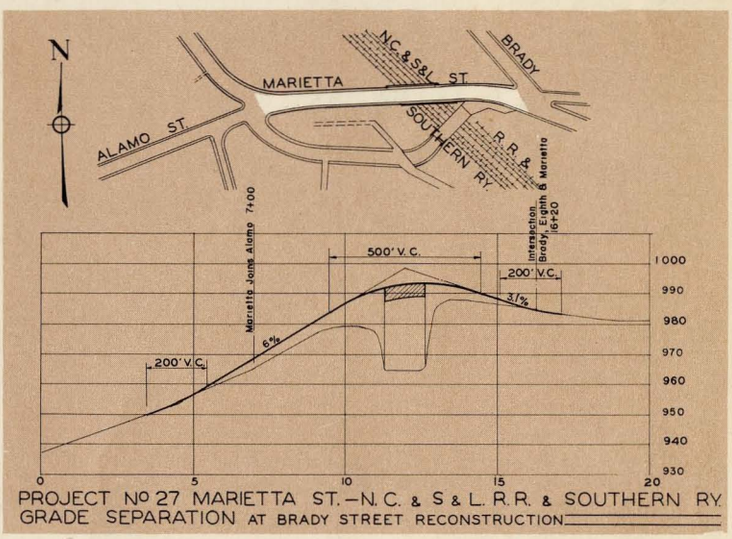
MAJOR STREET IMPROVEMENTS—Fourth Priority



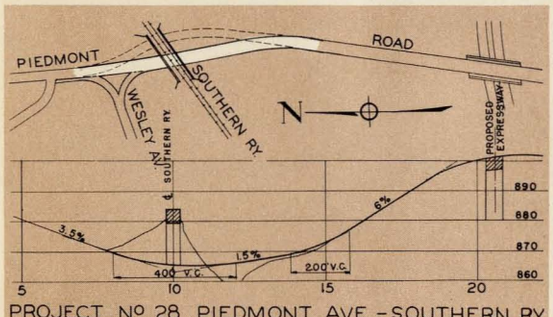
PROJECT Nº 22 BEVERLY RD. — ROCKSPRINGS ROAD CONNECTION AT PIEDMONT AVE.



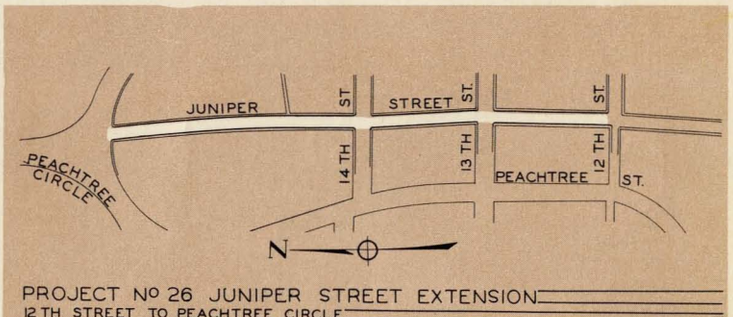
PROJECT Nº 25 HIGHLAND AVE - LAKE AVE.
CONNECTION AT ELIZABETH STREET



PROJECT Nº 27 MARIETTA ST. — N. C. & S & L. R. R. & SOUTHERN RY.
GRADE SEPARATION AT BRADY STREET RECONSTRUCTION



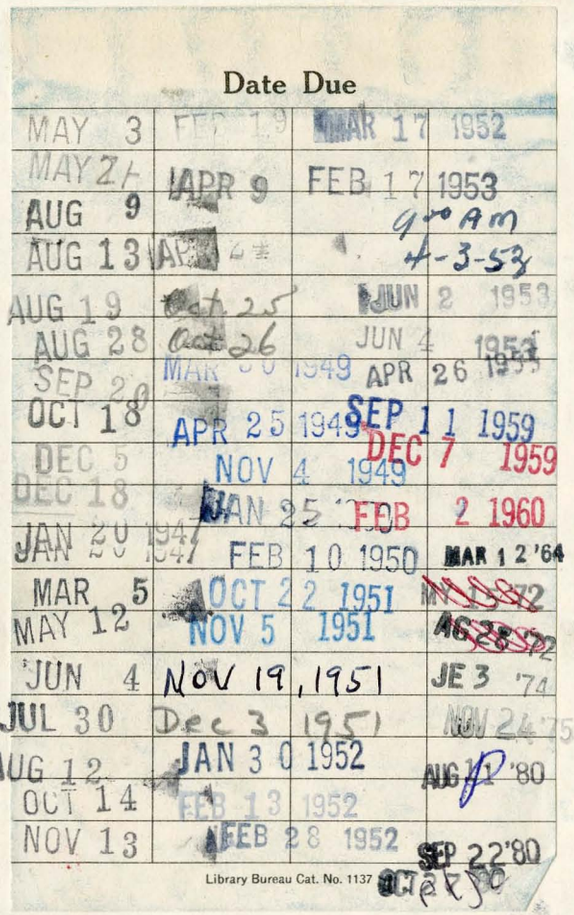
PROJECT Nº 28 PIEDMONT AVE. - SOUTHERN RY.
GRADE SEPARATION RECONSTRUCTION



PROJECT Nº 26 JUNIPER STREET EXTENSION
12 TH STREET TO PEACHTREE CIRCLE

SCALE
0 200 400 600 800

MAJOR STREET IMPROVEMENTS—Fourth Priority



Date Due

MAY 3	FEB 19	MAR 17 1952	
MAY 24	APR 9	FEB 17 1953	
AUG 9		9:00 AM	
AUG 13	APR	4-3-53	
AUG 19	Oct 25	JUN 2 1953	
AUG 28	Oct 26	JUN 4 1953	
SEP 20	MAR 30 1949	APR 26 1953	
OCT 18	APR 25 1949	SEP 11 1959	
DEC 5	NOV 4 1949	DEC 7 1959	
DEC 18	JAN 25	FEB 2 1960	
JAN 20 1947	FEB 10 1950	MAR 12 '64	
MAR 5	OCT 22 1951		
MAY 12	NOV 5 1951	AG 28 72	
JUN 4	NOV 19, 1951	JE 3 '74	
JUL 30	Dec 3 1951	NOV 24 75	
AUG 12	JAN 30 1952	AUG 11 '80	
OCT 14	FEB 13 1952		
NOV 13	FEB 28 1952	SEP 22 '80	

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