

Brookshire Boulevard/I-485 Area Plan

Volume I: Concept Plan

Adopted by City Council January 28, 2002



CHARLOTTE.

CHARLOTTE-MECKLENBURG
PLANNING COMMISSION

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INTRODUCTION

BACKGROUND

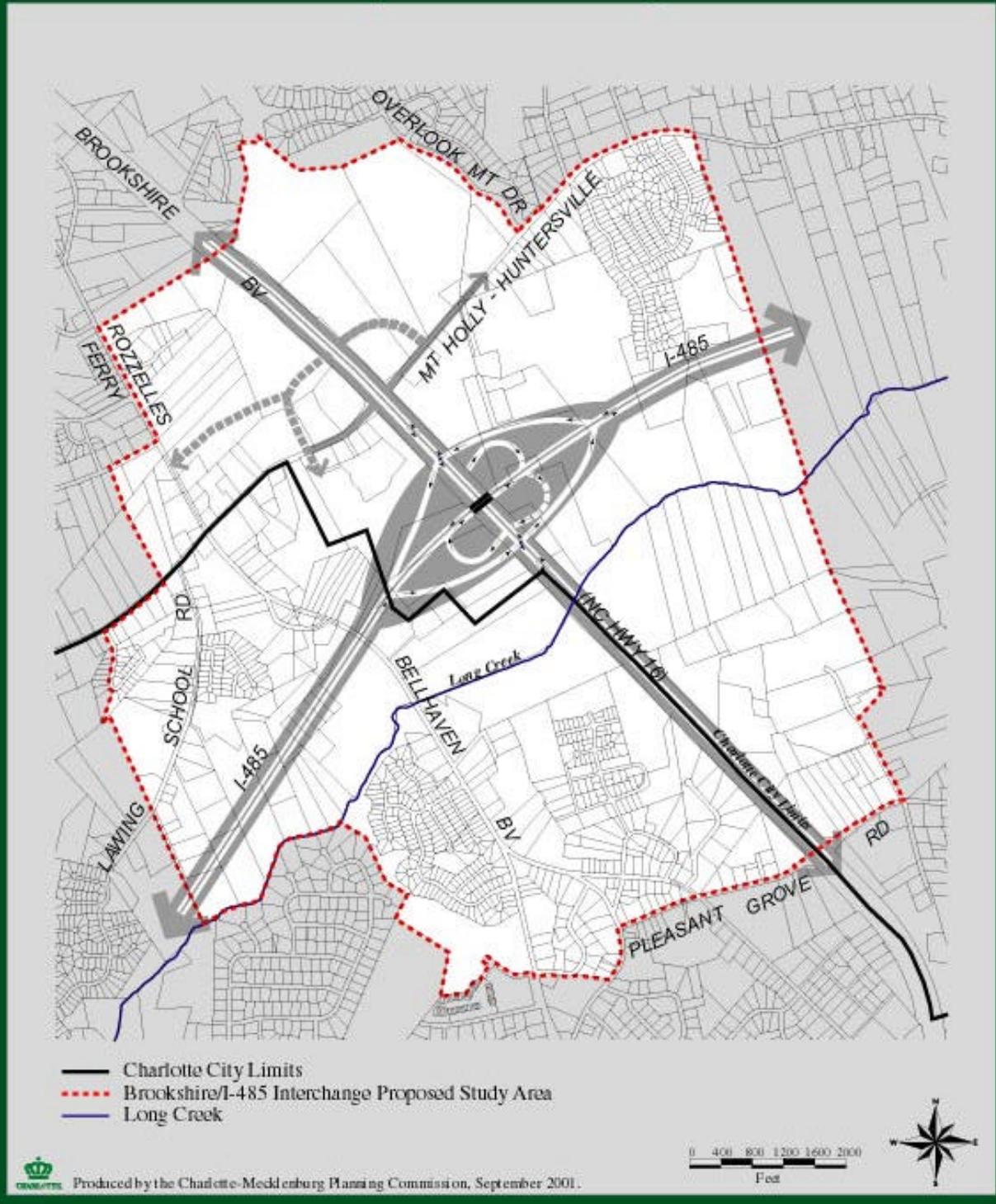
The *Brookshire Boulevard/I-485 Area Plan* amends the *Northwest District Plan*, which was adopted in 1990, by providing further direction for guiding development in the area surrounding the future freeway interchange. It was initiated in response to recommendations from the *Westside Strategic Plan* (adopted in 2000) and the *I-485 Interchange Analysis* (adopted in 1999). Both plans recommended that a specific land use and urban design plan be developed for the area. Additionally, the *Brookshire Boulevard/I-485 Area Plan* is a result of concerns expressed by citizens over the numerous rezoning petitions in the area. Although the plan addresses a number of issues affecting the study area, it is primarily focused on the following:

- Land Use
- Urban Design
- Transportation/Mobility
- Parks/Open Space
- Environment
- Public Facilities

The study area consists of approximately 1,852 acres located in the northwest portion of Mecklenburg County. Approximately 58 percent of the study area is within Mecklenburg County and approximately 42 percent is within the City of Charlotte. The boundaries of the study area generally include the area within a mile of the proposed Brookshire Boulevard/I-485 Interchange and are illustrated on Map #1.

Commercial and institutional uses are concentrated along Mount Holly-Huntersville Road primarily at the intersections of Brookshire Boulevard/Mount Holly-Huntersville Road and Bellhaven Road/Mount Holly-Huntersville Road. The area is characterized by its rural landscape and rolling topography. Long Creek parallels the proposed I-485 to the south of the study area. The Catawba River borders the southern edge of the study area.

Brookshire Boulevard /I-485 Interchange Study Area: Map #1



PLAN PURPOSE AND FORMAT

The purpose of the *Brookshire Boulevard/I-485 Area Plan* is to provide a framework for future development within the area surrounding the I-485/Brookshire Boulevard interchange. The plan is divided into two volumes. *Volume I: The Concept Plan* describes the planning area, discusses local issues and opportunities, outlines a desired vision for the study area, and provides recommendations to achieve that vision.

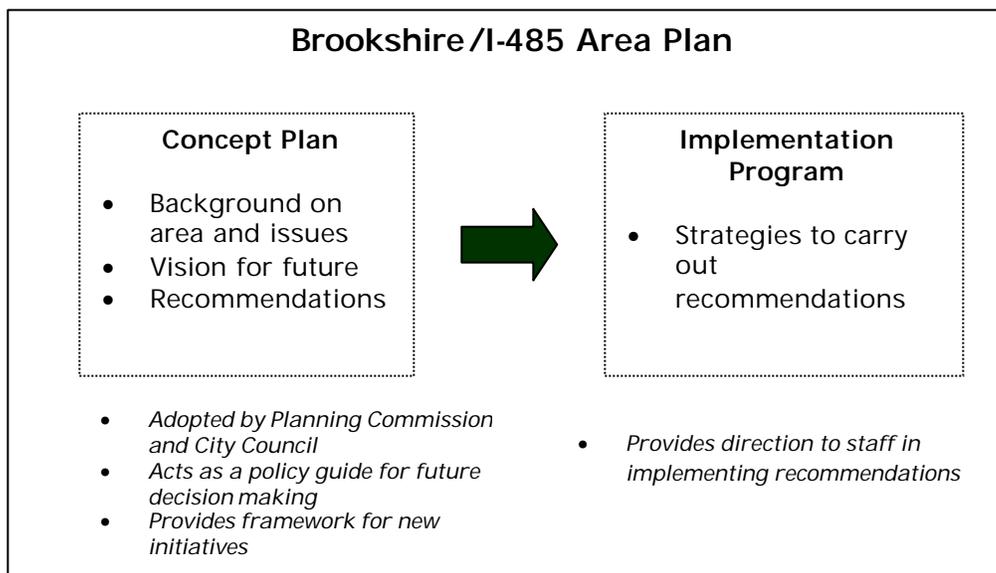
Volume II: The Implementation Plan identifies specific strategies that will assist in implementing the recommendations in the *Concept Plan*.

PLAN DEVELOPMENT AND ADOPTION PROCESS

The plan development process included a series of seven public workshops between February and September 2000. During these workshops, citizens worked with staff to identify community issues and opportunities, create a vision for the study area, and develop recommendations. The workshops were well attended by residents and business owners. A final public workshop was held on September 6, 2001 to provide an opportunity for citizens to review the draft document. Additional public hearings were also held on October 16, 2001 and November 12, 2001 before the Planning Commission Planning Committee and Charlotte City Council, respectively.

The Concept Plan was reviewed and adopted by the Planning Committee of the Charlotte Mecklenburg Planning Commission and forwarded to the Charlotte City Council for review and decision. City Council adopted the plan on January 28, 2002 as part of the City's policy framework to provide guidance in future decision making.

The Plan will also be provided to the Mecklenburg County Board of County Commissioners for information.



EXISTING CONDITIONS

SOCIOECONOMIC PROFILE

Table #1 provides a socioeconomic profile of the area. This profile is based on information from both the 1990 and 2000 Census. The plan study area is included in Census Tract 61, but it should be noted that Tract 61 encompasses a much larger area than the study area boundaries.

Table 1
Socioeconomic Profile for Census Tract 61
 Source: 1990 and 2000 Census

	1990	%	2000	%
Population				
White	5,679	53.94	9,764	51.13
Black	2,112	20.06	4,419	23.14
Under 18	1,752	16.64	3,629	19.00
65+	985	9.36	1,283	6.72
Total	10,528		19,095	
Households				
One Person	491	17.13	1,085	20.27
Female Headed	279	9.73	507	9.47
Married with Children	1,958	68.29	1,527	28.52
Female Headed with Children	126	4.39	280	5.23
Total	2,867		5,354	
Education				
Persons 25+	5,438			
High School Graduates	1,769	32.53		
College Graduates	731	13.44		
Occupations				
Adults in Labor Force	1,856			
Unemployed	71	3.8		
Income				
Total Number of Households	2,867			
\$0 - \$14,999	357	12.45		
\$15,000 - \$24,999	437	15.24		
\$25,000 - \$34,999	551	19.22		
\$35,000 - \$49,999	663	23.13		
\$50,000 +	859	29.96		
Families Below Poverty	65	2.27		

EXISTING LAND USE/ZONING

Much of the study area is vacant or developed with large-lot, single-family homes. Newer single-family neighborhoods include Fox Chase and Keeneland. Subdivisions within and adjacent to the study area are listed in Table #2.

Table 2
Single-family Approvals, January 1990 – July 2001
 Source: Charlotte-Mecklenburg Planning Commission, August 2001

Subdivision	# of Lots	Zoning	Density
Mountain Point Estates*	16	R-3	.42
Mountain Point Phase 1*	36	RR	.51
Mountain Point Phase 2*	47	RR	.67
Overlook Phase 1*	164	R-3	1.12
Overlook Phase 2*	101	R-5	1.36
Overlook Phase 3*	147	R-5	1.38
Overlook Phase 4*	5	R-5	.84
Overlook Phase 5*	10	R-3	1.32
Chastain at Overlook*	223	R-3/R-4	2.98
Fox Chase	74	R-3 cluster	2.96
Keeneland Phase 1	190	R-4	5.33
Keeneland Phase 2	43	R-4	1.00
Miranda	82	R-3	1.86
Ranchview	11	R-3	2.68

**Developments outside of the immediate study area boundaries.*

The Mountain Island Shopping Center is located in the Northwest quadrant of the intersection of Brookshire Boulevard and Mount Holly-Huntersville Road. Commercial and institutional uses are concentrated along Mount Holly-Huntersville Road, primarily at the intersections of Brookshire Boulevard/Mount Holly-Huntersville Road and Bellhaven Road/Mount Holly-Huntersville Road. Other retail uses are generally located at the Bellhaven Boulevard/Mount Holly-Huntersville Road and Bellhaven Boulevard/McClure Circle intersections.

The area is noted for its rural quality, rolling topography and scenic Catawba River valley. Long Creek and the Catawba River parallel the proposed I-485 interchange to the south of the study area.

Much of the study area is currently inaccessible or difficult to access because of the lack of roadway connections.

Table 3
Brookshire Boulevard/I-485 Existing Land Use
 Source: Charlotte-Mecklenburg Planning Commission, January 2000

Existing Land Use	Acreage	% of Total Acres
Open Space	24.56	1.32
Single-family	920.00	49.67
Multi-Family	.29	.02
Institutional	23.98	1.29
Commercial	61.39	3.31
Office	6.01	.34
Industrial	2.65	.15
Vacant	670.57	36.20
Right-of-Way (ROW)	142.70	7.70
Total	1852.15	100.00

NOTE: The ROW figures include existing streets and ROW figures

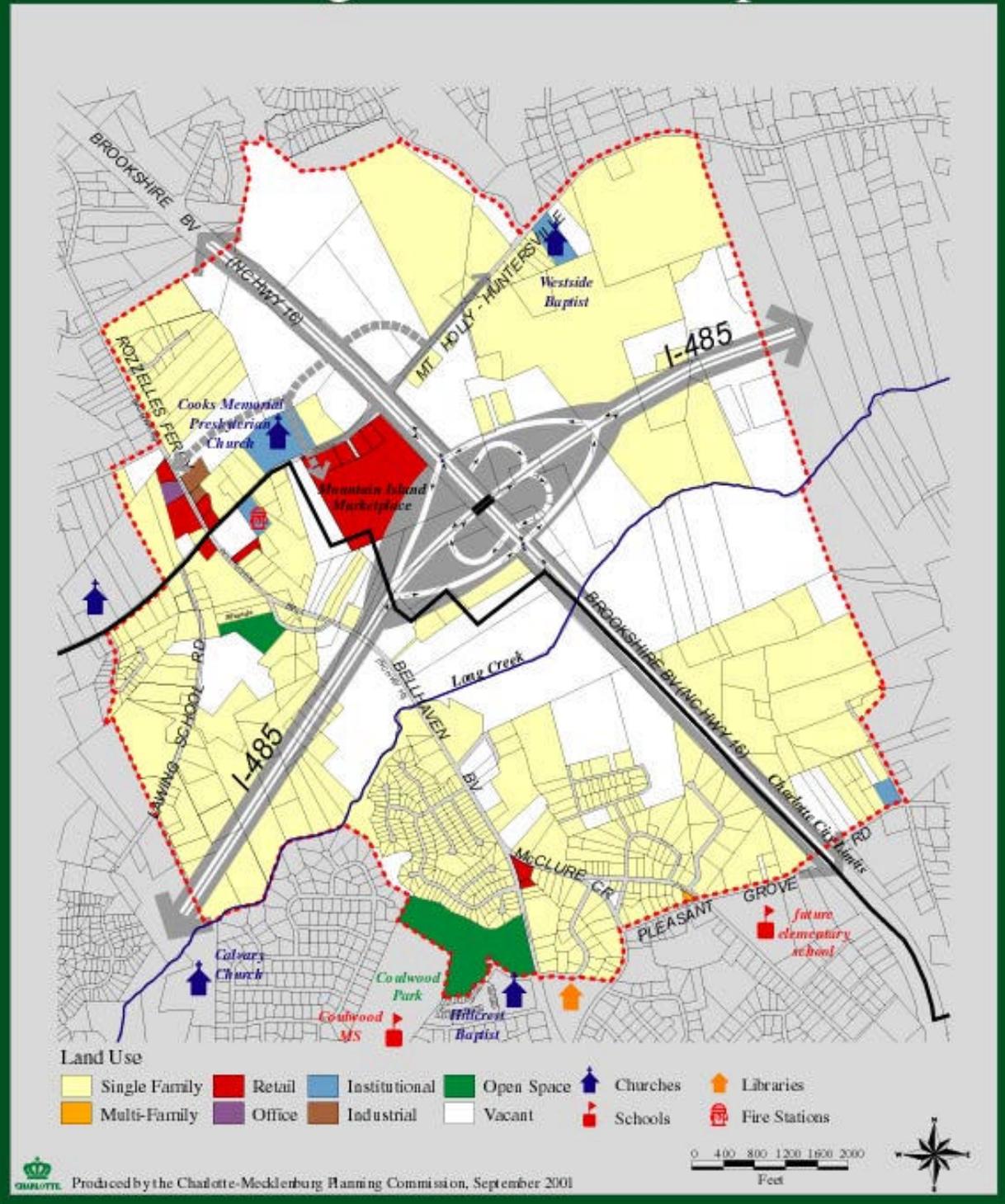
The character of the study area is changing as the result of new development. The area is beginning to experience a transformation from rural open land to suburban development. As shown on Map # 2, most of the development that has occurred in the study area has been single-family residential with a small amount of retail development. A large amount of vacant and underutilized land remains available for further development, especially in the immediate vicinity of the interchange.

Of the 1,852 acres in the study area, 671 acres are currently vacant. An additional 920 acres are developed as low-density single-family residential (up to 3 DUA). Most of the vacant parcels are concentrated in the center of the study area. However, many of these parcels have limited access, making development difficult.

North of I-485: The area north of the interchange primarily consists of large vacant tracts. This area is also developed with scattered single-family housing. Just outside of the study area boundaries is the newly developed Overlook neighborhood. Additionally, civic uses in this area include three churches and a volunteer fire station. The Mountain Island shopping center is located in the Northwest quadrant of the interchange. Another retail center is being constructed at the Mount Holly-Huntersville Road/Rozzelles Ferry Road/Lawing School Road intersection. Property in the northeast quadrant is primarily vacant, with the exception of a few scattered single-family homes. Civic uses, such as churches and schools, are scattered throughout the area.

South of I-485: The area south of the interchange is primarily vacant with scattered low-density single-family land uses. Coulwood Park is located at the extreme southern boundary. Long Creek, and the future Long Creek Greenway, traverse the upper portion of this area. It should be noted that much of this area is within the floodplain and, therefore, not able to be developed.

Brookshire Boulevard / I-485 Interchange Existing Land Use: Map # 2



A majority of the study area (81percent) is zoned for single-family development (Map #3 and Table #4). Retail zoning is primarily concentrated at the Brookshire Boulevard/Mount Holly-Huntersville Road intersection. The area surrounding the future I-485 interchange is zoned for retail, office, multi-family and single-family development.

Table 4
2000 Brookshire Boulevard/I-485 Existing Zoning

Source: Charlotte-Mecklenburg Planning Commission/Mecklenburg County Tax Office, 2000

Zoning Classification	Acreage	% of Total
Retail	181.93	9.82
Office	76.96	4.16
Single-family	1503.16	81.16
Multi-Family	64.91	3.50
Mobile Home	25.19	1.36
Total	1852.15	100

NOTE: The acreage figures do not allow for street ROW or the estimated I-485 interchange ROW.

Category Key
Existing Zoning Brookshire Boulevard/I-485 Interchange Study Area

Single-Family

- R-3 3 units-per-acre
- R-4 4 units-per-acre
- R-MH manufactured housing

Multi-Family

- R-12MF (CD) 12 units-per-aces with special site conditions
- R-17MF (CD) 17 units-per-acre with special site conditions

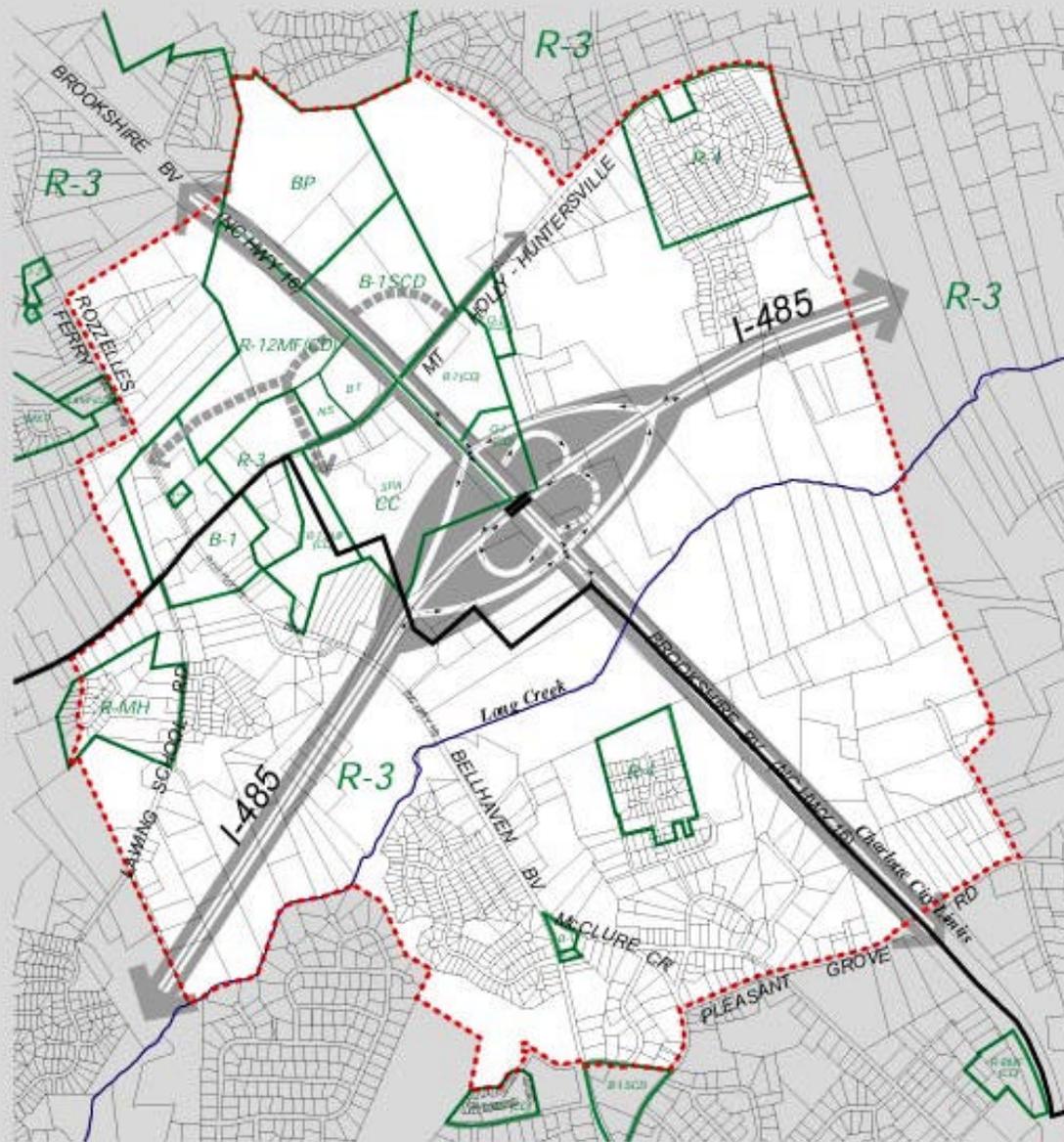
Business

- B-1 neighborhood retail and professional services
- B-1 (CD) neighborhood business with special site conditions
- B-1SCD shopping center district
- B-2 (CD) regional retail, wholesale, or professional services
- NS neighborhood service district (conditional) adjacent to residential
- SPA (CC) commercial center (conditional) with site plan amendment

Office

- O-1 (CD) general office up to 300,000 square feet with special site conditions

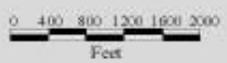
Brookshire Boulevard/I-485 Interchange Existing Zoning: Map #3



- Charlotte City Limits
- Brookshire/I-485 Interchange Proposed Study Area
- Zoning Boundaries



Produced by the Charlotte-Mecklenburg Planning Commission, September 2001



URBAN DESIGN

The existing development pattern within the study area is predominantly low density residential, with strip-type shopping centers at the junctions of major roadways. Typically residential subdivisions have been designed to accommodate the automobile with limited pedestrian or bicycle amenities. Subdivisions contain numerous cul-de-sacs with no connectivity or street hierarchy.

Both existing and proposed commercial/residential development within the study area exhibit similar characteristics – multi-family units tend to be isolated and inwardly oriented enclaves while the typical commercial development tends to have no street orientation or pedestrian amenities.

TRANSPORTATION/MOBILITY

Roadways

The existing thoroughfare network (as designated on the Mecklenburg Union Thoroughfare Plan) for the study area consists of the following:

- **Bellhaven Boulevard/Rozzelles Ferry Road**, a two lane minor thoroughfare that parallels and intersects Brookshire Boulevard both north and south of the study area.
- **Brookshire Boulevard (NC16)**, a four-lane, median-divided major thoroughfare with partial access control (meaning access is generally limited to where public streets cross it and driveways from individual properties are typically not permitted). It is a road of regional significance that connects northwestern Mecklenburg County to Charlotte's Center City and to Gaston, Lincoln and Catawba counties.
- **Mount Holly-Huntersville Road**, a two-lane major thoroughfare that is parallel to Interstate 485 and runs southwest to northeast through the study area.
- **I-485**, a planned regional, interstate freeway that will have an interchange at Brookshire Boulevard (NC 16).

Traffic volumes have increased over the years as properties within the study area and surrounding areas have developed. The most recent traffic volumes for these thoroughfares are listed in Table #5 below.

Table 5: Brookshire/I-485 Study Area Midblock Traffic Counts

Source: Charlotte Department of Transportation

Location	1997 Volume
Bellhaven Boulevard, south of Mount Holly-Huntersville Rd	6,800
Brookshire Boulevard, north of Mount Holly-Huntersville Rd	13,200
Brookshire Boulevard, south of Mount Holly-Huntersville Rd	15,200
Mount Holly-Huntersville Rd, west of Bellhaven Boulevard	9,200

Mount Holly-Huntersville Rd, east of Bellhaven Boulevard	6,000
Mount Holly-Huntersville Rd, east of Brookshire Blvd	8,000
Rozzelles Ferry Rd, north of Mount Holly-Huntersville Rd	4,000

Sidewalks/Pedestrian Facilities

Sidewalks and pedestrian paths provide increased mobility. While some of the newer neighborhoods have sidewalks, there are no sidewalks on the thoroughfares.

The City of Charlotte’s Sidewalk Program will ultimately add sidewalks on one side of all thoroughfares throughout the City. In addition, both the Mecklenburg County and City of Charlotte Subdivision Ordinances require sidewalks on both sides of all streets. Sidewalk construction may also occur in conjunction with future road widening or development projects. However, no City funded projects are currently scheduled for completion in the study area within the next five years.

Bicycle Facilities

Bicycling has become more popular as a means of transportation and recreation. New development sometimes includes bikeways, and new roads are beginning to include bike accommodations. However, there are currently no facilities specifically designed to accommodate bicyclists in the study area. However, much of Brookshire Boulevard currently has a paved shoulder that is used by bicyclists. The *Charlotte-Mecklenburg Bicycle Transportation Plan*, completed in March 1999 and adopted by the Mecklenburg Board of County Commissioners in August 1999, encourages more bicycling for transportation in Charlotte-Mecklenburg. The intent of the plan is to provide bicycle-friendly streets that will accommodate both advanced and basic cyclists, and both short and long distance trips. A portion of Mount Holly-Huntersville Road is list as a Priority Bikeway Improvement in the plan. (These improvements are discussed in detail later in this document.)

Transit

Currently, there is no bus service to the study area. Residents that wish to use transit must access it along Beatties Ford Road (at Sunset Road) to the east or along Rozzelles Ferry Road (near Hovis Road) to the south. The Charlotte Area Transit System (CATS) has no plans to provide service to the study area within the next two years.

Charlotte’s Five Year Transportation Plan (1997-2002) emphasizes the expansion of transit services as a means to lessen traffic congestion and provide alternatives to automobile travel. The plan also identifies transit hubs. As part of this plan, the Metropolitan Transit Commission (MTC), which oversees the development of Charlotte’s transit system, contracted the development of a countywide transit (bus) services plan. CATS staff conducted over thirty public meetings during September and October 2000 to obtain citizen input on the development of the Countywide Transit Services Study. Through this citizen input, as well as surveys, focus groups and input from the Transit Services Advisory Committee (TSAC) and the Citizens Transit Advisory

Group (CTAG), a series of work products have been developed. These include Service Policies, adopted by the MTC in November 2000; preliminary transit service and transit amenities recommendations; and a capital program, which includes a vehicle and transit amenities procurement schedule.

PARKS/OPEN SPACE

The landscape of the study area consists of low lying hills and rolling slopes, creeks, farmland, watersheds, parks and playfields. The Catawba River flows south along the northwestern boundary of the study area into Mountain Island Lake. Long Creek borders the southern quadrants of the proposed Brookshire Boulevard/I-485 Interchange and flows east-to-west across the study area.

Coulwood Park is the only existing public park within the study area. Coulwood is classified as a Neighborhood Park that contains three lighted baseball ball fields, nature trails, an activity/picnic shelter, a playground, restroom facilities, and associated parking. It is immediately adjacent to Coulwood Middle School.

Long Creek is identified in the *1999 Mecklenburg County Greenway Master Plan* as a potential northeast-southwest greenway corridor in the Northwest Park District. The approximate corridor length is 14.3 miles. This greenway corridor could include trails that would provide recreational opportunities for bicyclists and pedestrians. Long Creek flows through many residential and commercial areas and generally follows the planned I-485 to the Catawba River at the proposed Catawba Riverfront Park. Once in place, the Long Creek Greenway will extend from Statesville Road to Catawba Riverfront Park. The Catawba Riverfront Park, outside of the study area boundaries, is a planned park along the Catawba River that will include over three miles of pedestrian trails, eight miles of mountain bike trails and 3.5 miles of equestrian trails.



Greenways often include trails that provide recreational opportunities for bicyclists and pedestrians.

ENVIRONMENT

The study area, like Mecklenburg County, generally has a healthy environment that contributes to making this a desirable and livable community. However, ground level ozone concentrations in the past have been high enough for the United States Environmental Protection Agency (USEPA) to designate Mecklenburg County a non-attainment for ozone. Non-attainment means ozone has been monitored at levels exceeding the national health based standard at least four times for three consecutive years.

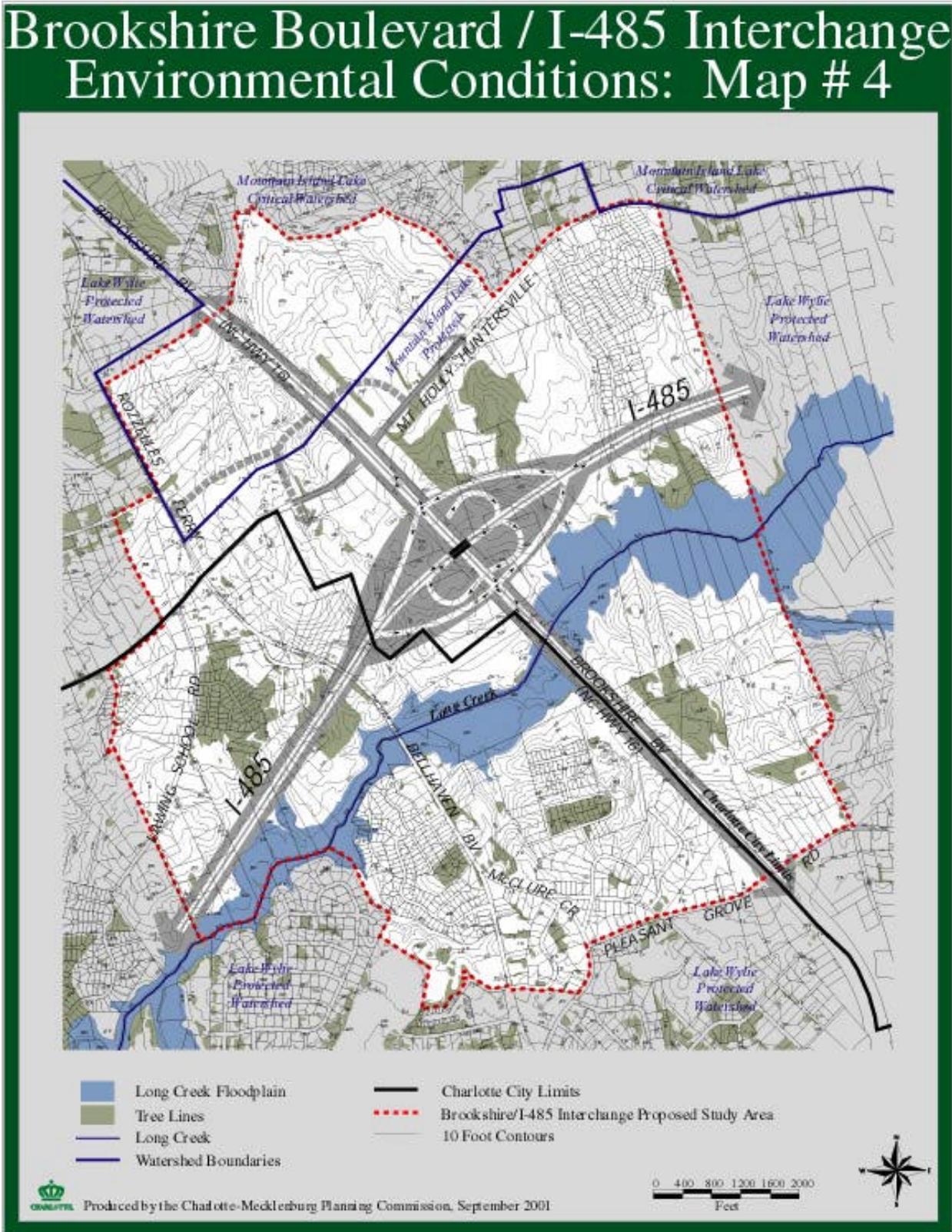
From 1990-1997, Charlotte did not violate the federal standard for ozone concentrations in the ambient air. Until 1997, the Federal standard was .12ppm over one hour. The new standard is .08ppm averaged over eight hours. Current monitoring data shows that the ambient ozone levels are on the increase, and Mecklenburg County had exceedences of the Federal eight-hour standard thirty-four times in 1999. But ozone is a regional problem, with precursors from automobiles and the nearby power plant

The floodplain of Long Creek and its major tributary, Gum Branch Creek, filters pollutants from storm water while functioning as a storage zone during periods of heavy rainfall. The Catawba River is the primary drinking water source for the Charlotte Metropolitan Region. Although invaluable, these riparian resources within the study area are undergoing rapid deterioration due to suburban development pressure. The Long Creek Watershed is located just south of the McDowell watershed. Long Creek originates just east of I-77 near W.T. Harris Boulevard and flows west, eventually discharging into the upper portion of Lake Wylie. It is the largest among the western watersheds, stretching across 36 square miles, with major tributaries being Long Creek, McIntyre Creek and Gum Branch.

According to the *2000 State of the Environment Report (SOER)*, there are three monitoring sites located in the Long Creek watershed. Water quality index values for Long Creek have remained fairly consistent over the past ten years, generally staying in the average to good ranges. The primary pollutants are sediment and fecal coliform bacteria, and samples collected during storm events have been high in sediment, bacteria and metals. Although there are several point source dischargers in the watershed, the pollutants are believed to be non-point source related. Long Creek has also been added to North Carolina's list of impaired waters due to sediment problems.

The expansion of interstate I-485 will cut through the upper portion of the watershed, crossing portions of Long Creek and its tributaries six times, and run parallel to the main branch of Long Creek for approximately eight miles. The *2000 SOER* indicates that this close proximity to the stream will result in increased velocities and water temperatures during rain events. Higher velocities could result in more bank erosion and sediment, while higher temperatures could promote algae growth, leading to oxygen depletion. Biological diversity in Long Creek is currently in the fair to good range and has shown little fluctuation over the years.

Map #4 highlights the existing environmental conditions of the study area.



PUBLIC FACILITIES

The following section and Map #5 describe the public facilities that currently serve the study area and includes both existing and funded new facilities. Some of the listed facilities served the study area but are outside of the immediate study area boundaries.

Schools

Paw Creek Elementary School, Coulwood Middle School and West Mecklenburg High School currently serve the study area. A new elementary school is being constructed at the intersection of Pleasant Grove and Plank roads (outside of the immediate study area) and is scheduled to open in 2003.

Fire

Three fire stations serve the study area. The Charlotte Fire Department (CFD) Station #25 is located on Pleasant Grove Road and the new Station #33 is located on Mount Holly-Huntersville Road. These stations primarily serve the portion of the study area within the City of Charlotte, but also provide support to the Volunteer Fire Department, if needed. The Cooks Volunteer Station, located on Mount Holly-Huntersville Road, primarily serves the unincorporated portion of the County, but also provides support to the CFD if necessary.

The CFD's response time benchmark is to respond to 80 percent of emergency incidents within six minutes. Both station #25 and #33 are meeting that goal.

Police

The study area is located within the West Service Area and Adam 3 Patrol District of the Charlotte-Mecklenburg Police Department. That district is generally bounded by Brookshire Boulevard to the north, I-85 to the east, Wilkinson Boulevard to the south and the County line to the West.

Libraries

The Coulwood Branch Library, located on Bellhaven Boulevard just outside of the study area boundaries, serves the area. The 4,000 square foot library, opened in 1983, is now in the Coulwood Shopping Center. The public library system has plans to replace this branch with a new, 15,000 square foot facility. General obligation bonds approved in 1999 will cover the cost of the project. The new library will be referred to as the "Northwest Branch Library" and is currently in the land acquisition process.

Postal Facilities

According to the United States Postal Service National Customer Support Center, there are two post offices that serve the study area. They are located at Sunset Road and Beatties Ford Road and on Old Mount Holly Road, off of Rozzelles Ferry Road. There is no post office located within the immediate study area boundaries.

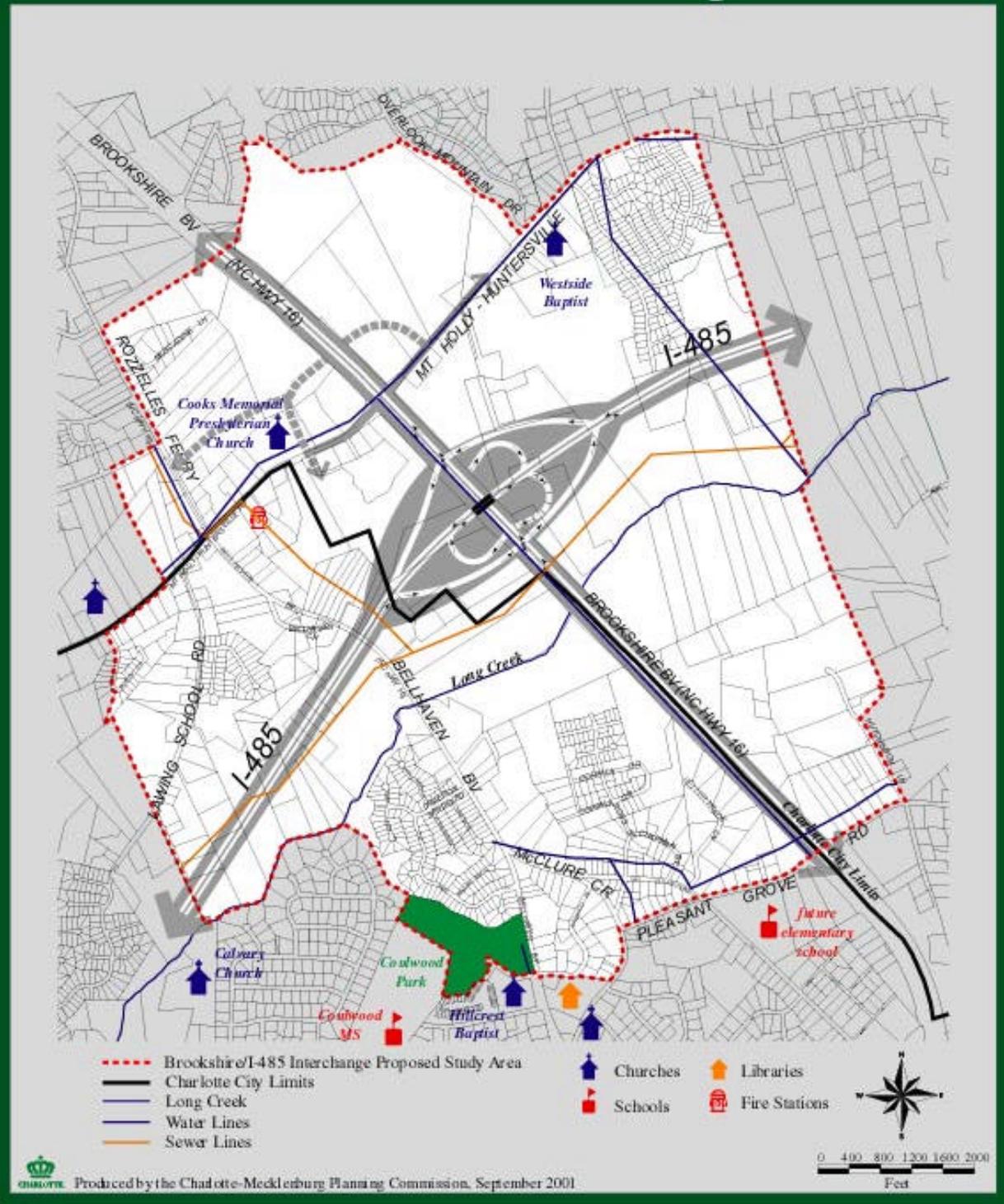
Parks

Parks and open space are addressed in a separate section earlier in the document. The existing Coulwood Park is shown on Map #5.

Water and Sewer

The study area currently has both water and sewer service. Water is supplied with a 16-inch diameter water main that runs along Brookshire Boulevard and terminates at Mount Holly-Huntersville Road. A smaller network of individual pipes provides sewer service. Several lines will need to be moved as part of the I-485 interchange construction.

Brookshire Boulevard / I-485 Interchange Public Facilities: Map # 5



OPPORTUNITIES AND ISSUES

As a part of the process to develop the future vision for the Brookshire Boulevard/I-485 area stakeholders identified opportunities and issues. The study area has a number of opportunities that make the area highly desirable for development. These opportunities include the following:

- *Character of the area* – the study area is characterized by rolling hills, wooded areas, ponds, creeks, a variety of wildlife and open land.
- *Desirable neighborhoods* – the study area has attractive and safe neighborhoods.
- *Economic vitality* – there is a great deal of development interest in the study area.
- *Vacant land* – the generous amount of undeveloped land in the study area affords the opportunity for planned and coordinated development with an emphasis on quality and pedestrian orientation.
- *Community involvement* – the study area has an involved citizenry, which can help to guide the future of the area.

Citizens identified the following issues during the planning process:

- *Land Use/Zoning* – new development should be pedestrian friendly, comparable in scale to existing neighborhoods, and sensitive to the unique environmental qualities of the area.
- *Transportation/Mobility* – the study area’s street network should be able to support future development.
- *Urban Design* – quality and quantity of new single-family and commercial development.
- *Open Space/Environmental* – loss of trees, open space and the resulting erosion due to new development and water quality need to be addressed.

CONCEPT PLAN

VISION STATEMENT

The vision for the Brookshire Boulevard/I-485 Area Plan is to create a livable and sustainable community with a strong identity that continues the rich tradition of land stewardship by:

- Incorporating a mixture of commercial, office, and residential land uses within walkable village centers that serve as centers of activity.
- Encouraging pedestrian activities while continuing to accommodate vehicular traffic.
- Employing land use strategies to reinforce “traditional” design based on a vibrant public realm, buildings oriented to the street, interconnected streets, village centers, and an open space network.
- Protecting the natural environment and community character by incorporating natural features and historic structures into development.
- Providing for an interconnected network of streets, pedestrian and bicycle paths, parks and open space.
- Fostering a more vital and secure community.

PLAN RECOMMENDATIONS

1. LAND USE

Many of the land use recommendations in this plan are based on a village center described in the vision statement. The proposed village centers are located at the intersections of Mount Holly-Huntersville Road and Brookshire Boulevard and Mount Holly-Huntersville and Rozzelles Ferry Roads. Both villages maintain a mixture of land uses, with the Mount-Holly intersection serving as more of a commercial center and the Rozzelles Ferry village being smaller in scale and intensity. Both of the villages are intended to be pedestrian oriented. Higher density residential uses are concentrated in close proximity to the village centers.

Outside of the village centers, the area is recommended to remain predominantly lower density residential. Additionally, much of the area is recommended to remain as open space or be developed with park/recreation uses as appropriate, given the proximity to the Lake Wylie watershed and the Long Creek floodway.



The term “mixed use” in this plan refers to a combination of retail, office and multi-family uses. This mix of uses offers a range of living, shopping, working and recreational options within a compact, walkable area.

A land use classification is specified for each property within the study area. Retail and office uses, moderate density housing and mixed uses (a combination of these three) are concentrated north of the I-485/Brookshire Boulevard interchange as well as at the intersection of Rozelles Ferry Road and Bellhaven Boulevard.

This plan includes a land use classification referred to as “mixed use.” This classification is intended to include at least two of the three uses specified and cannot be comprised of a single use. For example, for a parcel specified as Mixed Use, retail/office/multi-family, a combination of retail and office would be appropriate, but retail as a single use would not. Furthermore, single-tenant retail uses are limited to the ground floor of mixed-use buildings and cannot exceed the square footage limits specified in the notes for Table 6. Office uses are limited to three stories, with an office to site acreage ratio of 5,000 square feet per acre. Overall, the goal is for the uses to be integrated horizontally and vertically.

There is also the option of using “multi-use” development in place of “mixed-use” in some instances. “Multi-use” is the horizontal integration of uses in separate but abutting buildings. In order for multi-use to work with the pedestrian-oriented goals of this plan, all buildings on a multi-use site must be architecturally integrated with one another and not be separated by large expanses of surface parking. The multi-use classification must include at least two of the three uses specified. The retail to other use ratio cannot exceed 1:3, and the retail building size cannot exceed the square footage limits specified in the notes for Table #6.

A difference between this plan and the *Northwest District Plan* is that this plan identifies the specific locations appropriate for residential development at densities higher than four units per acre. The *Northwest District Plan* relies on the use of the Locational

Criteria outlined in the 1990 General Development Policies (GDPs) to determine the locations of higher density residential development.

Another recommended change is a decrease in the number of acres recommended for office development. Much of this acreage is now recommended for mixed-use (Office/Retail/Multi-Family) development. This plan also eliminates much of office and multi-family land uses proposed south of I-485, replacing these land uses with parks and open space. This recommendation is due primarily to recent Park and Recreation acquisition, plans to develop a district park in the area, FEMA map changes, floodplain regulations and SWIM buffer requirements.

The land use recommendations for the study area are shown on Map #6 and outlined in Table #6. They refer to changes proposed to the future land use identified for this area in the Northwest District Plan adopted in 1990.

The land use classifications used in this plan are:

- Single-family Residential
- Multi-Family Residential
- Retail
- Office
- Institutional
- Mixed Use (multi-family, office, retail)
- Park/Open Space

**Table 6:
Land Use Changes**

#	PROPOSED LAND USE	LAND USE RECOMMENDED BY NW DISTRICT PLAN	EXISTING ZONING	EXISTING LAND USE
1	Institutional (Assisted living facility and a maximum of 20,000 square feet of office associated with the facility.)	Single Family/Commercial	BP	Vacant
2	Single Family (3 DUA)	Office	R-3	Single Family
3a	Mixed Use (Office/ Multi-family/Retail) ①	Office	R-3	Single Family/Vacant
3b	Mixed Use (Office/ Multi-family/Retail) ②	Office	R-3, B-1 (CD) O-1 (CD)	Vacant
4	Single Family (up to 4 DUA)	Office/Multi-family	R-3	Single Family/Vacant
5	Park/Open Space (this land use was adopted in the <u>Westside Strategic Plan</u>)	Office/Multi-family (land use changed to park/open space in the adopted <u>Westside Strategic Plan</u>)	R-3	Single Family/Vacant
6	Park/Open Space (this land use was adopted in the <u>Westside Strategic Plan</u>)	Office (land use changed to park/open space in the adopted <u>Westside Strategic Plan</u>)	R-3	Single Family/Vacant
7	Single Family (up to 4 DUA)	Multi-family	R-3	Single Family
8	Multi-family	Multi-family/Office	R-17MF (CD)	Single Family
9	Mixed Use (Office/ Multi-family/Retail) ①	Multi-family/Office	R-3/B-1	Single Family/ Institutional/ Retail
10	Single Family (Attached or detached) (4-8 DUA)	Single Family (3 DUA)	R-3	Single Family/Vacant
11	Park/Open Space	Single Family (3DUA)	R-3	Open Space
12	Single Family (4-8 DUA)	Single Family (3 DUA)	R-3	Single Family
13	Mixed Use (Office/Multi-family/Retail) ①	Single Family/Commercial	R-3/B-1	Single Family/Office/ Retail
14	Mixed Use (Office/Multi-family/Retail) ①	Multi-family/Retail	R-3/B-1	Single Family/Retail/ Industrial
15	Single Family (3 DUA)	Single Family (3 DUA)/Multi-family	R-3	Single Family
16	Commercial	Multi-family/Office	B-1	Vacant
17	Park/Open Space (this land use was adopted in the <u>Westside Strategic Plan</u>)	Single Family (3 DUA) (land use changed to park/open space in the adopted <u>Westside Strategic Plan</u>)	R-3	Vacant
18	Park/Open Space	Single Family (3 DUA)	R-3	Vacant
19	Mixed Use (Office/Retail) ①	Office/Multi-family	NS	Vacant

Key to zoning abbreviations for Table 6:

- BP Business Park District (mixed employment)
- R-3 Single Family Residential at 3 dwelling units-per-acre
- R-17MF Multifamily Residential at 17 dwelling units-per-acre
- B-1 Neighborhood Business District (neighborhood retail)
- O-1 Office District (commercial use other than sale of merchandise)
- NS Neighborhood Service District (neighborhood-oriented mix of retail and service activity)
- DUA Dwelling units-per-acre
- CD Conditional District: a zoning classification that indicates additional conditions have been placed on the rezoning over and above what is required by the requested underlying zoning district.

General Notes for Mixed-Use Recommendations in Table 6:

Mixed-use is by definition intended to include at least two of the following uses: office, multi-family residential, and retail. These uses must be integrated within the same building. Office uses are limited to 3 stories with a maximum gross acreage-to-square foot of office ratio of 1:5,000. Residential density may not exceed 12 units-per-acre based on the gross site acreage.

3a, 3b, 13, and 14: Single tenant retail is limited to 25,000 square feet (per building) on the ground floor and must be part of a mixed-use building.

9: Single tenant retail limited to 10,000 square feet (per building) on the ground floor and must be part of a mixed-use building.

19: Up to 50,000 square feet of retail and office is allowed provided it is part of a mixed-use building. Multi-family use is not included in this mix.

Multi-Use Option:

Multi-Use is the horizontal integration of uses in separate but abutting buildings and is appropriate in place of true mixed-use under the following additional conditions:

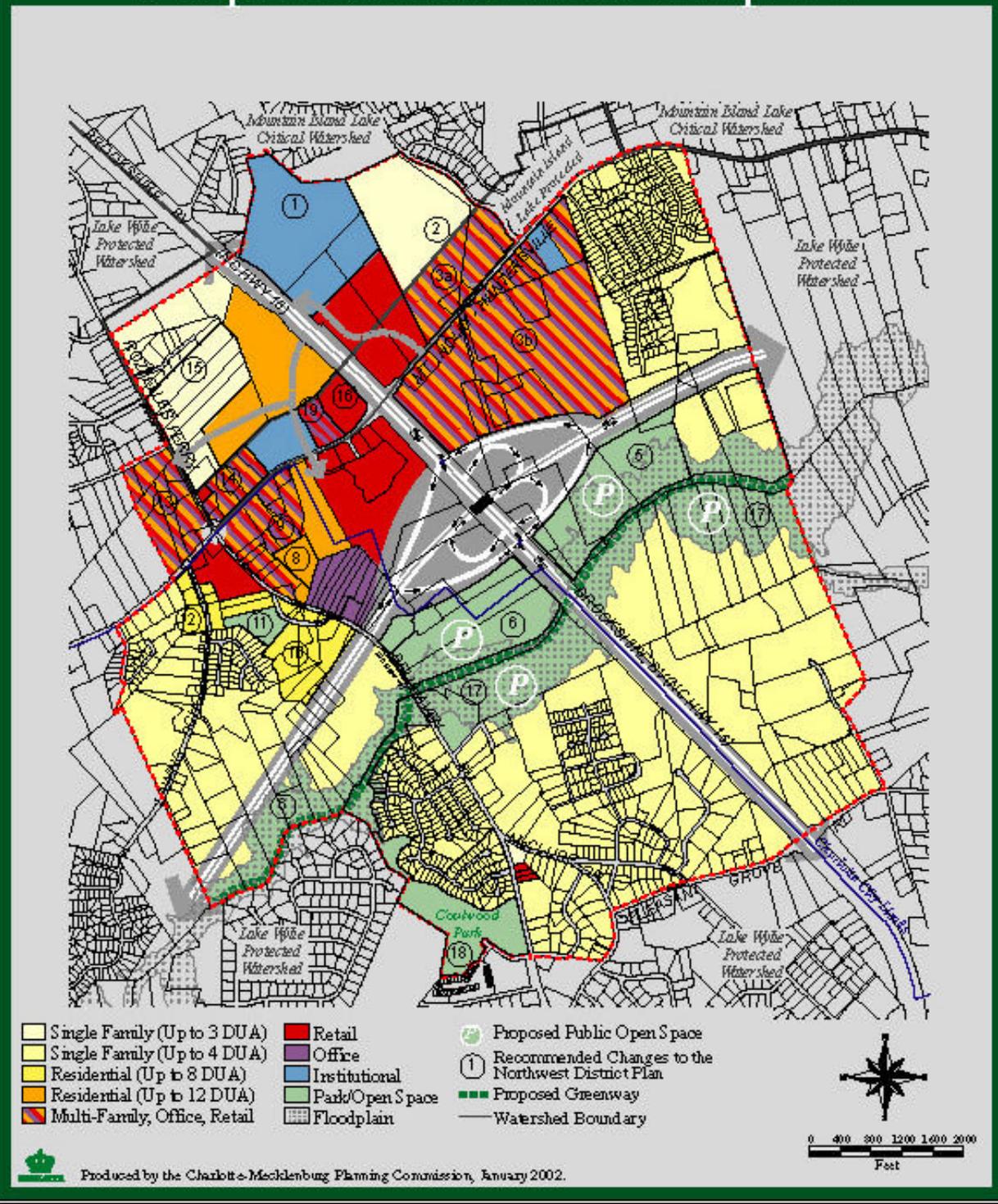
① For recommendation 3a, 9,13,14, and 19

- ❑ The square foot ratio of total retail to other uses for the entire site may not exceed 1:3.
- ❑ All buildings must be architecturally integrated with one another.
- ❑ All buildings must be sited with an emphasis on maintaining pedestrian interconnectivity. Parking areas should be located so they do not prohibit pedestrian access between abutting buildings.
- ❑ No single-tenant retail building can exceed 25,000 square feet.
- ❑ Office uses are limited to 3 stories with a maximum gross acreage-to-square foot of office ratio of 1:5,000.

② For recommendation 3b, a single retail use greater than 25,000 square feet and up to 135,000 square feet would be considered only under the following conditions:

- ❑ A market analysis indicates there are no other retail space reuse opportunities within the retail service area.
- ❑ A traffic study must be presented with any rezoning application for property within area 3b. Consideration must be given to the impact of the proposed development on the road network after taking into account any funded improvements for the adjacent intersections. Consideration may also be given to any roadway requirements provided under existing approved conditional plans for other properties adjacent to the Mt. Holly-Huntersville/Brookshire Boulevard intersection and any other infrastructure commitments made under the conditional rezoning plan.
- ❑ The square foot ratio of all retail to other uses within the proposed development cannot exceed 1:3.
- ❑ All buildings must be architecturally integrated with one another.
- ❑ All buildings must be sited with an emphasis on maintaining pedestrian interconnectivity. Parking areas should be located so they do not impede pedestrian access between abutting buildings.
- ❑ The single-tenant retail building should be architecturally integrated with the rest of the proposed development to allow for future reuse opportunities.
- ❑ Additional single-tenant retail building cannot exceed 25,000 square feet and are subject to the 1:3 ratio of total retail to other uses.
- ❑ Office uses are limited to 3 stories with a maximum gross acreage-to-square foot of office ratio of 1:5,000.

Brookshire Boulevard / I-485 Interchange Proposed Land Use: Map # 6



This plan focuses parks/open space between the southern half of the Brookshire/I-485 interchange and the north side of Long Creek. Much of this area will be severely impacted by the development of the I-485 interchange, SWIM buffer and floodplain regulations. Information about SWIM buffers is provided in the appendix of this document. The area south of Long Creek is recommended for single-family development at densities of up to 4 DUA.

As shown in Table #7, buildout of the plan will result in approximately 890 acres, or about 48% of the study area, developing with low density residential land uses. Just over 3% will develop at a density of 4-8 DUA and approximately 3% will develop at a density of 8-12 DUA.

**Table 7
Brookshire/I-485 Area Plan Buildout Scenario Comparison**

Source: Charlotte-Mecklenburg Planning Commission

Classification	Existing Zoning		1991 Proposed Land Use		2001 Proposed Land Use	
	Acreage	% of Total	Acreage	% of Total	Acreage	% of Total
Retail	209.20	11.29	130.20	7.03	110.34	5.96
Office	12.31	.66	317.19	17.12	26.58	1.44
Institutional	0	0	10.32	.56	14.47	.78
Mixed Use	0	0	221.09	11.94	193.94	10.47
Parks/Open Space	0	0	24.57	1.33	172.96	9.34
Residential (up to 1 DUA)	0	0	55.22	2.98	0	0
Residential (up to 3 DUA)	1326.04	72.00	0	0	95.45	5.15
Residential (up to 4 DUA)	80.25	4.33	833.49	45.00	795.20	43.00
Residential (4-8 DUA)	.25	.01	0	0	60.36	3.26
Residential (8-12 DUA)	40.87	2.21	0	0	61.23	3.30
Residential (12-22 DUA)	17.65	.95	117.37	6.34	48.29	2.60
Residential Man. Housing	22.89	1.24	0	0	0	0
Existing Right-of-Way	142.7	7.70	142.70	7.70	143.64	7.76
I-485 Right-of-Way	0	0	0	0	129.69	7.00
Total	1852.15	100	1852.15	100	1852.15	100.00

The proposed land use in the 1991 *Northwest District Plan* allows for about 833 acres or 45 percent of the study area to develop with low-density residential development (3-4 DUA). In terms of recreation and open space, the 1991 plan proposed just 1.33% of the study area while this plan proposes about 9%.

Once constructed, the I-485 interchange with Brookshire Boulevard will occupy approximately 129 acres, or approximately seven percent of the study area’s land area. The development of a district park at this interchange would make it one of the few interchanges with a significant park/open space component.

The plan focuses non-residential uses at the Brookshire Boulevard/Mount Holly-Huntersville Road and Rozzelles Ferry Road/Mount Holly-Huntersville Road intersections. The Rozzelles Ferry Road intersection allows for smaller scale, mixed uses, while the Mount Holly-Huntersville intersection has a more retail character. The intent is to create development nodes as opposed to the more suburban oriented strip commercial.

2. URBAN DESIGN GUIDELINES

This plan’s focus on urban design is also a change from the 1991 *Northwest District Plan*. The following guidelines for residential and non-residential development are based on the guiding principles of the plan and have been developed to provide direction for the actual spatial and architectural form of future development in the study area.

Design Guidelines for Residential Development

These guidelines should be applied to all types of residential development. Compliance with the guidelines will occur primarily through the rezoning process, with Planning Commission staff working with rezoning petitioners to ensure consistency. For properties that do not require rezoning, compliance with the guidelines, while strongly encouraged, is voluntary. Changes to existing zoning ordinances would ultimately be required to ensure that all development, even those projects that do not require a rezoning, is built according to the recommended guidelines.

1) Environmental Sensitivity:

- a) Existing vegetation along creeks should be preserved according to SWIM stream buffer requirements. Development should not occur in these areas; however, they may be developed as greenways with pedestrian/bike pathways.
- b) Preservation of steep slopes along perennial streams or adjacent to significant natural landscape features shall be addressed in all site plan submittals.

2) Parks and Open Space:

- a) Dedication of all FEMA-regulated floodplain designated as greenway by Mecklenburg County Park and Recreation is encouraged. For land adjacent to a designated greenway, pedestrian and bicycle connections to the greenway should also be provided.
- b) A minimum of 15% of each residential development should be maintained as common open space or parkland, exclusive of streets and parking areas. The protection of open space will not result in a reduction in the allowable number of units or overall density of a site. Open spaces should include a continuous bicycle/pedestrian network that is connected to open spaces on adjacent sites. Open spaces might remain as undisturbed natural areas or might be developed as active recreational areas. They could also contain facilities such as sitting areas, gazebos, play fields, and tot lots.

- c) Unique environmental features should be incorporated into a site's open space. These features include existing natural elements such as areas with steep slopes, significant forested areas, landmark trees, existing vegetation along creeks, and wetlands.
- d) For open spaces greater than 10 acres, dedication to Mecklenburg County Park and Recreation Department for use as a public park is encouraged. Individual homeowners associations should maintain smaller open spaces, but in some cases it may be desirable to make these areas publicly accessible.

3) Tree Preservation/Planting:

- a) All townhouse and multi-family development should meet the requirements of the City of Charlotte Tree Ordinance, even if a property is located within unincorporated Mecklenburg County.
- b) In addition to meeting the requirements of the Tree Ordinance, at least 25% of the existing landmark trees on a site should be preserved. Landmark trees are defined as deciduous or evergreen trees greater than 24" in diameter. If it is not possible to preserve 25% of existing landmark trees, large maturing trees with a caliper of 3 to 3 ½ " should be planted to replace each landmark tree that cannot be saved. An effort should be made to save groupings of landmark trees whenever possible. If it is not feasible to save an entire grouping of trees, which contains an outstanding landmark tree, preserving the individual tree is encouraged.

4) Site and Building Design:

- a) Front doors should be clearly visible from the street. Sidewalks should connect the front door directly to a public sidewalk or open space.
- b) Primary building facades should typically front local and collector streets.
- c) Housing located along minor and major thoroughfares may front on thoroughfares if their access is from rear alleys and there are no driveway connections to the thoroughfare. Housing on properties that abut thoroughfares may also be oriented away from the thoroughfare. In those cases, the housing should be oriented to local or collector streets that are perpendicular to the thoroughfare, or should front on internal neighborhood streets. A 20' natural or planted buffer should be provided where housing fronts on internal neighborhood streets and backs up to the thoroughfare.
- d) Buildings should be low-scale, typically limited to three stories.
- e) For properties that abut I-485, a 50' buffer from the edge of the interstate right-of-way should be provided. Where existing vegetation that screens the interstate currently exists, that vegetative screen should remain undisturbed. If the site lacks vegetation, plantings, especially evergreens, which will screen the interstate, should be installed.
- f) Existing historic structures should be retained and incorporated into new developments. These structures should be used as focal points for new development and fully integrated into the development design.

- g) For single-family homes and townhomes, garages should be recessed from the front of the house or should be accessed from the side or the rear of the home, in order to minimize the visual impact of garage.
- h) Surface parking for multi-family and townhome units should not be located between the buildings and the required setback on public streets. In order to reduce the visual impact of parking areas, the creation of smaller expanses of parking lots that include landscape plantings is recommended.

5) Transitions to Established Residential Neighborhoods:

- a) New buildings directly adjacent to existing residential areas should be designed such that the scale, mass, and siting of the new development is comparable to the existing development. If the new development is not of a compatible scale or site design, a buffer and screening should be provided according to the standards of the applicable zoning ordinance. At a minimum, the buffer provided should be 15' wide.
- b) When new streets connect to the streets of an established neighborhood, the streetscape pattern of the new development should complement the streetscape of the existing neighborhood to help blend the two developments together.

6) Connectivity/Circulation:

- a) Residential developments should include an interconnected street network which minimizes the use of cul-de-sacs and a public space for future bicycle and pedestrian connections should be set aside, if possible.
- b) New development should connect to existing stub streets that extend to the development site and should provide stub streets to adjacent properties that are undeveloped.
- c) Neighborhood street networks should be interconnected, but should limit cut-through traffic by providing indirect, circuitous routes.
- d) A multi-use path should be used to enhance the sidewalk network on public streets and to link open spaces. These connections are especially important when street connections might result in an undesirable level of traffic, or where creeks, ponds, or steep topography make street connections impractical.

7) Streetscape Improvements:

- a) Residential developments should include streetscape features that give the development a unique identity. Examples of possible streetscape features include decorative lighting, landscaped medians, special street tree plantings, and neighborhood identification signs.
- b) Planting strips and sidewalks should be provided on all streets. For local and collector streets, planting strips should be a minimum of 6' wide and sidewalks should be at least 5' wide. For thoroughfares, planting strips should be a minimum of 8' wide and sidewalks should be a minimum of 6' wide. On thoroughfares, large maturing trees should be installed when overhead power lines are not present, and smaller trees should be installed when there is

potential for conflicts between street trees and power lines. Pedestrian scale lighting should also be installed on thoroughfares.

- c) For single-family detached housing, typically two trees should be planted between each house and the street.
- d) Townhouse and multi-family developments should meet the tree planting requirements of the Charlotte Tree Ordinance, even if the property is located within unincorporated Mecklenburg County.

8) Provision of Public Facilities:

- a) If a development is located on a thoroughfare, improvements to that thoroughfare along the site frontage should be made, consistent with the ultimate road cross-section. These improvements should be provided at the time of development. For streets that are not planned for widening, turn lanes into new development should be provided if needed to support traffic from the development.
- b) Design multi-family development around an internal street system. This system should include at least one primary street that functions as the vehicular and pedestrian spine of the development.

Design the primary street(s) to include parallel parking, street trees, and sidewalks. Parking should not be located between the street and buildings along the primary street(s).

Provide driveways or secondary streets that will function as the main connection between parking lots and the primary street(s). These may be designed as private streets but must, in all cases, contain provisions for pedestrians.

- c) Sidewalks, street trees, and pedestrian scale lighting should be installed along all thoroughfares when development occurs.
- d) All new development should be connected to the public water and sewer system.
- e) Phasing of large developments to concur with the completion of supporting transportation improvements is encouraged.

Design Guidelines for Non-residential Development

These guidelines apply to retail, office, institutional, and mixed-use development. Compliance with the guidelines will occur primarily through the rezoning process, with Planning Commission staff working with rezoning petitioners to insure consistency with the guidelines. For properties that do not require a rezoning, compliance with the guidelines, while strongly encouraged, is voluntary. Changes to ordinances will be required to insure that all development, even those projects that do not require a rezoning, is built according to the recommended guidelines.

1) Environmental Sensitivity:

- a) Existing vegetation along creeks should be preserved according to SWIM stream buffer requirements. Development should not occur in these areas; however, they may be developed as greenways with pedestrian pathways.
- b) Preservation of steep slopes along perennial streams or adjacent to significant natural landscape features shall be addressed in all site plan submittals.

2) Open Space:

- a) A minimum of 10% of each non-residential development should be maintained as common open space, exclusive of streets and parking areas. These open spaces should be an integral part of the development design. A central open space that serves as a focal point for the development should be provided.



Central open space serves as a focal point for surrounding development.

- b) Unique environmental features should be incorporated into a site's open space. These features include existing natural elements such as areas with steep slopes, significant forested areas, landmark trees, existing vegetation along creeks, and wetlands.

3) Tree Preservation/Planting:

- a) All non-residential development should comply with the City of Charlotte Tree Ordinance.
- b) In addition to meeting the requirements of the Tree Ordinance, at least 15% of the existing landmark trees on a site should be preserved. Landmark trees are defined as deciduous or evergreen trees greater than 24" in diameter. One new large maturing tree with a 3 to 3½" caliper should be planted to replace each landmark tree that cannot be saved. An effort should be made to save groupings of landmark trees whenever possible. If it is not feasible to save an entire grouping of trees, which contains an outstanding landmark tree, preserving the individual tree is encouraged.

4) Site and Building Design:

- a) Front doors of buildings should be recessed and clearly visible from the street. Building entrances should connect directly to a sidewalk along a public or internal street or to an open space.
- b) The first floors of all buildings should be designed to encourage and complement pedestrian activity. The first floor of buildings fronting on sidewalks should include transparent windows and doors and the use of blank walls should be minimal.
- c) Buildings should be low-scale, typically limited to three stories. Heights of two or three stories are desirable for buildings, which enclose an open space.
- d) For properties that abut I-485, a 50' buffer from the edge of the interstate right-of-way should be provided.
- e) Existing vegetation that will eventually screen future roadway rights-of-way should remain undisturbed. If the site lacks vegetation, evergreen plantings that will screen the interstate should be installed.
- f) Efforts should be made to work with the North Carolina Department of Transportation to establish planted buffers between I-485 and adjacent non-residential development.
- g) Existing historic structures should be retained and incorporated into new developments. These structures should be used as focal points for new development and therefore should be fully integrated into the development design.
- h) Surface parking should be placed behind buildings whenever possible. When surface parking is located in front of buildings, it should be screened from view from public streets either by other buildings and/or by landscaping.
- i) To reduce the visual impact of parking areas smaller expanses of parking lots, broken up by landscaping or some other design feature, should be constructed.
- j) Signage should be low-scale and residential in character. The use of ground mounted or monument signs is encouraged, and these types of signs should not exceed 6' in height.
- k) Provide adequate short and long-term bicycle parking.

5) Transitions to Established Residential Neighborhoods:

- a) Typically, a buffer and screening adjacent to residentially developed or zoned land should be provided according to the standards of the applicable Zoning Ordinance. However, in some cases it may be possible and desirable to design a small-scale retail component as an integral part of a larger residential development.
- b) Pedestrian/bikeway connections should be provided between non-residential development and any adjacent development. When adjacent property is undeveloped, connections should be provided to the edge of the non-residential development in anticipation of future development on the abutting land.

6) Connectivity/Circulation:

- a) Non-residential developments should include an internal street network of either public or private streets, and all buildings within the development should front on these streets. The internal street system should focus on providing pedestrian connectivity throughout the site and should tie into the public street network at the perimeter of the site.
- b) Pedestrian and bicycle connections to adjacent development should be provided.
- c) Driveways to non-residential sites should be limited. When possible, driveways should be aligned with other developments on the opposite side of the street. Opportunities for sharing of driveways and parking with adjacent non-residential properties should be pursued.



Examples of streetscape features include decorative lighting, benches, landscaped medians and special street tree plantings.

7) Streetscape Improvements:

- a) Public streets, as well as the internal street network, should include streetscape features which give the development a unique identity and which clearly define the circulation network. Examples of possible streetscape features include decorative lighting, benches, landscaped medians, and special street tree plantings.
- b) Planting strips, street trees, and sidewalks should be provided on all public streets. For thoroughfares, planting strips should be a minimum of 8' wide and

sidewalks should be a minimum of 6' wide. Large maturing trees should be installed when overhead power lines are not present. Pedestrian scale lighting should also be installed on all thoroughfares.

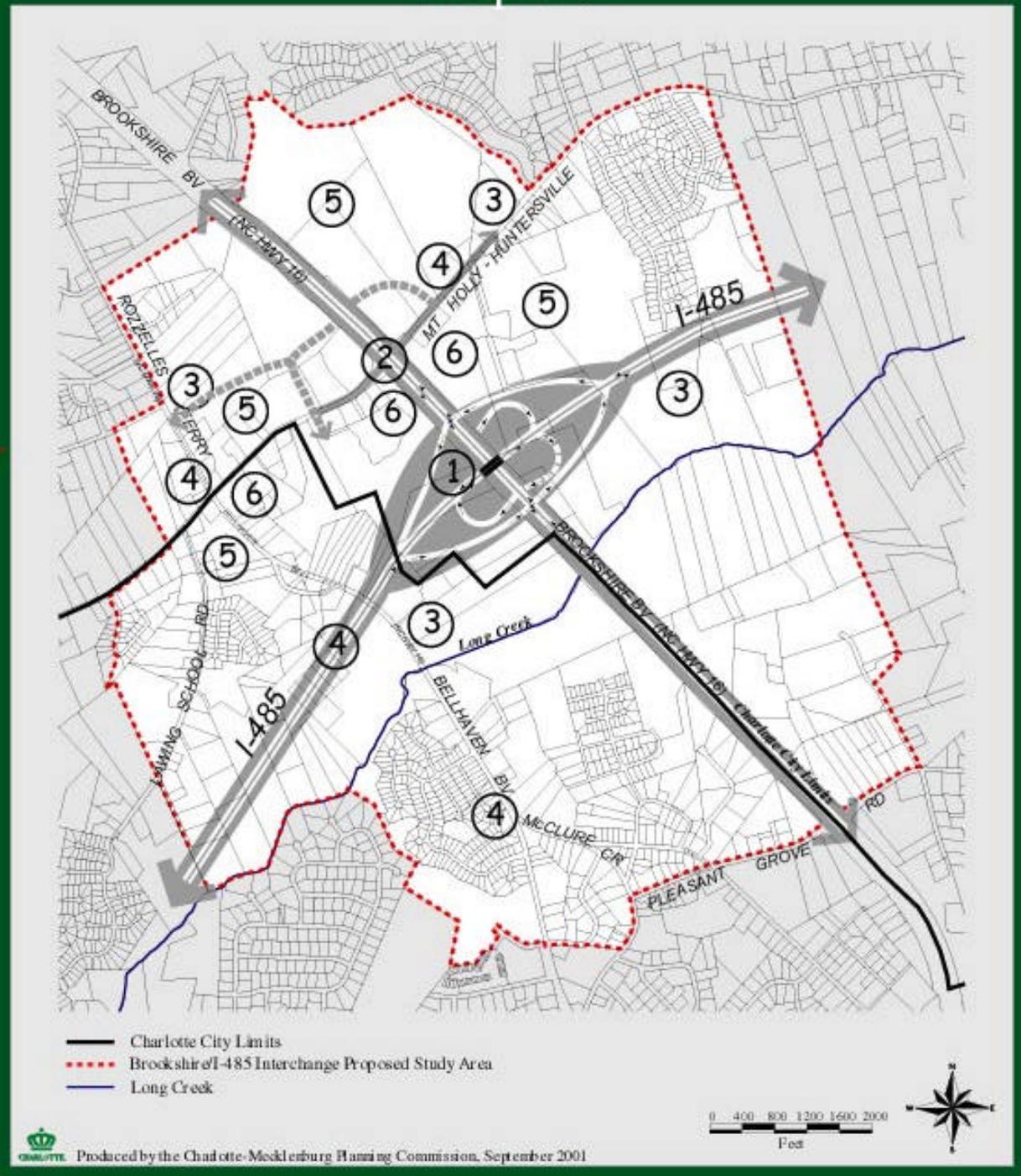
8) Provision of Public Facilities:

- a) If a development is located on a thoroughfare, improvements to that thoroughfare along the site frontage should be made, consistent with the ultimate road cross-section. Turn lanes and traffic signals should be installed also if they are needed to support traffic from the new development. These improvements should be provided at the time of development.
- b) Sidewalks, street trees, and pedestrian scale lighting should be installed along all thoroughfares when development occurs.
- c) All new development should be connected to the public water and sewer system.
- d) Phasing of large developments to concur with the completion of supporting transportation improvements is encouraged.

3. TRANSPORTATION/MOBILITY

The current level of transportation congestion within the study area is a primary concern of area residents. The following recommendations are intended to improve the transportation system and provide more transportation options in the study area. These recommendations are illustrated on Brookshire/I-485 Transportation/Mobility Recommendations (see Map #7 below).

Brookshire Boulevard / I-485 Interchange Transportation/Mobility Recommendations Map # 7

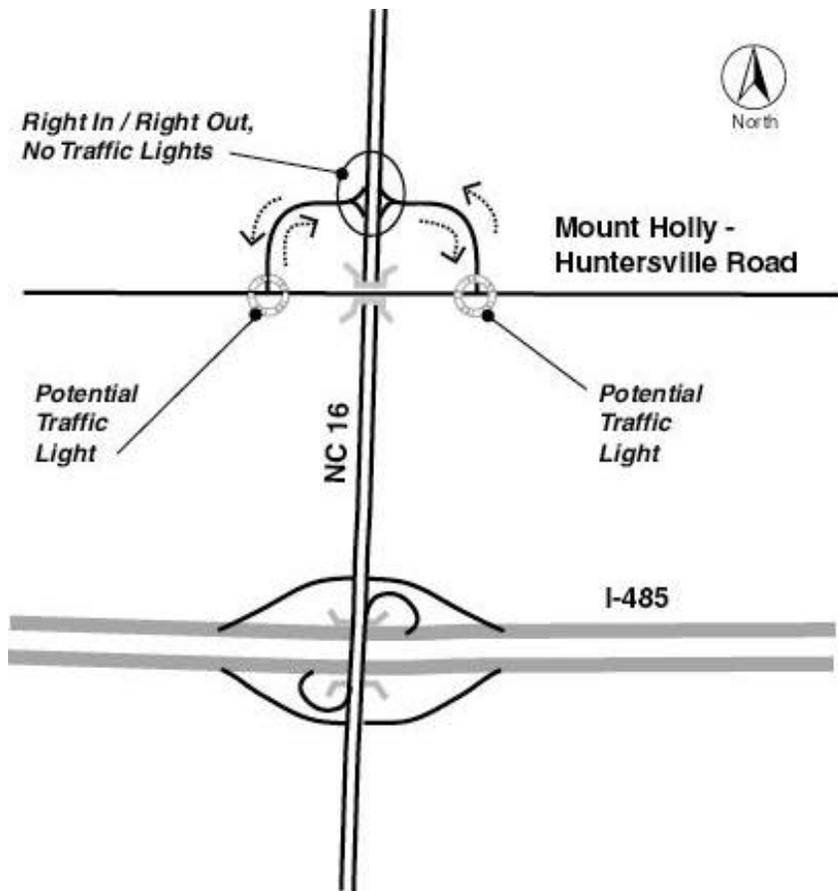


Key Transportation Recommendations

- 1. Upgrade the I-485/Brookshire Boulevard interchange design.** Interstate 485 will be built initially as a 6-lane freeway in this area. The interchange is designed as a diamond with two loops. Construction is expected to begin in 2002 with an estimated completion date of 2006. The Interstate 485 Interchange Analysis, completed in July 1999, states that the Interstate 485/Brookshire Boulevard interchange should be revised to include, at minimum, one additional loop in the interchange's southeast quadrant. This would facilitate greater ease of movement between Interstate 85 South and the Mountain Island Lake area. The analysis also states that a full cloverleaf interchange will be needed at this location. Requests have been made to NCDOT to have these revisions made to the initial interchange design.
- 2. Improve the Brookshire Boulevard (NC 16)/Mount Holly-Huntersville Road Intersection**

Short Term – Add turn lanes on Mount Holly-Huntersville Road at Brookshire Boulevard. Encourage quick implementation of NCDOT's plans to add left-turn only lanes on both Mount Holly-Huntersville approaches to Brookshire Boulevard. These minor improvements will greatly enhance the efficiency and safety of the intersection's operation.

Long Term – Convert the Intersection to a Grade Separation. After I-485 is constructed, even with an interchange at Brookshire Boulevard, there exists a greater potential for traffic tie-ups at the Brookshire Boulevard/Mount Holly-Huntersville Road traffic signal. The recommendation calls for a bridge to be built that would take Mount Holly-Huntersville Road over Brookshire Boulevard. Two-way roads would be built in both the northeast and northwest quadrants of the intersection that would allow for traffic to move between both thoroughfares. This configuration would allow for free-flow traffic on Brookshire Boulevard. Traffic signals would likely be added on both sides of the bridge along Mount Holly-Huntersville, but since there will be less traffic on Mount Holly-Huntersville Road than on Brookshire Boulevard, these two signals are expected to process traffic more efficiently than one traffic signal at the existing intersection. The two-way roads that will carry traffic between the two major roads will have acceleration and deceleration lanes as they enter and exit Brookshire Boulevard to keep traffic flowing at an acceptable level of service. (Note: Mount Holly-Huntersville Road may need to be four-lanes between Bellhaven Boulevard/Rozzelles Ferry Road and about 1000' feet east of the two-way road proposed in the northeast quadrant. It is listed on the 2020 Transportation Improvement Plan (TIP) to be widened north of Brookshire Boulevard.)



Long term recommendation for the Brookshire Boulevard/I-485 interchange - convert the intersection to a grade separation.

3. **Build a comprehensive pedestrian and bicycle system.** Develop a pedestrian and bicycle system that connects neighborhoods and commercial areas, thus reducing the need to use the automobile. This system should be designed to cross I-485 **not** at Brookshire Boulevard, but at locations to be determined to provide access to the greenway system that will ultimately parallel Long Creek.

With the reconstruction of Bellhaven Boulevard at I-485, Bellhaven should be built to accommodate bicycles and pedestrians. Further opportunities for connecting across I-485, preferably within a ½ mile of Bellhaven, should be provided. Sidewalks with planting strips should be provided along Bellhaven Boulevard, Mount Holly-Huntersville Road, and Rozzelles Ferry Road and along selected non-thoroughfare streets as development occurs throughout the study area.

Also, bicycle accommodations should be provided along Bellhaven Boulevard, Mount Holly-Huntersville Road, and Rozzelles Ferry Road and along non-thoroughfare streets as development occurs throughout the study area. These accommodations should include paved shoulders on Bellhaven Boulevard from Mount Holly-Huntersville Road to Valleydale Road and on Mount Holly-Huntersville Road from Brookshire Boulevard to Bellhaven and bike lanes on Rozzelles Ferry Road from Bellhaven Boulevard to Stewart Creek.

- 4. **Add appropriate street lighting in selected areas.** Street lighting should be provided on all thoroughfares, particularly at the Brookshire Boulevard/Interstate 485 interchange and along Brookshire Boulevard to enhance the safety and operation of these facilities. In addition, pedestrian scale lighting should be provided at key locations, such as the village center.
- 5. **Connect development.** Connect development to disperse traffic throughout the area and lessen thoroughfare congestion.

Pedestrian and bicycle connections to adjacent development should be provided. When possible, driveways should be aligned with other developments on the opposite side of the street. Opportunities for shared driveways and parking with adjacent non-residential properties should also be pursued.

- 6. **Provide access to transit services.** Extend bus service to the study area and provide connection to rapid transit in the West or North transit corridors.

4. PARKS/OPEN SPACE

Parks and open space are integral components of livable and enjoyable communities. Parks function as neighborhood meeting places and as active and passive recreation areas. Because they accommodate public activities, parks are usually located central to residential or core areas. Greenways can play an important part in connecting people and places by linking neighborhoods, parks, offices, schools and shopping areas. They can also provide convenient and safe opportunities for passive recreation while simultaneously preserving natural areas for wildlife and vegetation.



Greenways can connect people and places by linking neighborhoods, parks, offices, schools and shopping areas.

The Long Creek Greenway will eventually cover 14.3 miles along Long Creek. Approximately two miles of the greenway are proposed within the study area boundaries. At this point, nine acres of greenway have been acquired within the study area. Additional acreage will be acquired as development occurs. Other portions of the greenway have been acquired and/or developed outside of the study area.

Besides the future development of the Long Creek Greenway, there are plans for a future district park within the study area. The total acreage of the proposed site is approximately 118 acres and will preserve flood plain along Long Creek between Brookshire and Bellhaven boulevards, south of the I-485 right-of-way and will include parcels on the south side of Long Creek. The park site is proposed to border the southerly edge of the I-485 right-of-way. Long term, the park would be a destination node on the greenway, accessible from both the east and west via greenway trails.

District parks typically average 100 acres in size and serve a one to two mile radius. Standard facilities include 50 percent active and 50 percent passive recreation space, and include uses such as league play fields, trails, playgrounds and picnic areas.

In addition to supporting the development of the Long Creek Greenway and a district park, this Brookshire/I-485 Plan recommends the following to ensure that the study area has adequate parks and open space to meet the needs of the community:

- Encourage future developments to donate parkland to the Mecklenburg County Park and Recreation Department.
- Encourage the development of private open space within subdivisions to enhance the public park system.

5. ENVIRONMENT

The Northwest, like Mecklenburg County overall, generally has a healthy environment that contributes to making this a desirable and livable community. The following measures are recommended to maintain or improve the area's current environmental quality.

- Enforce the Surface Water Improvement Management (SWIM) program buffers, greenway dedication and stormwater management.
- Maintain conformity with USEPA Air Quality Standards.
- Pursue environmentally friendly alternative modes of transportation.
- Support the acquisition of the Edward M. Rozzell House by the Charlotte-Mecklenburg Historic Landmarks Commission. This circa 1881 farmhouse is one of the best remaining unadulterated Late-Nineteenth Century farmhouses in Mecklenburg County. Purchase of the property will assure the preservation of an architecturally significant example of the single-pile, two-story I-house. Although located in an area, just outside of the study area, that has recently experienced rapid suburban growth, with the addition of adjacent parcels, the property will retain a sense of its original rural setting.
- Recognize and support efforts by the County to acquire a natural heritage site to protect the Shuffletown Prairie Ecosystem. The site is home to two federally endangered plant species, with one candidate plant species being ranked by the North Carolina Heritage Program as being of national significance. The site has also been recognized by the U.S. Fish and Wildlife Service and the North Carolina Plan Protection Program as one of the best remaining examples of the nearly extinct Piedmont Prairie Ecosystem.

6. PUBLIC FACILITIES

Schools

Support the development of the new elementary school that is being planned at the intersection of Pleasant Grove and Plank roads. This school is scheduled to open in 2003.

Fire

Complete construction of Station #33. If the response benchmarks cannot be met additional stations and fire companies should be pursued.

Libraries

Construct a new branch facility within the area identified as the village center at Brookshire Boulevard and Mt. Holly-Huntersville Road.

Postal Facilities

A post office should be constructed at one of the village centers to serve the study area.

CONCLUSION

The area surrounding the Brookshire Boulevard/I-485 interchange is a desirable location for both residential and commercial development. New development has begun to transform the character of this area from rural to suburban development. This development has resulted in increased traffic volumes and an increased need for usable open space and could threaten the current environmental quality.

This plan seeks to provide a framework for future growth and development that does not jeopardize the future livability of the area. Guided by the recommendations in this plan, future growth will result in a livable and sustainable community surrounding the interchange.

Volume 2 of this plan provides more detailed information on strategies to be implemented to achieve the plan vision.

APPENDIX

SWIM Buffer Requirements

In November of 1999, Mecklenburg County and the City of Charlotte passed the *Surface Water Improvement and Management (SWIM) Stream Buffer Ordinance*. This ordinance requires the establishment of buffers along Charlotte-Mecklenburg streams in order to protect the integrity of the stream system and ensure that streams and their adjacent lands fulfill their natural functions.

In general, the SWIM Stream Buffer Ordinance requires forested buffers on streams draining 100 or more acres. A buffer is defined as the forested/vegetated area on both sides of the stream. The width of the buffer will vary according to the size of the watershed (see chart below).

Three Zoned Urban Stream Buffer

Source: Mecklenburg County Department of Environmental Protection

Drainage Area	Stream Side Zone	Managed Use Zone	Upland Zone	Total Width of Buffer on each side of stream
≥ 100 acres	20 feet	None	15 feet	35 feet
> 300 acres	20 feet	20 feet	10 feet	50 feet
≥ 640 acres	30 feet	45 feet	25 feet + 50% of the area of the FEMA fringe beyond 100 feet	100 feet + 50% of the area of the FEMA fringe beyond 100 feet

* Buffer widths are measured horizontally on a line perpendicular to the surface water, landward from the top of the bank on each side of the stream.

The “Three Zoned Urban Stream Buffer” design offers a good balance of land use and stream protection.

Stream Side Zone: the stabilization and protection of this zone is critical to water quality; clearing and cutting of vegetation is not allowed, permitted uses include flood control structures, bank stabilization, utilities, and road crossings.

Managed Use Zone: this area provides space for the storage of flood waters and the filtering of pollutants; limited clearing is allowed but existing tree density must be retained to a minimum of 8 healthy trees (minimum 6” caliper) per 1,000 square feet, greenway trails/bike paths are allowed.

Upland Zone: the area located furthest from the stream, grass is allowed as well as gardens, gazebos, decks and storage buildings (<150 square feet in size).

Checklist for Design Review of Residential Development

Environmental Sensitivity

- Evaluate impact of development on steep slopes.
- Existing vegetation along creeks should be preserved according to the *SWIM Stream Buffer Plan*.
- Landmark trees are preserved.
- Significant forested areas are incorporated into open space or parkland.

Parks and Open Space

- Greenway has been dedicated and adjacent land is connected with pedestrian paths/bikeways.
- 15% of site is kept as common open space or parkland, excluding streets and parking areas.
- Unique environmental features are incorporated into a site’s open space.
- For open spaces greater than 10 acres, land has been dedicated to for use as a public park.

Tree Preservation/Planting

- Townhouse and multi-family development comply with the City of Charlotte Tree Ordinance.
- At least 25% of the existing landmark trees on a site are preserved.
- Groupings of landmark trees are preserved wherever possible.

Site and Building Design

- Front doors are clearly visible from the street.
- Front building facades are parallel to local and collector streets.
- There are no driveway connections to thoroughfares.
- Houses abutting thoroughfares, but not fronting on them, are oriented to local or collector streets that are perpendicular to the thoroughfare, or front on internal neighborhood streets.
- Buildings are low-scale, typically limited to three stories.
- If property abuts I-485, a 50’ buffer has been provided using existing vegetation if adequate.
- Existing historic structures are retained and incorporated into new developments.
- Garages are either recessed from the front of the house or from the side or the rear of the home.
- Surface parking for multi-family and townhome units is not located between the buildings and the required setback on public streets and parking lots are landscaped.

Transitions to Established Residential Neighborhoods

- Buildings are compatible in scale, mass, and siting to the adjacent residential development.
- New streets complement the streetscape of the existing neighborhood to which they connect.

Connectivity/Circulation

- Includes an interconnected street network that minimizes the use of cul-de-sacs.
- Connects to existing stub streets and provides stub streets to adjacent undeveloped properties.
- Neighborhood street networks are interconnected, yet discourage cut-through traffic.
- Pedestrian and bicycle connections are provided.

Streetscape Improvements

Streetscape features are included which give the development a unique identity
Planting strips and sidewalks are provided on all streets.
Pedestrian scale lighting is provided on thoroughfares.
For single-family detached housing, two trees are provided between each house and the street.
Townhouse and multi-family developments comply with the Charlotte Tree Ordinance.

Provision of Public Facilities

Is built on public streets.
If on a thoroughfare, improvements to site frontage are provided, consistent with the ultimate road cross-section.
Sidewalks, street trees, and pedestrian scale lighting is provided along all thoroughfares.
Large open spaces have been dedicated.
Is connected to the public water and sewer system.
Is phased to concur with the completion of transportation improvements.

Location and Service Level Ranking _____

Comments _____

Checklist for Design Review for Non-Residential Development

Environmental Sensitivity

- Evaluate impact of development on steep slopes.
- Existing vegetation along creeks is preserved according to SWIM Stream Buffer Plan.
- Landmark trees are preserved.
- Significant forested areas are incorporated into open space or parkland.

Open Space

- 10% of site is maintained as common open space, exclusive of streets and parking areas.
- Unique environmental features are incorporated into the site's open space.

Tree Preservation/Planting

- Complies with the City of Charlotte Tree Ordinance.
- At least 15% of the existing landmark trees on the site are preserved.
- Groupings of landmark trees have been preserved wherever possible.

Site and Building Design

- Front doors are recessed and clearly visible from the street.
- First floors are designed to encourage and complement pedestrian activity.
- Building scale is appropriate for location.
- If property abuts I-485, a 50' buffer has been provided using existing vegetation if adequate.
- Existing historic structures are retained and incorporated into new developments.
- Surface parking is placed behind buildings.
- Parking lots include landscape plantings.
- Signage is low-scale and residential in character

Compatibility with Residential Neighborhoods

- Appropriate buffer/screening is provided.
- Pedestrian/bikeway connections are provided to adjacent properties.

Connectivity/Circulation

- Includes an internal street network with all buildings fronting on these streets.
- Pedestrian and bicycle connections to adjacent development/property are provided.
- Driveways are limited, and are aligned with developments on the opposite side of the street.

Streetscape Improvements

- Streetscape features are provided; and planting strips, street trees, and sidewalks are provided on all public streets.

Provision of Public Facilities

Improvements to the thoroughfare along the site frontage have been made, consistent with the ultimate road cross-section.

Sidewalks, street trees, and pedestrian scale lighting will be installed along all thoroughfares.

Development is connected to the public water and sewer system.

Development is phased to concur with the completion of transportation improvements.

Comments _____

Brookshire Boulevard/I-485 Area Plan

Volume II: Implementation Program

Revised April 8, 2002

IMPLEMENTATION

Introduction

This document outlines the steps needed to implement the recommendations from the *Brookshire/I-485 Area Plan, Volume 1: Concept Plan*. Elected officials do not adopt this implementation document. However, some of the actions identified may require future City Council and/or County Commission approval. These items will be brought before the appropriate body on a case-by-case basis.

Plan Strategies

The Concept Plan portion of the Brookshire/I-485 Area Plan focuses on the following key issue areas:

- Land Use
- Urban Design
- Transportation/Mobility
- Parks/Open Space
- Environment
- Public Facilities

The Concept Plan identifies specific goals and recommendations for each of these issues. The following are strategies identified to implement the recommendations:

Land Use

- *Use the rezoning process to ensure that proposed development is consistent with the land use recommendations in the plan.* Over 80% of the study area is zoned R-3, a single-family zoning classification that allows development at a density of up to three dwelling units per acre. A rezoning will be required if properties are to be developed at a higher-density residential use or for some other non-residential use.
- *Administer the multi-use provision in the plan to ensure that the single-tenant retail component of any development does not precede the implementation of the additional required land uses.* “Multi-use” refers to the horizontal integration of uses in separate but abutting buildings. In order for multi-use to work with the pedestrian-oriented goals of this plan, all buildings on a multi-use site must be architecturally integrated with one another and must not be separated by large expanses of surface parking. The multi-use classification must include at least two of the three uses specified. Most importantly, any retail development in the multi use option must occur concurrently with the development of the additional required uses. The development of any stand-alone retail prior to the development of the required ratio of residential and office will be considered a non-conforming use of an approved multi-use site.

- *Use the rezoning process to ensure that any proposed development for Area 3a complies under the multi-use option complies with all applicable conditions.*

The multi-use option for Area 3a allows a single-use retail tenant of up to 135,000 square feet provided it is developed in conjunction with office and/or residential uses at a 1:3 square foot ratio. In order to protect the pedestrian scale of a site plan submitted for this site under these conditions, the required additional uses non-commercial uses on the approved site plan must be constructed at the same time as the allowable retail.

Urban Design

- *Use the rezoning and subdivision processes to ensure that proposed development is consistent with the design guidelines proposed in the plan.* Residential and non-residential design checklists are provided in the appendix of the document to formulate implementation of the plan's design guidelines.
- *Request that NCDOT establish planted buffers between I-485 and adjacent non-residential development.*

Transportation

- *Request NCDOT to update the I-485/Brookshire Boulevard interchange design.* These revisions should include, at minimum, one additional loop in the interchange's southeast quadrant. Analysis has also stated that a full cloverleaf interchange will be needed at this location.
- *Improve the Brookshire Boulevard/Mount Holly-Huntersville Road Intersection in the short-term by adding turn lanes to the Mount Holly-Huntersville Road approaches.* Submit a request to NCDOT to encourage the quick implementation of plans to add left-turn only lanes on both Mount Holly-Huntersville Road approaches to Brookshire Boulevard.
- *Build a comprehensive pedestrian and bicycle system.* Work with CDOT and NCDOT to ensure that the Priority Bikeways improvements within this study area are part of the new roadway construction or roadway widening projects and developer projects.
- *Interconnect development.* Work through the rezoning, site plan review, community planning, and joint use processes to ensure that development is connected.
- *Work with CATS to expand regular transit service to the study area and establish links to the rapid transit corridors.*

Parks/Open Space

- *Develop a District Park within the study area.* The plan supports the recommendation of the Westside Strategic Plan to locate a district park in area 6. The Park and Recreation Department is currently pursuing acquisition of this area by eminent domain. In the event that Mecklenburg County chooses not to pursue a park in area #6, the appropriate land use would be residential at the base residential density for the plan area of 4 dwelling units-per acre. Higher density residential development could also be evaluated through the application of the General Development Policies Residential Location and Design Criteria currently under development.

- *Continue the development of the Long Creek Greenway.* Land for the expansion should be acquired through the development process and through negotiations with property owners.
- *Encourage donations of parkland to the Mecklenburg County Park and Recreation Department.* This could be accomplished through the development process. Mecklenburg County Parks and Recreation should work with developers of large scale projects to determine the feasibility of providing usable open space in the form of neighborhood parks, passive recreation space, etc., as part of their development.
- *Develop a private open space system within new subdivisions to enhance the public park system.* This could be accomplished through the development process. Mecklenburg County Park and Recreation should coordinate with subdivision developers to assess the possibility of providing neighborhood parks to fulfill the open space portion of their development. The park could become part of Park and Recreation's inventory and be maintained by the department, or else be maintained through a maintenance agreement with the homeowners association.

Environment

- *Implement the Surface Water Improvement Management (SWIM) program buffers, greenway dedication and stormwater management.*
- *Maintain conformity with USEPA Air Quality Standards.*
- *Support efforts to encourage citizens to use environmentally friendly alternative modes of transportation (i.e. land use changes to encourage walking, provision of bus services, provision of bicycle accommodations).*
- *Work with Park and Recreation to develop Long Creek Greenway for environmental, recreational and transportation purposes.*

Public Facilities

- *Use the Joint Use Task Force and Mandatory Referral process to ensure that public facilities are provided at appropriate locations and utilized to best serve the needs of area residents.*