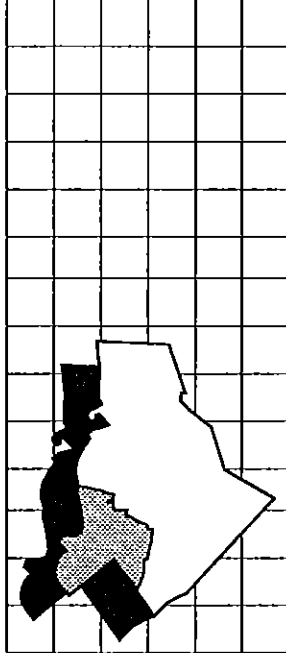


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Southwest

District Plan



Adopted by Charlotte City Council -- November 1991

Mecklenburg County Board of Commissioners -- October 1991

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Please note that plans, policies and regulations adopted subsequent to this District Plan have updated some of the land use and other recommendations contained herein. Please contact the appropriate community planner to discuss the most current information.

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Text Updated March, 1993

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Preface

This plan is a companion document to District Plan General Policies. It applies the general policies of that plan to specific planning for the Southwest District. For more detailed information on district planning and direction on various community-wide issues such as road improvements, package treatment plants, or streetscape design, refer to the general policy guide.

Originally, the draft of the Southwest District Plan included study group recommendations when they differed from the ones made by the Planning staff. Both sets of recommendations were illustrated in boxes for discussion points. Now that this district plan has been adopted by the Charlotte City Council and the Mecklenburg County Commissioners, the document reflects only those decisions made by both groups of elected officials.

Acknowledgement

The Planning Commission acknowledges the valuable contributions made by the Southwest Study Group members. Their ideas, opinions, and desire for a quality community have been a vital component of this plan.

Southwest District Study Group

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I. PLAN FOCUS AND VISION

Southwest Mecklenburg is one of the most diverse areas in the County. The district has retained a predominantly rural character while experiencing rapid residential and employment growth in recent years. There are many unique qualities such as Lake Wylie and the Catawba River that make the district an attractive environment for residents. The Southwest District is also very appealing for economic growth. A number of large industrial and office concentrations exist in the district, and Charlotte/Douglas International Airport, located in the northern end of the district, has been a catalyst for much of the recent growth in its vicinity.

The 2005 Generalized Land Plan envisions that at some point in time, Mecklenburg County will be entirely urbanized. This district plan provides the direction for managing growth in the southwest as the district realizes the 2005 Plan vision. There are a number of challenges and opportunities that need to be addressed to ensure that the district fosters a livable environment for residents by providing a variety of housing, employment, shopping, educational, cultural and recreational opportunities. The major issues that face the district and establish a framework for the plan are:

- o Location and impact of the Outer Belt
- o Lack of public sewer in rural and waterfront areas and the increased use of private treatment plants
- o The impact of the airport and related noise on residential development and the educational environment
- o Perceived negative image of the Southwest
- o Lack of schools and cultural facilities in the district
- o The desire to grow but retain a rural character
- o The balance between single-family and multi-family development
- o Expansion of the existing industrial areas
- o Water quality of Lake Wylie and the Catawba River
- o Lack of open space and neighborhood parks
- o Blighted areas along Wilkinson Boulevard
- o The increasing retail opportunities for an expanding population
- o Relationship between residential and nonresidential uses
- o Quality of housing

In consideration of these issues, the vision for the Southwest District is reflected in the following development goals:

DEVELOPMENT GOALS

- o TO ESTABLISH A BALANCED LAND USE PATTERN OFFERING A DIVERSE MIXTURE OF COMMERCIAL, EMPLOYMENT, RESIDENTIAL, AND OPEN SPACE USES.
- o TO PRESERVE, PROTECT, AND ENHANCE THE CHARACTER OF EXISTING NEIGHBORHOODS.

- o TO PROVIDE FOR THE CONTINUING POSITIVE ECONOMIC IMPACT OF THE AIRPORT WHILE MITIGATING AIRPORT IMPACTS ON RESIDENTIAL DEVELOPMENT.
- o TO ENCOURAGE AND SUPPORT RESIDENTIAL GROWTH IN RURAL AND WATERFRONT AREAS WHILE PROTECTING THE QUALITY OF THE ENVIRONMENT.
- o TO PROTECT RESIDENTIAL AREAS FROM ENCROACHING NONRESIDENTIAL USES.
- o TO MAINTAIN A BALANCE BETWEEN GROWTH AND INFRASTRUCTURE NEEDS THAT WILL PROVIDE AN EFFICIENT AND ACCEPTABLE LEVEL OF PUBLIC SERVICES AND FACILITIES.
- o TO MAINTAIN A BALANCE BETWEEN GROWTH AND ENVIRONMENTAL ISSUES.

The development goals listed above establish a guiding vision for the Southwest District. The following key strategies have been developed to achieve that vision:

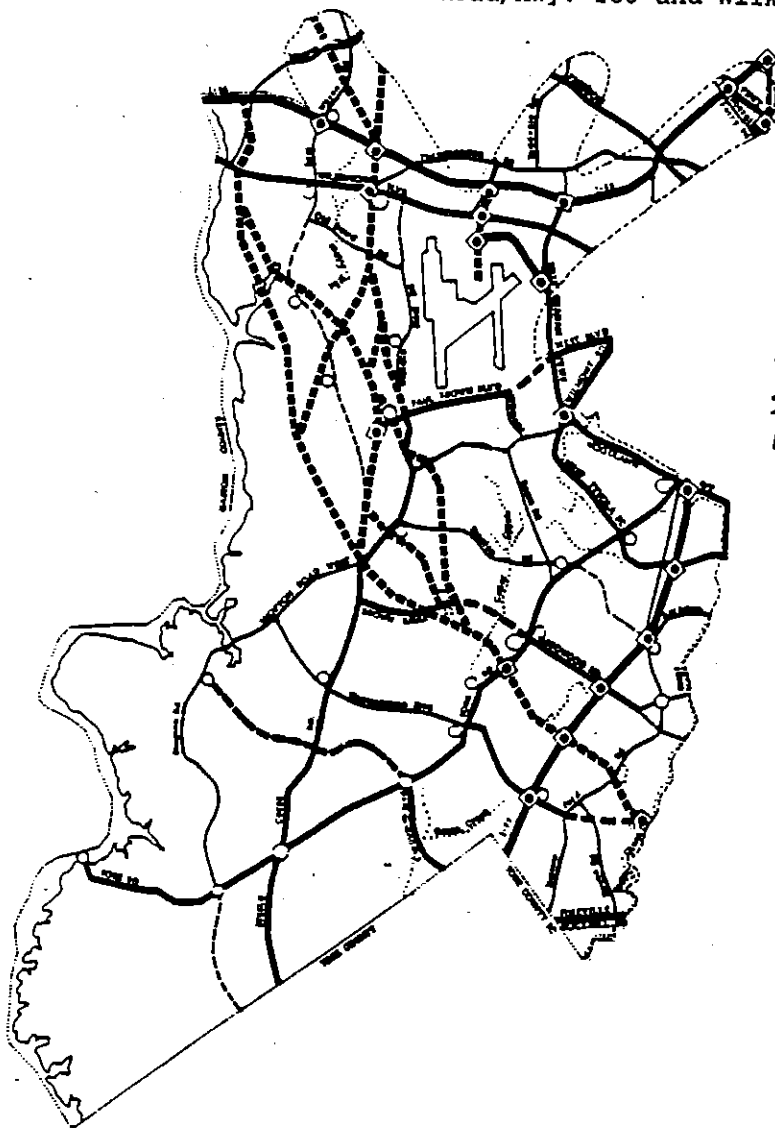
KEY STRATEGIES

- o PROMOTE PLANNED RESIDENTIAL DEVELOPMENT IN THE DISTRICT BY USING WATER, SEWER AND ROAD IMPROVEMENTS TO SUPPORT DEVELOPMENT POTENTIAL. THE RESIDENTIAL DEVELOPMENT SHOULD BALANCE THE HOUSING NEEDS WITH THE ABUNDANCE OF EMPLOYMENT OPPORTUNITIES ALREADY AVAILABLE IN THE SOUTHWEST.
- o ESTABLISH MIXED-USE CENTERS THAT PROMOTE A STRONG IMAGE AND HIGH QUALITY OF LIFE. THESE CENTERS SHOULD EMPHASIZE RESIDENTIAL, RETAIL AND SERVICE COMPONENTS CURRENTLY LACKING IN THE DISTRICT.
- o ESTABLISH LAND USE POLICIES FOR AREAS IMPACTED BY CHARLOTTE/ DOUGLAS INTERNATIONAL AIRPORT. THESE POLICIES AND RECOMMENDATIONS SHOULD CONSIDER THE ECONOMIC VITALITY AND COMMUNITY IMPACT OF THE AIRPORT.
- o ESTABLISH ENVIRONMENTAL PLANNING POLICIES TO PROTECT THE WATER QUALITY OF LAKE WYLIE AND CATAWBA RIVER. RECOMMENDATIONS SHOULD CONSIDER MEASURES SUCH AS LOWER DENSITY AND IMPERVIOUS GROUND COVER TO REDUCE THE AMOUNT OF URBAN RUNOFF AND STRICTER REGULATORY CONTROLS ON WASTEWATER DISCHARGE.
- o PROMOTE A BALANCE BETWEEN LAND USES AT INTERCHANGES WITH THE COMMUNITY'S LIGHT RAIL TRANSIT FUTURE.

II. THE PLAN AREA

STUDY AREA BOUNDARIES

The Southwest District is located south of I-85, west of the Billy Graham Parkway, Southern Railway and Kings Branch Creek, north of York County, S.C. and east of Gaston County. * Charlotte/Douglas International Airport is a major landmark in the district, and all airport impacted areas, including portions of the northwest and central districts north and south of I-85, are encompassed in the planning boundaries of the Southwest District. Approximately 90 square miles of land are contained within the southwest boundaries. In addition to the interstates and parkway, the main roads that serve the area are York Road/Hwy. 49, Steele Creek Road/Hwy. 160 and Wilkinson Boulevard.



*Southwest
Mecklenburg
District
Plan*

*The district boundaries differ from those in the 2005 Generalized Land Plan as a result of the district realignments in 1987.

EXISTING DEVELOPMENT PATTERN: A GENERALIZED OVERVIEW

The development pattern in the Southwest District varies considerably from the older, established residential and employment areas in the south and west sections of the district to the newer ones closer into the city. During the 1900's many events occurred which have had impacts on the shape and direction of growth in the southwest. A chronology of these events is as follows:

- 1904 - Lake Wylie, 12,000 acre lake created by Duke Power Company
- 1920 - Wilkinson Boulevard completed, main link to Gaston County until 1960's when I-85 opened
- 1950's - Arrowood Southern Industrial Park started to develop
- 1954 - New airport terminal constructed
- 1975 - Interstate 77 opened
- 1981 - Billy Graham Parkway opened
- 1982 - New airport terminal opened
- Mid 1980's - Tyvola Road Extension, Charlotte's New Coliseum, Expansion of Charlotte/Douglas International Airport, Relocation of Royal Insurance to the Arrowood Area

The oldest residential areas include Steele Creek, an 18th century community and one of the first areas settled in Mecklenburg County, and Dixie-Berryhill, a rural community settled by farmers over 200 years ago. Very little residential development occurred elsewhere until the 1940's and 50's when Eagle Lake and Steeleberry Acres were built. Since then residential growth has increasingly accelerated, but not at the pace of other areas in the county. In the 1970's neighborhoods such as Yorkwood, Taragate Farms and Twelve Oaks developed. More recently, a number of subdivisions and multi-family projects have been built and approved principally in the Lake Wylie waterfront and Lower Steele Creek areas.

Older employment areas of the Southwest District are principally located in the Wilkinson Boulevard and Arrowood/Westinghouse areas, both of which have good access to rail and the interstates. The Wilkinson Boulevard area which began to develop in the 1920's, consists of a mix of light and heavy industries and commercial uses developed in somewhat of a "piecemeal" pattern. Since I-85 was constructed in the 1960's, development along Wilkinson Boulevard has stagnated, and the once thriving corridor has declined. Conversely, the Arrowood/Westinghouse area has continued to grow. It is the county's largest suburban employment concentration having a varied mix of light and heavy industries. A considerable amount of undeveloped acreage exists in the area which presents an opportunity for expansion.

New employment areas have been developing south and southeast of the airport along Beam Road, West Tyvola Road, and Billy Graham Parkway. This development consists of Coffey Creek Business Park, Lakepointe Office and Business Parks and Coliseum Center. Characterized by extensive landscaping and attractive entry ways and architecture, the development helps to establish a very positive image for the southwest.

Commercial development has been somewhat limited in the Southwest District. Wilkinson Boulevard, once a thriving commercial gateway, no longer serves that function. Residents generally must shop outside the district for major services. Several small neighborhood oriented shopping centers have been built, however, in the Nations Ford Road and Steele Creek areas.

Charlotte/Douglas International Airport is the dominant landmark in the district. Approximately 3800 acres of land are controlled by the airport. The impact of the airport on the surrounding area will be discussed later in this document.

PROSPECTS FOR GROWTH

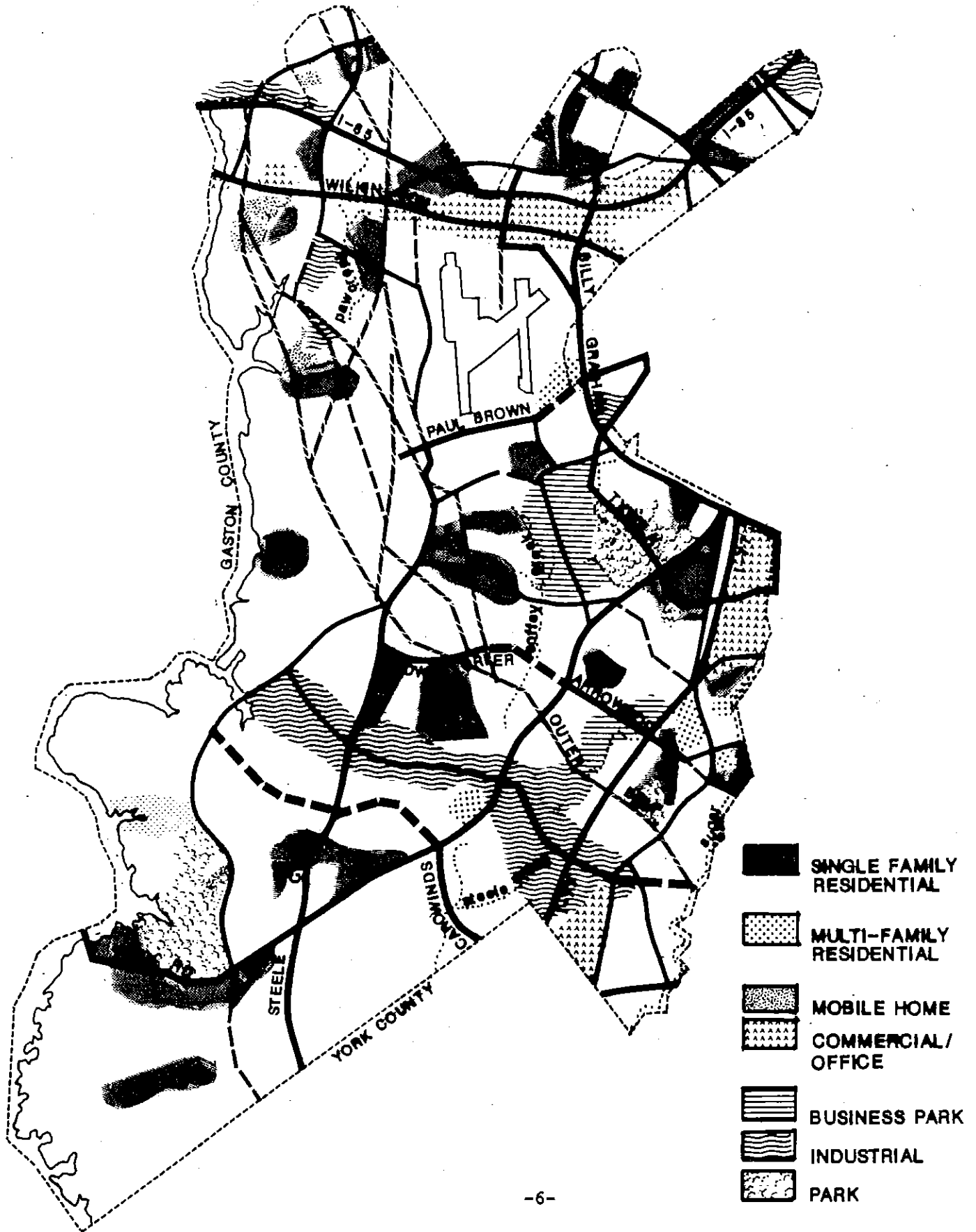
In 1985, 36,563 people lived in the Southwest District. The 2005 Generalized Land Plan projected that by 2005, the population would increase to 47,048. This projection was based upon redirection of growth strategies that would increase population beyond a number that current trends suggest. Forecasts indicate a significant increase in jobs and households as well. A summary of the projections for growth is reflected in the table below:

TABLE 1 PROJECTED GROWTH*

<u>Population</u>			<u>Households</u>			<u>Employment</u>		
<u>1985</u>	<u>1995</u>	<u>2005</u>	<u>1985</u>	<u>1995</u>	<u>2005</u>	<u>1985</u>	<u>1995</u>	<u>2005</u>
36,563	42,041	47,048	13,414	16,495	19,169	41,736	55,238	69,508

*The population projections are based on the 2005 Plan boundaries.

EXISTING GENERALIZED LAND USE



PREVIOUSLY ADOPTED PLANS

Prior to defining planning recommendations for the district, a complete review was necessary of adopted plans for specific areas. Several plans have been adopted and were reviewed as part of the District Planning Process.

Dixie-Berryhill Small Area Plan

The Dixie-Berryhill Small Area Plan was adopted by the elected officials on February 2, 1989. Its main objective was to reinforce the amenities of the community while creating a framework for new development and improvements in the area. The Southwest District Plan reinforces this objective while attempting to mitigate the impacts of the airport. Changes recommended to the adopted plan are noted later in this document in the land use section.

Billy Graham Parkway/Tyvola Road Extension Special Project Plan

In April, 1985, the City Council adopted a plan that addressed an overall land use strategy, streetscape guidelines for the gateway area, performance standards and design guidelines for new development. The plan also focused on a development program for publicly owned lands within the project area boundaries. Changes recommended to the adopted plan are noted later in the land use section of this document.

Charlotte/Douglas International Airport Master Plan Update (Volume IV) (AMP)

The Airport Master Plan Update was adopted by the elected officials on July 27, 1987. Its main objective was to provide guidelines for long-term development which will accommodate future aviation demand, while addressing environmental and socio-economic issues. A working paper on off-airport land use planning was developed as a part of the AMP and suggested land use policies and strategies that promote compatible development. These proposed strategies are outlined with details of implementation and funding responsibilities in the airport section of this district plan.

Federal Aviation Regulation (FAR) Part 150 Program

Federal Aviation Regulation (FAR) Part 150 Program implements the Aviation Safety and Noise Abatement Act of 1979. FAR Part 150 establishes guidelines and procedures for airports to develop Noise Compatibility Programs. The guidelines promote a systematic approach to Noise Compatibility Planning and a uniform assessment of land use compatibility at airports throughout the country. The FAA, under FAR Part 150, attempts to achieve a balance between the reduction of aircraft noise and the removal of incompatible land uses and to have the airports and the surrounding community share the burden of achieving compatibility. On July 27, 1987, the Charlotte City Council approved the recommended Noise Compatibility Program, including noise abatement and land use management actions.

III. BACKGROUND, ANALYSIS, AND RECOMMENDATIONS

The background, analysis, and recommendations for the Southwest District are organized under the following topics:

- Infrastructure
- Airport
- Land Use Pattern
- Livability

Infrastructure is an essential element in the development of the Southwest District. Land use recommendations are guided in part by the availability of water/sewer and roads. The airport is another important factor contributing to the overall land use pattern in the southwest. Specific recommendations in the land use section include areas impacted by the airport, commercial centers, employment opportunities and residential growth. The livability section focuses on quality of life services and amenities that promote a healthy environment.

A. INFRASTRUCTURE

WATER AND SEWER SERVICES

PUBLIC PROJECTS PLANNED

Public water and sewer services are essential elements in the development of the Southwest District. Extensions of these services will help provide the framework to attract and accommodate new growth, especially in the rural and waterfront areas. In response to the redirection of growth policy established in the 2005 Plan and also because of the pressures of development, bond referendums were passed in 1987 and 1988 allocating funds for numerous water and sewer projects including several in the Southwest. Coupling the bond money with general revenue sources, the Charlotte-Mecklenburg Utility Department (CMUD) will be constructing several important water and sewer projects in the Southwest in the years to come.

The provision of water service is much easier to provide than sewer. Water lines usually follow major thoroughfares and do not require gravity flow operations. Sewer services on the other hand require gravity flow and therefore are impacted by existing streams and various drainage basins in the district.

The availability of public or private sewer service is a major determinant of urban growth patterns. Without sewer, land can only be developed at lower densities for residential use, since large sites are required to accommodate ground absorption septic systems. The maximum density allowed for residential lots with septic systems in Mecklenburg County is approximately two units per acre. Extending sewer services into undeveloped basins such as the Beaver Dam Creek Area presents the possibility for development at higher densities and minimizes the use of private package treatment plants.

One of the most important sewer projects scheduled in the southwest is the Walker Branch Outfall and Tributary. This project will create development opportunities in the lower Steele Creek area and will serve as a catalyst for the proposed community mixed use center at Hwy. 49 and Steele Creek Road. Residential activity has escalated within the past several years in anticipation of this project, especially along Choate Circle.

The Walker Branch Outfall and Tributary will open a large portion of the district for development. However, sewer service west of Steele Creek Road is still inadequate to meet residential development needs. This portion of Mecklenburg County is unique because the area is bounded by the Catawba River and Lake Wylie. A number of basins that drain into the Catawba River will require different approaches to providing sewer service to the area. The drainage basins are small and contain no major streams or tributaries to accommodate sizeable municipal treatment plants (2-3 million gallons). Because major tributaries do not exist, massive pumping stations or smaller treatment plants will be required to meet growth demands.

The rapid development of the lake front property has intensified the need for CMUD to develop a master plan of applying CMUD's sewer extension and capital improvement programs to serve areas that are part of the natural drainage basins of Lakes Wylie, Mt. Island and Norman. This study will provide a method and procedure of addressing the sewer development needs along the lake areas such as the provision of pumping stations.

CMUD's current position is to operate plants large enough to be economically feasible and efficient. Its policy leaves three options in addition to the use of conventional septic tanks:

- Private package treatment plants to treat and discharge waste in the collective basin.
- Pumping stations to force collected waste out of the basin into a municipal plant that can treat the waste.
- A change in CMUD policy that would allow smaller municipal treatment plants (less than 2 million gallons).

The Southwest District Plan recommends strategically placing pumping stations within identified basins to pump waste into a regional public sewer facility. This strategy offers several advantages:

- It allows the use of a single, unified utility system, public or private, to minimize the use of septic tanks in areas that contain bad soil, have poor topography, are in close proximity to water and present environmental hazards.
- It mitigates the health problems associated with sewage infiltration from older septic systems.
- It protects Lake Wylie and the Catawba River as a drinking source for York County and areas down stream and as a recreational amenity for Mecklenburg, York and Gaston Counties.
- It provides the infrastructure to accommodate development at higher densities.

Five pumping stations are recommended in areas experiencing slow and sparse development. Table 4 depicts the specific locations of the stations with a time frame and priority listing. Projects in the 0-5 year time frame should be placed in CMUD's Capital Improvement Program (CIP) and projects beyond the 5th year in the Capital Needs Assessment.

Tables 2 and 3 list the proposed water and sewer projects needed to support the land use plan. Providing sewer service to untapped basins in the southwest will generate more residential development. Time frames and costs are rough estimates.

TABLE 2: SOUTHWEST DISTRICT WATER SERVICE NEEDS

Water Main Projects	Time Frame (Years)	Estimated Cost
Land acquisition for Lake Wylie Water Plant 20 acres.	0-5	2,000,000
16" water <u>main</u> along N.C. 49 South; from Erwin Road to N.C. 160.	0-5	380,300
12" water <u>main</u> along Sandy Porter Road and Brown Grier Road; from York Road to Brown Grier Road, then along Brown Grier to Steele Creek Road.	0-5	750,000
12" water <u>main</u> along Wilmont Road; from Tyvola Road - Billy Graham Parkway intersection to Old Steele Creek Road, along Old Steele Creek Road to West Boulevard, and then west along West Boulevard to the railroad.	0-5	478,800
12" water <u>main</u> along Shopton Road; from Dixie to Beam Road.	0-5	765,500
16" water <u>main</u> along Sledge Road; from Shopton Road West to Steele Creek Road.	0-5	661,500
16" water <u>main</u> along York Road; from Steele Creek Road to Shopton Road West.	0-5	433,100
16" water <u>main</u> along Steele Creek Road; from York Road (N.C. 49) to Sam Neely Road.	0-5	770,000
16" water <u>main</u> along N.C. 160, Steele Creek Road, and Shopton Road West to Westinghouse Boulevard.	6-10	3,703,700
24" water <u>mains</u> along Nations Ford Road and Westinghouse Boulevard; from Arrowood to York Road.	6-10	3,912,700
16" water <u>main</u> along Shopton Road West to Sledge Road and York Road (N.C. 49).	6-10	1,093,100

Water mains to serve future
annexation areas - South of
Airport/Shopton Road,
Wilkinson Boulevard/I-85.

0-10

6,050,000

TABLE 3: SOUTHWEST DISTRICT SEWER SERVICE NEEDS

Sewer Facility/Main Projects	Time Frame (Years)	Estimated Cost
Sewer Line Relocation for Street Improvements. Future projects include I-77/Arrowood Road Coverleaf.	6-10	6,900,000
* Lower Sugar Creek Outfall parallel gravity outfall appx. 27,000 linear feet.	0-5	2,700,000
Walker Branch Outfall Phase I Sanitary Sewer Outfall	0-5	748,000
Walker Branch Tributary No. 1 Outfall Sewer Trunk Main	0-5	710,600
Steele Creek <u>Outfall</u> Extension. Continuation of sewer from Taragate Farms to Brown Grier Road.	0-5	212,900
Polk Ditch <u>Extension</u> ; from near N.C. 49 to Steele Creek Road.	0-5	326,400
Walker Branch <u>Outfall</u> to Sam Neely Road construction of gravity sewer.	0-5	600,000
Walker Branch Outfall to Sledge Road Phase II.	6-10	600,000
Big Sugar Creek Lift Station and Outfall.	6-10	3,638,000
Sewer trunks to serve annexation areas including: South of Airport/Shopton Road and Wilkinson Boulevard/I-85.		

* The construction of this project is contingent upon the recommendations of the Master Sewer Service Plan for the Lake Areas of Mecklenburg County.

TABLE 4: SOUTHWEST DISTRICT SEWER SERVICE NEEDS

Pumping Stations Recommended	Time Frame (Years)	Priority
Little Paw Creek	0-5	1
Langston Drive/Hwy. 49 Area	0-5	2
Moore's Chapel Road Area	6-10	3
Beaver Dam Creek	6-10	4
McLee Road/Youngblood Road Area	11-20	5

TRANSPORTATION

ROAD IMPROVEMENTS

Interstates I-85 and I-77 border the Southwest District, thus providing good regional and county-wide access. The Billy Graham Parkway, N.C. Hwys. 49 and 160, U.S. 29 and 74, and Tyvola Road are the major interior roads connecting the district to the employment centers and the airport. When road improvements are made and the Outer Belt is built, the Southwest District will have possibly the best transportation network within Charlotte-Mecklenburg.

Narrow two-laned rural roads that exist in the district are becoming inadequate to handle the increasing volumes of local and commuting traffic. The rise in employment opportunities in the Arrowood Industrial Park and the Billy Graham Parkway areas has increased commuter traffic. Studies show that in 1980, 2,700 Gaston County residents and 1,050 York County residents commuted daily into Mecklenburg County. By 1987, these numbers had dramatically increased. The number of Gaston commuters rose to over 15,000, and York County commuters increased to nearly 20,000 in number. Both counties are experiencing increased residential development reinforcing the need for upgrading the existing transportation system to an acceptable level of service.

Several road improvements in the district are currently under construction or have been funded. These include:

- Hebron Street Extension from Nations Ford Road to Arrowood Road.
- I-85 widening to 8 lanes from Beatties Ford Road to Gaston County.
- I-77/Arrowood Interchange construction.
- Westinghouse Boulevard Extension.
- Old Dowd Relocation.
- I-77 widening from John Belk Freeway to Nations Ford Road.
- I-77/Tyvola Road interchange improvements.
- N.C. 160 relocation - Airport Drive to Wilmont Road.
- Terminal Drive Extension - West Boulevard to Byrum Drive.

Table 5 lists the current and proposed roadway projects for the Southwest District, the type of improvements required, estimated mileage, and an estimated priority level (priority being a timetable for need). This information is based upon the 2005 Transportation Plan adopted by elected officials in 1989.

Catawba River Crossing

The Metropolitan Planning Organization of Gaston County has taken the lead in requesting that the State provide funds for a feasibility study for another Catawba River crossing. This district plan supports the feasibility study as recommended by the Charlotte-Mecklenburg Metropolitan Planning Organization. The most appropriate location

seems to be at the Paul Brown Boulevard Extension because of its interchange with the Western Outer Belt. This linkage would also give direct access to existing and proposed employment in the southwest and easy access via West Boulevard to the central city.

Intersection Improvements

Intersections that should be studied for future improvements are:

- Dixie River Road/Shopton Road/Steele Creek Road Intersection
- Youngblood Road/Shopton Road West/York Road Intersection

An offset between the alignments of Shopton Road and Dixie River Road currently exists on Steele Creek Road. The same situation exists on Highway 49 at Youngblood Road and Shopton Road West. (An offset is created when two roads intersect another road from opposite directions without forming a perpendicular intersection.) Improving both intersections will provide a safer traffic pattern and enhance land use opportunities in the area. Disturbance of the historic property at Dixie River Road and Steele Creek Road should be avoided when designing the intersection improvement.

Outer Belt

In November 1990, the North Carolina Department of Transportation selected a preferred route for the West Charlotte Outer Loop. The corridor was chosen after extensive review of public and agency input and a detailed analysis of three reasonable and feasible alternatives. The preferred corridor provides superior service in the Steele Creek Road area, while bypassing historic features. There is an interchange with Paul Brown extension, which could be tied into a future Lake Wylie crossing to Gaston County. It preserves Steeleberry Acres and Eagle Lake as residential communities. This corridor is also compatible with future airport expansion plans, including the construction of a new parallel runway. The corridor provides a boundary between airport-related industrial land east of the corridor and residential development west of the corridor.

The final Environmental Impact Statement is now being prepared.

The 350 feet of right-of-way of the Western Outer Belt (WOB) should be heavily landscaped and buffered to protect the residential community of Dixie/Berryhill. Implementation of the following design guidelines may require additional right-of-way:

- Establish the Outer Belt as a billboard free overlay district.
- Establish appropriate edge relationships on the eastern side because of the image associated with nonresidential uses.
- Create a heavily landscaped and attractive median.

- Provide a minimum buffer of 100 feet along the section of the Outer Belt between the Paul Brown Boulevard interchange and Wilkinson Boulevard, between the roadway and the western right-of-way. This buffer area should be heavily landscaped and include berms to screen the highway from the Dixie/Berryhill community for image purposes. This would require an "off center" roadway placement to allow maximum distance from the residential land uses along the western side.
- Include maximum landscaping and screening for the section of the Outer Belt between the Paul Brown Boulevard and Shopton Road. Residential land uses occupy both sides of the Outer Belt between these interchanges.

Implementation of the first two guidelines would be the responsibility of the Planning Commission and City/County governments. The remaining guidelines would be implemented through the environmental impact study and design process for the Outer Belt. Joint state and local funding may also be required.

Northwest Circumferential/Airport Connector

During the course of this district planning process, three issues related to accessibility in the vicinity of the airport were raised. They are:

- The need for a circumferential route through the northwest connecting Little Rock Road to Reames Road
- Improving direct access to the airport from I-85 and the region to the west by way of a freeway-type facility
- Construction of an interchange with Wilkinson Boulevard

While all three issues are individually worthy of solution, grouping them together to solve a series of problems will leverage a higher priority for implementation. The Northwest Circumferential, as proposed on the Thoroughfare Plan, will connect I-85 via Little Rock Road. This district plan recommends extending the circumferential south as a freeway with an interchange at Wilkinson Boulevard to provide access to the airport. For these reasons, the Billy Graham Parkway interchange with Wilkinson Boulevard has a lower priority.

N.C. 49 Widening

N.C. 49 is the backbone of the roadway network in the Steele Creek and Lower Steele Creek areas of the Southwest District. It is the only direct access to and from western York County, S.C. Many two lane sections of N.C. 49 carry traffic in excess of 20,000 vehicles per day. In response to the growing and anticipated congestion of N.C. 49, it's widening ranks as the third highest priority project in the local Transportation Improvement Program. Yet, the widening project remains unfunded. The Southwest District Plan recognizes the significance of

N.C. 49 to this part of the county and the need to widen it and therefore recommends:

- That NCDOT include the widening of N.C. 49, from Tyvola Road to South Carolina in the N.C. Transportation Improvement Program scheduled for construction at the earliest possible date.
- That NCDOT begin discussions with the South Carolina Department of Highways concerning the widening of the N.C. 49 bridge over the Catawba River.

LIGHT RAIL TRANSIT

Light Rail Transit (LRT) is being considered as a future transit alternative in Charlotte-Mecklenburg. Preliminary studies have identified corridors having the most potential with regard to ridership projections, land use goals and development potential.

Two corridors for LRT service in the Southwest District are recommended for further study. One rail corridor is the Norfolk Southern Railway which parallels Wilkinson Boulevard and would provide service to the Charlotte-Douglas International Airport. The second line is the Pineville Corridor of which portion extend into the Southwest District.

The next step in the LRT study process is to select a single corridor for implementation. This phase of the study is tentatively scheduled to begin in the fall of 1991. Land use policies and strategies to implement the LRT goals will be developed at that time and would be applied to the priority corridors. A revision to the proposed land uses along those corridors will be considered at that time. This may affect land use recommendations particularly at transit station areas.

Along the airport LRT line potential stations are at:

- Morris Field Drive
- Billy Graham Parkway
- Airport
- Little Rock Road
- Wallace Neel Road
- Sam Wilson Road

TABLE 5
SOUTHWEST DISTRICT ROADWAY IMPROVEMENTS

ROADWAY	IMPROVEMENT	MILES	ROAD CLASSIFICATION	TIMEFRAME	COST
Hebron Street Extension Phase II (Nations Ford Road Road to Arrowood Road).	Two lane with turn lanes on new location.	.5	Minor Thoroughfare	0-5	3,600,000
Transportation System Management Intersection Improvements Archdale Drive/South Boulevard, Sharon Road West/South Boulevard, South Boulevard/ Sharon Lakes, South Boulevard/ Hebron Street.				0-10	N/A
South Boulevard/Woodlawn Road.	Intersection project.		Major	0-5	800,000
Tyvola Road/Old Steele Creek Road Widening (Billy Graham Parkway to West Boulevard).	Widening to 4 lanes.		Major	6-10	5,000,000
Beam Road Widening (York Road to Wilmont Road).	Widening to 4 lanes.	2.4	Minor	6-10	11,500,000
Shopton Road (N.C. 49 to N.C. 160).	Improve existing 2 lane roadway to thoroughfare standards.	2.7	Minor	6-10	6,500,000
Beam Road/Wilmont Road.	Intersection improve- ment.		Minor	6-10	N/A
Terminal Drive Extension (West Boulevard to Byrum Drive).	New 4 lane divided.	.8	Minor	0-5	2,500,000

ROADWAY	IMPROVEMENT	MILES	ROAD CLASSIFICATION	TIMEFRAME	COST
Realign Airport Connector.	Realign to improve traffic circulation and flow into the Airport Terminal Area.		Freeway	0-5	44,800,000
Southern Outer Belt. (U.S. 74 to I-77)	Construction of 6 lane freeway.		Freeway	0-10	199,946,000
Westinghouse Boulevard Widening (Granite Street to N.C. 49/York Road) Phase II.	Widening to 4 lanes with turn lanes.	1.5	Major	0-5	9,000,000
*Freedom Drive Widening (I-85 to Mount Holly Road).	Widening to 4 lanes.	3.3	Major	0-5	30,500,000
Interstate 77 Widening (John Belk Freeway to Nations Ford Road).	Widening to 6 lanes.	5.1	Freeway	0-5	35,000,000
Interstate 77 Widening (I-85 to S.C. Line).	Widening to 8 lanes.	13.0	Freeway	6-10	340,000,000
Interstate 85 Widening (Gaston County to U.S. 29).	Widening from 4 to 8 lanes.	15.8	Freeway	0-5	160,995,000
Westinghouse Boulevard Widening and Extension (I-77 to Sugar Creek) Phase III.	New 4 lane roadway from Nations Ford Road to Sugar Creek. Also widening to 4 lanes segment from I-77 to Nations Ford Road.	1.4	Major	0-5	13,000,000
Westinghouse Boulevard Extension Phase I (Sugar Creek to South Boulevard).	Construction of 2 lane roadway.	.9	Minor	0-5	5,900,000

ROADWAY	IMPROVEMENT	MILES	ROAD CLASSIFICATION	TIMEFRAME	COST
Billy Graham Parkway/Wilkinson Boulevard (U.S. 29/74) Interchange.	Convert existing grade separation to an interchange.	0.5	Major	6-10	4,000,000
N.C. 160 Relocation (between Airport Drive and Wilmont Road).	Construction of 4 lane roadway.	1.0	Major	0-5	3,226,000
Wallace Neel Road Extension (Old Dowd Road to Tuckaseegee Road).	New 2 lane.	1.3	Minor	6-10	6,000,000
Billy Graham Parkway/West Boulevard Interchange.	Diamond Interchange.		Major	6-10	7,500,000
York Road (N.C. 49) Widening (Tyvola Road Extension to Hwy. 160).	Widening to 4 lanes.		Major	0-5	
York Road (N.C. 49) widening (Hwy. 160 to State Line).	Widening to 4 lanes.		Major	6-10	
Euster Boyd Bridge Improvements.	Widening to 4 lanes.			6-10	
Airport Entrance Road. (I-85 to Billy Graham Parkway, Interchange with Wilkinson Boulevard).	New freeway to airport terminal.		Freeway	0-5	7,500,000
N.C. 160 Improvements (Paul Brown Boulevard to York Road/N.C. 49).	Improve existing 2 lane roadway to thoroughfare standards and add turn lanes.	6.8	Major	0-5	21,000,000
*Little Rock Road Widening (Tuckaseegee Road to Northwest Circumferential).	Widening to 4 lanes.	2.2	Major	6-10	13,600,000

ROADWAY	IMPROVEMENT	MILES	ROAD CLASSIFICATION	TIMEFRAME	COST
*Western Outer Belt (between I-77 and N.C. 27).	Construction of multi-lane limited access facility.	12.2	Freeway	11-20	180,000,000
Archdale Drive Extension (Shopton Road to Archdale Drive at Kings Branch Creek).	New 2 lane.		Minor	11-20	4,700,000
Carowinds Boulevard Extension (Carowinds Boulevard to Shopton Road West).	New 2 lane.		Major	11-20	12,000,000
Wallace Neel Improvements (Paul Brown Boulevard to Old Dowd Road).	Improve existing 2 lanes to thoroughfare standards.		Minor	6-10	9,000,000
Arrowood Road Extension (N.C. 49 to Sandy Porter Road).	4 lanes.		Major	11-20	17,000,000
Clanton Road Extension (West Boulevard to Wilkinson Boulevard).	2 lanes.		Minor	11-20	3,000,000
Ledwell Street Extension (Ashley Road to Ledwell Street).	2 lanes.		Minor	0-5	2,000,000
Shopton Road West Extension (Hwy. 49 to Gold Hill Road).	New 2 lane.		Minor	11-20	5,300,000
Pine Oaks Extension (Beam Road to N.C. 160).	New 2 lane.		Minor	11-20	3,000,000

* LOCATED NORTH OF I-85.

B. THE AIRPORT

The Charlotte region is one of the nation's major transportation centers and is one of the top ten largest distribution hubs in the United States. Much of this can be attributed to Charlotte/Douglas International Airport. Charlotte's air service far exceeds that normally expected of cities in its population size range. Based on total passenger traffic for 1989, the Airport Operator's Council International ranks Charlotte/Douglas International Airport as 21st in the United States. For 1989, Charlotte/Douglas' total passenger traffic was 15,348,542.

The service provided by the airlines at the airport has resulted in it becoming one of the most important economic catalysts for the Charlotte region. Virtually no other single economic activity provides such far reaching and diverse benefits to the general community. The airport provides advantages not found in other cities of comparable size and provides competition with larger population centers for corporate relocations. Also, because of international air service, foreign firms have been increasing their investment in the Charlotte market.

The airport attracts the type of industry that depends on air travel service. This list includes:

- International, national and regional headquarters for major corporations
- Air Cargo
- Airline Maintenance
- Mail Facilities
- Convention Industry

Charlotte/Douglas International Airport has experienced dynamic growth over the past decade. This is due to economic development of the Charlotte area and to airlines decision to use the airport as a hub for its systems. However, this rapid growth has strained the airport's facilities and has increased the burden of aircraft noise on adjacent neighborhoods.

Specific issues related to the airport and its operations are:

- Future Location of Airport
- Airport Expansion
- Ancillary Facility Needs
- Airport Noise

This section of the district plan elaborates on these basic issues. Specific land use recommendations for noise impacted areas are included in the land use section. Also included in the land use section are recommendations for airport - related or dependent uses for the land surrounding the airport. Recommendations for schools impacted by noise are included in the livability section.

ISSUES

FUTURE LOCATION OF THE AIRPORT

The airport's future at its present location has been an issue discussed among civic and business leaders and citizens in adjacent neighborhoods. Two alternatives exist: The airport would remain at its present location, or it would relocate to a different geographical location. The Southwest District Plan recommends the airport remain at its present location.

Some segments of the community have questioned the airport's present location due to increasing urbanization in close proximity. Although the airport creates noise problems, its location does offer an economic benefit. Businesses and industries that depend on the airport for air service take advantage of the close proximity to major motels, restaurants, cultural facilities and employment areas, pumping dollars back into the local economy. The proximity to Uptown and the population concentration is a major benefit.

If the airport is relocated to an area outside Charlotte, it becomes more of a regional facility and not Charlotte's airport. Economic development that the airport attracts may also relocate placing unfavorable impacts on the local economy. New businesses associated with or that depend on the airport for services would most likely be attracted to the new location. Also, new businesses considering relocation because of services provided by the airport may decide to locate elsewhere. Transportation service would also become an issue requiring linkage to transport people to and from a new location.

The other question relating to relocation is: Who would build a new airport? A single investor could not finance the hundreds of millions of dollars needed. For comparison, a recent price tag of 750 million dollars was placed on a new airport for Austin, Texas while Phase I cost estimates for the new Denver Stapleton Airport were budgeted at \$1.5 billion. The new airport for Austin is smaller than Charlotte/Douglas. Proposals have surfaced around the country to build new airports, but the problems encountered are many. After a decision to relocate is made and money secured, it would take 8-10 years to build a new airport. Some form of general aviation would remain in Charlotte.

Effective land use planning and noise mitigation can be a tool in minimizing the impact of aircraft noise while allowing the economy to benefit from the airport's convenient location. This planning tool places Charlotte in a competitive position to keep the airport, and at the same time, fashion it as a compatible neighbor. The costs included in relocating the airport far outweigh the acquisition cost in the noisiest areas. Also, relocation does not resolve the problem but rather transfers the noise to another location. The primary objective is to mitigate, not relocate airport noise.

Based on the cost of relocation, transfer of noise problems, impact on the local economy, and the airport's and USAir's investment in

Charlotte, it is in Charlotte-Mecklenburg's best interest to retain the airport at its present location. This recommendation is also supported by the Airport Master Plan. However, after the year 2005 there is a possibility that the 2005 noise contours illustrated in the Airport Master Plan and this district plan will expand due to the increase in flights. This issue, to be addressed more fully in the update of the Airport Master Plan, should examine the following options in relation to expansion:

- Relocate the entire airport operation. The airport would become more of a regional facility directly affecting the local economy as discussed on the preceding page.
- Relocate additional flights beyond the 2005 projections to another airport or city.
- Limit capacity of the airport. This would also affirm that the airport meets regional economic needs.
- Accommodate additional capacity at the existing facility. This option would increase the noise impact on the community and surrounding neighborhoods.

AIRPORT EXPANSION

Future facility needs are determined by addressing one primary question: How large should the airport be to provide efficient air service? Currently, Charlotte/Douglas International Airport serves as a hub for one major airline - USAir. Of the 476 flights departing daily from Charlotte as of March 1990, USAir claims approximately 447 (94%), including commuter flights. Out of the 476 total, 329 are major airline carriers and 147 commuter flights.

The Charlotte/Douglas International Airport Master Plan Update (Volume IV) advocates that the future capacity of the airport would include a hubbing operation of up to 350 commercial flights. This would be an increase of approximately 40 from USAir's June, 1990 hubbing operation and would require a maximum of 50 gates; currently, there are 30.

In addition to USAir flights, the Airport Master Plan includes 50-75 additional flights from competitive domestic and international airlines in its capacity calculations. In order to complete airline service, additional flights of domestic carriers are needed to maintain competitive airfares. Because of the importance and magnitude of USAir's hub at Charlotte/Douglas International, carriers will be increasingly interested in providing flights that will complement USAir's flight structure.

In summary, Charlotte/Douglas International Airport can accommodate expansion needs under present master planning and airport land acquisition programs. However, without physical expansion capacity can be increased through the use of larger aircraft. Charlotte/Douglas

currently has one of (DC-9, 737, F28) the largest percentage of smaller planes than any other hubbing operation.

It is important to note the Southwest District plan is based on the assumption of maximum capacity/expansion as depicted in the Master Plan Update.

Runway 18L/36R Extension

The Airport Master Plan recommends airfield improvements that include two runway projects and a series of taxiway improvements. The first runway project is a 1,000 foot extension to runway 18L/36R and its parallel taxiways, which will provide an 8,845 foot long runway for takeoffs on both runway ends and for landings on Runway 36R.

The purpose of extending Runway 18L/36R 1,000 feet to the south is to permit simultaneous landings on Runway 36R with departures on Runway 5. This produces two benefits. First, this extension would encourage continued use of Runway 05 for departures during busy periods, which would minimize the growth of aircraft noise in the departure corridor of Runway 36R. This extension would also continue a pattern of runway use that has existed at the airport since 1964 by directing departures over more business and industrialized areas northeast of the airport. Secondly, it would increase the capacity of northerly operations.

New Parallel Runway

To accommodate additional flights and to expand the recommended capacity for the airport, the Airport Master Plan also proposes a new 8,000 foot parallel runway as the second runway project. Studies are currently underway to determine spacing needs of a new runway. The Airport Master Plan endorsed a 1200' separation between the new runway and the existing 10,000' runway. This separation allows adequate spacing for staggered take-offs and landings while providing economic development opportunities between the new runway and the Outer Belt. However, City Council made no decision on the new runway in the adoption of the Airport Master Plan. Council directed the Airport Advisory Committee to make recommendations on the timing of the construction and requested that extensive evaluation and citizen involvement be part of the decision making process. The 2005 noise contours used in this district plan include the new runway at a 1200' separation. Any questioning of the adequate spacing needs to take not only this into account, but also the increase in noise impacted areas north and south of the airport and also to the west in the Dixie-Berryhill Community. While a greater separation will benefit the airport and its operations, more land will be impacted by noise in the community. It is important to keep this balance in order to provide a quality living environment close to good jobs in this portion of Mecklenburg County.

Future Airport Land Needs

Future land needs depicted in the Airport Master Plan include an additional 612 acres. The plan includes 336 acres added in 1986-1990

and 276 acres in 1991-1995; this is based on priorities that generally include land requirements for master plan facilities first, and acquisition of full clear zones and land areas beyond master plan needs second.

Additional land west of Wallace Neel Road, between the Outer Belt and existing airport boundaries, would allow for continued aviation - related development with such uses as an aircraft manufacturing plant or an overhaul base. Airfield - access related business such as cargo, mail facilities and customs would also benefit from accessibility to the runways. Airport facility needs can be met through the year 2005 as identified in the Airport Master Plan.

ANCILLARY FACILITY NEEDS

Outstanding transportation services demand ancillary support services. This is certainly true of Charlotte/Douglas International Airport. Ancillary needs identified in the Airport Master Plan include Crash/Fire/Rescue (CFR) facilities, fuel farm expansion and air cargo development. These uses can be accommodated on the existing airport property and additional acreage recommended for acquisition through the FAR Part 150 Program, Airport Master Plan, economic development block grants, local money or the private sector.

Other ancillary needs include the USAir maintenance facility, proposed hotel and possible reservation center. As stated earlier, the airport can accommodate these and other uses with the land identified in the Airport Master Plan.

AIRPORT NOISE

Airport related noise affects some six to ten million people in the United States. In the effort to resolve these noise problems, hundreds of millions of federal dollars will be expended over the next several years. The problems associated with airport noise will also cause some additional burden on airport users.

Charlotte is certainly not immune to airport noise. Charlotte/Douglas International Airport already impacts a large amount of land within Mecklenburg County. The airport's property alone covers approximately 5 square miles and its noise impacts more than double the area occupied by the airport.

Noise Contours and Zones

Six main noise contours emanate from the airport's six runways as delineated on the map on page 29. Each of the contours, established by requirements of the Federal Aviation Administration (FAA), consists of three levels of noise using actual day-night average sound levels (Ldn's). The Ldn noise contours have been established by the FAA after monitoring noise surrounding the airport. The noise zone having the greatest noise impact is the 75 Ldn; it is closest to the airport. The other noise zones that progressively diminish in noise impact are the 70-75 Ldn and the 65-70 Ldn zones.

The projected Ldn noise contours for 1994 and 2005 are the basis for land use policies proposed for the different Ldn noise zones. The 1994 projections reflect the anticipated noise conditions which would result in 1994 with the projected level of aircraft operations and with the following noise abatement measures in place:

- 1000' extension of Runway 36R
- Reinvestment of maximum use of all runways
- Limited use of the parallel north-south runways between 10:00 and 11:00 p.m.

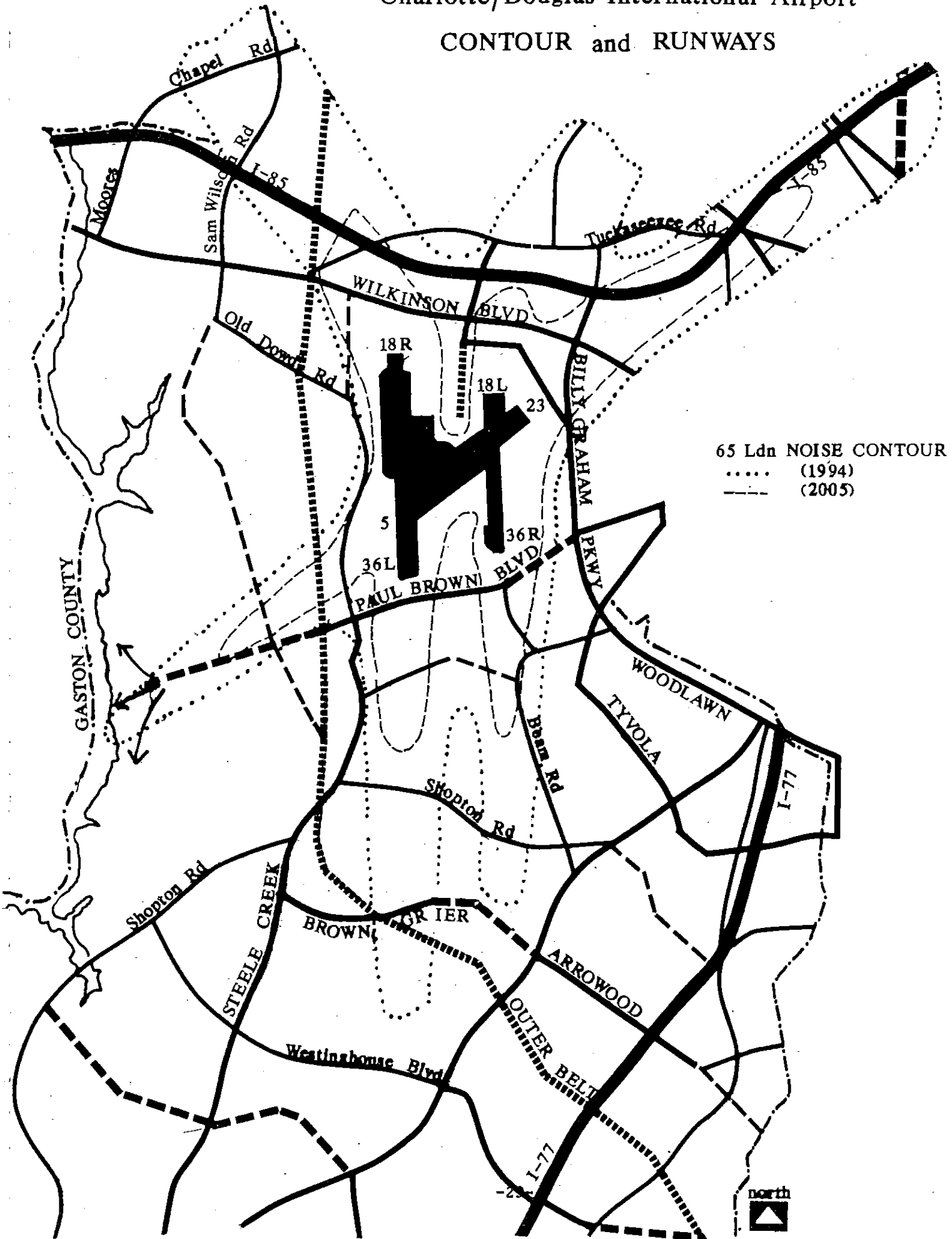
The 2005 contours predict the level of noise in 2005. These contours are computer generated and provide the best information available. Included in the 2005 projections are the new proposed parallel runway, the extension to runway 18L/36R, and improved noise abatement measures. These measures include the increase of Stage III aircraft (quieter planes) using the airport.

Comparison of the 1994 and 2005 contours illustrates a significant decrease in the area impacted by aircraft noise. This information was taken into consideration in developing compatible uses within the noise contours. However, as demonstrated by a comparison between the existing 1989 contours and the 1994 projections, the noise will actually increase slightly in some areas through 1994 before decreasing to the level identified in 2005. USAir's commitment to Stage III aircraft is a major factor in reaching the 2005 goal.

The accuracy of the 2005 projections are crucial in the long term planning of noise impacted areas. This district plan recommends review of the noise contours every two years to determine if the projections are on target. If not, land use policies will need to be modified.

Charlotte/Douglas International Airport

CONTOUR and RUNWAYS



Airport Master Plan Noise Compatibility Strategies

Identifying strategies to address noise within the Ldn noise zones was a major objective of the Airport Master Plan and corresponding working paper. The measures adopted as part of the Airport Master Plan were presented as options to consider during the planning process and not as firm recommendations. They are as follows:

Ldn 75 Noise Zone

1. Acquisition - Acquire property in areas recommended for airport development. Virtually all the area within the 75+ Ldn noise zone should be considered for acquisition if not already developed to a compatible use. It is recommended that the airport eventually be in control of most of the land surrounding the airport to ensure proper land use and airport development.

Ldn 70-75 Noise Zone

1. Purchase Assurance Program - Guarantee the purchase of existing homes in specified areas after the owner has made a bona fide effort to sell the property. Acquired properties would then be converted to compatible uses or insulated and returned to residential use with appropriate easements and restrictions.
2. Noise Insulation of Private Residences - Apply sound insulation techniques to existing residences to achieve a Noise Level Reduction (NLR) of at least 30 dB.
3. Acquiring Developed Property - Acquire property not suitable for sound insulation. The property would then be cleared or converted to compatible uses with appropriate easements and restrictions.
4. Purchasing Avigational Easements - Purchase the right to fly over properties affected by airport noise. Noncompatible land uses are not reduced by this measure but it would be applicable to areas that include a concentration of residential development whereby the neighborhood would remain. This measure is not a remedy for land use concerns but may protect the airport from future litigation.
5. Raising Minimum Building Standards - Require new residential development to meet specified NLR standards. Recommended NLR in this noise zone is 30 dB. Implementation of this measure is through changes in the state/local building codes.

Ldn 65-70 Noise Zone

1. Land Use Planning - Establish land use policies in this district plan detailing specific zoning, density and capital improvement recommendations.
2. Zoning for Compatible Development - To the extent possible, zone to encourage development or redevelopment of land uses compatible with airport noise. The Southwest District Plan is recommending future land use and zoning changes for areas impacted by aircraft noise.
3. Zoning Performance Standards/Raise Minimum Building Standards - Require new residential or other sensitive uses to meet specified Noise Level Reduction (NLR) standards. Recommended NLR in this noise zone is 25 dB and can be implemented through a change in the local/state building codes. This issue will be discussed later in this district plan.
4. Dedication/Purchase of Avigational Easements - Consider requiring dedication of avigational easements through the development process or implement an airport program to purchase the easements. Dedication will require legislative approval to amend the N.C. State General Statutes.
5. Voluntary Farm Land Preservation - Use voluntary farmland preservation as a means to preserve the right to develop on large open spaces within noise impacted areas. However, very little land is devoted to farming that falls within the noise contours. Most of the undeveloped area impacted by airport noise is southwest of the airport but again, there is little in the category of working farms in this area. (Since adoption of the AMP, the County Commission has determined that Farmland Preservation is not a viable land use tool for this community.)
6. Programming Public Improvements - Recommend construction of public improvements where growth is desired and limit public improvements where it is not desirable. This strategy has limited application in the area.
7. Public Information Program - Implement a public information program to make the general public aware of areas impacted by noise in the 65 Ldn and above. This program would be the responsibility of the airport staff.
8. Noise Insulation of Public Buildings - Recommend sound insulation of noise sensitive buildings such as schools. This measure should be applicable to areas in the 65+ Ldn noise zones and to schools outside the 65 Ldn that are interrupted by airport noise.

9. Noise Insulation of Private Structures - Apply sound insulation techniques to existing residences to achieve a NLR of 25dB. The Airport Master Plan and FAR Part 150 targets this program for the 70-75 Ldn noise contour to reduce interior noise levels. This plan supports the measure and recommends that existing homes in the 65-70 Ldn noise contour be included. However, the initial program should be directed towards the 70-75 Ldn.

The Southwest District Plan recommends an additional strategy not part of the Airport Master Plan and FAR Part 150 Program. The strategy is to require the sound insulation of private residences in the 65 Ldn. City Council also recommended that this strategy be pursued in their adoption of the Airport Master Plan in 1987.

To achieve the strategy of raising the minimum building standards for new construction in the 65 and 70 Ldn, changes to the local building code will be needed. Steps that should be taken to amend the code are:

- The elected officials should adopt an official noise contour map approved by the FAA. This map should be on display in public facilities, especially at the airport, Planning Commission and Mecklenburg County Building Standards. Reference to this map should also be made in the Zoning and Subdivision Ordinance. The map should be updated every two years to monitor changes in the noise environment.
- The City of Charlotte and Mecklenburg County should request authority from the N.C. State Building Code Council to allow Charlotte-Mecklenburg to adopt a local code requiring higher building standards in noise impacted areas. These areas would be defined on the official noise contour map.

Implementation of Noise Compatibility Management Strategies

Table 6 on page 35 lists the noise management strategies for the three noise zones using 1994 noise contours as a base. It also includes the number of residential units that will be affected, projected completion dates for implementation, costs, and funding sources for projects. The table is based upon the following assumptions:

- The acquisition process will beginning September 1, 1989 @ 3 per month.
- The 2005 noise projections include the proposed parallel runway.
- Monitoring noise for computer-projected accuracy and updating will occur every 2 years.
- Noise insulation of private residences will occur at a rate of 300 per year.

- Purchase of avigational easements will be part of the noise insulation program.
- Acquisition is first priority, then noise attenuation.
- FAA will approve amendments to the FAR Part 150 Program in order to accomplish strategies.

All costs for implementation of the strategies are based on 1989 dollars. Projected completion dates assume funding is available at time of request and when policy anticipates funding by the FAA and airlines/local, costs are split accordingly - 80% FAA and 20% airlines/local. The local funding is not airport generated money, but local tax dollars instead. There is a possibility because of tight budgets and competition for funds that the FAA may not be involved, especially in the 65 Ldn. Costs would then possibly be shared between the airlines and local tax dollars.

At present, FAA funding for any program in the 65 Ldn is minimal. Federal dollars in the future are expected to become tighter because of budget deficits and the need to provide additional capacity at existing airports and construct new ones. Because of this, Charlotte-Mecklenburg may have to fund the entire program in the 65 Ldn. It is important for the community to realize this upfront and commit to this task if the need arises.

Currently, no statutory authority exists upon which the City can require the dedication of avigational easements. In order to pursue this approach, an amendment to the state law would be necessary. The other option is to implement an aggressive program to purchase the easements. For these reasons, table 6 illustrates a choice of dedication or purchase.

As indicated on Table 6, acquisition of homes identified in the 65, 70 and 75 Ldn contours will be completed in 1997. At that time, the noise insulation program will begin with an estimated completion date of 2005. The remaining strategies - noise insulation of public buildings, raising minimum building standards, and dedication and purchase of avigational easements can be implemented during 1990. However, this is an optimistic schedule and will require more resources just to implement policies within this time frame. Expediting the process earlier than this schedule dictates will require even more resources.

Specific priorities recommended in this district plan for implementing the noise management strategies are as follows: (Some of these will be elaborated on in the land use section of this document.)

Priority

- #1 Acquisition of homes within the 1994 75 Ldn contour. This includes portions of Westerly Hills/Wandawood and all of Moores Park, Withrow Road and Whippoorwill Hills.

- #2 Application of Building Code Amendment within the 1994 65 & 70 Ldn contour.
- #3 FAR Part 150 Acquisition within the 1994 70 Ldn. The acquisition includes Moores Park and Whippoorwill Hills.
- #4 Noise insulation of homes within the 1994 70 Ldn.
- #5 FAR Part 150 acquisition within the 1994 65 Ldn. The acquisition includes Moores Park and Whippoorwill Hills.
- #6 Noise insulation of homes within the 1994 65 Ldn.

By implementing the noise compatibility management strategies within the time frame and priority listing, noise attenuation for the entire area included in the 1994 65 Ldn may not be needed. This is because the 2005 65 Ldn contour decreases to the point that it is within the 1994 70 Ldn in 2005. The only exceptions are areas at the ends of runway 5/23. The crucial element in this scenario is the accuracy of the 2005 noise projections. This is the reason for monitoring the noise contours every 2 years.

Notification of Noise Impacted Areas

The role of local government is important in notifying the general public about noise impacted areas around airports. Several methods have been identified through this district plan. They are:

- Placement of noise contours on zoning base maps
- Placement of noise contours on approved site plans (i.e., subdivision plats, conditional zoning site plans, etc.)
- Use of zoning overlay districts
- Erection of signs in noise impacted areas
- Require realtors and real estate attorneys to identify noise impacted properties at the time of sale.

The Southwest District Plan recommends that the Planning and Airport staff should continue researching and identifying the most appropriate points of access and notification by which the public is informed of noise impacts beginning at the 65 Ldn.

Although legislation to require notification of impacts at the time of a real estate sale has met opposition in the past, this plan recommends that, this approach also be evaluated further. A report on the solutions or progress will be submitted to the Airport Advisory Committee by the fall of 1991.

TABLE 6
LAND USE MANAGEMENT STRATEGIES

	POLICY	#UNITS	PROJECTED COMPLETION DATE	COSTS	FUNDING SOURCE
75 Ldn	Acquisition	93	1992	\$8-10 million Part 150 - \$8,370,000	FAA and Airlines
70 Ldn	Neighborhood Buyouts ¹ (Acquisition)	104	1995	\$9-11 million Part 150 - \$9,360,000	FAA and Airlines
	Noise Insulate Private Residences	744	2000	\$22,320,000 (\$30,000/du)	FAA, Airlines and Local ⁵
	Raise Minimum Building Standards	New Construction Only	1990	Administrative	None
	Dedication/Purchase of Avigational Easements	New Construction Only	1990	Administrative (Dedicated) Undetermined (Purchase)	FAA, Airlines and Local ⁵
65 Ldn	Neighborhood Buyouts ² (Acquisition)	76	1997	\$6-8 million Part 150 - \$6,840,000	FAA, Airlines and Local ⁵
	Soundproof Public ⁴ Buildings	3 Schools	1990	\$1,000,000 - 1,500,000	FAA, Airlines and Local ⁵
	Raise Minimum Building Standards	New Construction Only	1990	Administrative	None
	Dedication of Avigational Easements	New Construction Only	1990	Administrative	FAA and Local ⁵
	Noise Insulate Private ³ Residences	2428	2008	\$48,560,000 (\$20,000/du)	FAA and Local ⁵
	Purchase of Avigational ³ Easements	New Construction Only	1990	Undetermined	FAA and Local ⁵

1 Includes Moores Park, Whippoorwill Hills and Westerly Hills/Wandawood.

2 Includes Moores Park and Whippoorwill Hills.

3 City Council recommended extending this strategy to the 65 Ldn in their adoption of the Airport Master Plan and FAR Part 150 Program. If the Southwest District Plan is approved, the Part 150 program approved by the FAA should be amended to include this strategy. In addition to noise insulation in the 65 and 70 Ldn, areas outside the 65 Ldn such as Thomasboro-Hoskins and Enderly Park should be included, but coupled with other rehabilitation efforts to bring these structures up to code.

4 Some of these schools are outside the 65 Ldn but Planning staff feels noise attenuation is needed to reinforce the learning environment. Westerly Hills, Harding and Tuckasegee.

5 "Local" indicates the potential for City funds to supplement other funding sources if necessary. This does not commit any City funding to these noise mitigation measures. Any funding would be decided through the CIP process.

C. LAND USE PATTERN

A balanced land use pattern provides opportunities for a mix of commercial, employment, and residential uses as well as open spaces. The General Development Policies Document, applicable to all seven planning districts, identifies objectives, policies, and development criteria for creating this balanced land use pattern. These generic policies and criteria have guided the land use decisions for the Southwest District Plan. However, there are two additional factors unique to the southwest: watershed protection and the airport and its influence on surrounding land uses.

Environmental studies are currently underway by Mecklenburg County and the State of North Carolina to develop protection requirements for all surface water used as a source for raw drinking water. These studies are explained later in the section on environmental quality. In summary, a system consisting of several classifications is proposed based upon the degree of existing development in the watershed. These classifications also distinguish the types and amount of activities allowed in each watershed.

Several of the land use recommendations of this district plan are based upon the need to protect the watershed of Lake Wylie and Catawba River. When the watershed study is completed and elected officials decide upon a course of action, the district plan recommendations may change, particularly those related to density.

The previous section of this district plan identified issues with the airport and in particular, general policies and strategies for addressing noise and land use compatibility in noise zones. In summary of the strategies, acquisition in the 75 Ldn contour will eliminate noncompatible uses. Additional purchases in the 65 and 70 Ldn contours will prevent fragmenting neighborhoods. Noise insulation of existing residences in the 65 and 70 Ldn will provide compatibility with the airport, while raising the minimum building standards will ensure that new construction is at the same attenuation level as the existing structures.

This land use section identifies specific land use recommendations for noise impacted areas based upon the general strategies in the airport section. * Also included in this section of the document are recommendations for commercial, employment, and residential uses outside the influence of the airport, which covers a considerable amount of land. The land use map for the district illustrates the recommendations.

* Portions of the Northwest and Central Districts within noise zones are included in the Southwest District Plan.

This draft of the Southwest District Plan reflects a divergence of opinions on land use recommendations between staff, the study group, and the Airport Advisory Committee. The final adopted plan will include only those recommendations approved by the elected officials.

AIRPORT AREA

Land use planning in noise impacted areas is a complex task. There are a number of factors in addition to the airport's needs and economic development issues that present challenges to planning. As evidenced through examination of other airports in the country, the problems and challenges faced with planning in and around Charlotte-Douglas Airport are not unusual. Charlotte is unique, however, because of the airports proximity to uptown, the image problems associated with the west side, the housing needs in the southwest, and the massive industrial development that has already taken place.

COMPATIBLE DEVELOPMENT WITHIN NOISE CONTOURS

The type of development that should occur within noise contours has been the most controversial issue of this district plan. Opinions have varied, particularly on where residential development is appropriate. It is acknowledged that strictly from an airport operational perspective, the ideal policy would restrict any residential development within noise contours; however, from a land development and livability perspective, this would create serious off-airport problems for the following reasons:

- The transportation system cannot support this amount of nonresidential development. Charlotte Department of Transportation (CDOT) projected if all current residential property in the noise contours was rezoned to office/business park development, daily trips would increase from 100,000 to 350,000 and peak hour trips would increase five fold from 10,000 to 50,000. The proposed road system cannot begin to accommodate this much traffic.
- Too much nonresidential development will aggravate an already negative west side image. The west side will continue to be known as an "industrial" district until more quality housing is available for new residents who will become advocates for the area.
- The market cannot absorb this amount of nonresidential development. Once the market is glutted, land prices begin to fall allowing only marginal uses to develop.
- The 2005 noise projections predict smaller contours, thereby reducing the amount of property significantly impacted by aircraft noise.
- The need exists to protect existing residential areas from the encroachment of nonresidential development.
- A considerable amount of nonresidential development and zoning already exists in the southwest district.

As part of the decision making process for determining final policies for development within noise contours, an informal survey of major airports in the United States was conducted. It found that most airports have an acquisition program in effect in the 75 Ldn noise zone. Acoustical treatment programs, including noise insulation and avigational easements, were implemented for residential development in the 65 and 70 Ldn noise contours. However, none of the airports surveyed prohibit residential development in the 65 and 70 Ldn contours.

Discussions with airport planning consultants also confirmed that it is common practice to allow residential development in the 65 Ldn with noise attenuation measures. The Federal Aviation Administration (FAA) even recognizes that where the community determines residential uses are allowed, measures to achieve interior noise level reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes. The Veteran's Administration, Federal Housing Administration and Housing and Urban Development will also agree to finance development using noise attenuation in the 65 and 70 Ldn contours.

The issue of development within flight paths has also been discussed and researched over the course of this plan. Flight paths are contained within noise contours, but are much more narrow than the full contour. Limiting development within flight paths would be difficult to achieve, because the actual widths of flight paths cannot be determined. Without knowing the exact width, it would be nearly impossible to determine limits of land use. Consequently, using noise contours as boundaries for various land uses is more appropriate and legally feasible.

In the future, however, the introduction of microwave technology in the field of aviation would allow determination of flight path widths. Although common use of this technology is 15-20 years away, this district plan recommends that once microwave technology becomes available, the airport should purchase the necessary equipment. This would allow the airport to acquire property or purchase easements within the flights paths in Mecklenburg County. With microwave technology, it will enable aircraft to follow a defined flight path which in turn will minimize impacts on large amounts of property.

POLICIES FOR DEVELOPING IN NOISE ZONES

Based upon the previous discussion and on the Airport Master Plan's noise compatibility management strategies outlined in the airport section, the district plan's policies for developing within noise zones are identified below. It is important that these policies apply equally to all noise contours.

- Ldn 75+ Noise Zone:

Limit development to compatible land uses such as commercial, industrial, or open spaces in the Ldn 75+ noise zone.

- Ldn 70-75 Noise Zone:

Allow residential development (single family and multi-family) with noise attenuation measures (identified in airport section) in the Ldn 70-75 noise zone. Nonresidential development should be allowed without attenuation in locations indicated on the land use map.

- Ldn 65-70 Noise Zone:

Allow residential development using attenuation measures (identified in airport section) for new construction. Nonresidential development should be allowed without attenuation in location indicated on the land use map.

AIRPORT ADVISORY COMMITTEE RECOMMENDATIONS

Specific land use recommendations proposed by staff for each of the six areas defined by the contours have been based on the general policies for noise zones. However, the Airport Advisory Committee and a majority of study group members disagree in part with the recommendations which has resulted in separate recommendations for four of the six contours.

As taken from the minutes of the August 15, 1989 meeting of the Airport Advisory Committee, the following are general recommendations proposed by the committee and differing from staff's recommendations:

- No R-4 zoning within noise contours.
- Protect flight paths from any residential development.
- Seek measures to encourage change in land use from potential residential use.
- Seek measures to strengthen existing residential zoning.

PLAN RECOMMENDATIONS FOR LAND WITHIN NOISE CONTOURS*

1. RUNWAY 23 CONTOUR

Plan Recommendations:

- Retain current nonresidential zoning within this contour which would allow development of a mix of light industrial, office and business park uses in addition to existing heavy industrial and commercial development.

* Consult the Southwest District land use map for specific recommendations. The map on page 28 outlines the outer limits of the noise contours.

- Retain the current zoning that allows densities of from 4-6 d.u.a. in established residential areas eligible for purchase assurance and noise attenuation.
- Purchase properties on Withrow Road and a portion of Westerly Hills/Wandawood that are in the 75 Ldn contour. Input from the neighborhood is needed prior to acquisition. The airport should be sensitive not to divide the neighborhood when purchasing only a portion of the residential properties.
- Include areas outside the 65 Ldn such as Thomasboro-Hoskins in the noise insulation program as explained in the airport section.

2. RUNWAY 18L CONTOUR

Plan Recommendations:

- Establish nonresidential land uses - light industrial, office and business park south of I-85 within the runway 18L contour.
- Continue the existing residential development at various densities, including multi-family north of I-85. The intent is to maintain existing neighborhoods and encourage continued residential development north of I-85 with increased building code standards.
- Attenuate existing residential uses.

3. RUNWAY 18R CONTOUR

Plan Recommendations:

- Establish light industrial, office and business park uses in the area east of Sam Wilson Road and south of I-85.
- Promote a mix of residential and nonresidential land uses north of I-85 within the 18R contour. These land uses are contingent on the airport's ability to confine the flight path to an area between the Westmoreland and Wildwood Subdivisions using the I-85 corridor and park area west of Moores Chapel Road as reference points. Light industrial, office and business park uses are recommended in the area bound by I-85, Moores Chapel Road (north of the existing industrial development), Colonial Pipeline right-of-way and the creek that extends to the proposed Outer Belt. This nonresidential land use is also proposed for the property between Paw Creek and the Westerwood Subdivision. Residential development is recommended at various densities (1 and 3 d.u.a.) as a transition from the nonresidential to the existing residential development. The intent is to maintain and protect the existing neighborhoods by confining

the departing aircraft to a corridor between the Westmoreland, Wildwood and Westerwood Subdivisions.

An alternative land use for the area that includes the mobile home park on Moores Chapel Road and the property immediately to the west is R-1. This recommendation is consistent with the policy allowing residential development in the 65 Ldn and would protect the mobile home park from nonresidential uses to the west.

- Purchase property along Tuckaseegee Road and I-85 for public open space or recreational use. The purpose of this recommendation is to prevent nonresidential development on Tuckaseegee Road (currently a residential corridor) and protect the 70 Ldn contour from new residential development. Acquisition of this property would be through the use of General Obligation Bonds, requiring voter approval.

4. RUNWAY 5 CONTOUR

Plan Recommendations:

- Promote commercial and office park development east of the proposed Outer Belt alignment that intersects with Paul Brown Boulevard Extension. The nonresidential development in this contour is located within the highest noise zone.
- Promote uses such as an extended greenway system under the flight path, single family (1 and 3 d.u.a.) development and a lake and river access park west of the Outer Belt.
- Support residential development along the greenway and Garrison Road at 3 d.u.a. Multi-family development is also recommended for property at the end of Garrison Road. (The Dixie-Berryhill Small Area Plan is in conflict with this recommendation because of the large amount of multi-family development recommended along the waterfront. Also, this location would not meet the locational criteria established for multi-family in the General Development Policies Document.)
- Purchase property within the 1994 70 Ldn contour for public open space or recreational use, namely passive recreation. The purpose of this recommendation is to protect the 70 Ldn contour from new residential development. Runway 5 is used primarily for nighttime operations. Acquisition of this property would be through the use of General Obligation Bonds, requiring voter approval.

5. RUNWAY 36L CONTOUR

Plan Recommendations North of Shopton Road:

- Support the long term viability of Steeleberry Acres and Eagle Lake, two existing neighborhoods, as residential areas and reinforce through the following actions:
 - Downzone properties to conform to lot size (R-1 or R-2).
 - Develop a golf course/recreational use on 200± acres and a greenway along Coffey Creek which would be a natural boundary between the office development and the golf course.
 - Encourage multi-family housing in areas meeting the locational criteria of the General Development Policies Document.
 - Implement strategies such as noise attenuation and purchase assurance.

Plan Recommendations South of Shopton Road: (This area includes the Whitehall rezoning petition in 1985.)

- Purchase property south of Shopton Road for public open space or recreational use. The purpose of this recommendation is to protect the 70 Ldn contour and flight path from new residential development. Acquisition of this property would be through the use of General Obligation Bonds, requiring voter approval.
- Promote a mix of multi-family and single family development in the area north of Arrowood Road Extension, across from the school campuses on Sandy Porter Road. Single family density should be at a density of 1 d.u.a. Density for the multi-family development will be determined by the locational requirements in the General Development Policies Document.
- Support residential development south of Arrowood Road Extension at 1 d.u.a. within the 36L contour. A small portion of multi-family and office development is recommended in the southeast quadrant of the Outer Belt interchange with Arrowood Road Extension.

6. RUNWAY 36R CONTOUR

Plan Recommendations:

- Support a complete buyout of Whippoorwill Hills neighborhood allowing the area south of Byrum Drive to redevelop with compatible uses such as office and business park development. A large portion of this noise contour is

currently developed with nonresidential uses especially along Beam Road.

- Establish a nonresidential land use pattern north of Shopton Road with the exception of property west of Coffey Creek. The proposed land use south of Shopton Road is residential - single family and multi-family.
- Allow single family development within the 36R contour. The old Whitehall Subdivision is being developed south of Shopton Road leaving only a small amount of undeveloped residential property.

Acquisition of Properties for Open Space or Recreational Use Within Noise Contours

Land use recommendations for runways 18R, 36L and 5 include acquisition of approximately 500 acres for recreation/open space. While the area within runway 5 can be used for active recreation, the other areas within runways 18R and 36L are limited to passive recreational uses such as jogging and equestrian trails. Implementation of this land use policy will require voter approved General Obligation Bonds. Current estimates place the total acquisition cost at 12 million dollars; \$25,000 per acre. In the event that this policy is not adopted by the elected officials or the bond referendum is defeated, additional study will be needed to determine alternatives.

Neighborhood Buyouts

Land use recommendations for runways 23, 18R and 36R include a complete buyout of the residential neighborhoods of Moores Park, Whippoorwill Hills and Withrow Road. These areas are experiencing high levels of aircraft noise and will continue to in the future with airport expansion. Although these neighborhoods extend outside the 75 Ldn into the 70 and below, there is not a logical stopping point for acquisition because of the changing nature of the noise contours. However, in situations like this, stopping points must be determined on a case by case basis. Other factors such as location and adjacent land uses create an environment more suitable for nonresidential development in these areas. Therefore, the entire neighborhoods should be removed. A small portion of Westerly Hills/Wandawood is located in the 75 Ldn and should be acquired. As stated earlier, input from the neighborhood is needed prior to acquisition. The airport should be conscious not to fragment this neighborhood and others when deciding where acquisition stops and noise attenuation begins.

In addition to noise insulation in the 65 and 70 Ldn in Thomasboro-Hoskins and Enderly Park, an opportunity exists to build on improvements initiated by the airport program. These areas have been neglected over the years and are in need of housing rehabilitation. Efforts to improve the existing housing stock should be coupled with a local housing program to bring these structures up to minimum building code standards. This provides a chance to save local money by supplementing the rehabilitation program with FAA funding. As a

result, the preservation of these neighborhoods would continue to provide a good moderate to low income housing stock valuable to the community.

Compatible Development on Airport Property

Through the purchase/acquisition program described in the airport section, land should be purchased by the airport in the areas most impacted by noise adjacent to the airport. Locating community uses that may not be compatible in other areas or that require considerable open space on the airport's property is an opportunity that should be pursued. Reuse of the land for public purpose would make an efficient use of the land and be an opportunity to generate revenues. It would also bring additional public amenities to the west side. However, restrictions may apply to property purchased by the airport with FAA grant money.

Examples of uses that should be considered are:

- Mega Recreation Center as programmed in the Parks Master Plan
- Jogging Trails in Connection With Greenway
- Nature Preserves
- Derby Downs
- Motor Cross (Bicycles and/or Motorcycle)
- Riding Stables
- Cemeteries
- Plant Nursery/Greenhouse
- Animal Shelter Relocation
- Fire Training Facility
- Defensive Driving Pad
- Farm Operations - Grazing and Crop/Tree
- Golf Course
- Athletic Fields

Care should be taken to ensure that development of any of the above uses is an asset to the west side and that necessary screening and separation from adjacent uses are provided.

Airport Development Corporation (ADC)

Land surrounding the airport and within I-85, Outer Loop, Steeleberry Acres and Billy Graham Parkway would be appropriate for master planning and development by a non-profit organization. The organization could be similar in concept to Charlotte's Uptown Development Corporation (CUDC) or the University Research Park (URP). Once planned the ADC could market the area to airport compatible business and industries and oversee its orderly development.

The Southwest District Plan recommends that Mecklenburg County and the City of Charlotte, either through the Economic Development Department or the Aviation Director, pursue the creation of an Airport Development Corporation to foster and oversee airport related development.

MIXED USE AND COMMERCIAL CENTERS

Opportunities for a variety of mixed use and commercial centers either exist or are planned in the southwest. The activity and intensity of these centers throughout the district will give structure to the overall land use pattern. Instead of urban sprawl and strip development, these centers will focus development at appropriate locations. Three types of centers are planned throughout the Southwest District as described below:

Regional Mixed Use Centers (2,000,000+ sq. ft. retail/office)

Currently, no regional mixed use centers exist in the southwest. A regional mixed use center will not function in this area for the following reasons:

- The market area is greatly restricted to the west because of the Catawba River and Lake Wylie.
- Competition for the remaining market area is divided among the existing regional centers in the adjacent districts.

A major component of a regional center is its office and service development. With the amount of existing and proposed employment opportunities in the southwest, the market could not support a center of this magnitude. Therefore, several community mixed use centers are proposed to satisfy the retail needs of the district.

Community Mixed Use Centers (1,000,000 sq. ft. office/retail)

No community mixed use centers exist in the Southwest District. With an increase in population projected over the next fifteen years, the need for additional commercial opportunities will also rise. Three community mixed use centers are proposed for the southwest district. Locations recommended for these centers are:

- Steele Creek Road (Hwy. 160) / York Road (Hwy. 49) *
- York Road (Hwy. 49) / Outer Belt Interchange
- Wilkinson Boulevard/Outer Belt Interchange

* The proposed center located at Hwy. 160 and 49 replaces the mixed use Development Enterprise Area (DEA) recommended in the 2005 Plan. The DEA concept anticipated that at least 2,000,000 square feet of nonresidential space would be needed to create a stimulus of development for this location. Modifications were made in the district planning process to reduce the amount of employment/office while maintaining a strong commercial, retail and residential component; the change at the Highway 49/160 intersection resulted from the amount of existing employment opportunities already in the Southwest District.

Specific locations for the nonresidential uses are not shown on the proposed land use map for the center at Highways 49 and 160. However, the most appropriate site for the commercial/retail is at the northwest corner, while the northeast corner is appropriate for neighborhood service oriented offices; the land on the northwest corner is relatively flat and clear of vegetation, requiring less grading and clearing for a major shopping center. Should a development proposal recommend different plans for the various corners of the intersection, the Planning staff would evaluate the situation based upon the specific proposal.

The center located at Highway 49 and the Outer Belt should be comprised of commercial, retail and low intensity office of a residential scale and high density multi-family development. A total of 500,000 sq. ft. of commercial and retail is recommended along Highway 49 between the Outer Belt and Arrowood Road Extension; it should be buffered with less intense offices and multi-family housing.

The third community mixed use center, proposed at Wilkinson Boulevard and the Outer Belt interchange, can be a catalyst for creating new employment opportunities. Development at this center should consist of a mix of commercial, office, light industrial and higher density residential uses. This center is also part of the 2005 Plan employment DEA recommended at Wilkinson Boulevard and I-85.

Neighborhood Mixed Use Center (250,000 sq. ft. retail/office)

Three centers of this scale exist in the southwest. These include Yorkmont Center, located at Billy Graham Parkway and York Road, Southwood Village, located at Nations Ford Road and Arrowood Road, and Forty-nine (49) Crossing, a small center at the intersection of York Road and Carowinds Boulevard. Additional square footage has been approved at the York Road/Carowinds Boulevard intersection.

One additional neighborhood mixed use center is recommended at Paul Brown Boulevard Extension and the Outerbelt Interchange. The Dixie-Berryhill Small Area Plan recommended a mixed-use DEA at this location. Designated DEA's have the potential of becoming new growth areas in the county for residential and/or employment purposes. A mixed-use DEA is comprised of retail employment, service employment, light industrial uses and residential uses. A DEA would not function in Dixie-Berryhill for the following reasons:

- The magnitude of a DEA (500-3000+ acres) would completely dominate the immediate area, overshadowing existing features worth preserving.
- Property ownership in this area is fragmented such that an integrated design necessary for a DEA is difficult.
- The configuration of land recommended for employment uses east of the Outer Belt is long and splintered, further eliminating a focal point for a DEA.

- Extending the employment uses west of the Outer Belt would jeopardize the residential community.
- The residential base in the community can not support the amount of retail associated with a DEA.
- In addition to the Community Mixed Use Center at Wilkinson Boulevard and the Outer Belt, the neighborhood mixed use center is sufficient to serve the needs of the Dixie-Berryhill Community.

Neighborhood Convenience Centers (up to 70,000 sq. ft. retail)

Several neighborhood convenience centers exist in the Southwest District. These centers are located at:

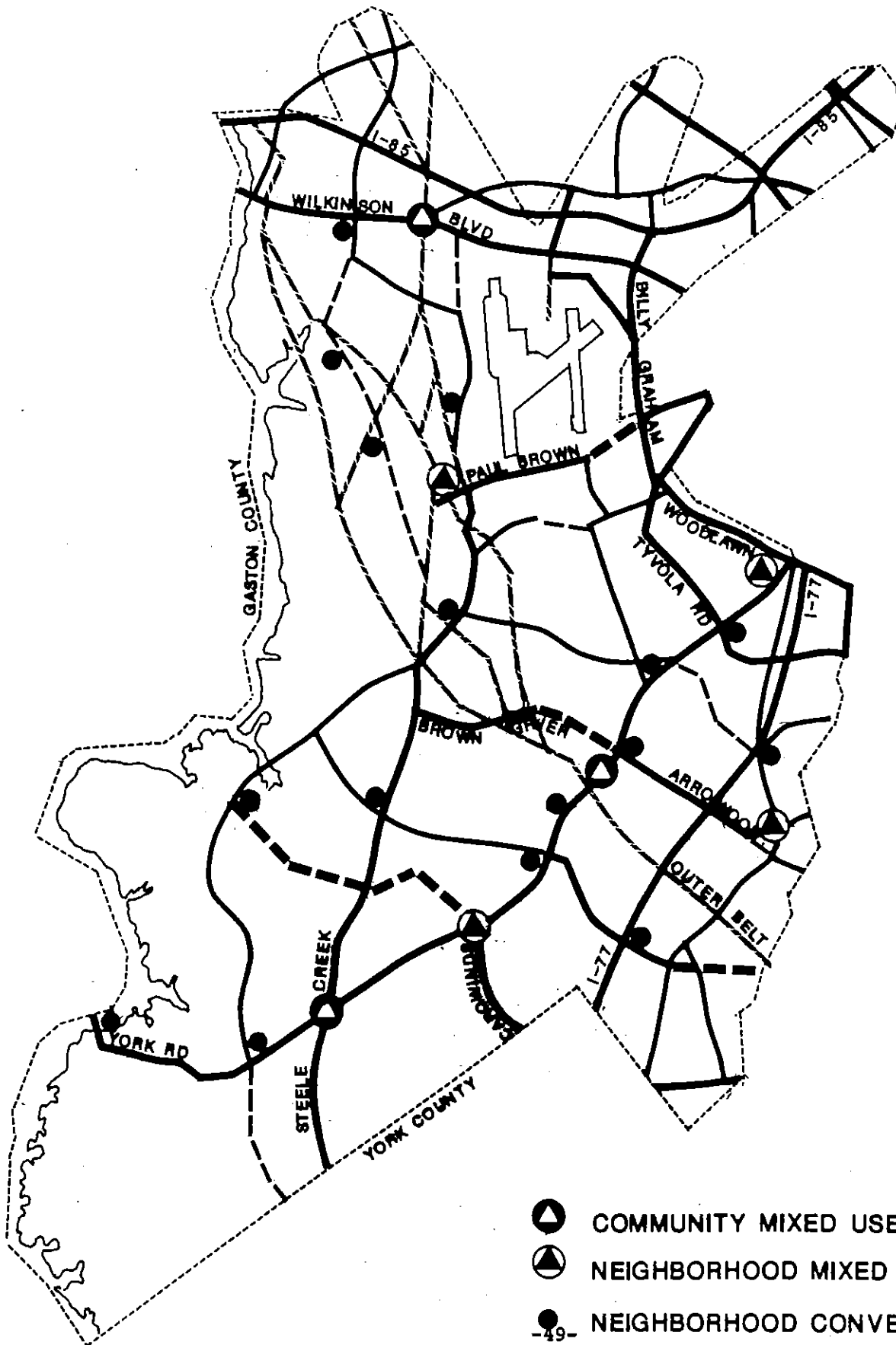
- Nations Ford Road at Archdale Road
- York Road at Shopton Road West
- York Road at Westinghouse Boulevard
- York Road at Sandy Porter Road
- York Road at Arrowood Road
- York Road at Lake Wylie
- Westinghouse Boulevard at I-77
- Wallace Neel Road at Dixie River Road

Additional neighborhood convenience centers are either approved or recommended for development at one corner of the following intersections:

- York Road at West Tyvola Road
- Steele Creek Road at Shopton Road *
- Steele Creek Road at Westinghouse Boulevard
- York Road at Shopton and Beam Road
- Carowinds Boulevard at Shopton Road West
- Dixie River Road at Sadler Road
- Walker's Ferry Road at Mt. Olive Church Road
- Wilkinson Boulevard at Sam Wilson Road

* This center should incorporate the historic buildings into an adaptive-reuse scheme which preserves the historic setting.

PROPOSED AND EXISTING MIXED USE
AND COMMERCIAL CENTERS



- ▲ COMMUNITY MIXED USE CENTER
- ⊠ NEIGHBORHOOD MIXED USE CENTER
- NEIGHBORHOOD CONVENIENCE CENTER

EMPLOYMENT GROWTH AND OPPORTUNITIES

The existing levels of employment in the Southwest District sustain a viable employment base. Rapid development of industrial locations in the past and more recent business and office park development has created diversity among employment opportunities. Although the Southwest District does not need dramatic increases in employment locations as experienced in other planning districts, there should be opportunities for growth. In addition to the office components of the mixed use centers previously described, additional employment opportunities should be promoted by infilling within and expanding some of the established industrial areas and by creating a few new employment concentrations throughout the district. Recommendations for expanding or infilling within established employment areas are described below and illustrated on the proposed land use map.

- Westinghouse Boulevard Area: Combined with development along Arrowood Road, this area has the largest regional employment base outside the Central City. Opportunities are available for blue collar jobs among the manufacturing and industrial uses. Approximately forty percent of nonresidentially zoned land in this area is undeveloped. Considering the growth potential, the industrial development should be maintained within the limits of the existing zoning. The amount of industrially zoned property is sufficient to meet economic and employment needs of the region. Future development should reflect a design sensitivity in terms of adequate buffers and edge relationships to protect the adjoining residential neighborhoods.

Two small residential pockets exist on Amon Lane and John Price Road within these industrial boundaries. Because these residential areas are encircled by nonresidential development, they will not be viable for residential areas in the future, thus redeveloping the lots for industrial use is appropriate.

- Arrowood Road: This area, with its large suburban employment concentration, provides predominantly white collar jobs for major corporations. This type of office and business park development should continue within the confines of the existing zoning.
- Billy Graham Parkway/West Tyvola Road Vicinity: This area, bound by York Road, Coffey Creek, West Boulevard and Billy Graham Parkway, is rapidly becoming a prime location for high quality office park development. Recent developments include Coffey Creek Business Park, Lakepoint Office/Business Parks and Parkway Plaza. The land around Billy Graham Parkway and West Tyvola Road is ideal for business park development; it has accessibility via the interstates and parkway and is in close proximity to the airport. However, the efficiency of the transportation system in this area is declining because of the amount of square footage approved for office development. A greenway system along Coffey and Sugar Creeks will provide an attractive amenity when incorporated into the overall design scheme. This area should continue to provide

highly visible office, service and business park development with high design standards and attention to site planning details.

A majority of the land use recommendations in the Billy Graham Parkway/Tyvola Road Extension Special Project Plan remain valid for the Billy Graham Parkway and West Tyvola Road area. However, the following changes to the Billy Graham Parkway Plan are recommended in this district plan:

- The North Carolina State prison facility, located at West Tyvola Road and the Billy Graham Parkway, should redevelop for office/ business park use. The property is valuable for nonresidential development because of adjacent employment uses and good accessibility to the parkway.
- Tyvola Road should be six lanes between Nations Ford Road and South Boulevard. The 2005 Transportation Plan should be amended to include this project.
- The future of the police/fire training facility at its present location is questionable. If the facility is relocated, it could move to available airport-owned land. The use would be compatible with airport operations. The opportunity to relocate the facility is supported by the increasing land values and adjacent nonresidential development.
- A neighborhood center is recommended at Beam/Shopton and York Roads in the original plan. Because of the amount of commercial development proposed elsewhere in the district, the center at Beam/Shopton and York Roads should be downsized to a neighborhood convenience center. The size of the proposed convenience center should range from 50,000 - 70,000 sq. ft. This will be adequate to serve adjacent residential uses. Development of multi-family housing should be at a density from 10-15 dwelling units per acre (d.u.a.).
- Landscaping treatment should extend along Nations Ford Road from I-77 to Sugar Creek.

The Billy Graham Plan also recommended a cap of 3,000,000 square feet of office development in the area. The associated infrastructure was programmed for this maximum square footage. Since plan approval, numerous rezonings have been approved by the City Council and County Commission resulting in potential office/business park development in excess of 13,000,000 square feet. Still, vacant zoned land remains which will increase the square footage even more. Because of the recent rezonings, congestion will always be a problem in the area even with the construction of the Outer Belt. Future land use decisions must take into account the fact that rezoning approvals have already exceeded the maximum square footage used in designing the road system.

- Wilkinson Boulevard/I-85 Corridor: Wilkinson Boulevard was once a thriving gateway corridor providing the main link between Gaston and Mecklenburg Counties. Since I-85 opened in the early '60's, the boulevard has slowly deteriorated with the closing of many businesses that depended upon traffic using Wilkinson. The deterioration has resulted in a hodge-podge of land uses and a streetscape that portrays a negative image. A land use pattern that strengthens Wilkinson as an employment corridor should be encouraged east of the Outer Belt. Light industrial, office and business park development are the types of uses that should locate on the corridor. Included in this area is property recommended for acquisition in the Airport Master Plan and additional properties in the Moore's Park and Withrow Road neighborhoods. Airport related businesses could coexist with the proposed land uses. Continuation of the Wilkinson Boulevard Streetscape Plan is recommended for this area.
- Western Outer Belt: Property extending east of the Outer Belt to the existing airport boundary should also develop as an industrial, office, and/or business park. I-2 uses should be excluded by right but should be considered through the conditional rezoning process with appropriate site plan review. This review should address design issues such as screening and the treatment of outdoor storage and loading dock areas. The proposed land use would accommodate airport expansion (third parallel runway) and provide employment opportunities for airport related businesses and major employers in the airport area.
- Area Immediately South of Airport: This area is contiguous to the airport and is recommended in the Airport Master Plan for acquisition by 1990. The Southwest District Plan recommends heavy industrial development which can accommodate airport expansion needs and related businesses.
- Paul Brown Boulevard/Byrum Drive Area: A crucial ingredient of the Southwest District Plan is the protection of transportation corridors as gateways to the west side. Unless these corridors are protected by creating positive images along them, the district will have difficulty in attracting good quality housing. Paul Brown Boulevard and Byrum Drive need to be preserved as gateways developed with appropriate land uses having setbacks adequate to provide streetscape plantings. These two corridors should project a parkway - type atmosphere. Well designed light industrial and office and business park development is recommended to enhance the area as well as to provide a strong economic base. This type of development will also complement adjacent office development.
- Jackson Homes Area: Bordered by the airport, West Boulevard, Billy Graham Parkway and Morris Field Road, the Jackson Homes area has been protected from nonresidential uses and has survived as a viable neighborhood. Housing is available for low-moderate income levels in a nice community setting. Jackson Park Baptist Church, located nearby, has an active outreach program and the single

family lots maintain a high homeownership ratio, further reinforcing the neighborhood's viability.

The short term use of the Jackson Homes area is residential. However, with the area being isolated from other residential uses and the changing land use patterns south and north of West Boulevard, the more appropriate land use becomes nonresidential - office and business park development. But this use raises issues of a social and economic nature. If the existing residential area is redeveloped without any control or strategy, low-moderate income families could be displaced without affordable replacement housing and a less than quality development would result from a piecemeal pattern. Office and business park type use should develop only if:

- The properties in the area could be sold as a unit, packaging all parcels of land in a unified development, and
- The development plan includes a relocation component whereby the residents were offered affordable housing elsewhere with similar amenities such as public transportation.

RESIDENTIAL FUTURE

Because Charlotte-Mecklenburg will become more urban in the 21st century, a variety of housing types and densities should be provided throughout the community. Appropriate policies and development guidelines identified in the general policy document are based largely on this assumption. The land use map for the Southwest District depicts the application of the generic policies for specific locations. A summary of the proposed residential pattern is as follows:

RECOMMENDATIONS FOR RESIDENTIAL DENSITIES

1. UP TO 1 DWELLING UNIT PER ACRE (d.u.a.)

The General Development Policies Document recommends that the maximum density should be one dwelling unit per acre in areas where environmental protection is necessary, access is very poor, historic qualities prevail, or where a somewhat rural character is desired. These conditions and others exist in the Southwest District that make less intense development more appropriate in certain locations. Recommendations for different areas of the district are as follows:

Lake Wylie and Catawba River

- Establish a maximum density of 1 d.u.a. one-half mile inland from the shoreline, including major coves, as an interim measure until completion of the watershed protection study and classification of existing surface water supplies. (Refer to the environmental quality section for details on

the study) The area recommended for R-1 extends from I-85 south to the South Carolina State Line. Restricting not only nonresidential development but the density of residential development will help protect the water quality of Lake Wylie and Catawba River.

Other reasons for R-1 zoning in the southwest include:

- The lack of public water and sewer
- The need to limit the amount of private package treatment plants discharging into the lake and river
- Protection of the water as a recreational scenic resource

It is recognized that conditions may exist within the R-1 zoning district that would allow clustering of homes while still protecting the environment and water quality. However, the overall density for cluster provisions should not exceed one unit/acre and development may require best management practices or a natural cleansing system for stormwater runoff.

To exceed an overall density of one unit/acre in this environmentally sensitive area, a rezoning would be required. Requests for density zoning changes should be evaluated on a case-by-case basis through the conditional development or planned unit development process. Increased density should be considered based upon the following conditions:

- Availability of public water and sewer
- Cluster provisions that demonstrate a high level of design, preservation of environmental features such as floodplain, steep slopes, or trees and provision of common open space
- Higher standard of treatment for sewer plants discharging into the lake or use of high quality non-point systems (e.g. spray discharge systems) managed by licensed utility operators
- Adequacy of transportation system
- Use of best management practices to slow the velocity of runoff, collect floating material and allow solids to settle leaving the purer water flowing downstream
- Pursuance of a minimum 100 foot vegetative buffer (parking lots included) from water. Development proposals requesting deviation from the minimum 100 foot vegetative buffer requirement will be considered through

administrative subdivision review. Any proposal should contain a 50 foot minimum vegetative buffer measured from the high watermark (Elevation 570.0) and restrictions outlining the engineered and constructive measures that will be taken in order to equal the anticipated performance criteria of the 100 foot vegetative buffer requirement. Strip clearing, grading or development will not be allowed within the 50 foot buffer except as needed for the implementation of appropriate best management practices for water quality protection. The 50 foot buffer will be maintained as a protected area but may allow for the removal of dead or diseased trees, selective clearing to enhance desirable vegetative growth and the installation of devices for erosion, sedimentation and runoff control. Also allowed in the 50 foot buffer is the clearing of pathways to provide access to private and public boat docks, launch ramps and marinas permitted as necessary for normal recreational use. Anticipated performance criteria will be determined by North Carolina's proposed rules for the protection of watersheds. This condition would require amendments to the zoning and subdivision ordinances and will be defined through the watershed study.

- Pursue measures to protect the vegetation around all perennial tributaries (streams).

Development proposals for higher densities must incorporate as many of the above conditions as possible. When provisions support clustering or planned unit development, the project should provide high quality design, diversity of housing types and arrangements, efficient use of the land, preservation of natural features, provision of common open space, and measures to protect surface and groundwater supplies. The latter may include measures similar to the Japanese system that provides a mixture of sand, fine rocks, grass and plant life to purify stormwater runoff. Another measure in protecting surface and groundwater supply is a natural system of ponds and lakes to collect the runoff.

Duke Power Training Facility

The Southwest District Plan supports a residential future for the land occupied by the Duke Power Training Facility on Amos Smith Road, currently zoned institutional - conditional. This property, located in the $\frac{1}{2}$ mile watershed protection area, will become more valuable and attractive for residential development in the future with its water amenity. However, this district plan does not recommend an immediate rezoning of the property. The existing institutional zoning should be allowed to remain. If Duke Power decides to discontinue the existing use, the area should redevelop at a density of 1 d.u.a.

Steeleberry Acres and Eagle Lake

- Support the long term residential future of Steeleberry Acres and Eagle Lake, two existing neighborhoods bound by the airport, Steele Creek Road, Shopton Road, and Coffey Creek, excluding the designated multi-family properties. However, from a land use policy viewpoint, the overall density should not exceed 1 d.u.a. in this area.

A majority of the existing single family lots in this area are less than one acre. The golf course recommended for the undeveloped properties between the two existing neighborhoods will actually provide a overall density lower than 1 d.u.a. * A lower density would minimize the number of residential homes affected by aircraft noise and reinforce the area as stable and viable residential neighborhoods. Measures to ensure the livability of these areas are discussed in the airport section of this district plan.

2. Up to 4 D.U.A.

Lower Steele Creek

- Establish a base density of 3 dwelling units per acre (d.u.a.) in Lower Steele Creek, south of Westinghouse Industrial Area. Lower and higher densities may occur; however, higher densities would require a rezoning. This base density of 3 d.u.a. is appropriate since the area is isolated from what is considered the direct influence of Charlotte's core. The area relates more to York County.

Balance of District

The balance of the district is defined as the areas outside the R-1 zoning district and Lower Steele Creek. Single family residential density in these areas should have a base density of 3 d.u.a. However, these areas are appropriate for consideration of higher density single family development that exceeds 3 d.u.a. A development above 3 d.u.a. would require a conditional rezoning of the property based upon the following considerations:

Urban Development (above 3 d.u.a.)

- In areas designated for urban development, the single family density may exceed 3 dwelling units per acre through publicly or privately initiated rezonings based upon the following considerations:

* The golf course is described in the Livability Section of this district plan.

Location: Higher single family densities may be particularly appropriate in these locational situations:

- within approximately $\frac{1}{2}$ mile of transit corridors
- within approximately $\frac{1}{2}$ mile of a commercial and/or employment center or public park
- where development clustering could preserve environmental features such as floodplain, steep slopes, or trees
- within a large scale mixed use development in which a variety of housing densities could exist
- adjacent to multi-family development

Water and Sewer: Water and sewer services should be provided by the Charlotte-Mecklenburg Utility Department (CMUD) system. If a private system is used, the service lines should be sized to CMUD standards to allow for a future connection with CMUD's lines.

Open Space: As densities rise, common open space should be provided in the development. Clustering units to create open space amenities is encouraged. Close proximity to public open spaces may mitigate the need for private common open spaces.

Streetscape Amenities: Sidewalks, street trees, curb, gutter, and ample right-of-way for on-street parking should generally be provided.

Compatibility: New development should blend with adjacent single family developments of lesser density. This may necessitate lots on the project edges having densities, yards, and setbacks similar to the existing development as a transition in the streetscape.

Neighborhoods that should be protected from intensification within their own boundaries are identified on the land use map. This residential land use pattern will provide a much needed balance between the employment and residential base of the district. Three distinct areas are affected by this pattern: Dixie-Berryhill, Wilkinson Boulevard/I-85 area and Steele Creek.

The Dixie-Berryhill Community has the opportunity to build on its residential character with development at 1 and 4 d.u.a. Parks, open space and commercial centers are recommended in this district plan to stimulate a stronger residential base. As a result of the existing and proposed transportation network, Dixie-Berryhill is positioned to offer good accessibility to Uptown and major employment areas. Water and sewer improvements will also make the area more attractive for residential development.

The property along Wilkinson Boulevard west of Sam Wilson Road is recommended for residential development at various densities. Sam Wilson Road's intersection with Wilkinson Boulevard provides a boundary between the residential and nonresidential uses. Several reasons exist for this residential land use pattern:

- It improves the image and strengthens Wilkinson as a major gateway corridor.
- It eliminates further stripping of Wilkinson Boulevard with marginal business uses.
- It forces employment opportunities to locate closer to the Outer Belt interchange.
- It allows residential development to better utilize the lake as an amenity.
- It supports the community commercial center at Wilkinson Boulevard and the Outer Belt.

The Steele Creek Community, bordered by an intense employment area, has the opportunity to develop a strong residential base. This is evident with the increased rezonings and subdivision approvals in recent years. An important strategy in the plan is to expand the residential core of this area while minimizing the encroachment of industrial uses. The recommend density in this area is 1 and 3 d.u.a. with the potential of higher density, especially in the vicinity of commercial centers.

3. 4-6 d.u.a.

Designations for this density indicated on the proposed land use map only include areas already developed or zoned at this density and transitional locations surrounding commercial centers. To develop at densities greater than 4, a rezoning would be required. Approval should be based upon conditions stated above.

4. High Density Single Family and Multi-Family Areas

Various multi-family locations where land is already developed or appropriately zoned for multi-family are depicted on the proposed

land use map. Other future sites are proposed, but are merely representative of sites which meet the locational criteria defined in the General Development Policies Document. Additional sites will be appropriate in accordance with the locational criteria. In general, multi-family housing should be dispersed throughout the district at desirable locations.

The General Development Policies Document recommends that undeveloped areas designated for 1, 2, 3, or 4 dwelling units per acre in each district plan should be rezoned to allow that intensity. In determining specific rezonings to be initiated, Planning staff will consider existing neighborhoods and subdivisions that should be excluded from upzonings; intensification of zoning is generally not promoted in the established residential areas, and zoning land to allow higher densities would not be appropriate. Through a public participation process that focuses on subareas within districts, those areas not appropriate for upzoning will be determined. Planning staff will meet with planning district committees, other appropriate citizens, Planning Committee and elected officials to review proposed rezonings. After the process is completed for determining where specific rezonings are appropriate, the official rezoning process will begin.

For the purpose of this district plan, areas outside the watershed protection area should develop at a maximum density of 3 or 4 dwelling units per acre as defined in the preceding paragraph.

DEVELOPMENT OF INTERCHANGE AREAS

The development immediately around the interchanges of the interstates and of the proposed Outer Belt is important to mention. The appearance and function of these interchange areas can have significant impact on the land use development surrounding them. In many instances, the interchange is a gateway or identifiable entrance to a certain part of the community. It can be an image maker, positive or negative. Because of the value of the highly accessible and visible land at the interchanges, pressure is and will be great to develop the land for nonresidential uses. In some locations this may be appropriate; in others, it may not. In general, though, higher density uses are desirable at interchanges because of traffic control benefits.

It is important to note that the alignment of the proposed Outer Belt north of Highway 49 (York Road) has not been determined. An Environmental Impact Study (EIS) is underway in which several optional alignments are being reviewed. A decision on the selected corridor is not expected until fall or winter of 1990. Consequently, it is difficult to plan specifically for the land uses around the Outer Belt interchanges. The Southwest District Plan will be updated to include the Outer Belt interchange land uses north of Highway 49 (York Road) when the actual alignment is selected. Until such time, no rezonings to higher densities or intensity other than those indicated on the proposed land use map should be approved unless the rezoning implements

the policies of this plan and/or meets the locational criteria for multi-family development.

The proposed land uses in all the other interchange areas are described as follows:

OUTER BELT CORRIDOR

- Westinghouse Boulevard Extension/Outer Belt: This interchange is principally developed with heavy industrial uses. These types of land uses are expected to continue in the future.
- I-77/Outer Belt: Because of the interchange design of these two limited access roads, no vehicular access from the roads to the land around the interchange will exist. However, as described earlier in this document, high quality office and business park development should continue north of Sugar Creek, while heavy industrial development should be confined to the south.
- Highway 49/Outer Belt: A community sized commercial center (1,000,000 sq. ft.) is proposed on the northerly quadrant of this interchange between the Outer Belt and Arrowood Road Extension. Recommended along the frontage of Highway 49 are 500,000 sq. ft. of primarily retail space, buffered with less intensive office and multi-family development to the northwest. The core of the above uses are to be primarily confined to the wedge-shaped area created by the Outer Belt, Highway 49 and Arrowood Road Extension. Because the land area is limited and a mixture of multi-family and office use desired, 500,000 sq. ft. of office space may not be attainable in this described area. Upon the presentation of a master plan for the area, a combination of office, distribution, light industrial and multi-family uses may be considered in the general area of the Outer Belt and Arrowood Road Extension. Such a master plan should take into consideration the relationships of the major thoroughfares in the vicinity, the noise areas related to the airport, the creation of proper buffer and transitional uses designed to assure compatibility with adjoining land uses and provisions for addressing traffic flow conditions in the area.

Multi-family development is recommended for the northwest quadrant of the interchange while industrial uses are recommended to the south and southeast. Development of the center and the multi-family housing should await completion of the Outer Belt and Arrowood Road Extension and the widening of Highway 49 to four lanes in this general vicinity or acceptable alternatives have been developed under the master planning process.

- Arrowood Road Extension/Outer Belt: A mixture of single-family and multi-family residential development is proposed across from the school campuses along Sandy Porter Road west of the Arrowood Road/Outer Belt Interchange. Office, commercial and multi-family housing associated with the community mixed-use center identified above under the statement relating to the Highway 49/Outer Belt

area borders this area. Multi-family and a combination neighborhood office and shopping facility with the retail component limited to 70,000 square feet and the office component limited to 100,000 square feet located on a maximum of eight acres could possibly be developed within the northeast quadrant of the Arrowood Road Extension/Outer Belt Interchange upon the presentation of a master plan for the area by way of a "conditional-type" rezoning petition. The master plan should take into consideration the relationships of the major thoroughfares in the area, the noise areas related to the airport, the creation of proper buffers and transitional designs to assure compatibility with adjoining land uses and provisions for addressing traffic flow conditions in the area.

- Steele Creek Road/Outer Belt: A neighborhood convenience center (70,000 sq. ft.) is proposed on the northwest quadrant of this interchange. Development of this center should include integration of the historic Byrum Store. Multi-family development is proposed for the balance of the northwest corner between Dixie River Road and the interchange. Residential development (single family and multi-family) is recommended for the remaining corners.
- Paul Brown Boulevard Extension/Outer Belt: Located on the perimeter of the noise contour for runway 5, this interchange area provides an opportunity for a mix of proposed land uses. A neighborhood mixed use center (250,000 sq. ft.) is proposed on the northeast corner with commercial and office uses. Also recommended in this area is a mixture of light industrial and office/business park development. Public acquisition of property for open space is recommended on the northeast corner in the 1994 70 Ldn contour. Residential development is recommended in the remaining areas surrounding the interchange.
- Wilkinson Boulevard/Outer Belt: A community mixed use center (1,000,000 sq. ft.) is proposed at this interchange as part of the DEA recommended in the 2005 Plan. Light industrial and office/business park uses are recommended east of the Outer Belt. A commercial and retail component for this center is proposed for the southwest corner between Paw Creek and the interchange. Office/industrial uses are recommended for the remaining corners.
- I-85/Outer Belt: No physical connection will exist between the land and these two limited access roads. However, the vacant land near the interchange should develop as light industrial and office/business park, in all quadrants.

I-77 CORRIDOR

- I-77/Westinghouse Boulevard: This interchange is located within the region's largest employment base. Heavy industrial uses currently occupy all four sides of the interchange. No changes are recommended.

- I-77/Arrowood Road: As previously discussed, suburban employment opportunities exist at this interchange. Office and business park development should continue within the confines of the existing zoning boundaries without further encroachment into the adjacent residential neighborhoods.
- I-77/Nations Ford Road: This interchange is principally developed with office, commercial and multi-family residential uses. These types of land uses are expected to continue. However, further development of the northwest and southwest quadrants should maintain the existing residential land use.
- I-77/West Tyvola Road: The east side of I-77 and West Tyvola Road is principally built out with office parks, hotels and highway commercial uses. A mixed use development was recently approved for the northwest quadrant, providing employment and housing opportunities. Additional nonresidential development, beyond the existing zoning boundary, is not appropriate for the northwest quadrant. Confining nonresidential uses will help protect the adjacent residential area. Residential uses currently occupy the southwest quadrant and should remain in the future.
- I-77/Woodlawn Road: Existing development at this interchange serves a neighborhood mixed use function. A shopping center with a supermarket, small shops, restaurants and convenience type uses comprise the retail component, while service oriented offices complete the center. Also located at this interchange are three hotel sites. Typical office buildings and parks exist north along I-77. The extreme northern boundaries of this interchange lie within the Central District and are developed with highway business uses. No land use changes are recommended at this interchange.

BILLY GRAHAM PARKWAY CORRIDOR

- Billy Graham Parkway/West Tyvola Road: Office and business park uses have been developing at this interchange and in the immediate vicinity. These types of uses are appropriate for the area and should continue developing in the future. As described earlier in this district plan, in the long term, the prison facility site on the northwest quadrant should be redeveloped as an office and business park.
- Billy Graham Parkway/Airport Connector Road: Light industrial and office/business park development should develop at this interchange which is currently undeveloped.
- Billy Graham Parkway/Wilkinson Boulevard: A combination of light industrial and office/business park development should develop at this interchange. These uses are more appropriate for the area than the existing highway business uses. Withrow, a residential area occupying the northern quadrants of the

interchange, is recommended for acquisition through the airport's part 150 program and should redevelop as nonresidential.

- Billy Graham Parkway/I-85: This interchange is principally developed with intense highway service business. Some vacant commercially zoned land remains; further expansion of nonresidential uses to the north is not appropriate. However, nonresidential uses to the south are compatible with airport operations. Land uses proposed for this area include a combination of light industrial and office/business park development.

OTHER CORRIDORS

- Airport Entrance Road Interchange with I-85, Wilkinson Boulevard and Airport Connector Road: For the most part, development at these three interchanges is of a nonresidential nature. Compatible uses, namely light industrial and office/business park, should develop south in the interchange areas of I-85, Wilkinson Boulevard and Airport Connector Road. These uses may redevelop on properties presently used for residential purposes.

The land north of the Airport Entrance Road and I-85 interchange is moderately developed for highway services. Build out of parcels currently vacant but zoned for commercial or other nonresidential uses is appropriate, but additional nonresidential zoning is unwarranted. As mentioned earlier in the transportation section, the airport entrance road interchange with Wilkinson Boulevard carries a higher priority, than Billy Graham and Wilkinson Boulevard.

- I-85/Sam Wilson Road: The existing development at this interchange includes industrial and commercial uses on all four corners. These uses are appropriate and additional nonresidential uses are recommended. A mixture of industrial and business park/office is recommended for the quadrants of this interchange.

IMPLEMENTATION TOOLS FOR THE LAND USE PLAN

- Consistent Application of Policies:

Consistent application and support of the policies of this district plan by the elected officials will be the most significant means of ensuring that the desired land use pattern will evolve. Over time, deviations may be necessary, but they should be kept to a minimum. Changes in one area may require changes elsewhere, thus affecting the overall development pattern.

- Development Enterprise Areas (DEA's):

Previously discussed in the 2005 Plan, Dixie-Berryhill Small Area Plan and earlier in this district plan, DEA's have been recommended at three locations in the Southwest. Included are an Employment DEA in the I-85/Wilkinson Boulevard vicinity, a mixed use DEA at the intersection of Highways 160 and 49, and a mixed use DEA in the Dixie-Berryhill Community. The latter DEA was identified in the Dixie-Berryhill Plan only.

One of the tasks of the district plans is to define the boundaries of the DEA's. These boundaries are indicated on the proposed land use map. Because of the existing employment opportunities in the district and the redevelopment of areas currently incompatible with airport operations, however, two of the three DEA's proposed in the 2005 Plan have been eliminated. The community mixed use center and adjacent development at Wilkinson Boulevard and the Outer Belt comprise the DEA identified in the 2005 Plan. In the other two areas, less emphasis is placed on employment uses, whereas the commercial, retail and residential components are strengthened. The development concept still exists but in the form of commercial centers.

As previously noted, a neighborhood mixed use center is recommended in the Dixie-Berryhill Community instead of a mixed use DEA. Because of existing employment opportunities in the Westinghouse Boulevard and Arrowood Road area, the DEA at Highway 160 and 49 was scaled down to a Community Mixed Use Center. Emphasis was placed on strengthening commercial and retail services and residential opportunities for the Steele Creek Community. Descriptions for the proposed land uses in these areas are contained within the sections on Mixed Use/Commercial Centers and Interchange Areas.

- R-1 Zoning District

Properties included in the R-1 zoning district should be evaluated on a case by case basis. A decision should be made at the time of the rezoning to determine which of the three options described below are most appropriate for the individual parcel.

- rezone to R-1 which may result in non-conforming lots

- rezone as currently developed which may require R-2 zoning
- allow existing zoning to remain

Amendments to this district plan may be required based on recommendations from the watershed study. Possible changes may include actual boundaries of the R-1 zoning designation and additional best management practices to mitigate environmental problems.

• Recommended Rezonings:*

The Southwest District Plan recommends rezonings needed to implement the land use recommendations of this plan and/or correct currently improper zoning designations. The Planning Commission will initiate the proposed rezonings as described below and identified on maps in Appendix 1.

- 1) R-R, R-U, R-15 and R-MH properties located within the watershed protection area of Catawba River and Lake Wylie to R-1: To protect the water quality of the river and the lake, a very low residential density is recommended with the use of best management practices to control surface water runoff. As previously stated, this plan supports a policy limiting the density of residential development in this environmentally sensitive area. Therefore to comply with this policy these properties should be rezoned to R-1. (The Zoning Ordinance does not yet contain an R-1 zoning district.)
- 2) I-1 Property on Nations Ford Road North of Sugar Creek: A residential future for this property is questionable because of the existing and future quarry operations. Therefore, the Southwest District Plan recommends retaining the existing I-1 zoning and supports the possibility of expanded industrial uses in this area (including the multi-family property along Nations Ford Road owned by Vulcan) if accompanied by substantial buffers, streetscape and other improvements designed to mitigate negative impacts from industrial uses on residential areas west of Nations Ford Road. These conditions would be achieved through a conditional rezoning.
- 3) R-20MF Property on Nations Ford Road and Archdale Drive to R-9: A vacant tract exists on the west side of Nations Ford Road; it was rezoned in 1984 for 6.57 multi-family dwelling units/acre. To be more compatible with adjacent properties the tract should be rezoned to R-9, allowing a maximum residential density of approximately 4 units/acre. (Rezoning Approved)
- 4) B-2 Properties on Nations Ford Road at the Intersection of Echodale Drive to B-1: Fronting on Nations Ford Road at the entrance of the Springfield Neighborhood are several B-2 zoned properties. To promote neighborhood business uses instead of general highway oriented business, these properties should be rezoned to B-1. (Rezoning Approved)

- 5) B-2 Property on Nations Ford Road at the Intersection of Glenrock Drive to B-1: A vacant B-2 zoned property fronts on Nations Ford Road at the entrance of the Springfield Neighborhood. The property is recommended for rezoning to B-1 for neighborhood business. (Rezoning Approved)
- 6) B-2 Properties on Glenrock Drive at the intersection of Nations Ford Road to R-9: One parcel is vacant, while Mt. Zion Church of God occupies the other at the intersection of Nations Ford Road and Glenrock Drive. Since these properties are surrounded by single family residential uses they should be rezoned to R-9 to ensure a residential future. (Rezoning Approved)
- 7) R-9MF Property on Nations Ford Road across from Marshall Air Drive to R-9: A multi-family zoned tract is located on Nations Ford Road across from Marshall Air Drive. Single family homes and vacant properties occupy this tract of land. The property exists in a predominantly single family residential land use area. (Rezoning Approved)
- 8) R-12MF(CD), R-12(CD), R-20MF, R-15MF(CD), B-1(CD), R-15(CD) and O-15(CD) Properties near Highway 49 to R-3: As a result of the Whitehall Rezoning Petition which was approved in 1985, a number of vacant properties zoned for multi-family, business, and office uses exist within the area which is generally located northwest of Highway 49 in the vicinity of the Arrowood Road Extension and the Outer Belt Corridor. As noted in the discussion under the Outer Belt Corridor, a combination of residential, office, distribution, light industrial, commercial and multi-family land uses are desired in this area. All property depicted on Rezoning Map 9A should be rezoned to R-3 category and any new commercial development subsequently proposed under a conditional-type rezoning should be focused within the community center proposed at the Highway 49/Outer Belt Interchange. That part of the Whitehall Estates property depicted on rezoning map 9B is suitable for a mixture of residential types and densities as posed by the original Master Plan which was approved for the property. In addition, it is possible that a small amount of commercial development could take place to service these residential developments in the context of a Mixed-Use District master plan rezoning petition. Several reasons exist for a zoning change on these properties:

- No development has occurred since the rezoning (1985).
- By rezoning the properties to the R-3 category, more appropriate locations and patterns for nonresidential uses which better respond to the existing markets and transportation networks would be assured through future conditional-type rezoning petitions.

- The Outer Belt alignment indicated within the master plan that was approved for the Whitehall Development in 1986 has been rejected and the actual alignment runs nearer to the middle of the Whitehall properties. As a consequence, the 1986 Whitehall master plan is no longer feasible. (Rezoning Approved)
- 9) I-1 and I-2 Properties on Old Dowd Road at Paw Creek to R-12: Several I-1 and I-2 properties are located on Old Dowd Road in the Dixie-Berryhill community. They are currently vacant or developed with single family homes. Residential land use is appropriate for this area as adjacent properties are also developed with single family homes. A R-12 zoning district is recommended. (Rezoning Approved)
- 10) B-2 Property on Shopton Road West and Westinghouse Boulevard to R-1: A vacant parcel of land located on Shopton Road West is located in an area where single family residential development is the dominant land use. Positioned in the watershed protection area, this vacant property should be rezoned to R-1. (The Zoning Ordinance does not yet include an R-1 district.)
- 11) R-15 Properties on Steele Creek Road and Douglas Drive vicinity to R-1 or R-2: Several vacant parcels are located in an area north of Shopton Road which includes the residential neighborhoods of Steeleberry Acres and Eagle Lake. To prevent intensification of residential uses in this area, a zoning change to R-1 or R-2 is recommended depending on the lot size. A more detailed explanation for this change is described in the Land Use Section. (The Zoning Ordinance does not yet include an R-1 or R-2 district.)
- 12) RU Property on S.J. Lawrence Road to R-15: A single family mobile home lot, occupied and zoned RU, is located on S.J. Lawrence Road off Hamilton Road. An R-15 zoning district is recommended as it is more desirable and compatible with adjacent land uses. (Rezoning Approved)
- 13) RU Property on Hamilton Road to R-15: A parcel of land developed with a single family house is located on Hamilton Road near S.J. Lawrence Road. The property is currently zoned RU. Single family housing is more desirable and compatible with adjacent land uses. Therefore, the property should be rezoned to R-15. (Rezoning Approved)
- 14) R-9MF Properties off Nations Ford Road near Sugar Creek to R-9: The Ramblewood neighborhood, zoned R-9MF, is in the southeastern portion of the district on Nations Ford Road. The area is developed with single family homes at a density appropriate for R-9 zoning; therefore, it should be zoned as such. (Rezoning Approved)

- 15) R-9MF Properties near the intersection of Nations Ford Road and Arrowood Road to R-9: A residential area known as Foxboro, located near the intersection of Nations Ford Road and Arrowood Road, is currently zoned R-9MF; however, it is developed with single family homes at a density appropriate for R-9 zoning and should be zoned accordingly. (Rezoning Approved)
- 16) O-15 Property at Archdale Drive and Kings Branch to R-9 and R-15MF: The vacant properties zoned O-15, east of Kings Branch should be rezoned to R-9 single family. Properties zoned O-15 between Kings Branch and Farmhurst/High Meadow should be rezoned to R-15MF. Properties bound by Farmhurst, High Meadow and Archdale should remain O-15. (Rezoning Approved)
- 17) O-6 Property on Highway 49 and West Tyvola Road to R-9: A small portion of Renaissance Park is currently zoned O-6 along Highway 49. For consistency with the surrounding area, this property should be rezoned to R-9. (Rezoning Approved)
- 18) I-1 Properties on Highway 49 and the Outer Belt to B-1: Properties along Highway 49 are currently zoned industrial but are partially developed with highway business uses, which are more appropriate uses for this location. Therefore, to prevent intensification of industrial development in this area, these industrially zoned properties should be rezoned to B-1 to conform to the existing land use. (Rezoning Approved)
- 19) RU Properties located in the Western Portion of the Southwest District to an Appropriate Residential Category: A portion of land in the outlying areas of the Southwest District is zoned RU which allows residential development and some rural nonresidential uses. Because Mecklenburg County is becoming more urban, new rural nonresidential uses are not desirable. Therefore, the RU land should be rezoned to a residential category that will implement the policies of this plan. (All RU districts were converted to R-3)
- 20) I-1 Properties on Dixie River Road and Mountainview Road, west of the Proposed Outer Belt to R-12: Three I-1 zoned properties in the Dixie River Road area west of the proposed Outer Belt are currently vacant or developed with residential uses. A major land use recommendation of this district plan supports strengthening the residential base of the Dixie-Berryhill Community. Therefore, these properties should be rezoned to R-12. The residential uses in this area should be concentrated west of the proposed Outer Belt while the employment and nonresidential uses should be located east of the proposed Outer Belt in connection with the proposed Neighborhood Mixed Use Center. The final selection of the Outer Belt alignment will determine the rezoning boundaries for these properties. Additional rezonings in this area may

also be identified when the specific alignment within the corridor is selected. (This rezoning will not be petitioned until the right-of-way needed for the Outer Belt is purchased in this area.)

- 21) I-1 Properties located west of the Proposed Outer Belt, in the vicinity of Dixie River Road to R-12: Three vacant I-1 zoned properties are located in the vicinity of Dixie River Road, west of the proposed Outer Belt. This district plan supports strengthening the residential base of the Dixie-Berryhill Community. Therefore, the properties should be rezoned to R-12. These properties will meet the locational criteria guidelines for multi-family development once the Outer Belt alignment is decided. The final selection of the Outer Belt alignment will determine the rezoning boundaries.

Additional rezonings in this area may also be identified when the specific alignment within the corridor is selected. The residential uses in this area should be concentrated west of the proposed Outer Belt while the employment and nonresidential uses should be located east of the proposed Outer Belt in connection with the proposed Neighborhood Mixed Use Center. The multi-family development will provide a transition between the Outer Belt and the single family development. (This rezoning will not be petitioned until the right-of-way needed for the Outer Belt is purchased in this area.)

- 22) R-9MF, B-D(CD) and O-15(CD) properties on Nations Ford Road and West Arrowood Road to Institutional: Several large parcels along Nations Ford Road and West Arrowood Road are currently vacant. These properties are adjacent to the single family neighborhoods known as Ramblewood and Windsong Trail. Central Piedmont Community College is negotiating to purchase these properties for a comprehensive satellite campus. This institutional use is appropriate and would strengthen the residential character of the area. Therefore, an institutional zoning district is recommended once CPCC has completed its purchase of the properties. If CPCC is unable to purchase the properties or has stated that it is no longer pursuing the satellite campus, then the Southwest District Plan recommends the rezoning of these properties to a single family classification, R-9. (Rezoning Approved)
- 23) B-1(CD) and B-D(CD) properties on Nations Ford Road and West Arrowood Road to R-15MF: Two parcels along Nations Ford Road and West Arrowood Road are currently vacant. These properties are in the immediate vicinity of established residential neighborhoods. Allowing these parcels to develop with business uses would jeopardize the area's residential stability. Any new commercial development should be focused in the areas currently zoned for nonresidential uses. An R-15MF zoning district is recommended. (Rezoning Approved)

D. LIVABILITY

A balanced land use pattern and adequate public services are essential for a livable community. To promote a healthy environment that will continue to be desirable to inhabit, however, additional quality of life services and amenities must be included in the overall development scheme as described below:

PARKS AND OPEN SPACE

The Parks Master Plan, adopted on October 30, 1989 by City/County elected officials proposes five various types of parks throughout the county including:

- Nature Preserves
- Community Parks
- District Parks
- Neighborhood Parks
- Specialty Facilities such as Golf Courses and Water Access Points

The amount of parks and open space recommended in the Southwest District exceeds that of other areas in Mecklenburg County because of three factors:

- The need for additional public lake and river access
- Mitigation of aircraft noise in the contours
- Gateway image into Mecklenburg from Gaston County

Master plan recommendations for park development in the southwest are as follows:

NATURE PRESERVE

- McDowell Nature Preserve: Mecklenburg County currently owns 894 acres for this park's development. Located on Lake Wylie, just north of York Road (Hwy. 49), the McDowell Nature Preserve offers a variety of active and passive recreational opportunities ranging from water activities such as canoeing and paddle boating to playgrounds, campsites and six miles of nature trails. Other popular attractions include an amphitheater, horseshoes, picnic facilities and a nature center. The Park Master Plan recommends that an additional 106 acres be purchased. This will increase the total size to 1,000 acres, the desired minimum for a nature preserve.

COMMUNITY PARKS

- York Road Renaissance Park: Development is complete on Phase I and nearing completion on Phases II and III of the district's only community park. This park, located off West Tyvola Road, provides

recreational opportunities for the southwest and community at large with its 18 hole golf course, lighted softball and soccer fields and tennis courts/center. An amphitheater is proposed for the 472 acre park. Original park plans also included a recreational center; however, the Parks Master Plan recommends a different location in the vicinity of the airport that would serve the larger west side. The master plan also recommends increasing the size of the center.

DISTRICT PARKS

Existing

- **Ramblewood Park:** Located on Nations Ford Road, Ramblewood Park was intended to serve as a major source of active recreation for the Ramblewood and Windsor Trail communities. However, the park has not been developed or used to its potential. Existing facilities include picnic tables, fitness trail, playgrounds and basketball court. Although the park is 21 acres short of the desired size for district parks (100 acres), the master plan does not recommend purchasing additional acreage. Ramblewood Park is in need of a new design to provide better recreational facilities for its neighbors.

Proposed

- **Steele Creek and Lower Steele Creek Parks:** To provide active recreational opportunities, two parks are proposed in the Steele Creek area. Although specific locations have not been identified, the first park should be developed east of Steele Creek Road in the Shopton Road area. The second park proposed for the Steele Creek area is recommended east of Steele Creek Road, south of Carowinds Boulevard Extension. The Park Master Plan recommends the acquisition and development of 100+ acres for each park.
- **Berryhill Park:** Mecklenburg County recently purchased 100 acres in the Dixie-Berryhill Community for a district park. This purchase includes 4,200 feet of Lake Wylie shoreline, ideal for trails or shoreside picnicking. Berryhill Elementary School is nearby on Walker's Ferry Road, which will provide access to the park. The topography of this park lends itself to being a passive, wooded park.
- **Gateway Park:** A park consisting of 100-150 acres is proposed on the Catawba River, south of Wilkinson Boulevard. This park will serve as a district park for the immediate area, and as a water access park for the entire community. Facilities of this kind are presently not available to the public in West Mecklenburg. Preliminary plans call for a public marina. Development of this park awaits another bond package.

The purpose for purchasing park land along the Catawba River is that it provides an opportunity for creating a large amount of open space from

Mt. Holly to Paw Creek Cove. The Gateway, Berryhill and Catawba River (Northwest District) parks have the following public benefits:

- They are positive image makers for the southwest and northwest districts.
- The undeveloped land for the parks protects the environment from increased runoff as a result of urbanization.
- They provide open space and recreational opportunities.

NEIGHBORHOOD PARKS

The Parks Master Plan does not recommend specific locations for neighborhood parks. This is to be accomplished through public requests, staff identification and the planning process. In addition to the amenities recommended for neighborhood parks, fishing lakes should be included more often.

One neighborhood park, Yorkmont/Springfield, exists in the Southwest District. Although divided by West Tyvola Road, this park provides convenient recreation for the neighborhoods of Yorkmont and Springfield, but is in need of improvements. Additional recreational opportunities should be provided at this site.

As recommended in the Parks Master Plan, the practice of joint-use agreements for schools/parks should continue in areas where land can not be located for neighborhood parks. For instance, the Park Master Plan recommends an expansion of Steele Creek Elementary Park to provide recreational opportunities for the neighborhood of Taragate Farms.

Other exact locations for neighborhood parks in the district are not identified, as the development pattern is not well established. Every attempt should be made to acquire land through the development process, particularly for large scale projects that would benefit greatly from such an amenity.

LAKE AND RIVER ACCESS

McDowell Nature Preserve not only provides passive recreation but offers public access to Lake Wylie. The Parks Master Plan recommends expanding public access by acquiring Copper Head Island adjacent to the park and developing boat launching facilities on the property.

Two additional lake and river access parks are recommended for the southwest. A site south of the Buster Boyd Bridge would provide a boat ramp and park facility. Although it would be relatively close to McDowell Nature Preserve, it allows larger boats access to the southern portion of Lake Wylie which normally would be prohibited because of low clearance beneath the bridge.

The location for the second park is within the Dixie-Berryhill Community. The Dixie-Berryhill Small Area Plan recommends a district park along Lake Wylie in the vicinity of Dixie River Road. The Southwest District Plan reinforces this recommendation but proposes expanding the park across Dixie River Road to join the park with a greenway system along Beaver Dam Creek. This would provide compatibility with airport operations by expanding the park within the noise contours.

Through the conditional rezoning process, Duke Power reserved part of its training facility property as a waterfowl refuge on Paw Creek. Additional sites are appropriate and should be set aside throughout the district for waterfowl refuges.

RECREATION CENTERS

The Parks Master Plan recommends two recreation centers in the southwest:

- A mega recreation center is proposed on city-owned land south of the airport. The desirable size range for this facility is 40,000 - 70,000 square feet. A mega recreation center may include facilities and equipment such as a gymnasium, exercise weight room, rooms for games, dance and arts and crafts, leisure pool, staff offices and bleacher seating.
- A standard recreation center is proposed in the Lower Steele Creek District Park with a desirable size range of 13,000 - 15,000 square feet. A standard center may include facilities such as a gymnasium, rooms for games, meetings and arts and crafts, kitchen, stage and bleacher seating.

GOLF COURSES

The City Parks and Recreation Department currently operates an 18 hole golf course at York Road Renaissance Park. A second course recommended in the Parks Master Plan is adjacent to the McDowell Nature Preserve. Because of noise compatibility with airport operations, a third course is possible south of the airport in the Steeleberry Acres and Eagle Lake Area.

The Crystal Springs Golf Course is located in the extreme southeastern portion of the district. Although only a small section lies within Mecklenburg County, the course provides a much needed source of active recreation. Should the course be placed on the market for sale, the golf course should be purchased by Mecklenburg County Parks and Recreation.

ADDITIONAL DISTRICT AMENITIES

AIRPORT PERIMETER LANDSCAPING

A perimeter landscaping corridor is recommended around the airport's contiguous 10.6 mile property boundary. The corridor, funded through airport operations, will provide open space and be a passive recreation area for airport neighbors. Amenities include a 6 foot meandering sidewalk paved with asphalt, random off-street parking, tree planting and exercise stations at various locations. An overlook is also included in the airport perimeter landscaping plan. Located on Old Dowd Road near the former Berryhill Elementary School site, the overlook will provide the community with an environment to view the airport and its operations.

The proposed land use map conceptually depicts the perimeter landscaping. This district plan supports the concept and reinforces the airport's efforts in making the airport a better neighbor by improving its visual image.

SCENIC RIVER DRIVE

Through the development of residential uses along the lake and river, a scenic drive should be built connecting Wilkinson Boulevard with possibly Paul Brown Boulevard Extension. The purpose would be to provide additional visual access to the natural scenic areas along the water. It should be done through the private development process.

GREENWAYS

In 1980, a Greenways Master Plan was adopted by the county that identified creeks for greenway development. An update is scheduled for completion in 1990. Approximately 42 acres of greenway in the southwest are proposed in this update. Purchase or dedication of land through the development process has taken place for some of the greenways identified in the plan.

The greenways in the southwest included in the original master plan are:

Kings Branch	I-77 to Big Sugar Creek
Steele Creek	Olympic High School to County Line
Coffey Creek	Charlotte Airport to Big Sugar Creek
Irwin Creek	I-77 to Big Sugar Creek
Big Sugar Creek	Billy Graham Parkway to County Line
Paw Creek	North of Freedom Drive to Lake Wylie

Additional creeks and associated tributaries recommended to be added to the greenway system are listed below:

Beaver Dam Creek	East of Dixie River Road to the Catawba River
Beaver Dam Creek Tributary	East of Dixie River Road to Beaver Dam Creek
Polk Ditch	York Road to Walker Branch
Walkers Branch	Steele Creek Road to Steele Creek
Walkers Branch Tributary	West of Steele Creek Road to Walkers Branch
Little Paw Creek	I-85 to Paw Creek

Additional possibilities for greenways include the use of Duke Power and Piedmont Natural Gas utility rights-of-way. Others may be included in the master plan update.

ENVIRONMENTAL QUALITY

One of the primary objectives of land use planning is to protect the region's valuable resources. The impact of growth and development such as residential, industrial and agriculture land use on environmental quality in Charlotte-Mecklenburg is an issue of increasing public concern. The effects of increased population manifest themselves in the environment in several ways. More land is being cleared and graded for development; vegetation is being removed to make way for parking lots; development is causing increased runoff into water resources; and the volume of solid waste and sewage continues to grow. Growth is desirable but it often has negative side effects. Therefore, future growth must evolve in an environmentally sensitive manner.

The waters of the Catawba River and Lake Wylie, although not yet drinking sources for Charlotte, are rapidly experiencing quality degradation. Pollutants contained in discharges or runoff in this sensitive area are causing serious negative impacts on water quality, threatening a future drinking water source and recreational uses. Water quality monitoring data collected by the Mecklenburg County Department of Environmental Protection has revealed poor water quality which can be attributed in part to runoff and discharges from growth in the Lake Wylie watershed. Mt. Holly has moved its drinking water intake off Lake Wylie to Mountain Island Lake due to these water quality concerns. The sources of pollution in Catawba River and Lake Wylie include the dumping of human waste and man-made solids from boats using the water for recreational activity, discharges from numerous private package treatment plants and from smaller creeks that collect waste from upstream urban areas, discharges from malfunctioning public and private plants and malfunctioning septic tanks, industrial waste discharge and agricultural runoff.

Concentrated impervious ground coverage increases the amount of non-point pollutants that enter streams. Therefore, restrictions are needed to regulate this type of runoff. Stream buffering requirements and strict compliance with ground absorption waste water treatment system regulations should be used.

Two environmental studies are now underway that will provide a basis for adopting specific regulations to protect bodies of water such as Catawba River and Lake Wylie. The Lake Wylie Futures Forum, sponsored by Mecklenburg County Board of Commissioners and Mecklenburg County Environmental Protection Commission, is currently developing management goals for Lake Wylie. These goals include water quality, water supply, economic development, intergovernmental cooperation, public health/safety, and recreation. The study will take approximately two years to complete.

The other study, commissioned by the State of North Carolina, calls for mandatory minimum state-wide watershed protection requirements for all surface water supplies used as a source of raw drinking water. To address the concern for the protection of water supply sources, a classification system consisting of four classifications, WS-I, WS-II, WS-III, and WS-IV is proposed. These water supply (WS) classifications are based on the intended use of the water body and the potential for pollution from existing sources located within the drainage area of the waters. The state has until January 1, 1992 to classify all existing surface water supplies. Local governments with authority in water supply watershed (such as Mecklenburg County) must develop watershed protection programs that are at least as stringent as the state rules. These programs will regulate items such as land use and density. The $\frac{1}{2}$ mile watershed protection area recommended by this district plan will be reevaluated once state and local governments classify existing watersheds.

As previously referenced in the water and sewer section, CMUD is also developing a master plan of applying CMUD's sewer extension program to serve areas that are part of the natural drainage basins of Lake Wylie. The scope of service will include facilities planning, innovative and alternate collection systems and environmental studies.

The Southwest District Plan supports the following environmental quality measures:

- Establish a regional utility system serving Mecklenburg and York Counties.
- Impose higher regulations governing discharges of waste water treatment plants - municipal and private. This should include more facility inspections, increased monitoring and the closing of plants not in compliance.
- Improve inter-state cooperation for an environmental water quality study of the entire Catawba River Basin.

- Provide an adequate number of dump stations for boats using Lake Wylie and Catawba River. Appropriate locations would be Duke Power owned access areas and public parks and commercial marinas.
- Establish a multi-jurisdictional unit to provide constant patrolling of Lake Wylie and Catawba River to enforce State and local regulations. The State of North Carolina should pursue the licensing of boat operators to enhance the safety of the boating public. Violators should be required to attend a water safety and education course.
- Use best management practices that provide a natural cleansing system for stormwater and urban runoff. These devices were discussed earlier in the residential future section, but should also apply to nonresidential development such as the Westinghouse Turbine Generator Plant on Wither's Cove.
- Pursue a minimum 100 foot vegetative buffer (parking lots included) from the water. Development proposals requesting deviation from the minimum 100 foot vegetative buffer requirement will be considered through administrative subdivision review. Any proposal should contain a 50 foot minimum vegetative buffer measured from the high watermark (Elevation 570.0) and restrictions outlining the engineered and constructive measures that will be taken in order to equal the anticipated performance criteria of the 100 foot vegetative buffer requirement. Strip clearing, grading or development will not be allowed within the 50 foot buffer except as needed for the implementation of appropriate best management practices for water quality protection. The 50 foot buffer will be maintained as a protected area but may allow for the removal of dead or diseased trees, selective clearing to enhance desirable vegetative growth and the installation of devices for erosion, sedimentation and runoff control. Also allowed in the clearing of pathways to provide access to private and public boat docks, launch ramps and marinas permitted as necessary for normal recreational use. Anticipated performance criteria will be determined by North Carolina's proposed rules for the protection of watersheds.
- Pursue measures to protect the vegetation around all perennial tributaries (streams).

SCHOOLS

New Schools

Planning in advance for new schools is important, especially in an area that encourages the stimulation of residential growth. This holds true for not only physical growth but quality growth. It is incumbent that the school system deal with the quality and equity of educational services on the west side because of its obvious impact on residential development.

The physical facilities are also important. It is imperative that the community plan for school locations and also build quality facilities like Kennedy Junior High. Quality schools will also assist in the stimulation of residential growth on the west side.

Appropriate land for schools will become increasingly harder to find, and the cost of land will climb in the future. The Charlotte-Mecklenburg Board of Education is currently developing a county-wide master plan for new schools through the year 2005.

The Southwest District currently has one high school, one junior high school and three elementary schools. No additions to existing schools are planned before 1995. Considering the intensification of residential development and the redirection of growth policy, school planners estimate that to accommodate long range planning projections in the southwest, one additional senior high, one junior high school, and six more elementary schools will be needed. Periodic review will be made to determine population and future trends.

Specific locations have not been determined for the proposed schools; however, general locations are shown on the proposed land use map for the district.

Noise and its Impacts on Existing Schools

Aircraft noise within an educational environment is a critical and sensitive issue facing most urban areas today. An attempt to resolve this issue must include participation from school and airport officials in determining appropriate measures needed to ensure a proper environment for schools. As stated earlier in this plan, noise insulation of public buildings is a high priority recommended in the 65 Ldn noise zone. Schools in the vicinity of the airport that are interrupted by overflights should be provided with noise insulation on a case by case basis. Potential for FAA participation in the attenuation of these schools also be considered on a case by case basis.

Several westside schools, located in close proximity of the airport, are directly affected by airport noise. They include:

- Harding High School
- Westerly Hills Elementary School
- West Mecklenburg High School
- Olympic High School
- Kennedy Junior High School
- Steele Creek Elementary School
- Tuckaseegee Elementary School
- Wilson Junior High School

The airport is currently working with Charlotte-Mecklenburg school officials to identify schools from the list above that are in need of noise attenuation. Three schools have been identified that would benefit from noise - related improvements: Westerly Hills, Harding and Tuckaseegee. The extent of these improvements depends on the specific

needs of each school. The Southwest District Plan supports this measure and recommends financing through the FAR Part 150 Program or other available airport funds. The plan also recommends the prohibition of mobile classrooms in noise affected areas. Expansion of schools in these areas should be accomplished through standard building practices, not temporary structures. Future school locations should be very sensitive to airport noise issues.

BRANCH LIBRARY

The branch library study of the Public Library of Charlotte and Mecklenburg County recommends against establishing a branch library in the southwest at the present time. This recommendation was based primarily on inadequate population to support a library. However, the library study suggested a re-examination of this area in the mid 1990's to determine if the recent spurt in population growth has continued and whether the total population of the area has reached a threshold level adequate to support a branch library. The Southwest District Plan anticipates the area's population will increase enough to support a facility in the near future. When justified, the library should be located in one of the following areas:

- Neighborhood Commercial Center at Carowinds Boulevard and York Road
- Community Commercial Center at Hwy. 160 and York Road
- Community Commercial Center at Arrowood Road Extension and York Road

STREETSCAPES

The appearance of main transportation corridors can greatly affect the image of a community. Sidewalks, landscaping, signs, utilities and bike trails combine to create appealing landscapes. Unfortunately, because development patterns with little or no sensitivity to design exist in the older areas of the southwest, negative streetscape and gateway images prevail. Where development is well established in the older areas of the district, the task of improving corridors will not be easy, but it should be pursued to strengthen neighborhoods and the general economic stability of the retail and employment uses along the corridors. The task will be much easier in developing areas where no definite land use pattern has been established.

The general strategy of the Southwest District Plan is to focus on the key gateway corridors in the developed areas and to apply across the board policies identified in The General Development Policies Document for streetscape design along major and minor thoroughfares in the newly developing areas of the county; the emphasis should be on the major gateways.

Existing corridors recommended for streetscape improvements in the southwest are:

- Wilkinson Boulevard, from Billy Graham Parkway to the county line; this would be a continuation of the design already planned from Billy Graham Parkway to I-277.
- York Road (Hwy. 49), a significant thoroughfare beginning at the Buster Boyd Bridge and passing through major employment centers of the district.
- Billy Graham Parkway, a major gateway serving as the eastern boundary of the district and providing access to Charlotte/Douglas International Airport; a streetscape plan has been completed for this corridor. Preliminary designs recommend planting large maturing trees along the roadway and a mix of shrubs and trees in the median.
- Steele Creek Road (Hwy. 160), a two lane thoroughfare providing east/west connectivity from Paul Brown Boulevard to York Road (Hwy. 49)
- Dixie River Road, a rural residential road in the Dixie-Berryhill Community; a potential bike trail should be included in the streetscape plan.
- Shopton Road, a predominantly residential street with streetscape needs to reinforce the residential image.
- Nations Ford Road, a two lane thoroughfare providing north/south access in the eastern portion of the district; additional streetscape improvements are recommended from I-77 to Sugar Creek.
- Paul Brown Boulevard, a major gateway to residential development in the western portion of the district. This includes the extension from Steele Creek Road to the Outer Belt and Gaston County.

Other streets are obviously in need of change as well; however, focusing the community's limited resources on major gateways and corridors will provide the district with the greatest visual impact.

In newly developed areas of the district where new roads will be built and existing ones widened, provisions for streetscape amenities should be a matter of course as development takes place along major and minor thoroughfares. The new streets that should have the leading priorities for capital expenditures for streetscape improvements are:

- Arrowood Road, including the extension from York to Steele Creek Road
- Airport Connector Road, from I-85 to Billy Graham Parkway
- West Tyvola Road
- Outer Belt

HISTORIC RESOURCES

The heritage of a community is one of its most valuable assets. The Southwest District is fortunate to have a past that is rich in local history. As development occurs, it is vitally important that the community be aware of and sensitive to preservation issues. Recently a countywide inventory was made of existing properties and structures that have historical significances. Several properties in the southwest listed in this inventory deserve consideration for designation study. A master plan for historic preservation will be completed with priorities and strategies for saving valuable historic resources.

Five properties in the southwest have received National Register historic designation. They are:

<u>Name of Property</u>	<u>Location</u>	<u>Year Built</u>
Cooper Log House	Dixie River Road	1780-90
John Dinkins House	Nations Ford Road	1880
Samuel Neel House	Shopton Road	1810-28
William Grier House	Steele Creek Road	1820's
John Douglas House	Christie Lane	1867

Additional historic resources that the Historic Properties Commission has identified and given high priority for historic designation are:

<u>Name of Property</u>	<u>Location</u>	<u>Year Built</u>
Byrum House	Steele Creek Road	c. 1890's
Cathey House	Dixie Road	
Faires House	South Shopton Road	1905
Freeman House	Dixie Road	1912
John Grier House	Brown-Grier Road	1820's
J.B. Grier House	York Road (N.C. 49)	Late 1890's
Hayes-Byrum Store	Steele Creek Road	Late 1860's
McDowell House	York Road (N.C. 49)	1790's/1843/1912
Steele Creek Manse	Steele Creek Road	1910
Steele Creek Presbyterian Church	Steele Creek Road	1889
Steele Creek Cemetery	Steele Creek Road	From 1763
Whiteside House	South Shopton Road	c. 1840's/1905
Pleasant Hill Cemetery	York Road (N.C. 49)	From 1830's
McClintock Cemetery	Erwin Road	From 1865

IV. CONCLUSION

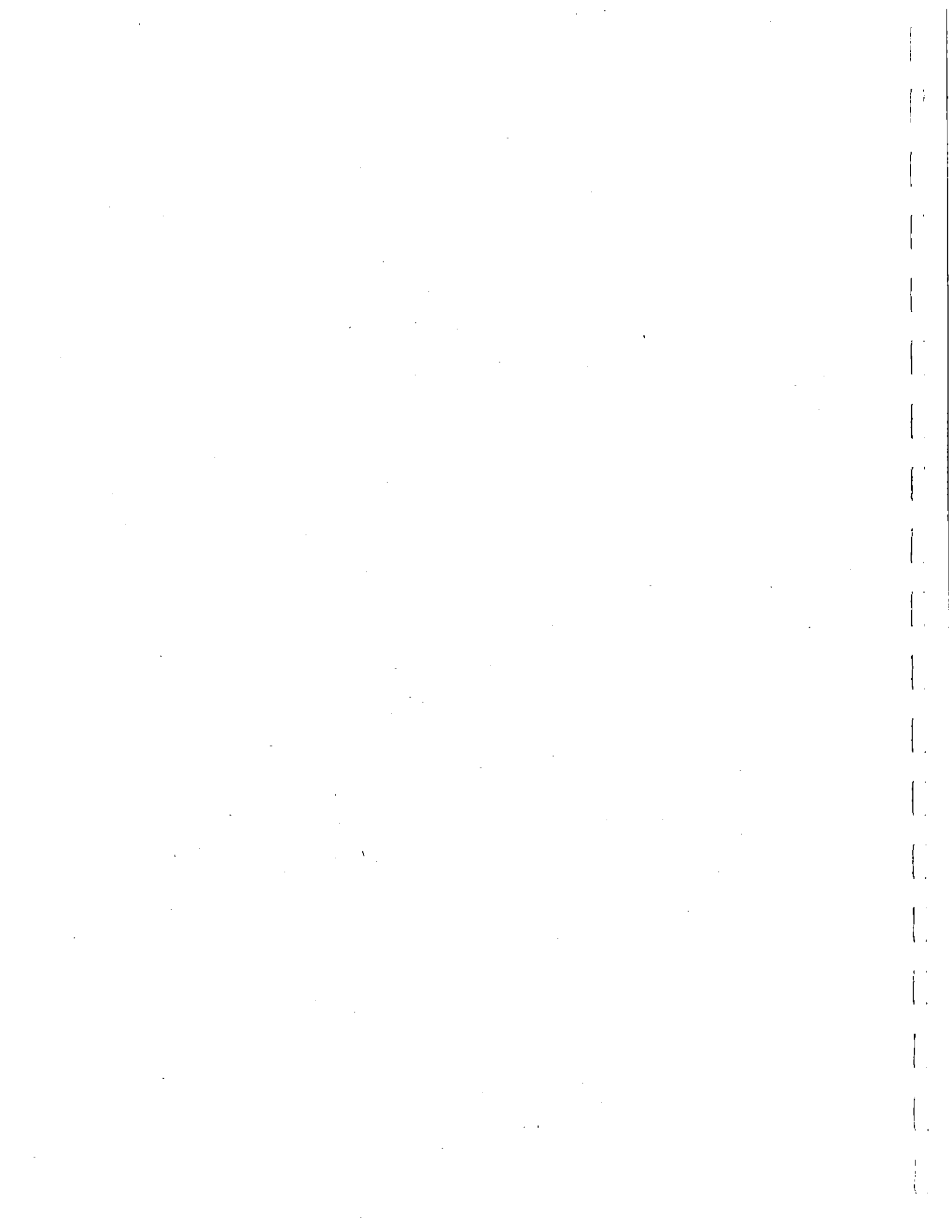
The Southwest District has many opportunities and challenges ahead for it to become an area where a balanced land use pattern offers a variety of high quality commercial, employment, residential and open space uses. To implement the Southwest District Plan, it will be essential to secure funding and/or land for roads, public water and sewer, parks, schools and streetscapes. Because much of the Southwest is undeveloped, there must be a strong commitment to phasing development to coincide with the necessary infrastructure. If not, the area will suffer the consequences of unplanned growth. Fashioning the airport as a compatible neighbor to the community will also be important. Policies and strategies recommended in this district plan will help improve the relationship between the airport and the community and also promote compatible land use development. The Southwest District Plan should serve as a framework to guide elected officials, the public and the development community in implementing the vision set forth in this plan.

APPENDIX:

REZONINGS PROPOSED

in the

SOUTHWEST DISTRICT PLAN



I-2

75' BUFFER

REZONE I-2
TO I-2 CD

75' BUFFER

WESTINGH

587.80	AC.	ABOVE
22.6	AC.	UNDER W.
610.2	AC.	TOTAL
16.41	AC.	ROAD R/W
593.79	AC.	NEW TOTAL



106.5 AC

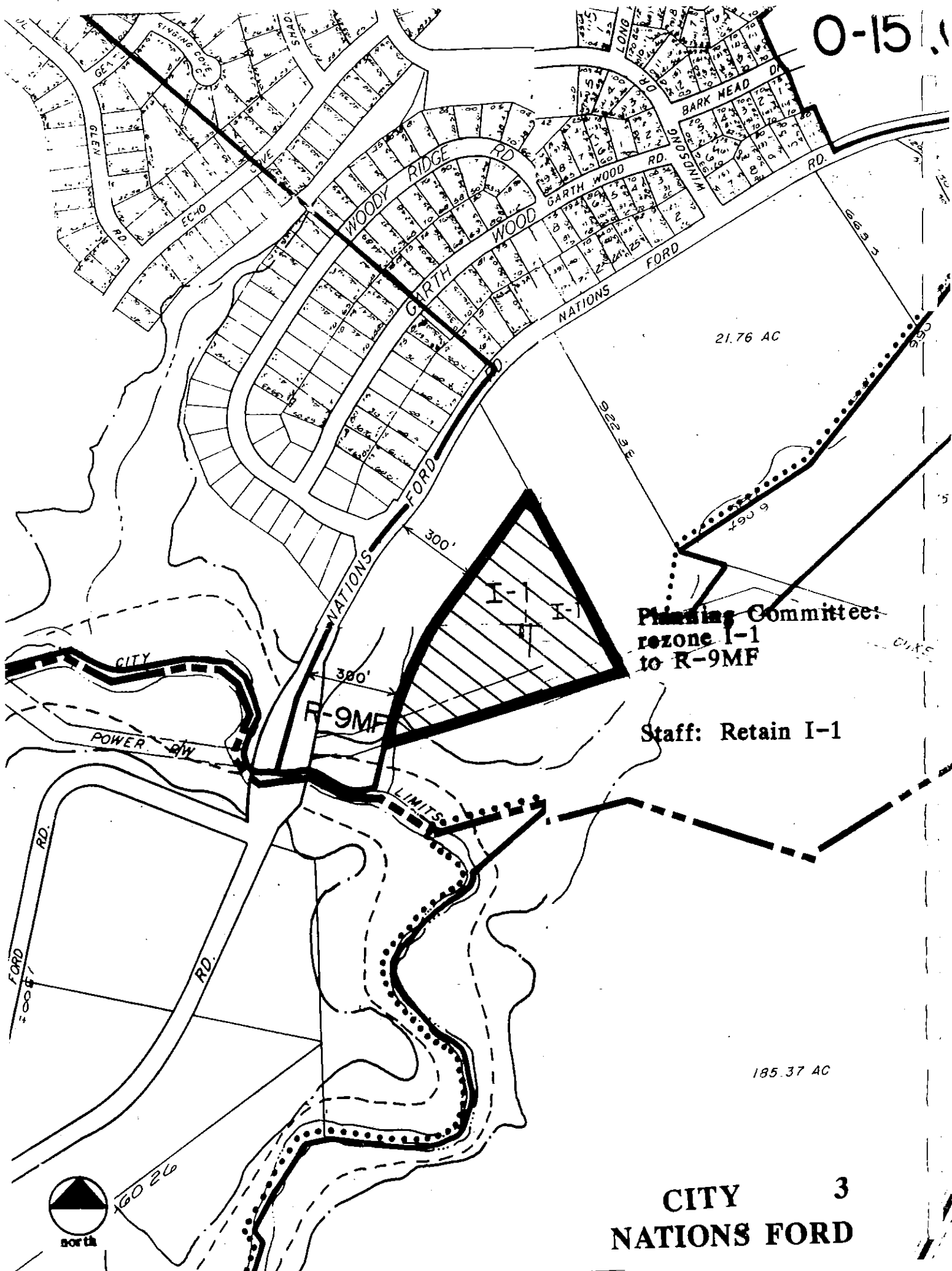
300'

COUNTY

1

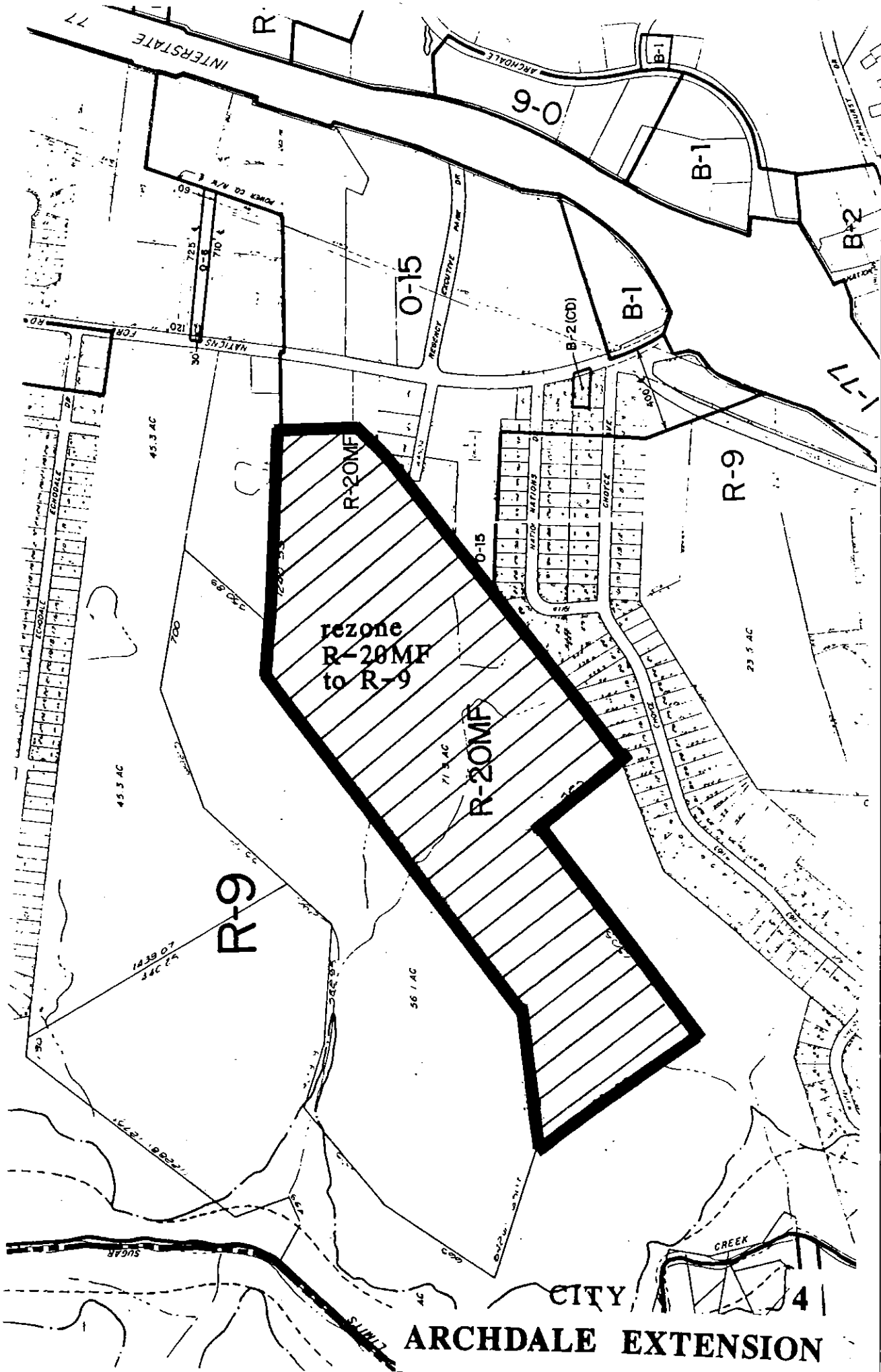
WESTINGHOUSE PROPERTY

92.1
N/E



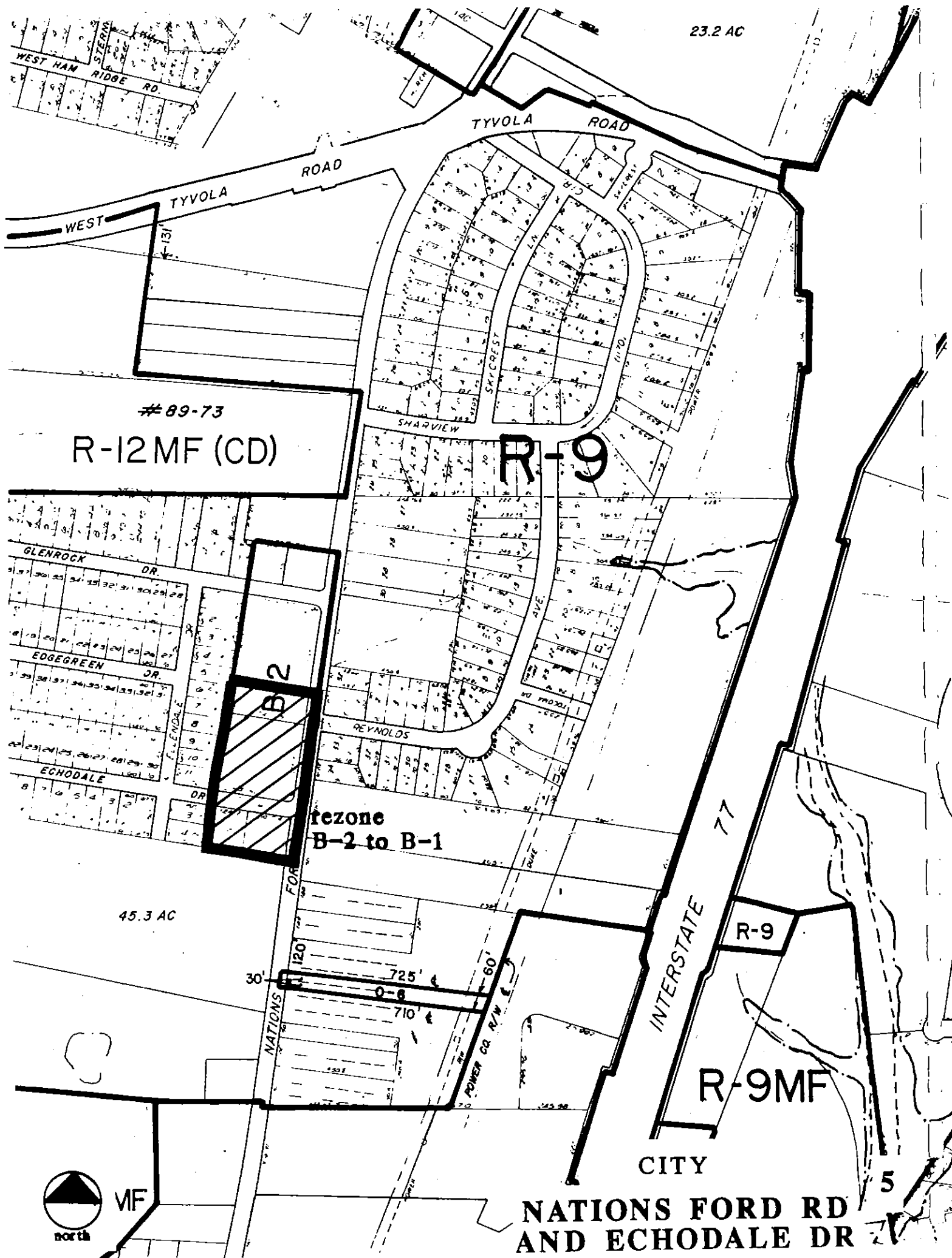
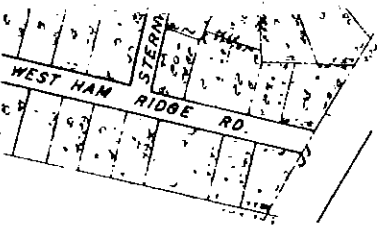
Planning Committee:
 rezone I-1
 to R-9MF

Staff: Retain I-1



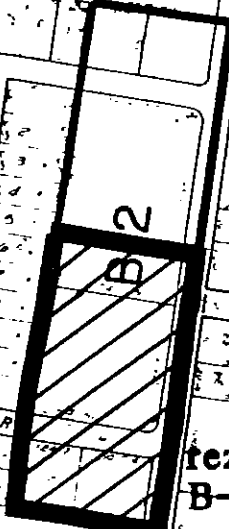
CITY 4
ARCHDALE EXTENSION

23.2 AC



#89-73
R-12MF (CD)

R-9



rezoning
B-2 to B-1

45.3 AC

INTERSTATE 77

R-9

R-9MF

CITY

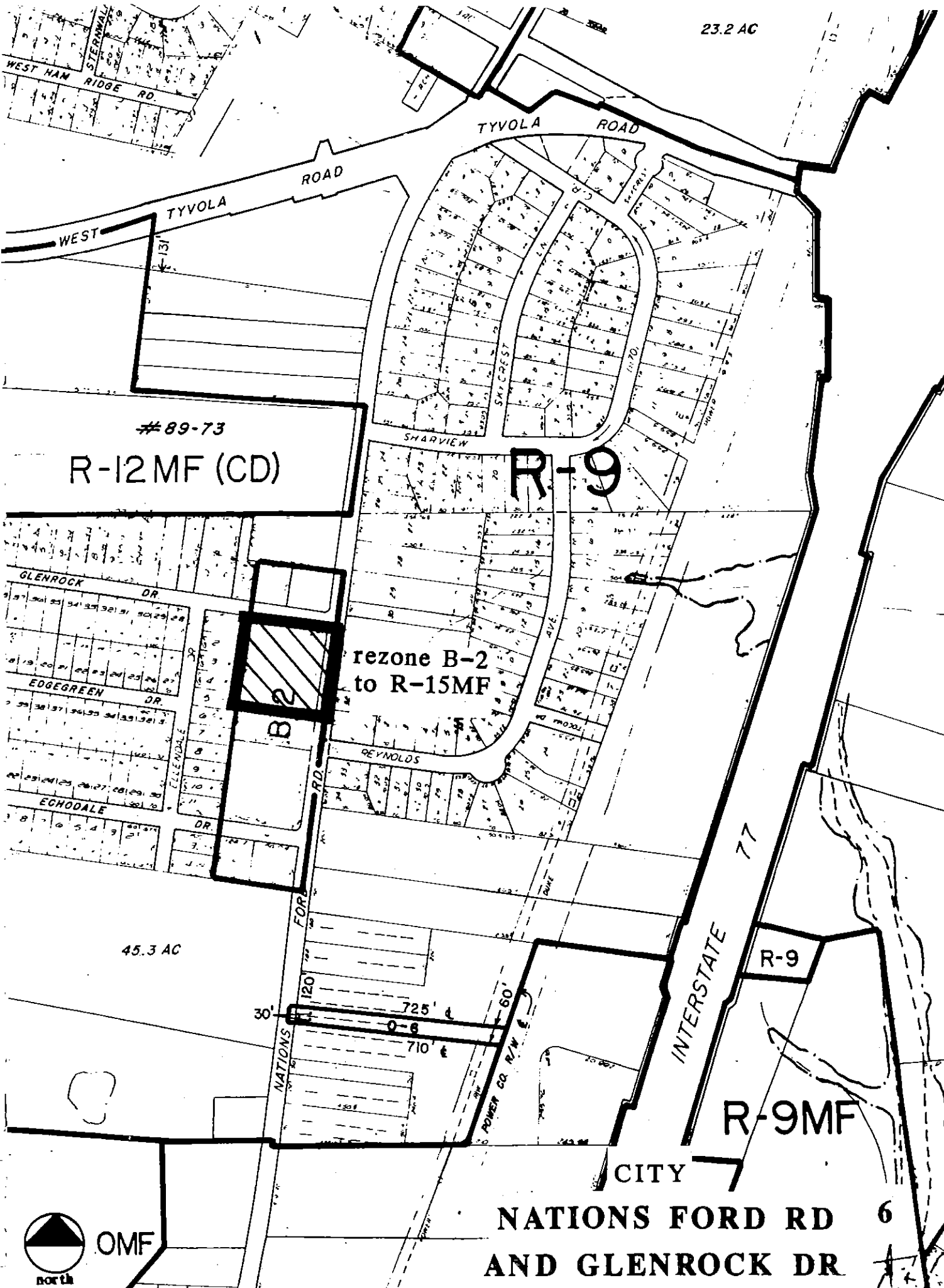
NATIONS FORD RD
AND ECHODALE DR



MF

5

23.2 AC



#89-73
R-12MF (CD)

R-9

rezone B-2
to R-15MF

R-9

R-9MF

CITY

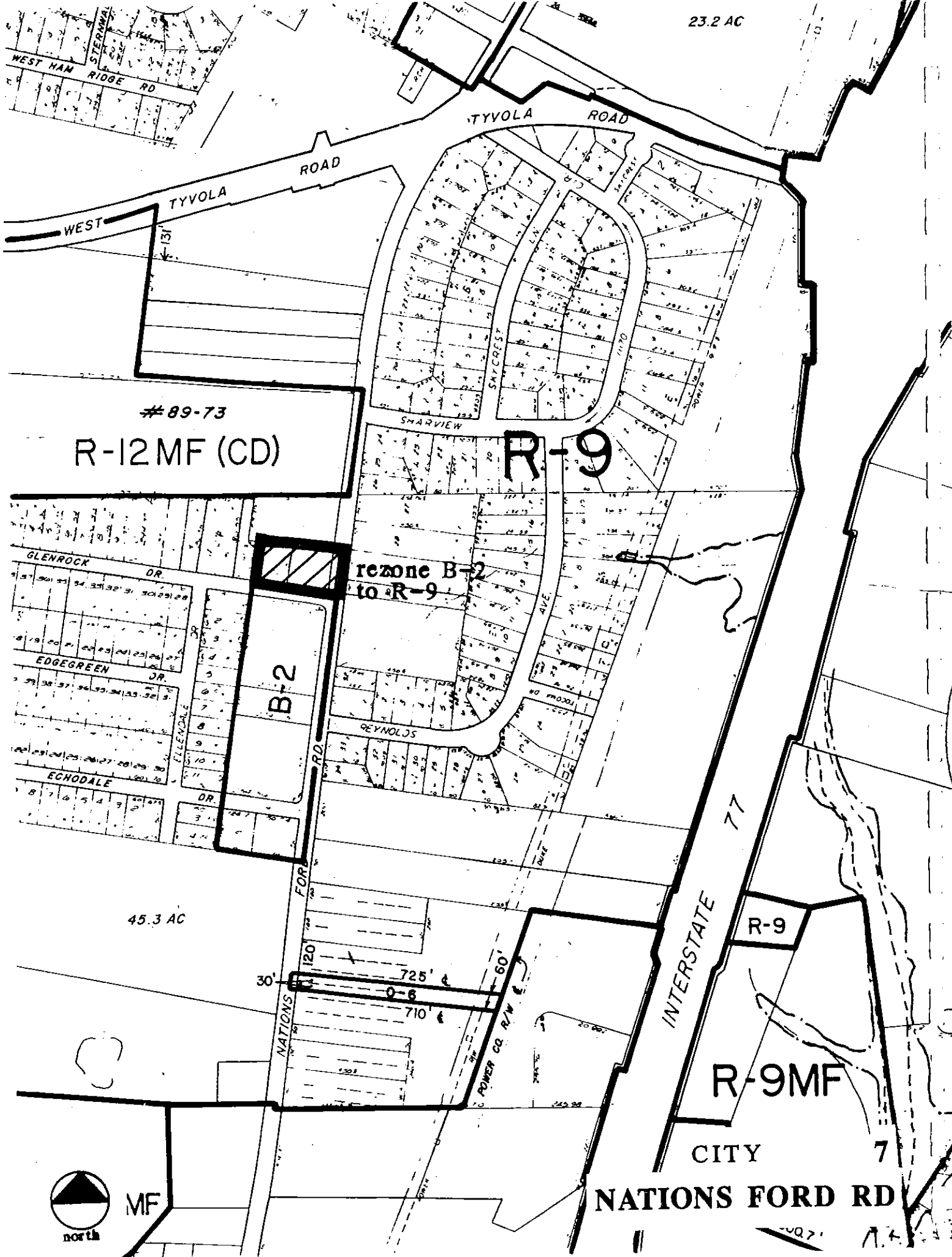
NATIONS FORD RD
AND GLENROCK DR

6



OMF

23.2 AC



#89-73
R-12MF (CD)

R-9

rezone B-2
to R-9

B-2

R-9

R-9MF

CITY

NATIONS FORD RD



MF

7

55.3 AC
CEMETERY

R-9

I-1

O-6

STAFF

rezone R-9MF
to R-9

20 AC

R-9MF

**PLANNING
COMMITTEE:**

**RETAIN EXISTING
ZONING (R-9MF)**

R-9MF

B-I.S.C.D.

23.2 AC

22.7 AC

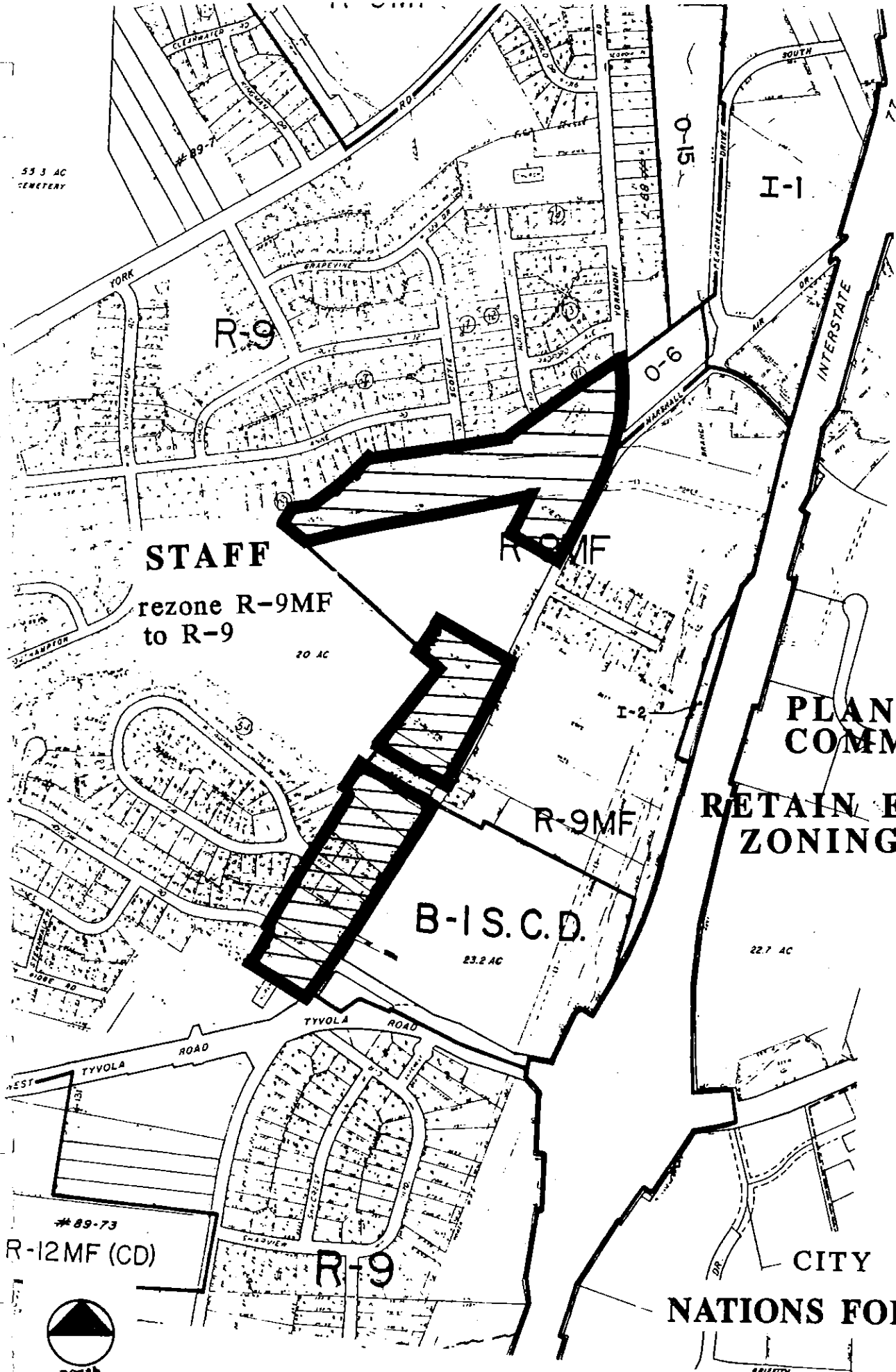
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R-12MF (CD)

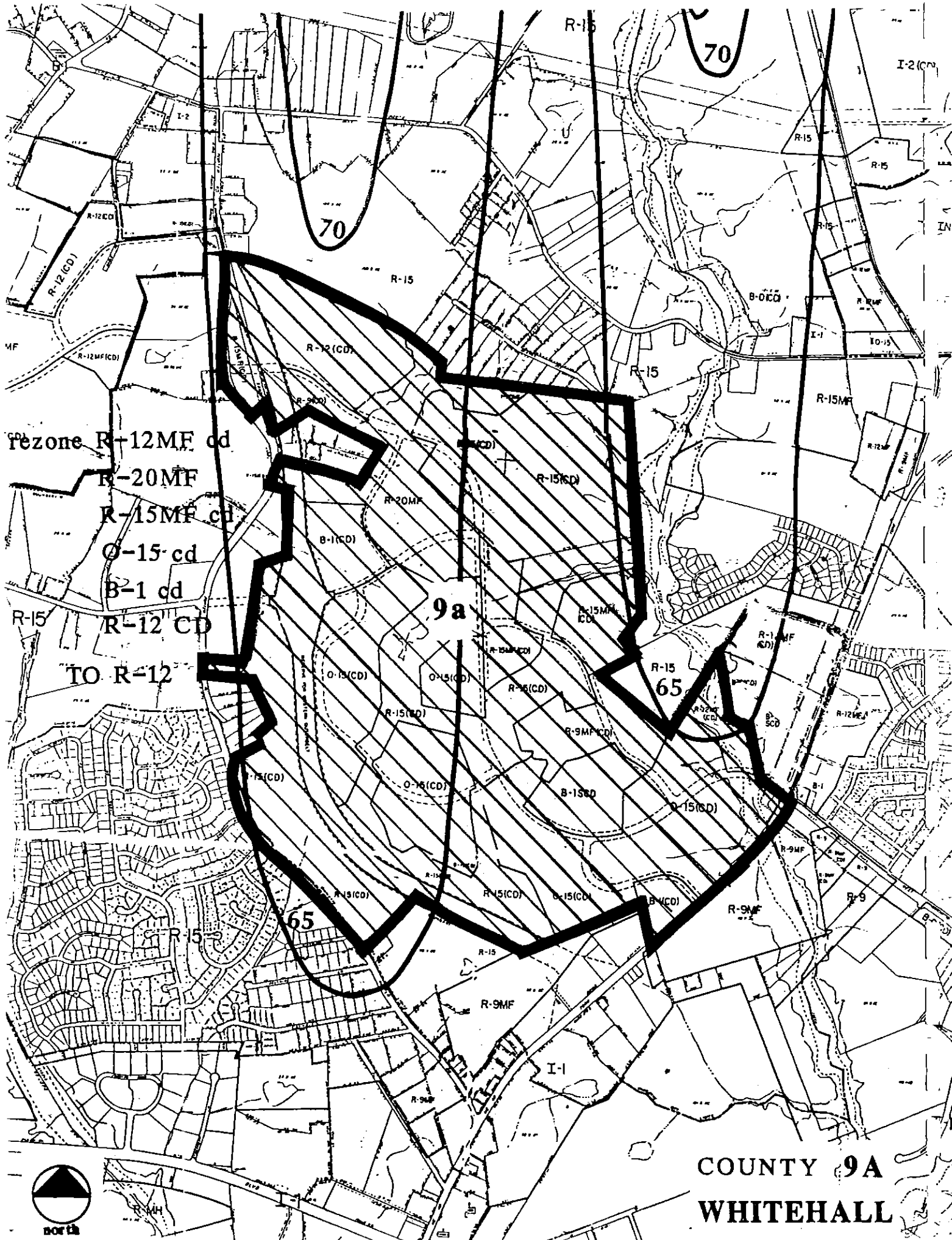
R-9

CITY

8

NATIONS FORD RD





Rezone R-12MF cd
R-20MF
R-15MF cd
O-15 cd
B-1 cd
R-12 CD
TO R-12

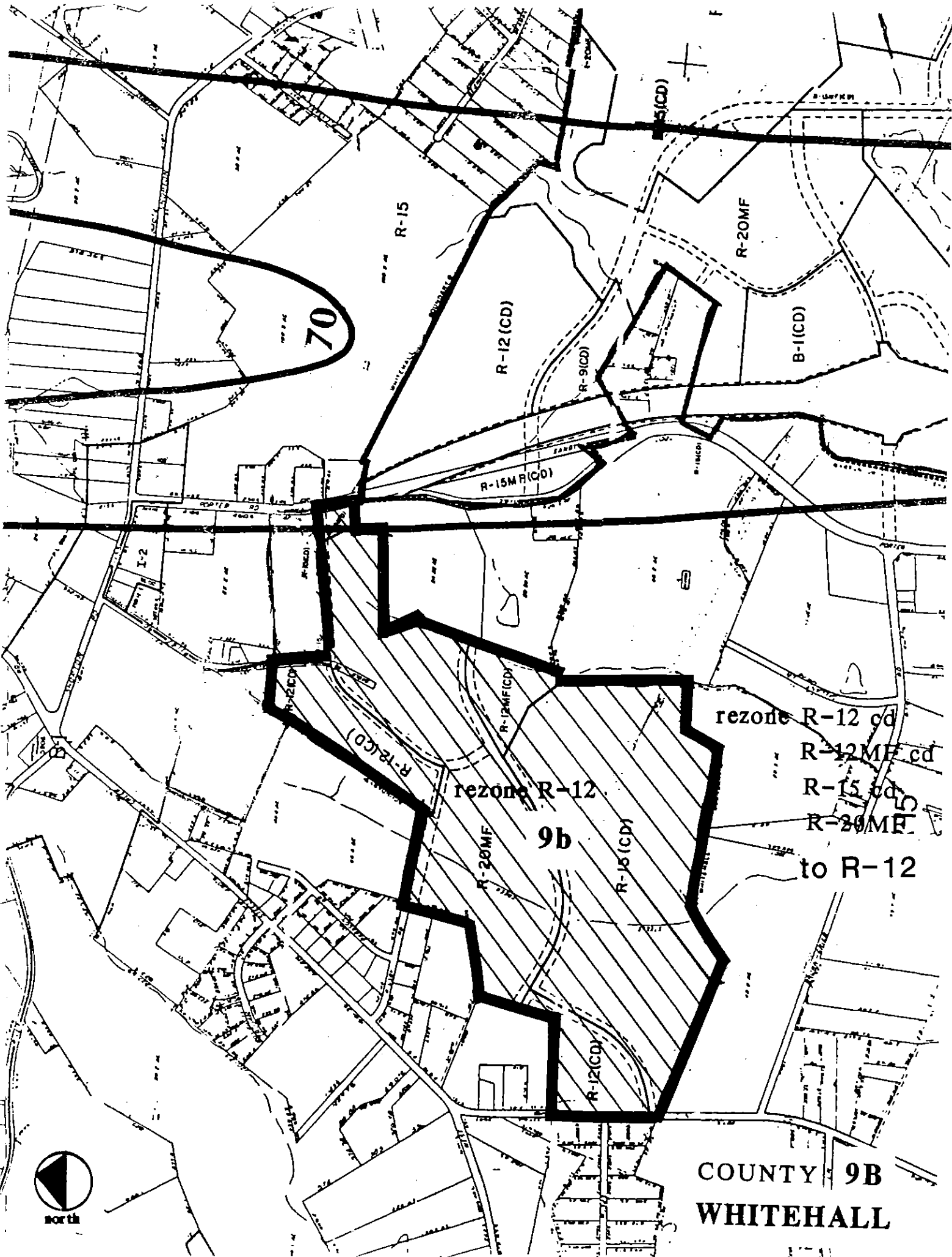
9a

65

65

COUNTY 9A
WHITEHALL





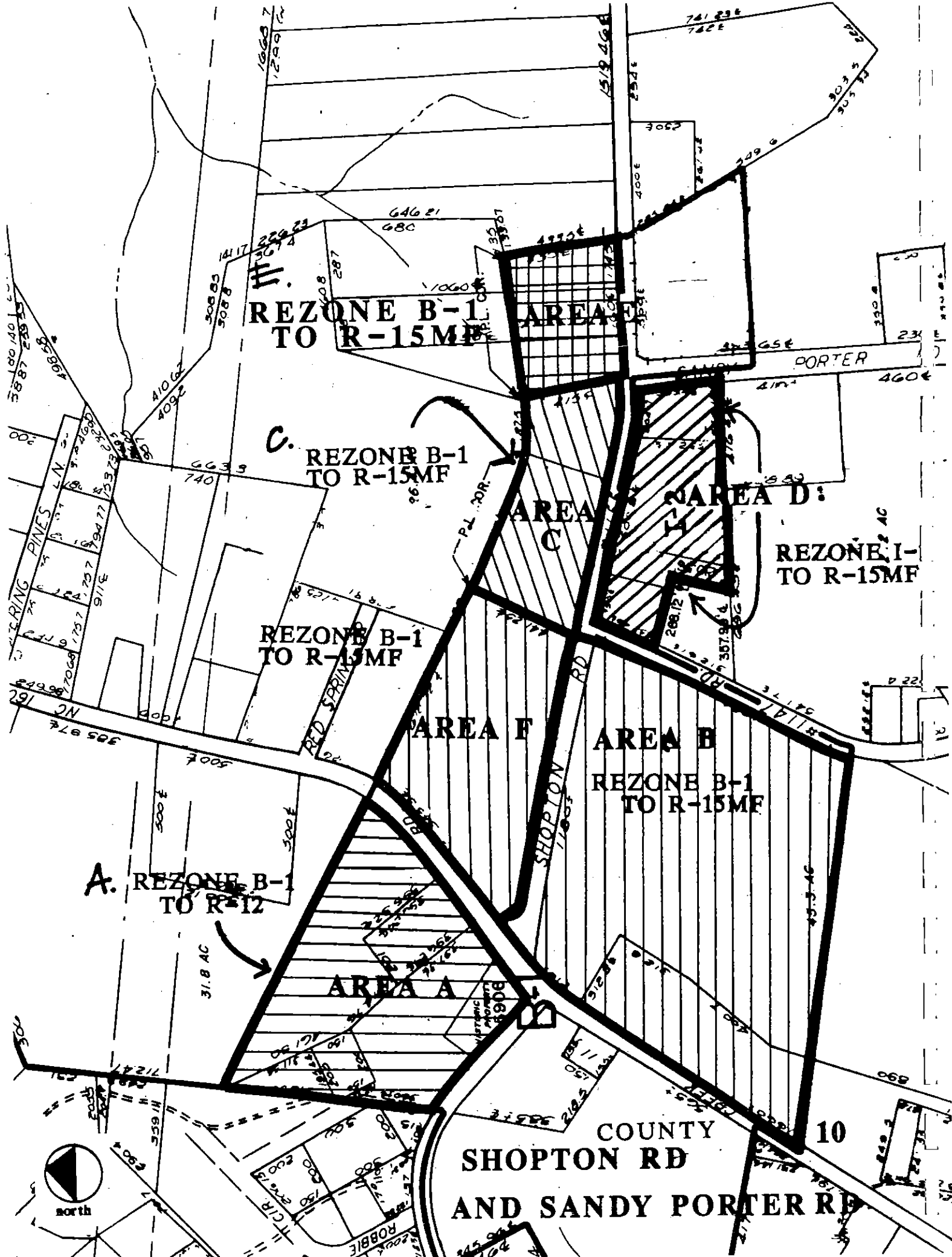
rezone R-12

9b

rezone R-12 cd
R-12MF cd
R-15 cd
R-20MF
to R-12

COUNTY 9B
WHITEHALL





REZONE B-1 TO R-15MF AREA E

C. REZONE B-1 TO R-15MF

REZONE B-1 TO R-15MF

AREA F

AREA B

REZONE B-1 TO R-15MF

AREA A

A. REZONE B-1 TO R-12

31.8 AC

AREA C

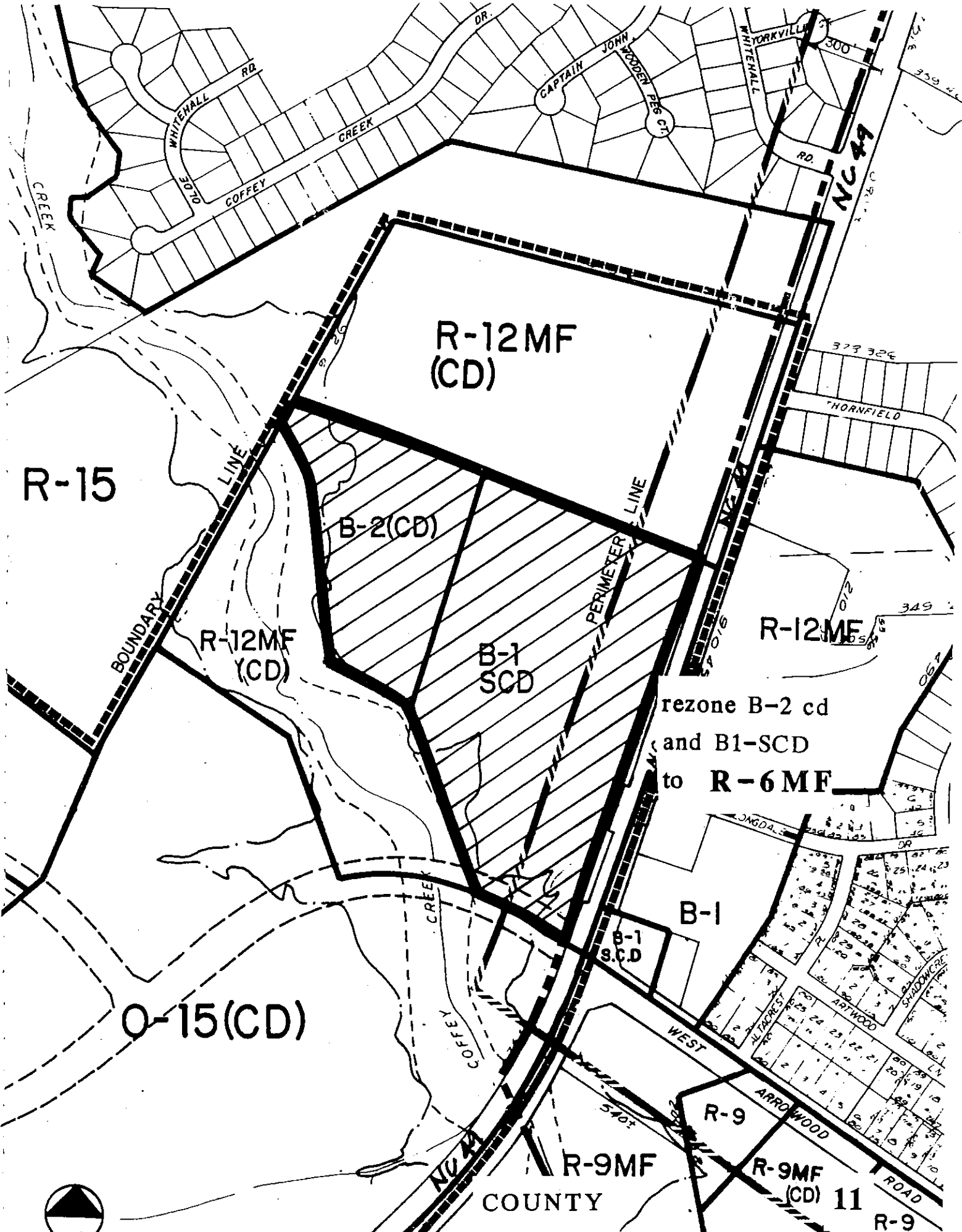
AREA D

REZONE I- TO R-15MF

**COUNTY
SHOPTON RD
AND SANDY PORTER RD**

10





R-12MF
(CD)

R-15

B-2(CD)

R-12MF
(CD)

B-1
SCD

R-12MF

rezone B-2 cd
and B1-SCD
to **R-6MF**

B-1

B-1
S.C.D

O-15(CD)

R-9MF

COUNTY

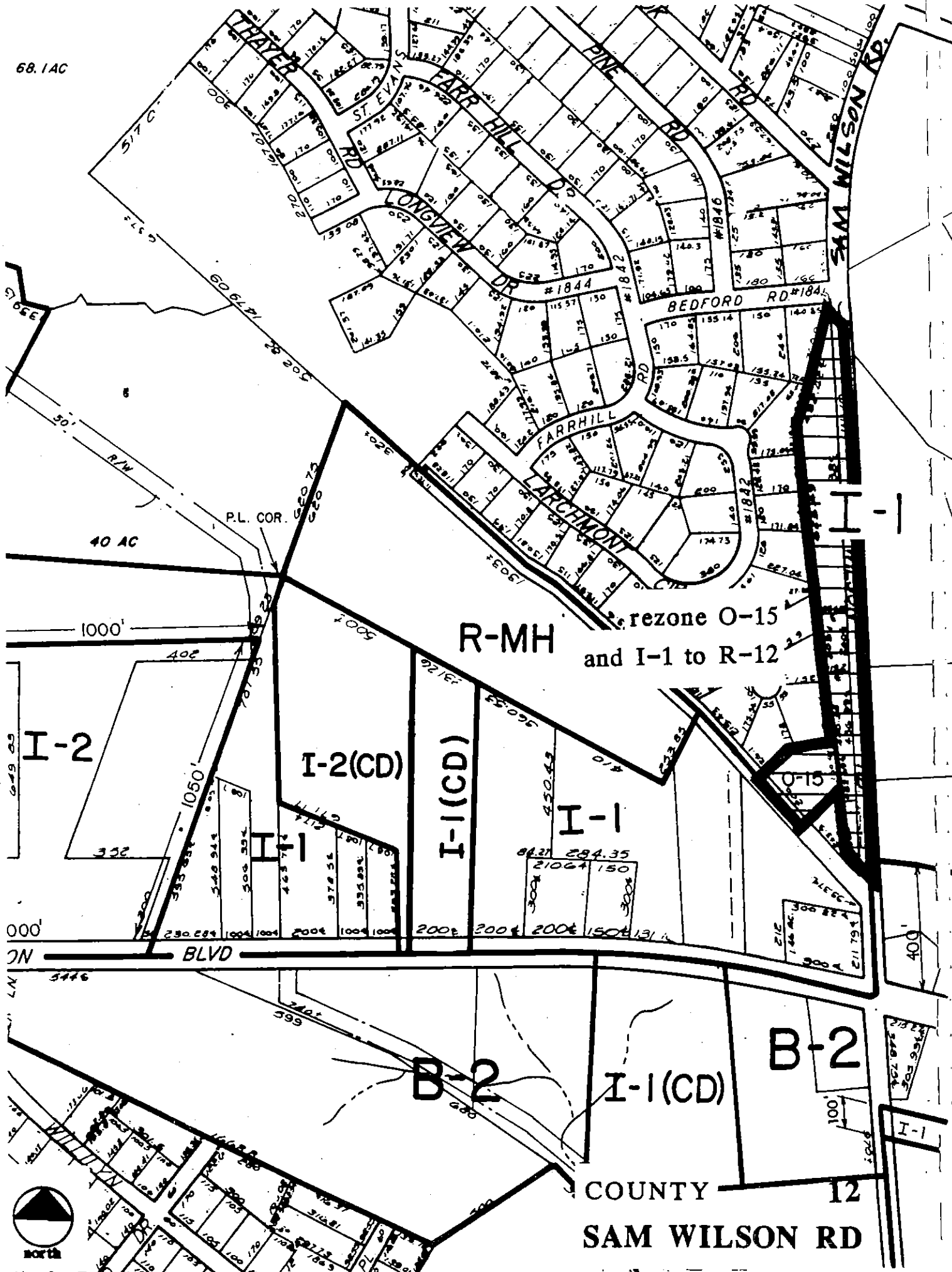
R-9MF
(CD)

11

R-9

HIGHWAY 49 AND ARROWOOD EXT





R-MH rezone O-15
and I-1 to R-12

COUNTY 12
SAM WILSON RD



1000
WILSON
BLVD

I-1

I-1

B-2

I-2 (CD)

90-18(c)

I-1 (CD)

B-2

PLANNING
COMMITTEE:
REZONE I-1 TO B-P I-2 (CD)

STAFF: REZONE
I-1 TO R-15MF

I-1

28.4 AC

I-2

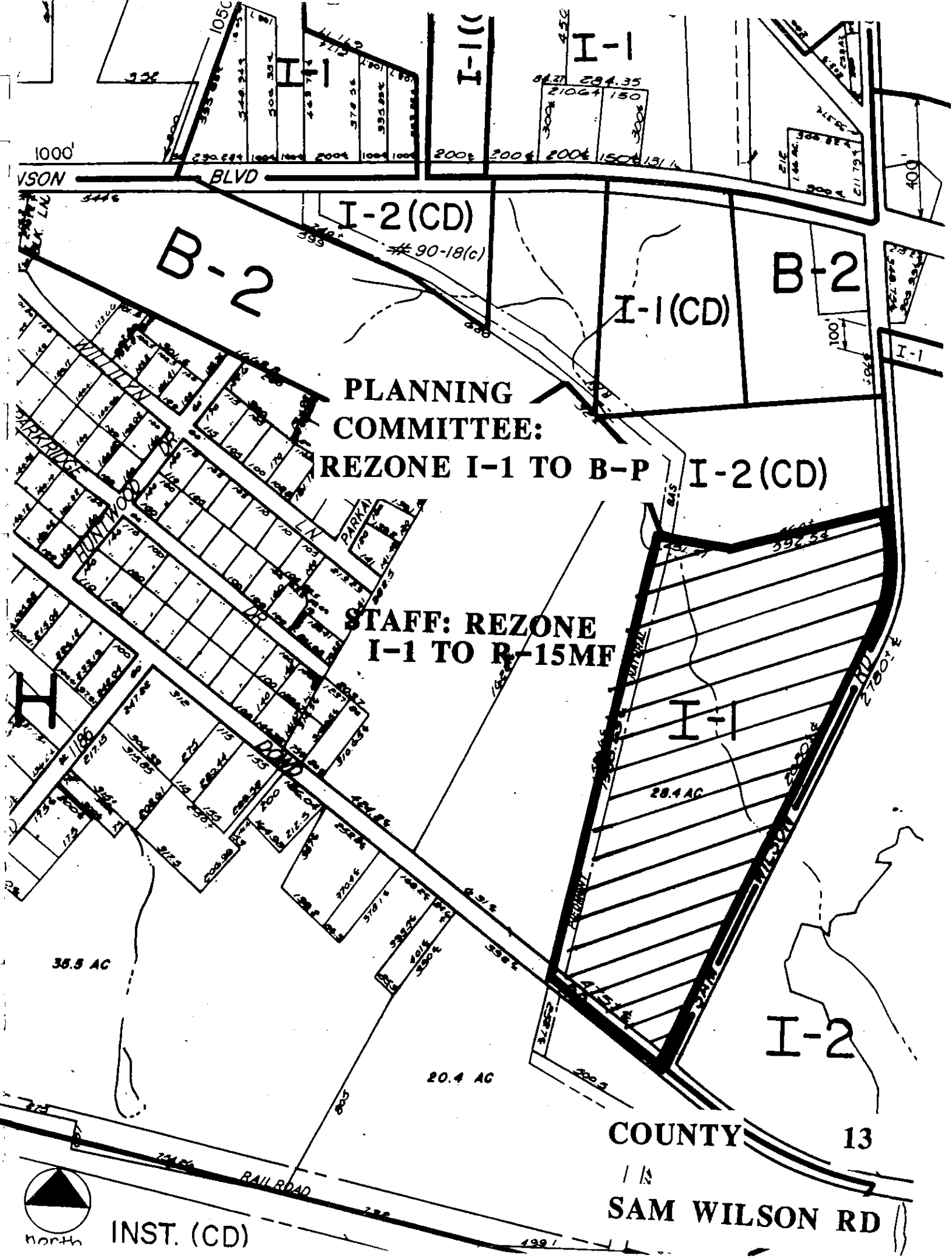
20.4 AC

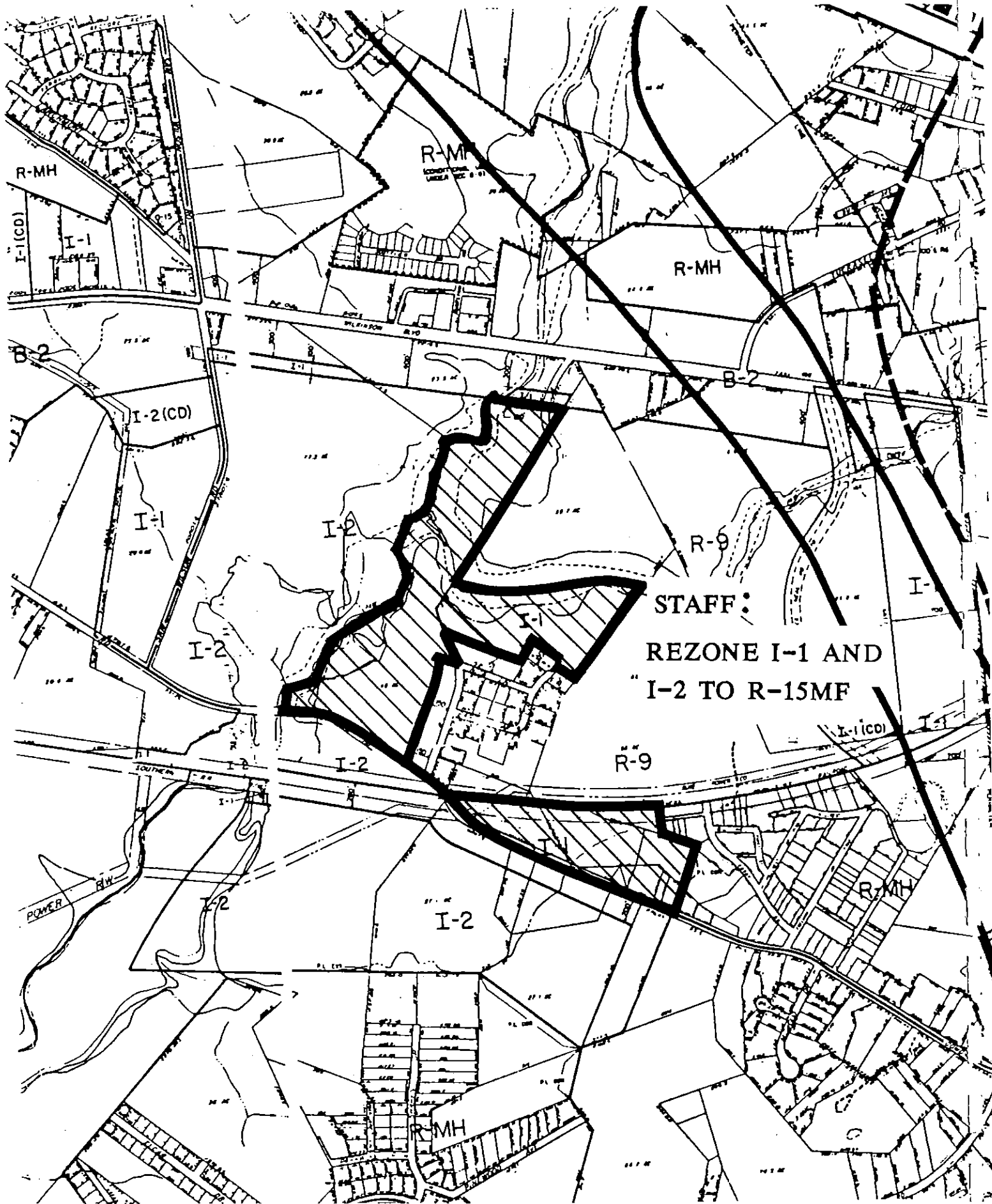
COUNTY 13

SAM WILSON RD



INST. (CD)

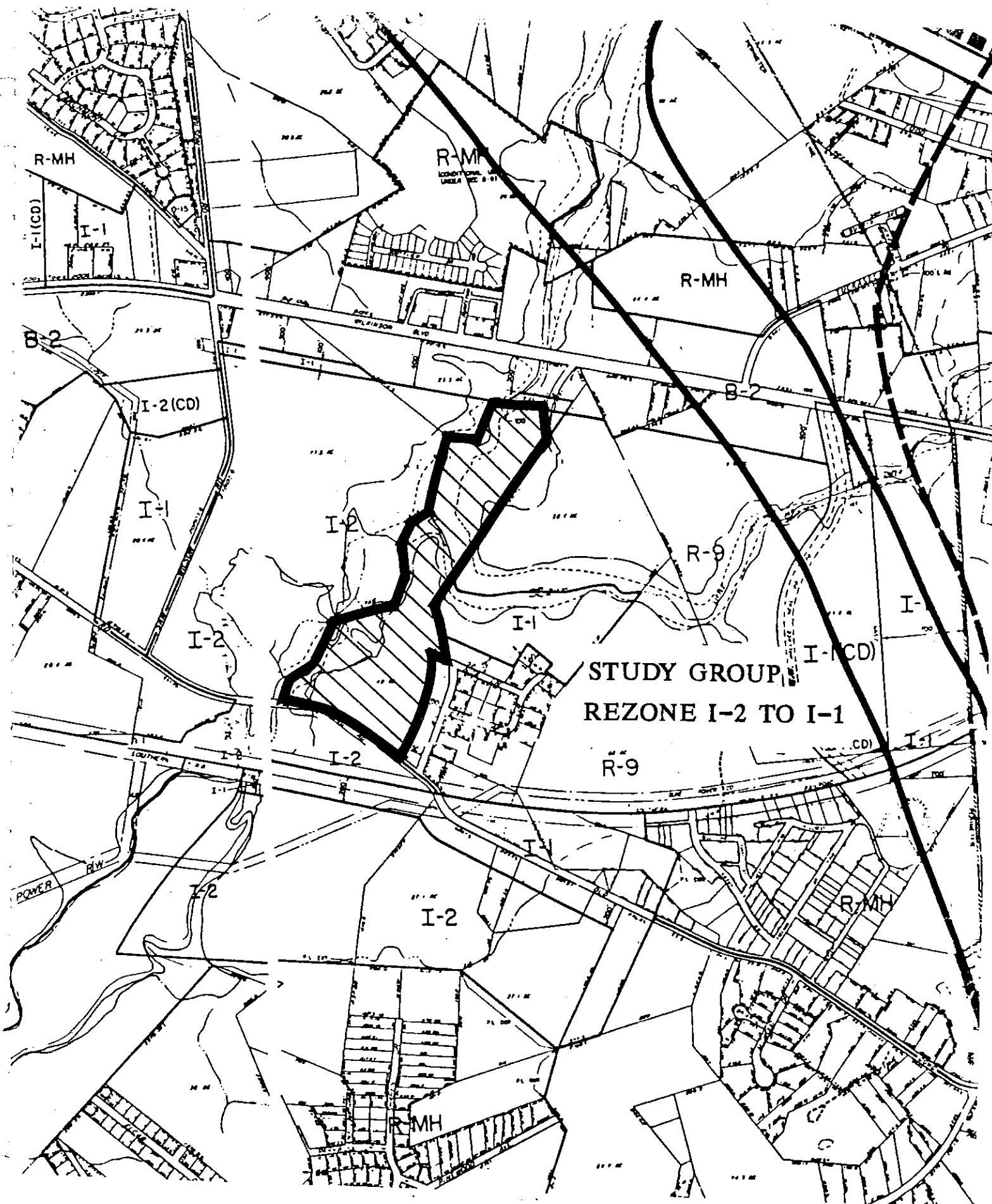




STAFF:
 REZONE I-1 AND
 " I-2 TO R-15MF



COUNTY 14a
 OLD DOWD RD



STUDY GROUP
REZONE I-2 TO I-1



COUNTY 14b
OLD DOWD RD

R-9

DUKE POWER

SOUTHERN

BELL AVE

P.L. COR.

27.1 AC

I-2

Rezone I-1 and I-2 to R-12

27.1 AC

P.L. COP

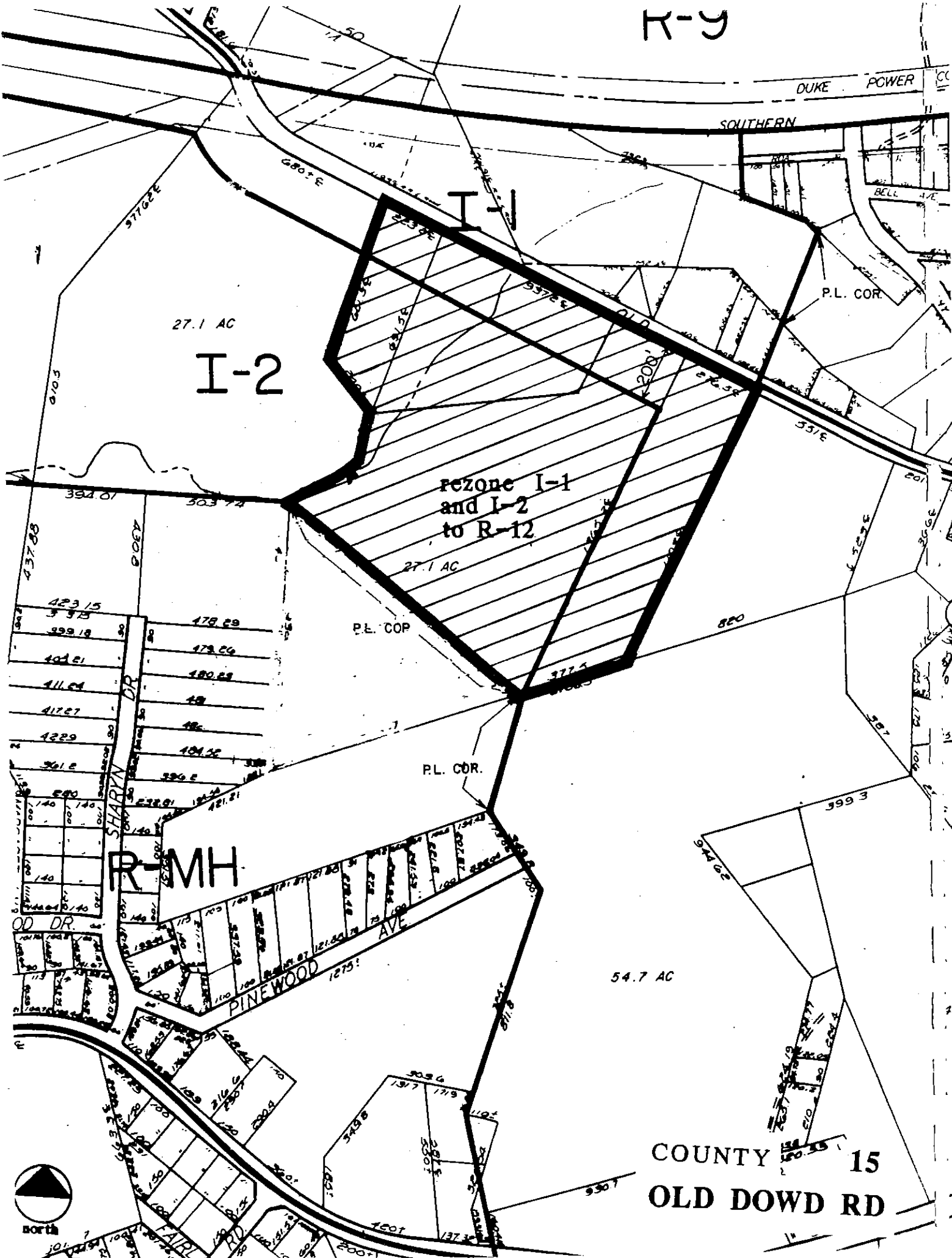
P.L. COR.

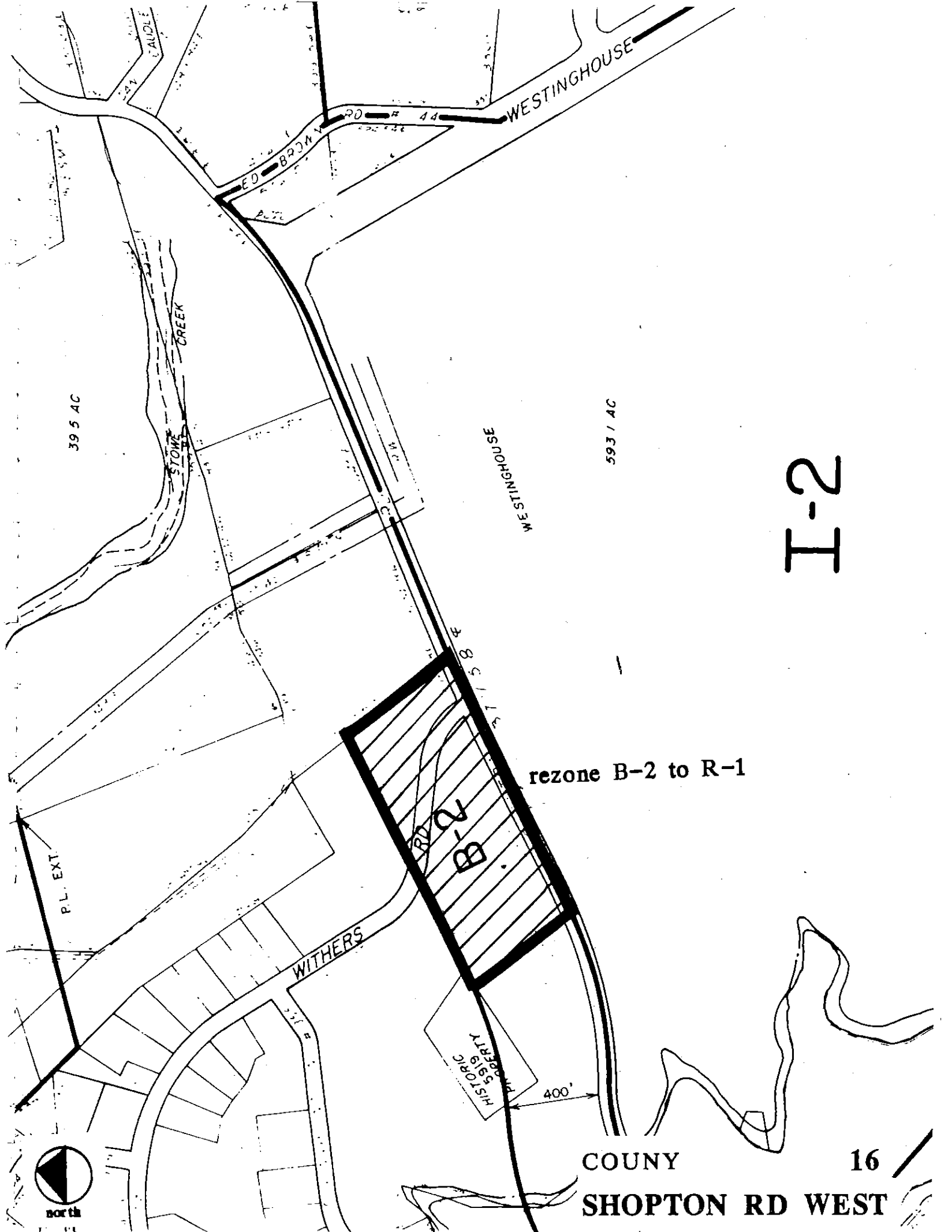
R-MH

54.7 AC

PINEWOOD AVE

COUNTY 15
OLD DOWD RD





I-2

rezone B-2 to R-1

HISTORIC PROPERTY

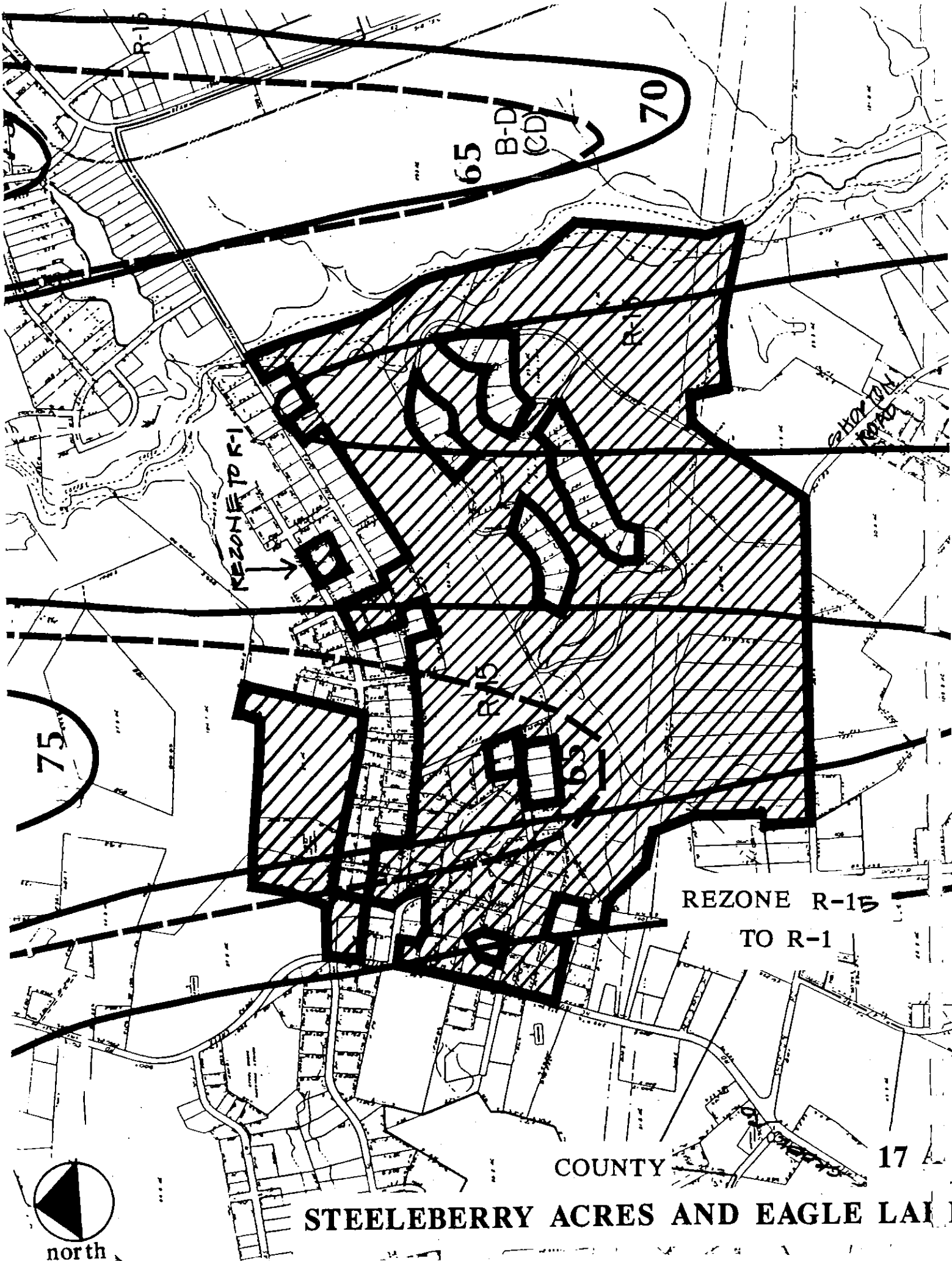
400'

COUNY

16

SHOPTON RD WEST





REZONE TO R-1

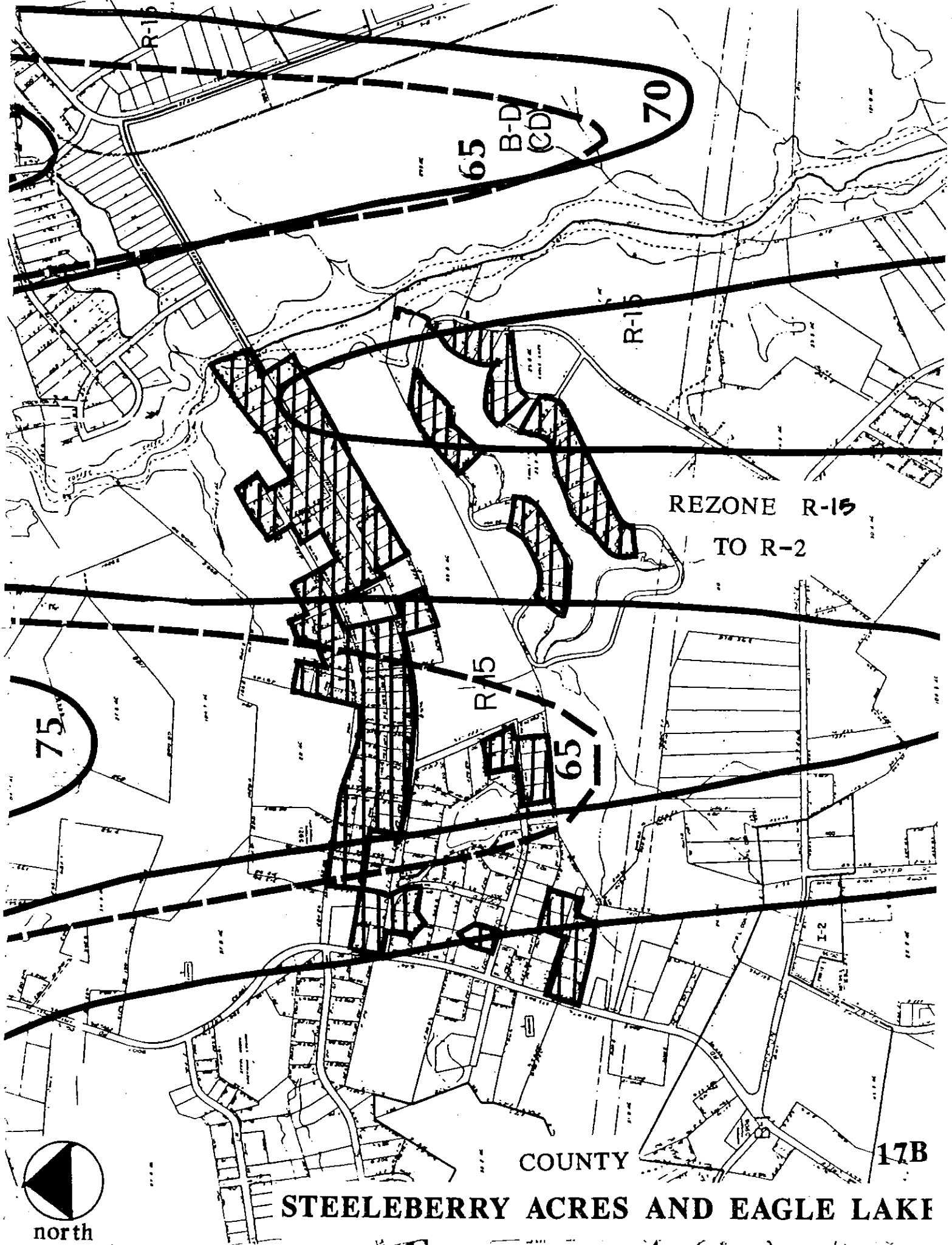
REZONE R-15
TO R-1

COUNTY

17

STEELEBERRY ACRES AND EAGLE LAKE





REZONE R-15
TO R-2

75

65

B-D
CD

70

R-15

65

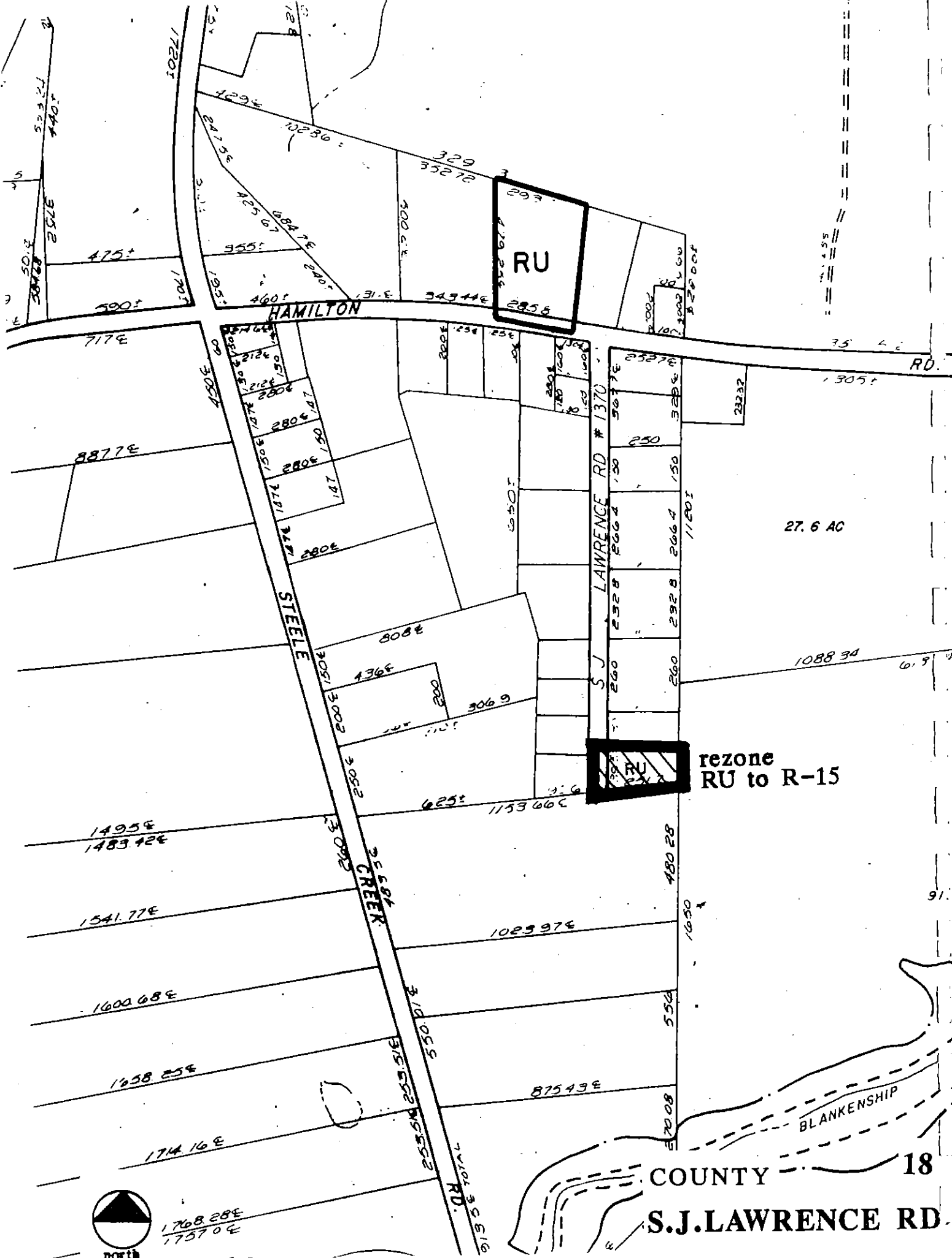
I-2

17B

COUNTY

STEELEBERRY ACRES AND EAGLE LAKE





RU

rezone
RU to R-15

27.6 AC



COUNTY 18
S.J. LAWRENCE RD.

1495 1/2
1483.42 1/2

1541.77 1/2

1600.68 1/2

1658.25 1/2

1714.16 1/2

1768.28 1/2
1757.0 1/2

S. CREEK RD.

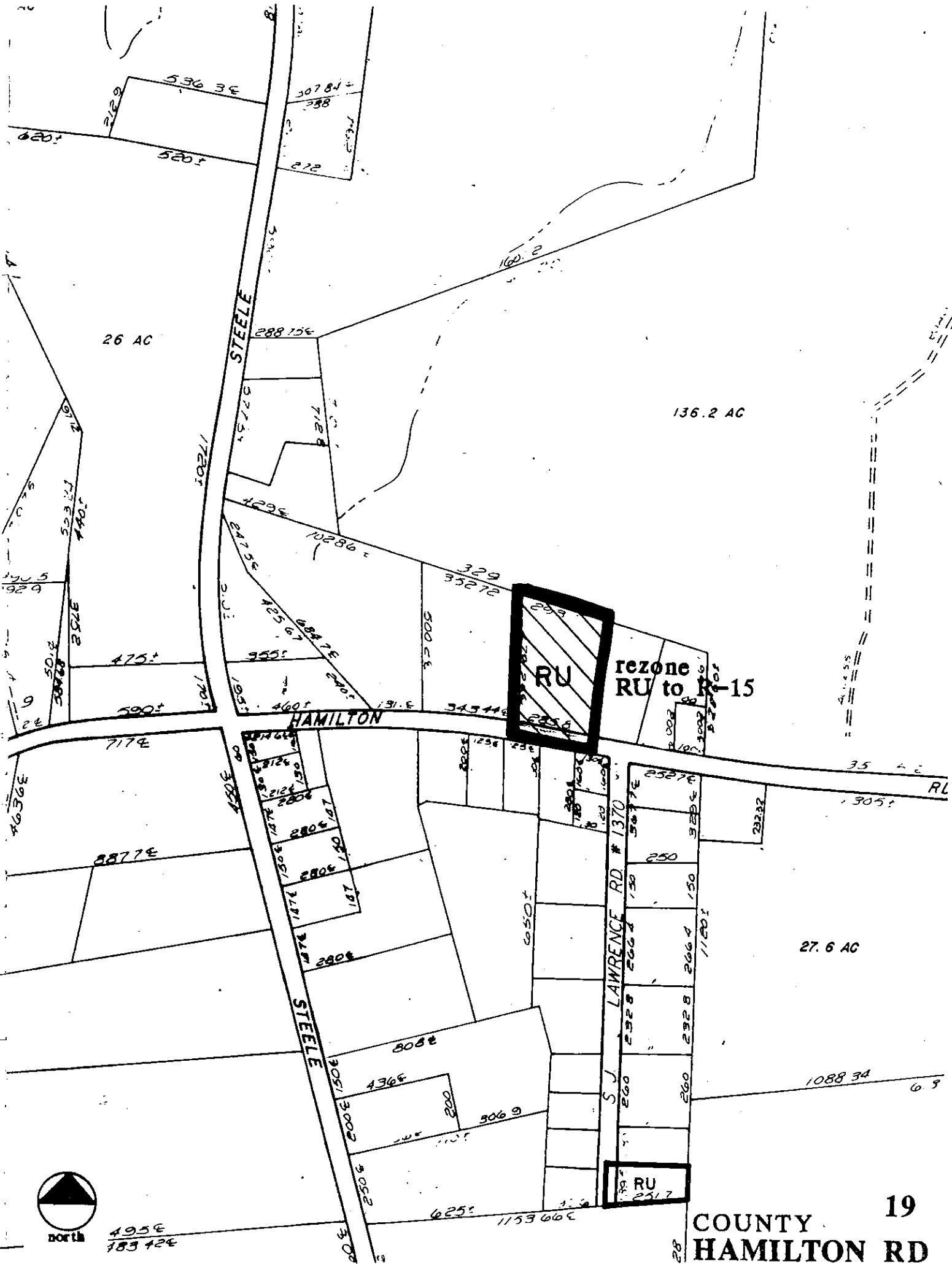
STEELE

HAMILTON

S.J. LAWRENCE RD #1370

BLANKENSHIP

COUNTY 18
S.J. LAWRENCE RD.



RU

rezone
RU to R-15

LAWRENCE RD #1370

RU

26 AC

136.2 AC

27.6 AC



COUNTY
HAMILTON RD

19

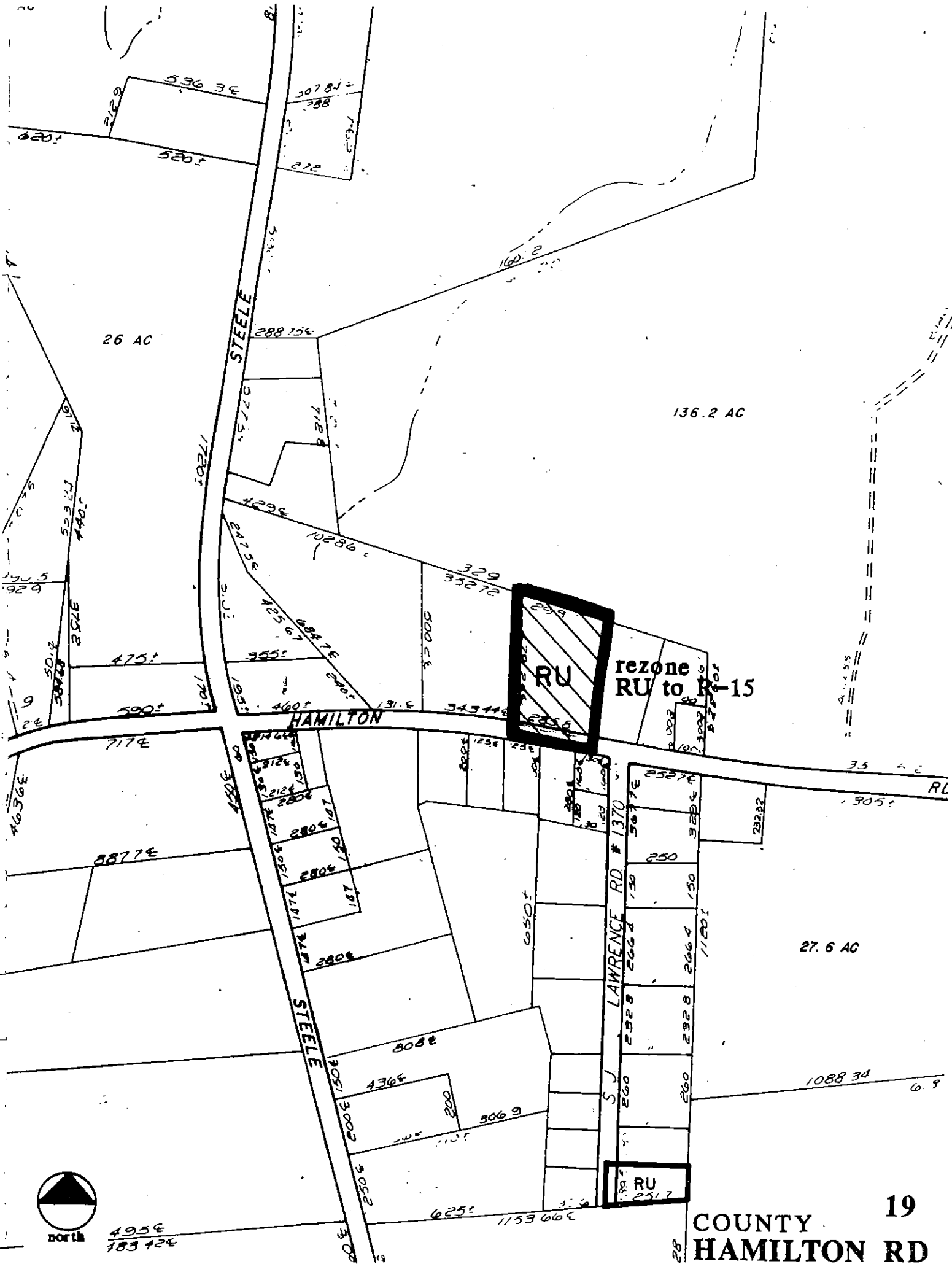
495E
32488E

1088 34

625E
1153 66E

1505'

69



D(CD)

B-1(C)

O-15
(CD)

R-9MF

R-9MF

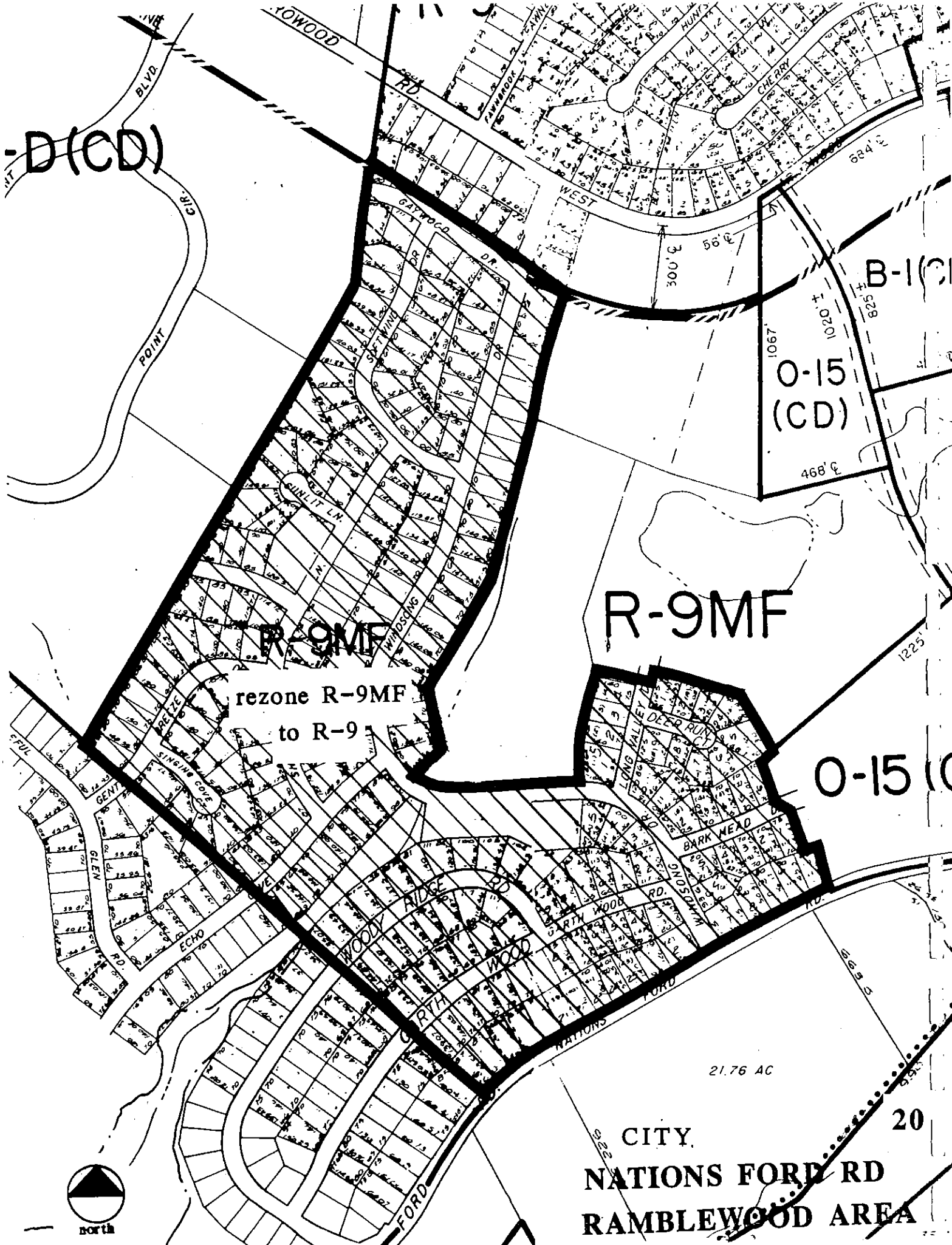
O-15(C)

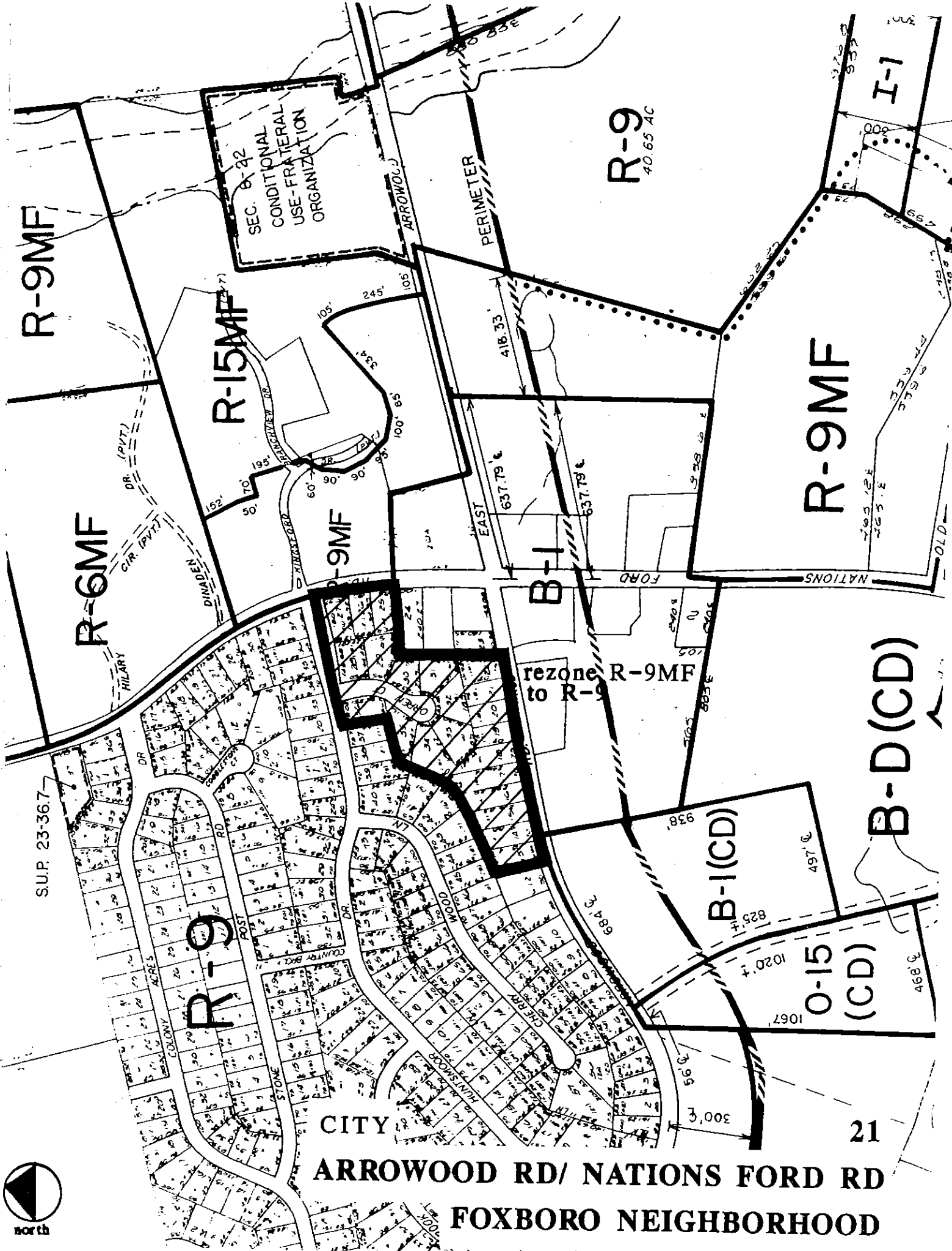
rezone R-9MF
to R-9

21.76 AC

20

CITY
NATIONS FORD RD
RAMBLEWOOD AREA





R-9MF

R-6MF

R-15MF

R-9MF

B-1

R-9
40.65 AC

R-9MF

B-D(CD)

O-15
(CD)

I-1

S.U.P. 23-36.7

R-9

rezone R-9MF
to R-9

B-1(CD)

CITY

21

ARROWOOD RD/ NATIONS FORD RD
FOXBORO NEIGHBORHOOD



CONDITIONAL USE
OUTDOOR AMUSEMENT

B-2 300

I-2

B-2

B-D

COND. USE -
CHILD CARE
FACILITIES
SEC 23-4-10
S.U.P.
3319

R-9

REZONE O-15
TO R-15MF

O-15

R-9

O-6

B-1

B-2

O-15

O-15

B-2(CD)

B-1

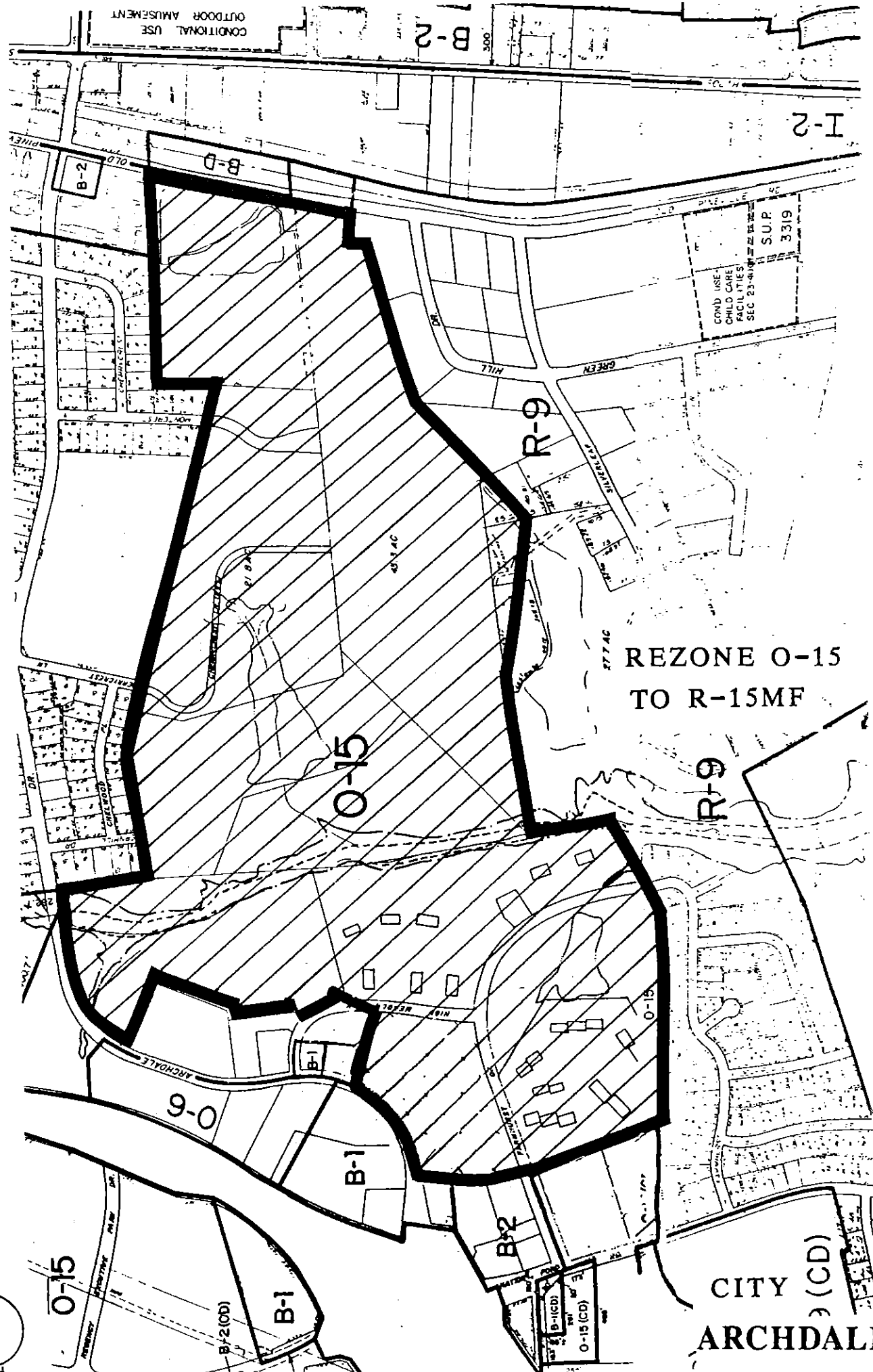
B-1(CD)

O-15(CD)

CITY (CD)

22

ARCHDALE RD



LOT 1E

67.6 AC

R-9

CEMETERY
55.3 AC

20.1 AC

rezone O-6
to R-9

CITY OF CHARLOTTE
70.3 AC

B-1
(CD)

R-9

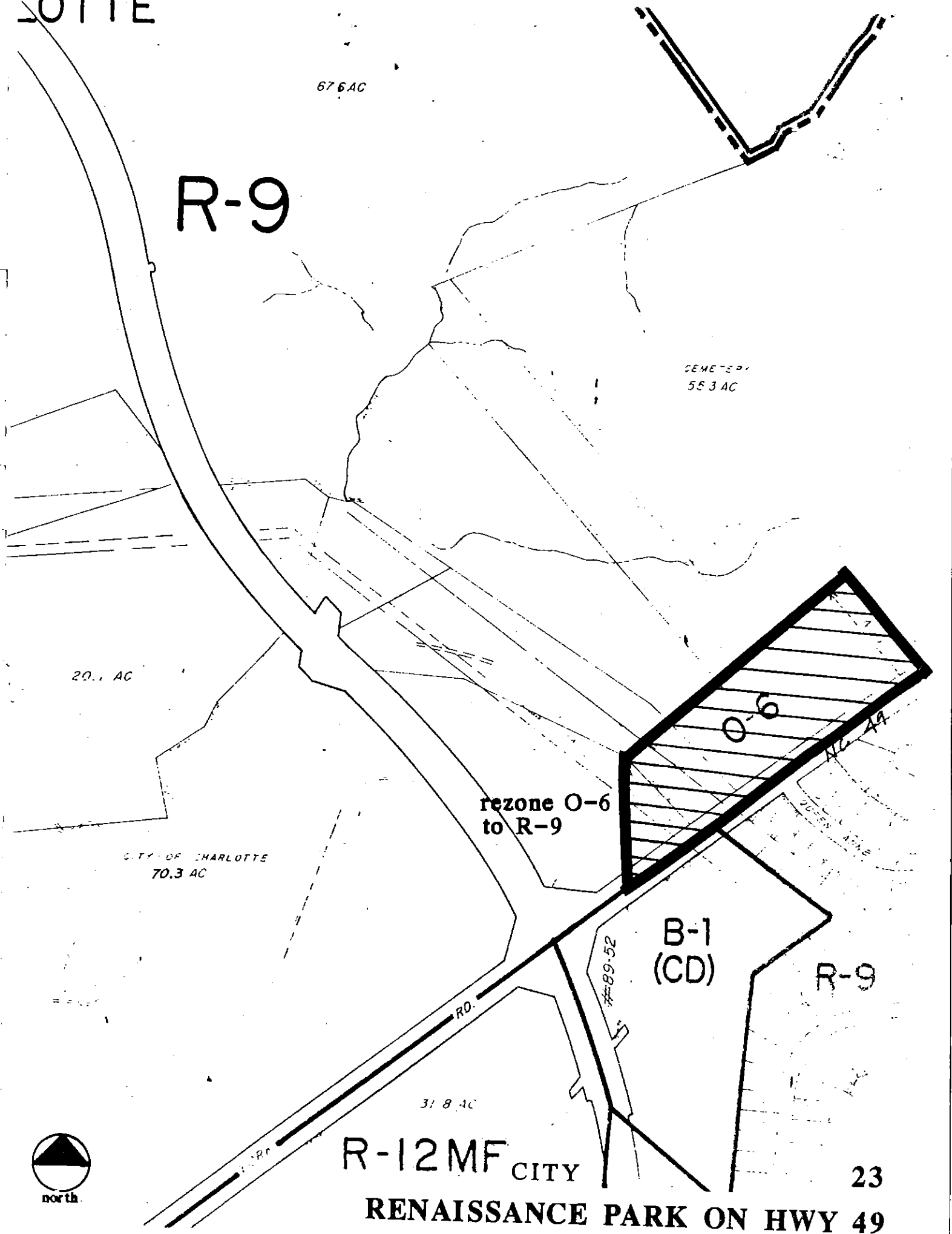
31.8 AC

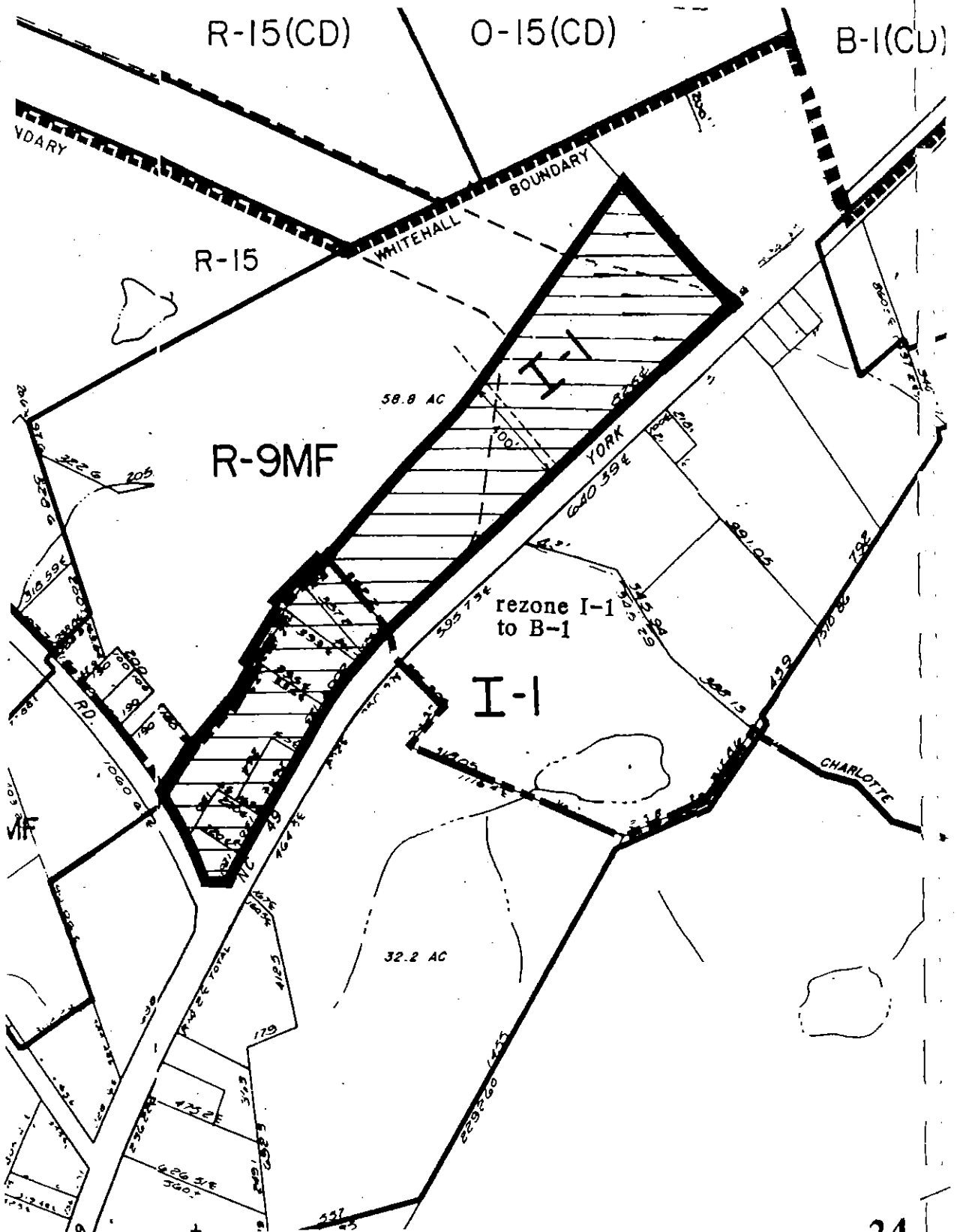


R-12MF CITY

23

RENAISSANCE PARK ON HWY 49





24
 COUNTY
 YORK RD NORTH OF
 SANDY PORTER

R-12

21 AC

53 AC PIEDMONT NATURAL

Zone I-1 to R-12

44.5 AC

147 AC

23.7 AC

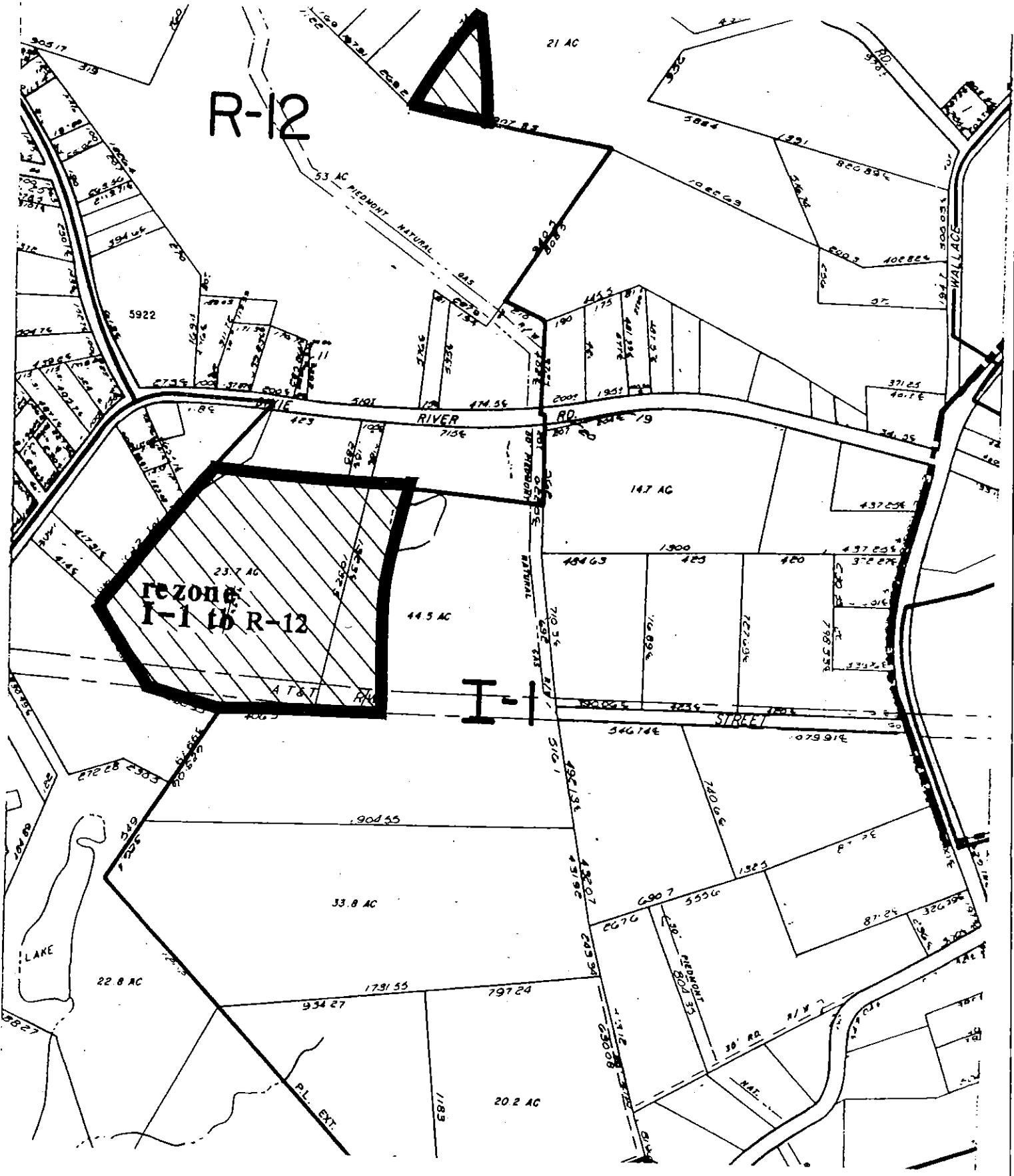
33.8 AC

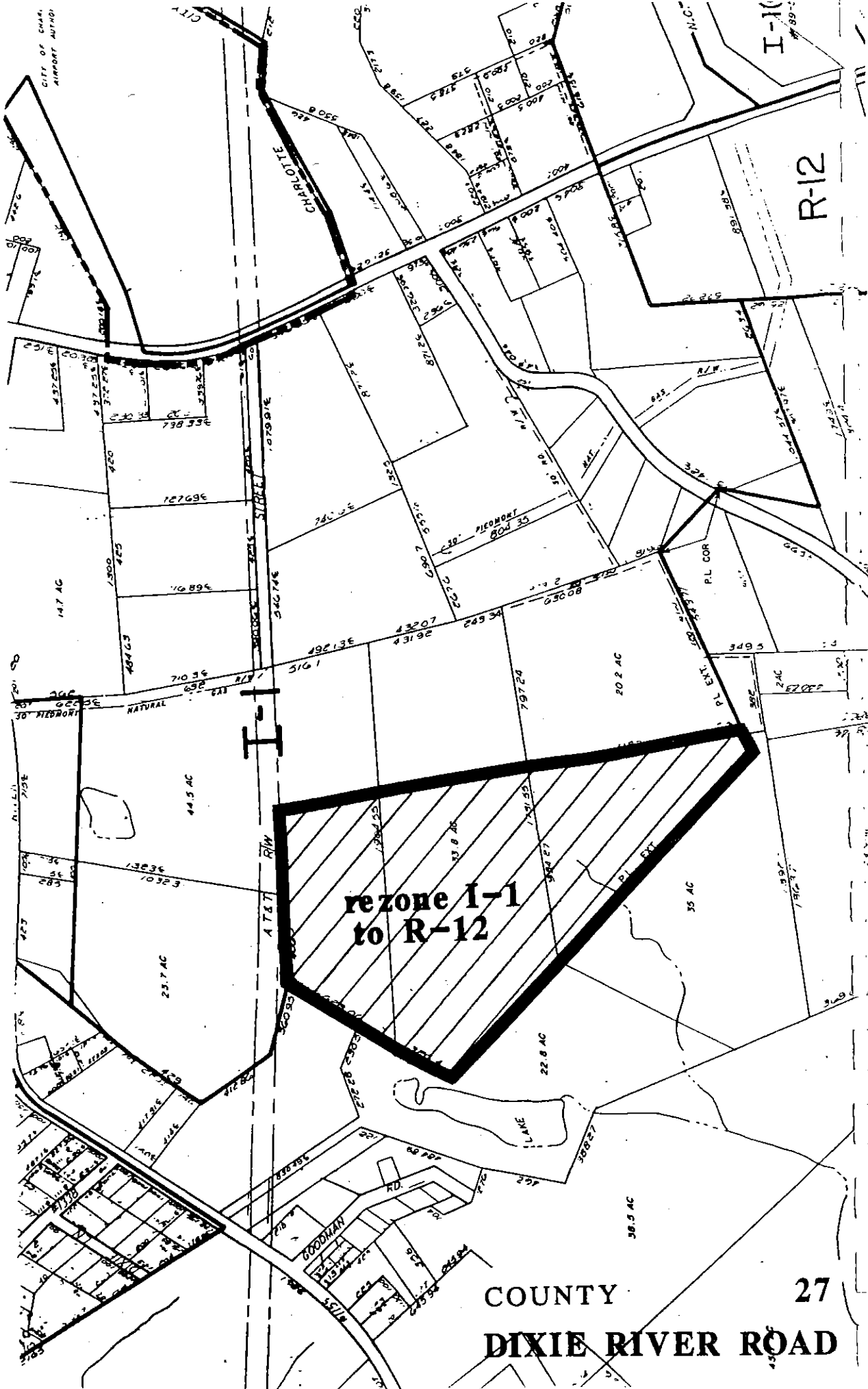
22.8 AC

20.2 AC



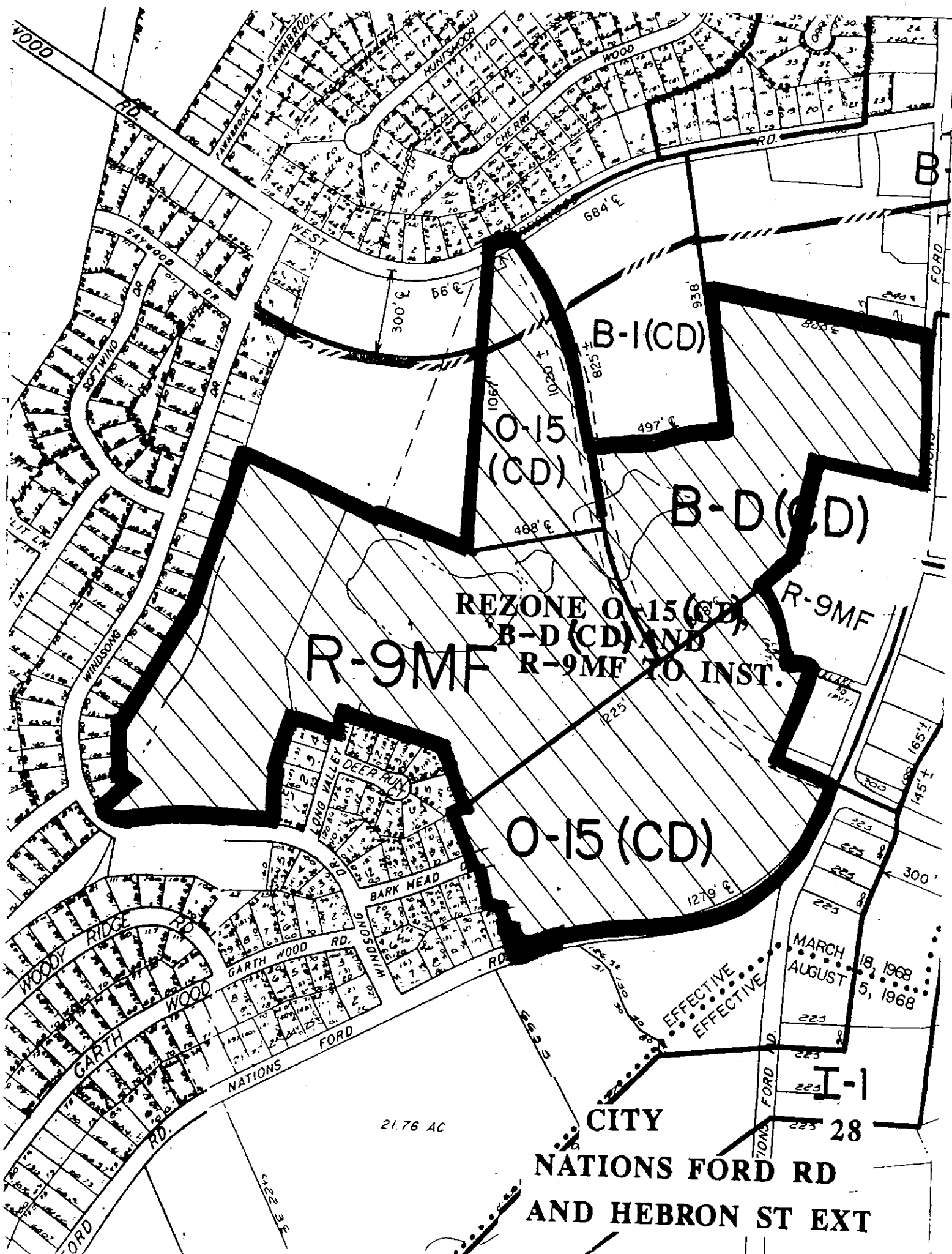
COUNTY 26
DIXIE RIVER RD





rezone I-1
to R-12

COUNTY 27
DIXIE RIVER ROAD

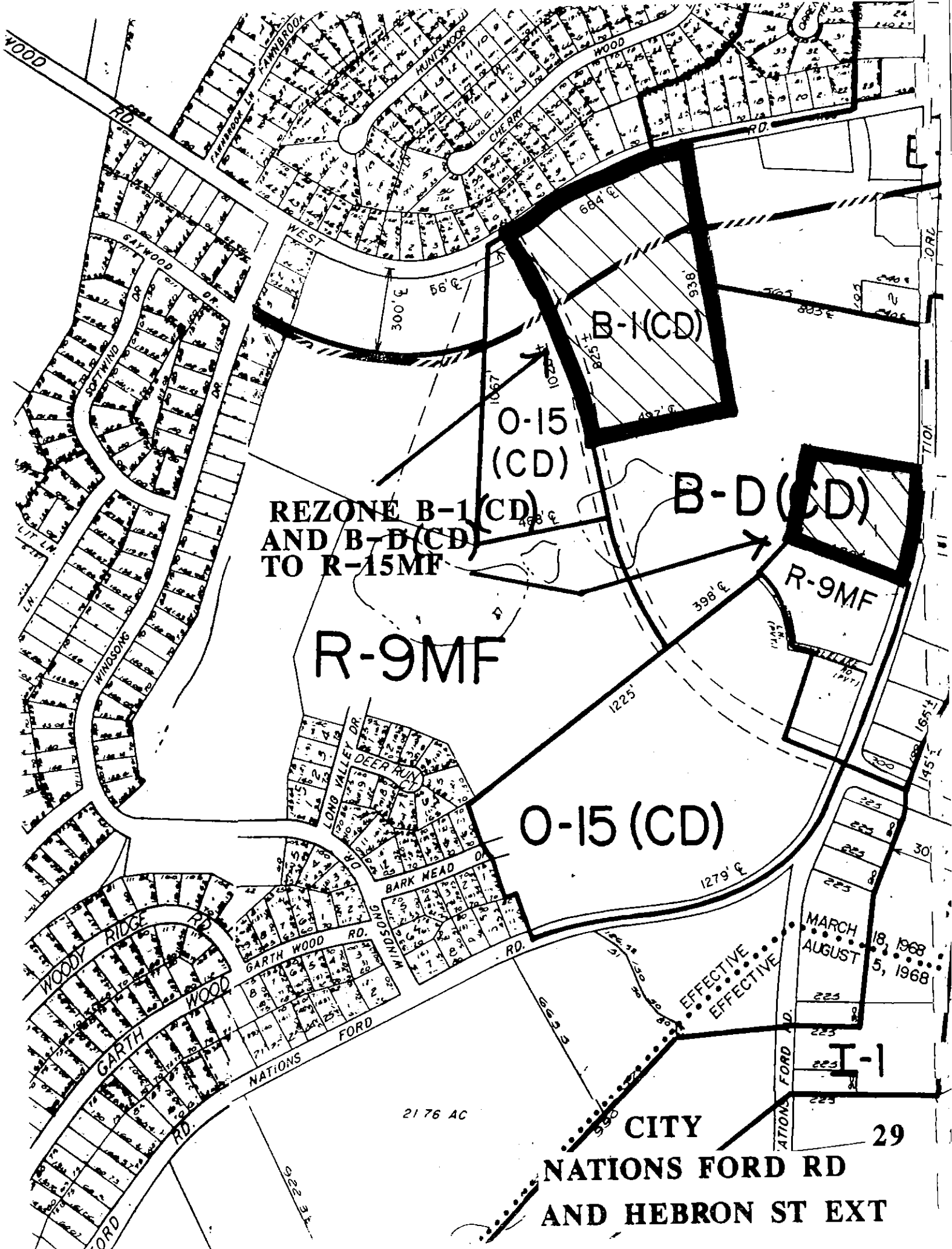


REZONE O-15 (CD),
 B-D (CD) AND
 R-9MF TO INST.
 O-15 (CD)

EFFECTIVE MARCH 18, 1968
 EFFECTIVE AUGUST 5, 1968

CITY
 NATIONS FORD RD
 AND HEBRON ST EXT

21.76 AC



REZONE B-1 (CD)
AND B-D (CD)
TO R-15MF

R-9MF

O-15 (CD)

B-1 (CD)

B-D (CD)

R-9MF

I-1

EFFECTIVE
AUGUST 18, 1968
EFFECTIVE
AUGUST 5, 1968

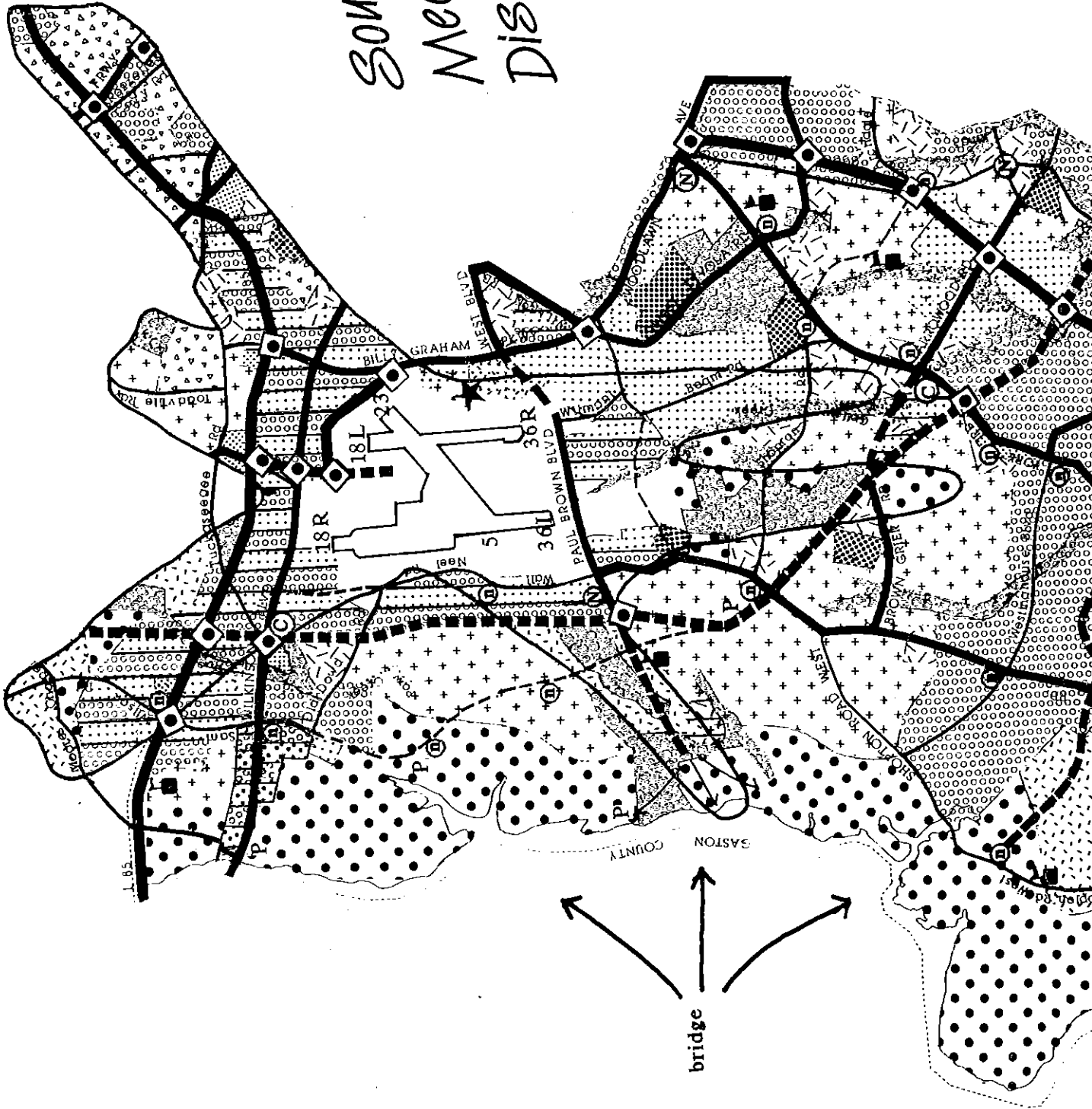
2176 AC

CITY
NATIONS FORD RD
AND HEBRON ST EXT

29

• Proposed Land Use and Transportation Plan •

Southwest Southburg Mecklenburg District Plan



82.6 AC
I-1(CD)

FORMER
P.L. COR.

34.83 AC

40 AC

I-1

I-2

B-2

WILKINSON

BLVD

**REZONE B-2
TO B-1**

B-1

R-M
COUNTY

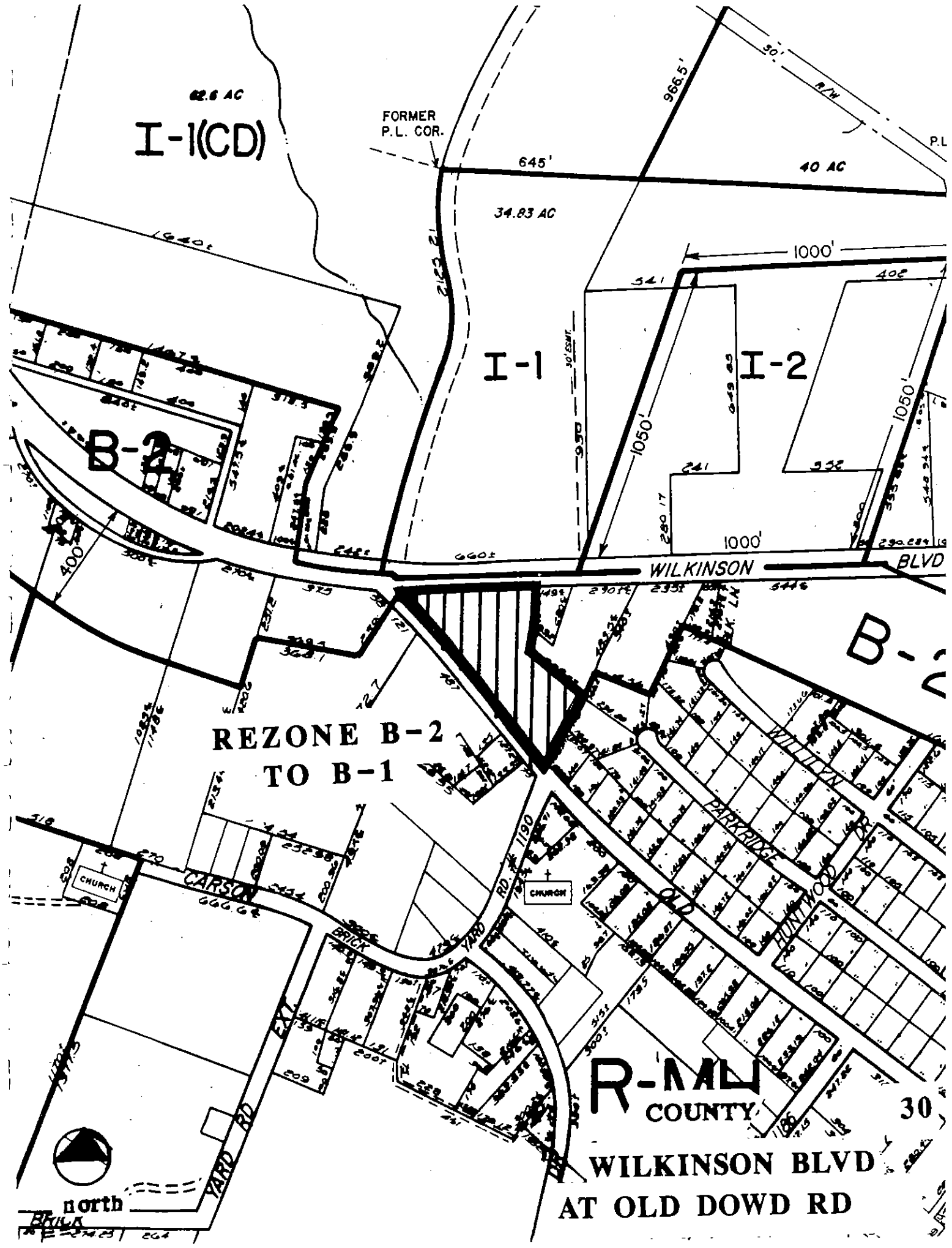
30

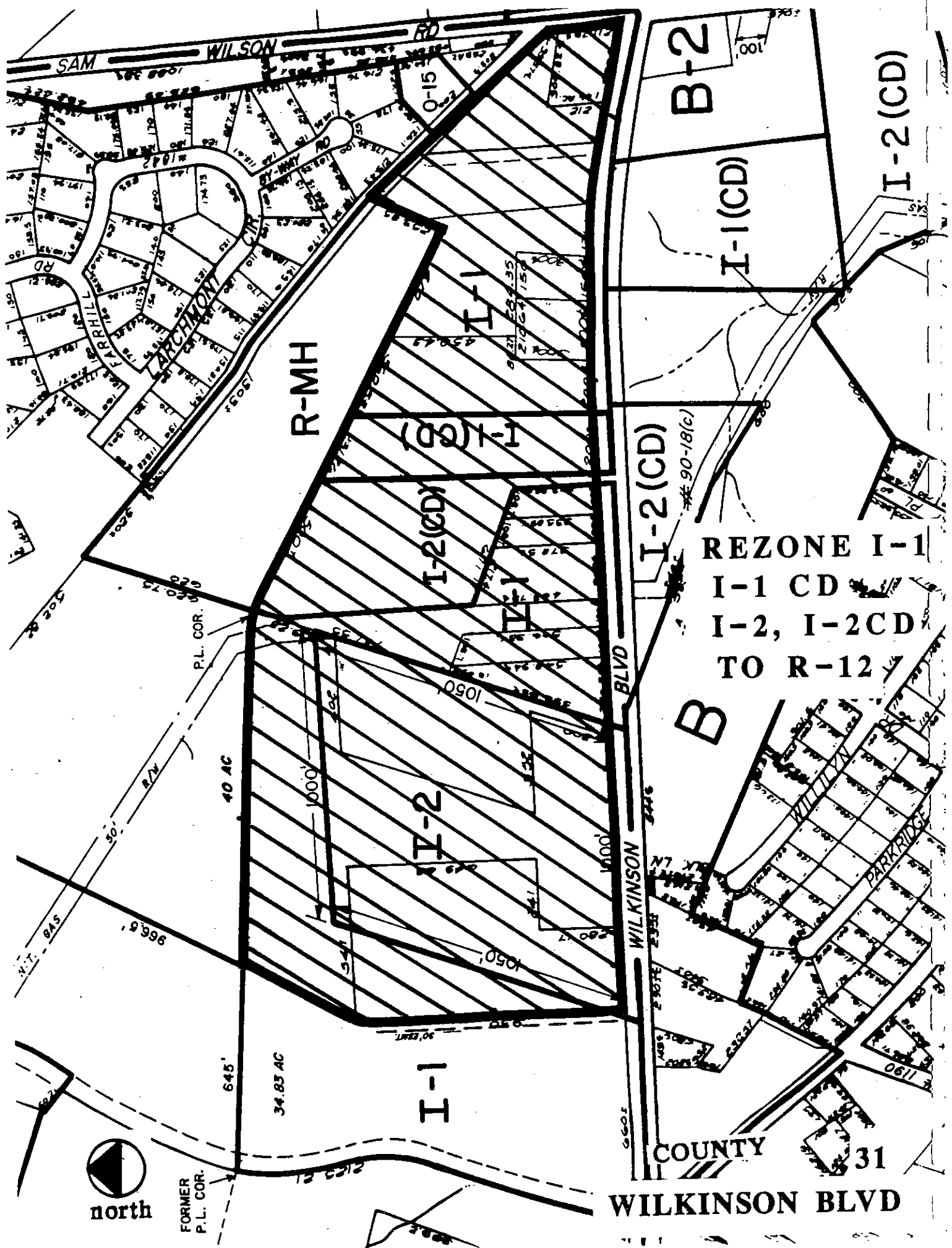
**WILKINSON BLVD
AT OLD DOWD RD**



north

BRUNN
2-24-23 264





R-MH

I-1(CD)

I-2(CD)

I-2

I-1

B-2

I-1(CD)

I-2(CD)

I-2(CD)

REZONE I-1
I-1 CD
I-2, I-2CD
TO R-12

B



north

FORMER
P.L. COR.

COUNTY 31
WILKINSON BLVD

40 AC

34.83 AC

BLVD

WILKINSON

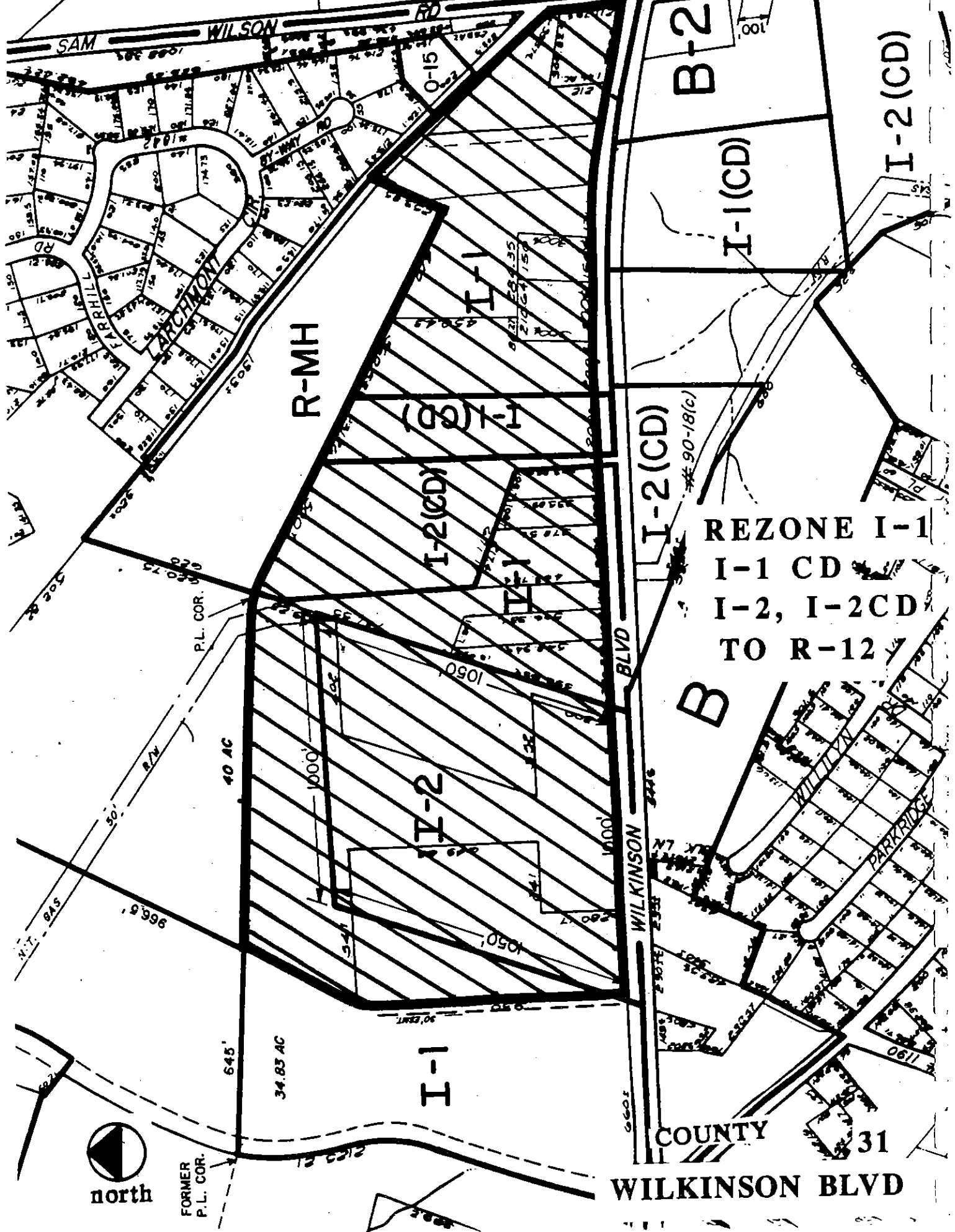
COUNTY

31

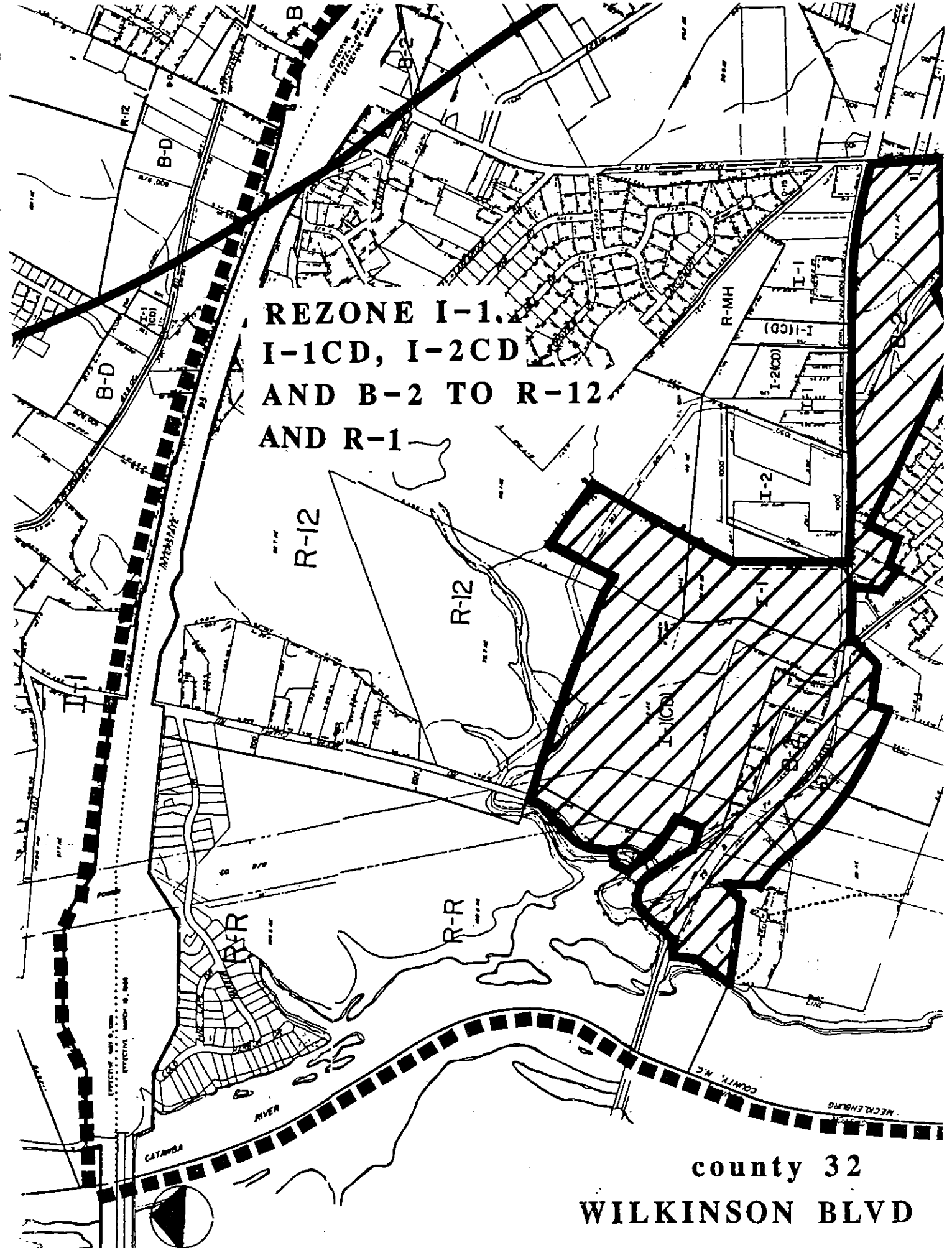
WILKINSON BLVD

90-18(c)

100



**REZONE I-1,
I-1CD, I-2CD
AND B-2 TO R-12
AND R-1**



county 32

WILKINSON BLVD

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