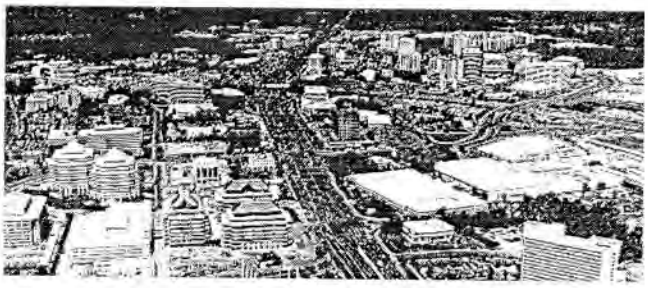
## TYSONS CORNER URBAN CENTER

Since the late 1950s, Tysons Corner has evolved from a rural crossroads with a general store and gas station to one of the most successful suburban business centers in the United States (see Figure 1). In 1993, Tysons Corner is the second largest center for business and commerce in the metropolitan area, with only Washington D.C.'s Central Business District having more commercial square footage. For these reasons, Tysons Corner is considered Fairfax County's Urban Center. Furthermore, this Plan recommends that Tysons Corner continue to carry this concept forward into the future.

Over the next 20 to 30 years, Tysons Corner is envisioned to evolve into a more urban environment, while retaining the best features of a suburban activity center. On one hand, the Tysons Corner area should continue to combine all the kinds of businesses and activities that create an exciting and attractive city with activity beyond daytime business hours. Many of these businesses and housing units will be in high rise buildings, but these buildings will be sited closer together to be better served by pedestrian facilities and transit. The highest development intensities and the most "urban" areas of Tysons Corner will be located within designated core areas and within walking distance of future rail stations. On the other hand, Tysons Corner should preserve those highly valued suburban features such as usable open space and a scale of development appropriate to serve as a good neighbor to adjacent single-family residential areas.

### FIGURE 1: EVOLUTION OF TYSONS CORNER

Tysons Corner, 1962



and 1993

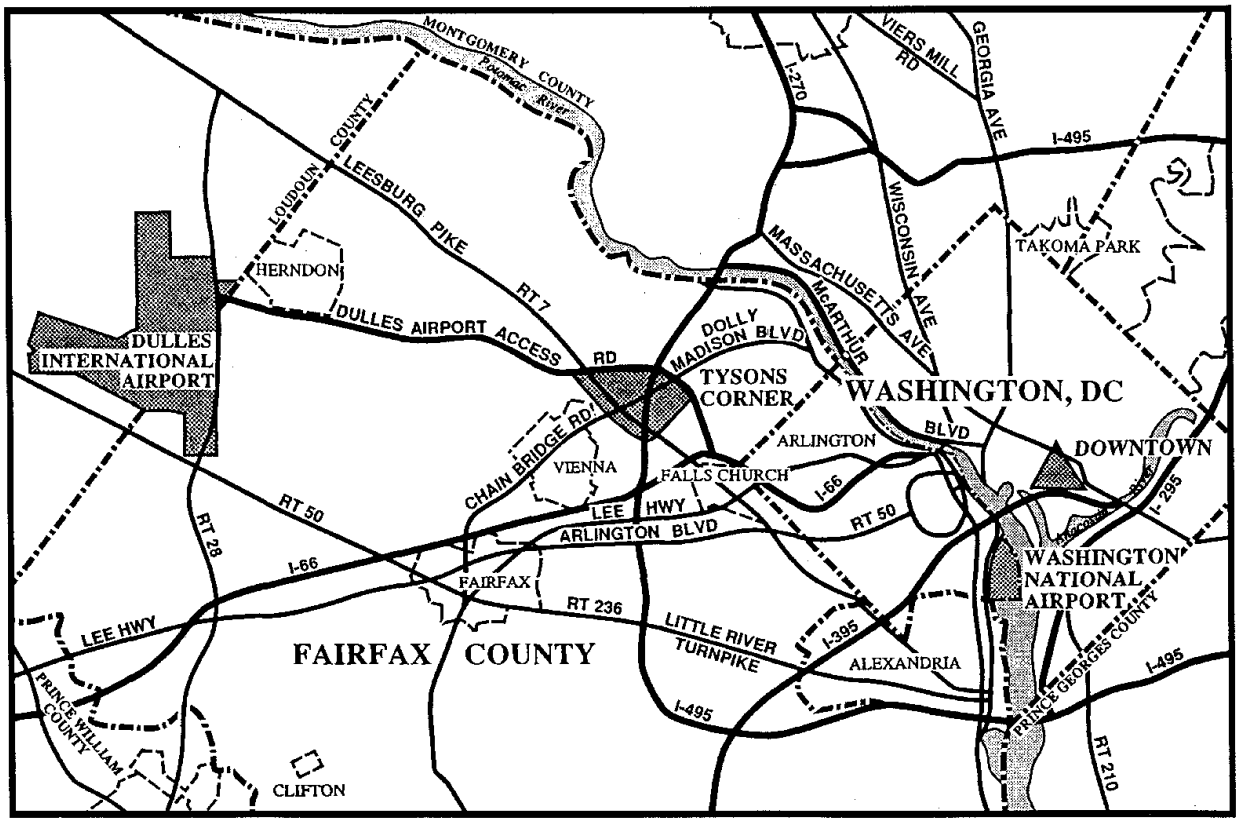
BACKGROUND

Location and Boundary

Tysons Corner is a 1,700-acre area located in northeastern Fairfax County, about halfway between downtown Washington, D.C. and the Washington Dulles International Airport at the intersections of Interstate 495 (the Capital Beltway) with the Dulles Airport Access and Toll Roads, Route 7 and Route 123. Because of its outstanding regional highway access and convenience to National Airport and Washington Dulles International Airport, Tysons Corner has become one of the most strategic and sought-after locations in the Washington metropolitan area for the development of commercial office and retail space (see Figure 2).

The residential communities surrounding Tysons Corner, which include McLean, Vienna and Falls Church, continue to enhance the area as a strategic business location. These communities provide a wide range of housing types and a relatively large supply of housing near Tysons Corner employers. The Greater Tysons Corner communities also have many outstanding community facilities, such as public schools that are among the best in the nation, and have among the most well-educated and highly trained labor pools in the nation.

**FIGURE 2: TYSONS CORNER LOCATION WITHIN THE WASHINGTON, D.C. METROPOLITAN AREA**



Tysons Corner is roughly triangular in shape and contains the highest natural elevations in Fairfax County (see Figure 3). The 1,700-acre area is bounded on the southeastern side by Magarity Road and on the southwestern side generally by the limit of commercial development along Gallows/Old Courthouse Roads and the natural areas of Old Courthouse Stream Branch. The residential areas on the western side of Gosnell Road flanking Old Courthouse Road are also part of the Tysons Corner area. On the north, the third side of the triangle is generally bounded by the Dulles Airport Access and Toll Roads. Tysons Corner's boundary, for the purpose of this Plan, is more specifically defined by Figure 3 on the following page.

Character

Tysons Corner's growth since the early 1960s has been characterized by the development of large office complexes, hotels, super-regional retail malls and community-serving retail uses. In the 1990s with about 30 million square feet of nonresidential development, Tysons Corner is one of the largest suburban business centers in the country. The level of commercial development is greater than that within many of the nation's largest downtowns, and makes Tysons Corner the second largest center for business and commerce in the metropolitan area, with only Washington D.C.'s Central Business District having more commercial square footage.

The transformation of Tysons Corner from a rural cross-roads into a major center for business and commerce was part of the nationwide phenomenon that shifted many traditional downtown business functions to suburban locations. Tysons Corner was at the forefront of suburban locations to be reshaped by this phenomenon which occurred over the last thirty years due to numerous technological, social and economic changes. With the Capital Beltway and the Dulles Airport Access Road being planned in the 1950s and constructed in the 1960s, the area's regional access and access to air transportation was greatly improved. This made Tysons Corner one of the region's most strategic locations for capturing the evolving suburban office and retail demand.

By 1993, approximately 70,000 employees worked in Tysons Corner. These employees were chiefly employed by businesses in office-related "white collar" professions. Businesses were predominantly high-tech firms; professional services and consulting firms; financial, accounting, and legal services; corporate and regional headquarters; federal government uses; and professional and trade associations. In 1993, these service sector jobs occupied most of Tysons Corner's 20.5 million square feet of office space. Office space was the predominant land use in Tysons Corner and accounted for nearly 30 percent of the total office space in Fairfax County.

Retail uses in Tysons Corner included fashion stores, shopping malls, restaurants, general merchandise, and home furnishings, to name just a few. Tysons Corner's identity as a retail center began with the 1968 construction of the Tysons Corner Shopping Center -- the first covered shopping mall in the County and the largest in the region -- which drew national attention to the area. The two primary retail areas are the original Tysons Corner Shopping Center, and the newer Galleria at Tysons II. Both shopping centers are located on Route 123 just west of the Beltway. Because of the proximity of these two super-regional malls, which together accounted for more than 3.5 million square feet of retail space, and the availability of a variety of smaller retail centers nearby, the area attracts thousands of consumers from Fairfax County, the greater Washington area and beyond.

In addition to the large amount of retail space, Tysons Corner’s locational advantages have resulted in high concentrations of other commercial uses, particularly hotels, and motor vehicle sales and service facilities. About 50 acres were developed in hotel uses. Although the hotel

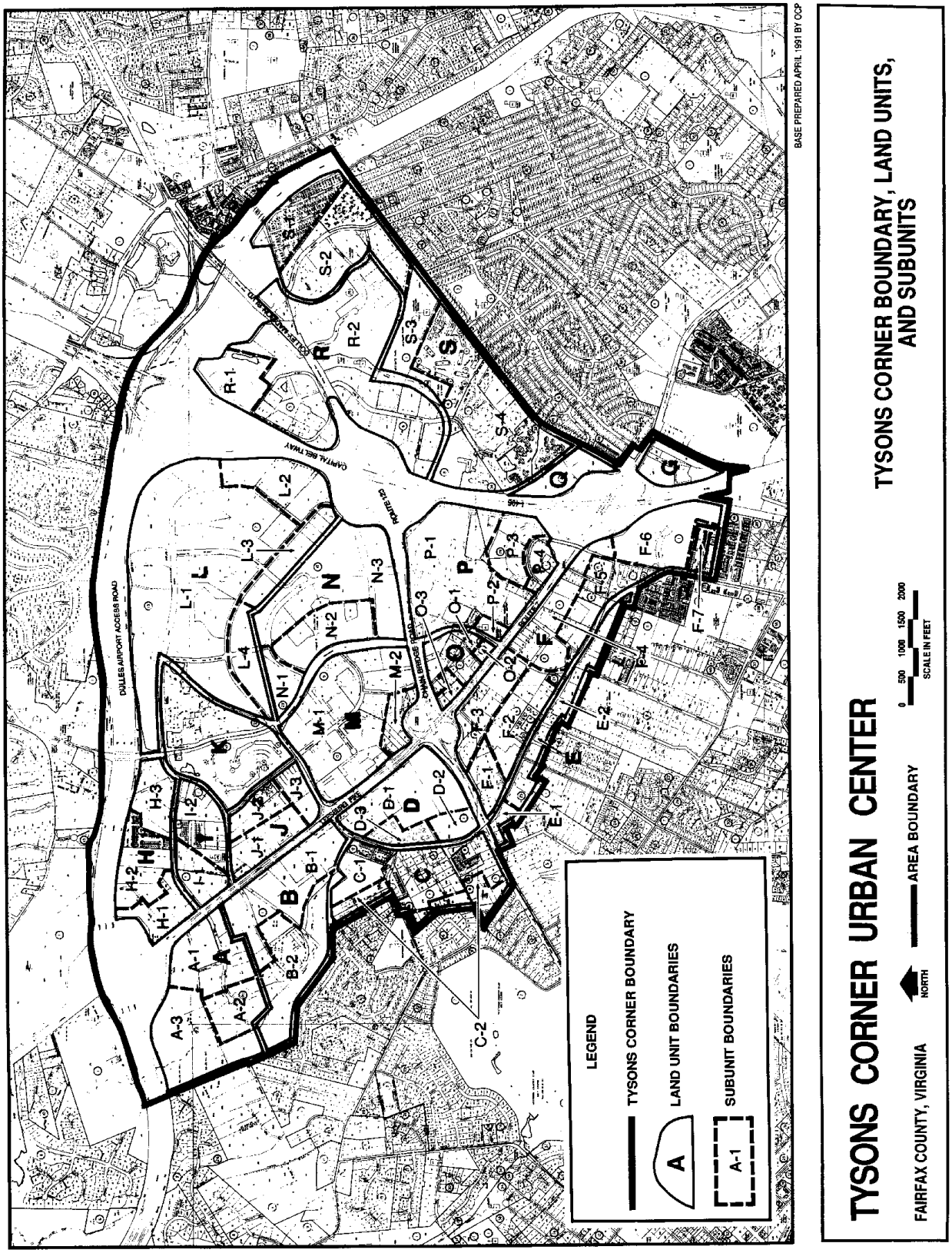

TYSONS CORNER URBAN CENTER
FAIRFAX COUNTY, VIRGINIA
NORTH
AREA BOUNDARY
0 500 1000 1500 2000
SCALE IN FEET
TYSONS CORNER BOUNDARY, LAND UNITS, AND SUBUNITS
LEGEND
TYSONS CORNER BOUNDARY
LAND UNIT BOUNDARIES
SUBUNIT BOUNDARIES
BASE PREPARED APRIL 1991 BY OCP
DULLES AIRPORT ACCESS ROAD
CAPITAL BELTWAY
ROUTE 123
CHAIN BRIDGE ROAD
ROUTE 7
I-495

FIGURE 3

developments comprise only 3 percent of Tysons Corner's land area, they represented the highest concentrations of hotel rooms and meeting spaces in the County (more than 30 percent of the County's hotel square footage), and the third highest concentration within the region, with only downtown Washington and Crystal City having more hotel space. In 1993, six of the County's 10 largest hotels were located here, providing more than 3,400 rooms and 100,000 square feet of meeting space.

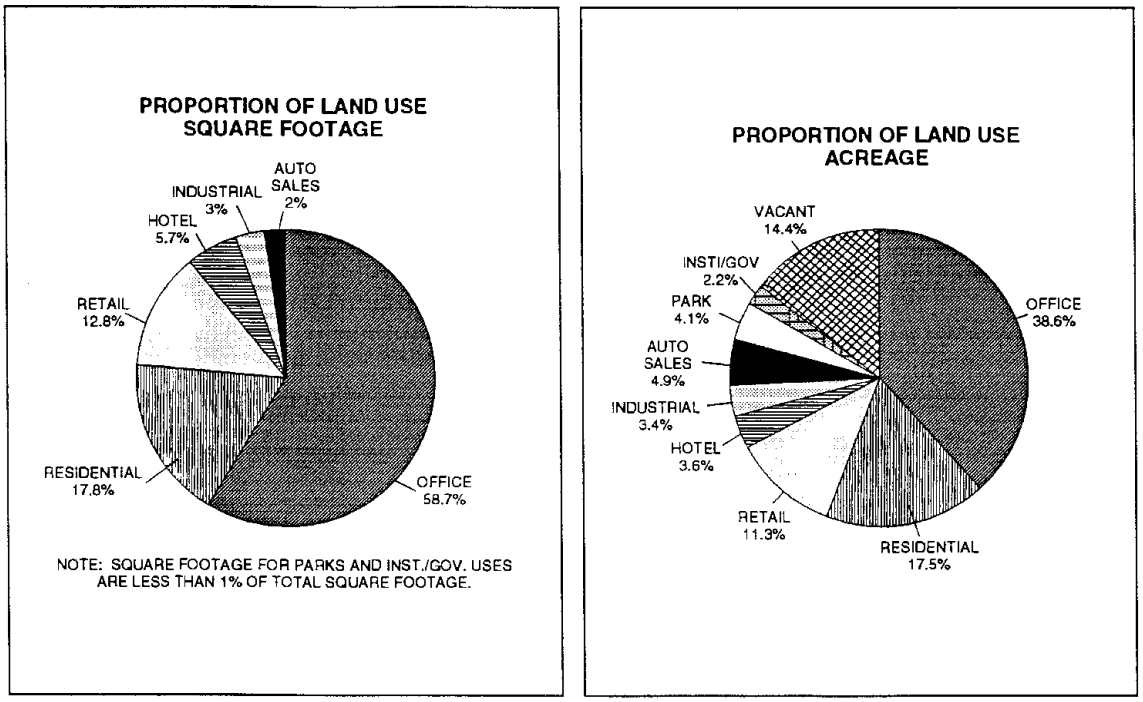
Motor vehicle-related uses, such as automobile dealerships and service centers, were developed on about 85 acres and totaled about 713,000 square feet of gross floor area. Although these auto-related uses comprised a relatively small portion of Tysons Corner's land area, they represented more than one-half of the County's total square footage for these uses, and one of the greatest automobile dealership concentrations in the region.

A wide range of housing is found in Tysons Corner, with multi-family units being the predominant housing type. As of 1993, there were about 5,700 dwelling units, covering about 300 acres, or 18 percent of the land area. Housing ranged in cost from low income assisted housing units to luxury condominiums. More than 90 percent of all dwelling units were either low rise or high rise multi-family developments, such as the Lincoln Apartments and the Rotonda. Only 9 percent of the total units were townhouses, and the remaining 1 percent were single-family detached houses. The most notable single-family house and the oldest structure in Tysons Corner is Ash Grove, built in the late 1700s and once owned by Lord Fairfax.

The remaining land uses included industrial/warehouse uses, institutional/governmental facilities, parks/open space, and vacant land. All industrial, warehouse, manufacturing and construction-related uses together occupied 60 acres, or 3 percent of the land area. Institutional/governmental facilities occupied 35 acres, or 2 percent of the land area. Governmental facilities included a post office, a fire station, an elementary school, and a Virginia Department of Motor Vehicles office. Public open space uses such as parks, buffer areas, dedicated open spaces and other public facilities for recreation comprised about 71 acres, or 4 percent of the land area. Vacant land, defined as parcels without buildings and without specific use of the land, constituted about 260 acres, or 15 percent of the land area. The largest concentrations of currently vacant land were adjacent to the Galleria at Tysons II and in the West Park office park; the rest of the vacant land was scattered throughout Tysons Corner, mostly on small parcels. Almost all of these parcels had existing infrastructure, such as roads, water lines, and sewer lines, but additional infrastructure may be necessary depending on the scale and type of future development. (see Figure 4 for graphic comparisons of the land use characteristics).

While Tysons Corner contains most of the uses and facilities typically associated with a downtown in a major city, its land use pattern and character are very different. Whereas urban downtowns are relatively compact in size, Tysons Corner has developed over an area of 1,700 acres, stretching about 2.5 miles along Route 123 and about 2.5 miles along Route 7. Tysons Corner's sprawling size has resulted in an auto-oriented suburban development pattern in which buildings are generally developed on individual lots, set well back from roadways, and surrounded by large areas of surface parking. Although Tysons Corner contains many unique and attractive buildings, there is little visual integration and few pedestrian and transit linkages among developments. The overall effect of the current development pattern is a lack of cohesiveness and identity.

## FIGURE 4: TYSONS CORNER'S EXISTING (1993) LAND USE CHARACTERISTICS




Tysons Corner is still a young and evolving suburban "downtown." The prestige enjoyed by Tysons Corner's existing nucleus of high intensity development and its location within the high quality living and working environment of Fairfax County provides a unique opportunity to create a center where employment, shopping, housing and recreational facilities can be better integrated, to create a more urban living environment within the suburbs. The challenge ahead is to encourage this continued evolution of Tysons Corner as the County's Urban Center. This will require planning framework that (1) fosters attractive, well designed, functionally efficient and integrated developments; (2) includes a wide range of relatively high intensity uses beneficial to the quality of life and economic well-being of the County; (3) protects the environment and the surrounding low density residential areas by maintaining a compatible scale and intensity at Tysons Corner's edges; and (4) strives to provide Tysons Corner with adequate transportation systems.

Planning History

Since the 1960s, Tysons Corner has been viewed as having the potential for becoming Fairfax County's "downtown". With the Capital Beltway and the Dulles Airport Access Road being planned in the 1950s and constructed in the 1960s, the area's regional access was greatly changed. The greatly increased regional access and accompanying strategic importance was clearly identified during the 1960s in several Fairfax County planning studies which planned the area for regional retail, office parks and multi-family development. Tysons Corner as it evolved in the 1960s and early 1970s was an increasingly dynamic and complex business center which required restudy by County planners every few years.

On August 25, 1975, the Board of Supervisors adopted the Area II portion of the Comprehensive Plan, which established the Tysons Corner Complex Area as ". . . a special study area requiring continual monitoring and restudy . . . ." On September 8, 1975, the Board of Supervisors commissioned a special study and created a broad-based task force with representation from large and small businesses in the area, landowners of major undeveloped tracts, and residents of the area, as well as citizen leaders from the surrounding McLean and Vienna communities. As a result of this study, a revised Comprehensive Plan was adopted on June 19, and 26, 1978. The detailed land use recommendations that were provided by this amendment were the primary guide for land use and zoning decisions through 1993.

Since 1978, the Tysons Corner plan has been amended by means of the Annual Plan Review or Out-of-Turn Plan Amendment processes. The most significant change was the addition of building height guidelines as a result of the 1984 Tysons Corner Height Study. These guidelines established maximum building heights to be used as a component to be considered during the zoning process, along with building mass, architectural interest and other features, in order to achieve the Plan's urban design objectives.

More recently (1989-1991), the County's Comprehensive Plan underwent a major review known as the Fairfax Planning Horizons process. The first phase of the Fairfax Planning Horizons resulted in the creation of the Policy Plan, which was adopted by the Board of Supervisors on August 6, 1990. Also on this date, the Board adopted in concept The Concept for Future Development and Land Classification System to be a planning guide for the second phase of the Planning Horizons, the update of the Area Plans. The Concept for Future Development designated Tysons Corner as the County's Urban Center, provided guidance on how the current character should change to a more urban and pedestrian environment, and set forth a need for a Tysons Corner special study to identify amendments to the Comprehensive Plan that would accomplish the objective of guiding the area's evolution to a more urban and pedestrian-oriented environment.

In 1990, the Board of Supervisors authorized a study of the Tysons Corner Urban Center with study area boundaries corresponding to the boundaries set forth by the 1984 Tysons Corner Height Study (see Figure 3 for boundaries). At the end of the year, the Board completed appointments to a 24 member task force including representatives of local businesses, developers and civic associations, to work with staff during this planning effort. The resulting Plan Amendment incorporates the concerns of the community, applicable countywide goals, and the overall objective to develop the Tysons Corner Urban Center as the "downtown" of Fairfax County.

PLANNING ISSUES: OPPORTUNITIES AND CONSTRAINTS

From the 1960s through the 1990s, planning issues focused on establishing Tysons Corner as the "downtown" of Fairfax County. An all-encompassing issue has been how to encourage the area's economic growth while balancing and shaping this economic success within the context of the area's transportation capacity and the protection of adjacent residential neighborhoods. Both the area's access and the adjacent residential areas have provided resources which significantly contribute to Tysons Corner's economic success. Both continue to be important factors in shaping the area's future. Three other planning themes have been to plan for the eventual redevelopment of some existing uses; to encourage mixed-use developments, including more residential development; and to create a distinct identity for Tysons Corner through improved urban design.

Transportation Capacity and Development Potential

One of the major attractions of Tysons Corner is the excellent accessibility to the Washington Metropolitan region afforded by its location adjacent to the Capital Beltway, Dulles Airport Access and Toll Roads, Route 7 and Route 123. However, these highways are primarily intended to provide for through traffic and not access to individual properties. The amount of commercial development in Tysons Corner combined with through traffic along these roadways has resulted in traffic congestion during peak periods of travel. The congestion occurs during the traditional morning and evening rush hours, during the lunch hour and during peak retailing periods. This transportation level of service deterioration also leads to a corresponding reduction in the regional accessibility of the area.

Existing zoning (in 1993) would potentially allow approximately 18 million square feet of additional office and commercial development in Tysons Corner. To accommodate the amount of traffic likely to be generated by this level of development, the planned transportation system would need to be fully implemented. This would include providing for 18 additional lanes of roadway capacity, and rail service in the Dulles Access Road Corridor along the periphery of Tysons Corner. To accommodate higher levels of development (significantly above the current zoning), not only would the planned roadway system have to be implemented, but rail transit service serving the core area of Tysons and other transit enhancements would need to be provided. Transportation demand management programs which include carpools, vanpools and other employer-based measures, should be expanded to accommodate development within an acceptable transportation level of service as part of an overall transportation plan.

Planning for Redevelopment of Existing Uses

Within Tysons Corner, there is relatively little vacant land and much of this has already been approved for high-intensity office development. However, opportunities exist for the long-term redevelopment of existing, low intensity uses where a greater economic return can be achieved. Such uses include the auto dealerships, some retail centers along Route 7 and business service and storage uses along Tyco Road. Many of these sites already have the potential to redevelop to higher intensity use under the existing zoning. This has not occurred because the uses remain economically viable. In planning for the long-term future of Tysons Corner, methods should be found to retain these uses even if their physical surroundings change. For instance, auto showrooms and other retail and service uses could be incorporated within the ground floors of higher intensity mixed-use complexes.

Residential and Mixed-use Development

One of the principal goals outlined in the Policy Plan is to expand housing opportunities in or near employment centers, as a way to minimize the impacts of commuters on the road system and to make use of public transit more feasible as a transportation alternative. Specifically, additional residential development would result in fewer peak-hour trips than non-residential use and could result in more people walking to and from work and shopping. Planning for a mixture of residential and non-residential uses in the County's employment centers should also aid in expanding the opportunity for affordable housing and higher density residential development in areas that can be served by transit, and that can offer convenient access to retail and other services. In each of the Suburban Centers identified on the County's Concept for Future Development Map, residential uses have been planned where there have been opportunities for residential or mixed-use development as evidenced by vacant land or through redevelopment opportunities.

The Tysons Corner area contained approximately 5,700 housing units in a variety of housing types in 1993. Existing zoning (in 1993) would allow about 700 additional housing units. In planning for additional residential uses in Tysons Corner, the greatest opportunities are to include higher intensity residential developments within mixed-use projects and areas. In the Policy Plan, a mixed-use area is defined as a specified area which includes three or more different types of uses within its boundaries with these uses on separate but interrelated sites. A mixed-use project includes two or more physically integrated uses on one site or within one structure. When the term mixed-use development is used in this Plan, it is intended to encompass both mixed-use area and mixed-use project.

Mixed-use development which includes a housing component should create a quality living environment in areas that will primarily be developed as non-residential uses. Incorporating recreational and other amenities on-site and adequately protecting residential development from noise, light and other nuisances generated by commercial uses will aid in creating a quality living environment. In Tysons Corner, additional residential development would also help reduce traffic congestion and create a more pedestrian-oriented, day and evening activity center.

Protecting Existing Low Density Residential Areas

Given the scale and amount of existing and future development in the Tysons Corner Urban Center, it is important that this development not negatively impact the surrounding residential communities. Most of the residential communities adjacent to Tysons Corner are low density and comprised primarily of single-family detached homes. In most cases, these communities are effectively separated from Tysons Corner by transitional uses, such as low-rise office buildings, physical barriers such as roadways, and environmental features such as stream valleys, public parkland, and conservation easements. It is important that adequate screening, buffering and other design measures be incorporated into new development to mitigate any adverse impacts, and to maintain an "edge" to define the limits of the Tysons Corner Urban Center.

Urban Design

Tysons Corner, like a traditional downtown, contains many relatively tall buildings. However, buildings in Tysons Corner are not located side-by-side along streets and sidewalks but are generally designed as separate self-contained sites, set well back from roadways in campus-like settings and surrounded by large areas of surface parking. Because the "edges" of Tysons Corner are generally well-established, it is clear where Tysons Corner "begins" as one

approaches. However, in driving through Tysons Corner, there are few landmarks to give definition to its interacting uses. The overall effect is the lack of a "sense of place".

The pattern of relatively tall buildings separated by large expanses of parking lots and some open space and the dispersion of uses - a restaurant here, an office building a fair distance away- forces people to get into their cars to travel even short distances. Walking is difficult because there is no integrated system of sidewalks or trails between individual buildings or complexes. Such a land use pattern is also difficult to serve by transit because places where people can be picked up or dropped off are spread out. This pattern makes it difficult to operate an efficient or convenient transit system which, in turn, discourages ridership.

The tendency of people to walk between two locations is dependent on necessity, safety, weather or climate, time availability, proximity and the interesting character of the route. People will walk reasonable distances if the route is attractive and safe. Although attractive pedestrian-oriented places are found in parts of Tysons Corner, in general there is a lack of public amenities and usable open space. Similarly, in order for transit to be a desirable alternative, it must be safe, clean, and run regularly, often and predictably. Efficient operation requires that the number of stops be limited and that a relatively large number of people be picked up or dropped off at each stop. In order for Tysons Corner to evolve toward a more pedestrian and transit-oriented place in specified areas, future buildings will need to be better integrated with the surrounding area through the placement of buildings closer together and closer to the roads. Pedestrian facilities are needed which create a comprehensive pedestrian and open space system with urban open space features, such as plazas, courtyards and mini-parks.

## CONCEPT FOR FUTURE DEVELOPMENT: VISION FOR THE URBAN CENTER

Over the next 20 to 30 years, Tysons Corner is envisioned to evolve into a more urban environment, while retaining the best features of a suburban activity center. On one hand, the Tysons Corner area should continue to combine all the kinds of businesses and activities that create an exciting and attractive city with activity beyond daytime business hours. Many of these businesses and housing units will be in high rise buildings, but these buildings will be sited closer together to be better served by pedestrian facilities and transit. The highest development intensities and the most "urban" areas of Tysons Corner will be located within designated core areas and within walking distance of future rail stations. On the other hand, Tysons Corner should preserve those highly valued suburban features such as usable open space and a scale of development appropriate to serve as a good neighbor to adjacent single-family residential areas.

Tysons Corner is envisioned to contain more housing within walking distance of jobs; circulation systems that are not auto-dependent; and a wide variety of community level retail and service uses that meet the daily needs of workers and residents alike. While the automobile will remain the major transportation mode serving Tysons Corner, more workers and residents in Tysons Corner will have the opportunity to get to their destinations by walking, by rail, or by riding on a shuttle bus system or "people mover" circulation system. More future commuters and visitors to Tysons Corner will be able to leave their cars at home and travel by rapid rail transit and local circulation systems. More people will arrive in carpools or vanpools, or work flexible hours to avoid the rush hour traffic. Workers and residents in Tysons Corner will be able to do everyday errands, or meet a friend for dinner and a movie, without getting into an auto. Shoppers will be able to go to both regional malls safely and easily, without moving their cars from one parking structure to the other. Out-of-town visitors will be able to take rapid rail from Dulles International or National Airport to Tysons Corner, stay in a hotel, and attend a convention in a trade center: they should be able to take clients to dinner or relax at the local

health club, all without renting a car. The Tysons Corner of the future should function efficiently without exclusive reliance on the auto to reach home, shops, work and recreation.

Extensive streetscaping with tree-lined sidewalks connecting buildings, will make walking safe and pleasant. Urban parks and plazas will be enhanced for year-round visual enjoyment with landscaping, works of art, benches and fountains. Opportunities for recreation will be created throughout the Urban Center. Recreation might take the form of an after-work game of basketball on a court on top of a parking structure; or it might be a lunch-hour jog on a trail up Old Courthouse Branch Stream Valley Park; or a brown-bag lunch in a plaza. Overall, Tysons Corner should incorporate some of the best features of the urban environment in terms of its efficiency and vitality, while retaining some of the suburban character that befits its function and location as one of this nation's premier suburban centers.

Major Objectives for Tysons Corner

The following major objectives for the Tysons Corner Urban Center provide a general framework to achieve the Goals for Fairfax County and to pursue this future vision. The following objectives are all important and are not prioritized:

1. Preserve and enhance Tysons Corner as a vital employment, retail and general business center serving the metropolitan Washington region and beyond.

2. Create an improved sense of place and function to promote the market success of the area, recognizing that meeting the present and future functional needs of commercial, employment and residential uses is important to protect and enhance existing economic activities and to provide for future high-quality development.

3. Preserve and protect existing stable residential neighborhoods adjacent to the boundaries of Tysons Corner.

4. Create centralized areas of relatively more intense development (core areas) for large-scale development, and less intense non-core areas that provide a transition to neighborhoods outside Tysons Corner's boundaries.

5. Encourage development of additional housing, including affordable units, in Tysons Corner so that employees may live near their workplaces, thus reducing the number and length of commuter auto trips.

6. Encourage mixed-use development that permits a combination of uses for market synergy. Such development should include pedestrian and auto circulation systems which integrate the development both internally and externally, resulting in high-quality design for a transit- and pedestrian-friendly environment.

7. Encourage development to achieve a more urban form through appropriate building heights, setbacks, building bulk and site design.

8. Develop a cohesive pedestrian circulation system linked to open spaces such as plazas, courtyards, greenways and parkland, in order to facilitate walking and reduce reliance on private automobiles.

9. Develop mass transit options, transportation strategies and planned highway improvements to mitigate traffic impacts in Tysons Corner and in adjacent residential neighborhoods.

10. Encourage improvement of environmental management regarding air and water quality.

11. Protect the remaining environmentally sensitive areas by preserving them as private or public open space.

12. Implement mechanisms that are necessary to carry out the intent of the Tysons Corner Plan, to ensure that its vision can become reality.

The attainment of the above objectives for the Urban Center, as well as the general and specific land use recommendations presented in this Plan, will assist in accommodating projected growth in employment and population while reducing dependence on the private automobile for local travel. This will be facilitated by encouraging a more urban form through such techniques as reducing minimum building setbacks; increasing allowable densities both for residential and non-residential uses; and linking those uses to serve both pedestrians and transit users. The net effect is to create a positive visual image, while simultaneously creating the concentration of employment and population needed to enhance transit usage.

## FAIRFAX COUNTY TYSONS CORNER IMPLEMENTATION

To achieve the vision for Tysons Corner as Fairfax County's Urban Center, an integrated program of implementation strategies is needed to address short and long-term issues for the entire area and on a site-specific level. Such implementation strategies should meet the major objectives for Tysons Corner.

One of the basic tenets of the Tysons Corner Plan is that an adequate transportation system composed of highways, rail and other transit enhancements as well as transportation demand management (TDM) programs is essential to achieve the vision for the Tysons Corner Urban Center. Further, individual projects should, in general, provide transportation improvements that will maintain Level of Service E or better and achieve a mode split for high-occupancy vehicle (HOV) trips (i.e. transit and ridesharing) that supports an overall 20 percent mode split in Tysons Corner and that is determined to be appropriate for the site under the provisions of the Tysons Corner Urban Center Plan. The Plan also emphasizes the need to provide for an overall development pattern that is more oriented to pedestrians and transit, and that achieves a more attractive and unified appearance through good urban design.

To ensure that these basic tenets are achieved, effective implementation strategies are necessary. Funding to construct planned highways, rail systems and transit services to serve the Tysons Corner area is needed. This will require increased public sector funding as well as establishment of a tax district and/or other mechanisms that generate substantial private sector monies. Achievement of a 20% or better mode split for HOV trips on an area-wide basis could involve measures such as parking "caps", paid parking and/or a transportation demand management ordinance. On individual sites, property owners should be allowed to achieve maximum planned development on their sites when appropriate transportation and urban design improvements are provided in accordance with the Plan.

The Tysons Corner Plan will be implemented through the Capital Improvement Program (CIP), Federal, State, County, and private sector funding for transportation improvements, transportation demand management programs, Zoning Ordinance provisions and development proposals. Because of the nature of the planning issues involved and the far-reaching vision for Tysons Corner, implementation of the Plan will also require follow-up actions as outlined below in this section. Implementation guidance for evaluating development proposals is provided in the following section that is entitled Development Review Guidelines.

The following strategies are necessary for implementing the Plan and involve: review of and potential amendments to selected provisions of the Zoning Ordinance; the creation of dedicated funding sources for road and transit improvements with commitments from both the public and private sectors; the successful implementation and monitoring of area-wide transportation demand management programs; and, the development of an open space implementation program.

### LAND USE

Review Selected Zoning Ordinance Requirements: In some instances where the Plan recommends mixed-use development, the Tysons Corner Plan can be implemented by rezoning and building under the regulations of the Planned Development or "P" Districts and using conventional zoning districts. Many of the provisions of these districts are already under review as part of a countywide "process redesign" effort, and changes adopted under this effort may

further the implementation of the Tysons Corner Plan. For example, provision to allow certain uses, such as restaurants, in commercial office districts as permitted uses is under review (as of 1994). Additional modifications to the existing "P" Districts and conventional districts should be considered to allow a greater flexibility for responding to changing market conditions. These modifications should include some flexibility in showing building locations and footprints so that specified changes can be approved administratively.

To ensure that the urban design concept can be implemented, conventional zoning districts should be reviewed to see that yard and bulk plane requirements are appropriate. If additional flexibility is needed, it may be possible to allow administrative approval of varied yards in Tysons Corner upon amendment of the Zoning Ordinance. Approval administratively or otherwise of reduced yards or other aspects should be subject to compliance with the Plan's urban design guidelines. Further, to ensure that effective TDM measures can be achieved, the County, in concert with the Transportation Management Association, should review parking requirement of the Zoning Ordinance to consider the full range of parking management strategies. This issue should be reviewed in conjunction with the development of a comprehensive area-wide TDM program.

TRANSPORTATION

Develop and Implement a Comprehensive Area-wide Transportation Demand Management (TDM) Program: Both individual TDM measures, as administered through commitments that are made as a part of the zoning process, as well as an area-wide TDM program, are needed in Tysons Corner as components of a successful public transportation improvement program, because the development levels recommended in this Plan are predicated on achieving the goal of a 20% or better HOV mode split. A Transportation Management Association (TMA) such as TYTRAN should administer a comprehensive area-wide program and coordinate the TDM actions of individual employers. Further, the County, in concert with the Transportation Management Association, should review parking requirements of the Zoning Ordinance to consider the full range of parking management strategies and other transportation demand management strategies. The purpose of such strategies would be to effectively implement TDMs. Because of the public benefit that can be realized through these programs, the County should consider providing public funding to support such efforts.

The implementation of a successful comprehensive area-wide TDM program may require adoption of an ordinance governing such actions so that all property owners will be required to participate, not just properties committing to participation through the zoning process. Ordinance requirements may include paid parking, transit subsidies, rideshare matching services, preferential treatment of carpool/vanpools, shuttle bus services to nearby transit transfer stations, guaranteed ride home programs, marketing of commuter assistance programs, and other related measures designed to lessen use of single-occupant vehicles and boost HOV usage during peak commuting periods. TDM measures that could be considered are shown on Figure 5.

Establish a Transportation System Monitoring Program. The County, in cooperation with a TMA, should develop a system to monitor and analyze the relationship between development and supporting transportation facilities and services to evaluate whether the Tysons Corner transportation objectives are being met. If it becomes clear that the Level of Service E standard is not being maintained, and steady progress toward an overall 20% transit/HOV mode split goal is not being achieved, then existing policies and programs should be re-evaluated and appropriate

**FIGURE 5: EXAMPLES OF TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES**

## Individual Employer TDM Measures

Alternative Transportation Services
- Shuttle Bus(es)
- Company Vanpools
- Telecommuting

Support Facilities/Programs
- On-Site Transportation Coordinator
- Employer Ridematching Services
- Preferred HOV Parking Locations
- Flexible Work Hours
- Guaranteed Ride Home Program

Pricing Programs
- Parking Management/Pricing Programs
- Subsidies for Use of HOV Modes

Implementation
- CEO Commitment
- Proffers/Negotiated Agreements
- Participation in TMA

## Area-wide TDM Measures

Alternative Transportation Options/Services
- Expand Transit Services (peak hours)
- Expand Transit Services (off peak & midday)
- Carpools
- Vanpools
- Shuttle Bus(es)

Support Facilities/Programs
- Transit Center
- Park & Ride Lots
- HOV Lanes
- Parking Locations
- Multi-Employer Ridematching Services
- Guaranteed Ride Home Program

Pricing Programs
- Road/Congestion Pricing Programs
- Parking Management/Pricing Programs
- Transportation Allowances

Implementation
- Employer Trip Reduction Ordinance
- Parking Management Ordinance
- Site Design Controls
- Proffers/Negotiated Agreements
- TMA Coordination

modifications should be made to ensure that these transportation policies are implemented effectively.

Increase Funding for Transportation Facilities. Transportation improvements needed to support Tysons Corner area development will require substantial capital investment. At least $300 million (in 1990 dollars) will be necessary to implement the recommended arterial roadway improvements. Of this total, it has been estimated that approximately $120 million would be needed to improve the Capital Beltway and Dulles Airport Access and Toll Roads, (including interchange improvements) and that at least $180 million would be needed to improve primary arterial roads, such as Route 7 and Route 123. With respect to public transportation approximately $175 to $500 million or more (in 1994 dollars) would be the additional funding needed to establish an alternative rail alignment through the center of Tysons Corner as opposed to an alignment that uses the median of the Dulles Airport Access Road (i.e., an elevated alignment through Tysons Corner, as identified on Figure 15 in the Transportation Section, has been estimated to cost at least $175 million in additional funds whereas if placed underground, the estimated additional cost would be approximately $500 million or more). The entire Dulles Airport Access Road rail alignment from Falls Church to the Airport has been estimated to cost over one billion dollars.

The above cost estimates are based on estimates from preliminary engineering studies or the application of unit cost estimates for various categories of facilities to recommend improvements affecting Tysons Corner. Cost estimates will be revised when project planning studies are undertaken. The roadway cost estimates reflect a magnitude of expenditure necessary to construct roads and interchange improvements that are identified on the Transportation Plan adopted in 1991. The Dulles Corridor Transportation Study conducted by the Virginia Department of Rail and Public Transportation (VDRPT) estimated future rail extension costs and recommended to the Commonwealth Transportation Board (CTB) the more costly alignment through Tysons Corner including direct service with three stations, due to a variety of benefits such as increased ridership and development potential. In August of 1996, the CTB adopted the concept of an alignment through Tysons Corner as recommended in the VDRPT study for inclusion of the project in the Commonwealth's Transportation Improvement Plan.

Traditionally, funding for the area's regional roadways and transit improvements have primarily been from public revenues, with the private sector constructing or contributing monies for collector roadways and in some instances constructing or contributing to specific arterial and interchange improvements. With the significant magnitude of future transportation funding needs for Tysons Corner, new public and private sector funding initiatives need to be studied and preferred approaches identified as soon as possible in order to address the area's growing deficiencies in transportation funding.

Establish Increased Public Sector Funding for Transportation Facilities. The level of public sector participation in providing transportation improvements is determined by the availability of Federal and State funds, and the County's own fiscal and budgetary policies, and competing needs and priorities for transportation improvements established on a countywide basis. Commitments of Federal and State funds have been made for improvements on the Dulles Airport Access and Toll Roads and the Capital Beltway. County funds have been utilized to pay for the design studies of Route 7 through Tysons Corner, and to advance portions of the improvements recommended in that study. The Federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) earmarked $6 million to be used for an alternatives analysis and preliminary design work to extend rail through the Dulles Access Road Corridor from Falls Church to Washington Dulles International Airport. These funds were used by the Virginia Department of Rail and Public Transportation to complete a feasibility study of rail in the Dulles

Corridor, including evaluation of an alternative alignment through the center of Tysons Corner. This study was completed in 1996.

There is an identified need for increased public sector funding of transportation improvements to serve Tysons Corner commensurate with its goals for continued economic growth and development as the County's "Urban Center." Fairfax County should pursue increased Federal, State and local funds for transportation improvements.

Establish Dedicated Sources of Private Sector Revenues for Transportation Facilities. A key factor in the implementation process is the ability to generate stable and ongoing sources of funding for these transportation improvements. Development intensities as envisioned in this Plan can only be supported at an acceptable level of service if the private sector contributes a substantial share of transportation improvements and/or funding required to meet the transportation needs of the area. Over the years, property owners have privately financed and built many transportation projects in Tysons Corner. In recent years a voluntary contribution rate of $2.88 per square foot for new commercial development has been established on a de facto basis within Tysons Corner. This contribution rate may not provide a stable and ongoing source of private sector funding. A study of total transportation needs and the costs of such improvements is needed in order to determine the appropriate way to continue to provide private sector contributions for future transportation facilities. Until this study is complete, and revised procedures are adopted by the Board of Supervisors, development applicants should contribute a minimum of $2.88 per square foot, in 1990 dollars, adjusted for inflation in a manner similar to the process for Fairfax Center and Centreville.

A major funding issue involves the extension of rail service to Dulles Airport. The feasibility of this extension will largely depend on projected transit ridership. To ensure the greatest potential ridership, the alignment should be routed through Tysons Corner to best serve its substantial employment concentrations. This alignment through Tysons Corner will cost substantially more than an alignment that skirts around the edge of Tysons Corner on the DAAR. Since the more costly alignment through the core area will provide significantly better transit service to the area and, over the long-term, provide a substantial positive influence on concentrating development which will benefit both private and public interests, the initially high construction cost should represent an investment to be shared by both the private and public sectors. In order to best pursue and ultimately see the realization of this paramount opportunity, a preferred option for a dedicated source of new revenues generated by property owners should be identified as soon as possible. Options for further consideration for contributing to this transit improvement as well as other transportation improvements include a transportation tax district, an area-wide roadway improvement fund, a pro-rata projects reimbursement approach, and an impact fee program, among others. One or more of these or other options will be necessary to address satisfactorily the funding of transportation capital improvements for Tysons Corner. Further detailed examination of these options is essential before preferred approaches are selected. Completion of the study as soon as possible is required in order to address the area's known long-term deficiency in transportation funding.

## OPEN SPACE/PARKS/RECREATION

Develop a Recreation and Open Space Implementation Strategy. The Tysons Corner Plan provides general recommendations on the need for and potential location of open space, parks and recreation facilities, trails and sidewalks. A more detailed recreation and open space strategy should be developed by the Fairfax County Park Authority in cooperation with private recreation providers and corporate employers. The strategy should consider a variety of ways and means to

provide high quality public park and recreation facilities appropriate to an urban environment. In addition, cooperative agreements could be negotiated to coordinate management of open space on the western edge of Tysons Corner, because the Town of Vienna, the City of Falls Church and Fairfax County own segments of this open space network. Consideration should be given to joint public/private ventures to provide recreation facilities within office developments and other private sector developments.

## DEVELOPMENT REVIEW GUIDELINES

An important way for the Tysons Corner Plan to be implemented is through the approval of development proposals. One objective of these guidelines is to encourage development that is both pedestrian - and transit-friendly. This, in turn, will encourage more transit use, reducing dependence on single occupant vehicles in order to achieve the goal of a 20% high occupancy vehicle mode split for Tysons Corner. Another objective is to foster good urban design that enhances the visual quality of both the built and natural environment. Development proposals, including rezonings, special exceptions and special permits and proffer condition amendments will be reviewed for conformance with the Area-wide and Land Unit Recommendations of the Tysons Corner Plan and those additional standards outlined below.

### LAND USE

The area-wide recommendations for land use, urban design, transportation, open space/parks/recreation and public facilities are contained in the section titled Area-wide Recommendations. Site specific recommendations are contained in the Land Unit section of the Plan. Within each land unit, the Plan reiterates the overall vision for the area. Within each sub-unit, the Plan provides site specific recommendations that establish a planned use and intensity and often provides options for development which may be for residential uses or for higher intensities based upon compliance with specified conditions.

The Plan also provides for optional uses with higher intensity development in transit station areas. After a transit station has been programmed for design and construction and prior to the availability of rail service in a transit station area, development intensity above that planned without rail could be considered if it can be demonstrated that providing transportation improvements and TDMs will substantially progress toward achieving the goal of a 20% HOV mode split for Tysons Corner. Within transit station areas the opportunity for achieving a high HOV mode split is at a maximum, and so development proposals in these areas should commit to specific transit mode splits substantially in excess of 20 percent. In addition, clustering of buildings in a transit-friendly design is encouraged, whereby development that is built prior to rail service can be clustered on a portion of a site so as not to preclude additional buildings and intensity in the future when rail service arrives.

In addition to the planned and optional land uses that are described in the land unit section, the Plan provides additional flexibility for alternatives to these site specific recommendations. Alternative uses should have equal or less peak-hour traffic impacts than the planned or optional use, whichever is applicable (see Alternative Land Uses in the Area-wide Recommendations Section for more information and limitations for alternative uses). Approval of all planned, optional, and alternative land uses and/or intensities is predicated upon the fulfillment of recommendations outlined under the Area-wide Recommendations, the Implementation section and the Land Unit Recommendations.

### URBAN DESIGN

Providing for good urban design exemplified by high quality site design that is both pedestrian- and transit-oriented is a major objective of the Tysons Corner Plan. The Urban Design section provides guidelines for the entire Tysons Corner area and more detailed concepts for development in the core area and along important arterials such as Route 7. These concepts

provide a framework for consistent and high quality treatment along roadway frontages through landscaping, streetscape, building setbacks and parking guidelines.

Through redevelopment and new development on vacant sites, there are many opportunities to implement the vision for future development of Tysons Corner through coordinated development incorporating high quality urban design. Within this overall framework, property owners should endeavor to provide for high quality site design. Consideration should be given to providing a better interrelationship among buildings and sites, implementing area-wide open space and pedestrian circulation systems, and providing for the plazas and other elements that characterize a pedestrian- and transit-oriented environment.

The gradual evolution of a more pedestrian- and transit-oriented environment, which is largely design related, is critical for achieving the Tysons Corner vision. These critical design issues should be evaluated on all development proposals in Tysons Corner which involve new development or redevelopment that increase intensity/density or increase height or substantially change the design of a previously approved development commitment; and this evaluation should include the following:

a. A development proposal that presents high quality architectural design and streetscape that provides a character and scale compatible with adjacent development and the surrounding community. The general placement of buildings and parking should be consistent with the guidelines in the Urban Design Section of the Tysons Corner Plan.

b. Building heights that are consistent with the Height Guidelines and Map in the Urban Design Section of the Tysons Corner Plan.

c. On-site pedestrian connections and interconnecting pedestrian ways to neighboring rights-of-way and/or properties consistent with the concept for the Open Space and Pedestrian System Map (Figure 11), and/or as otherwise defined in the guidelines for Pedestrian- and Transit-oriented Design or as mentioned in the specific land unit text. Additional pedestrian connections beyond those on the Open Space and Pedestrian System Map are encouraged. Providing fewer connections than those on the map is discouraged, unless there is evidence that those connections are not needed because another circulation pattern would serve the same users as well or better. Where the proposed use requires a high security environment, the property owner should provide an alternative pedestrian system that meets the needs of the user and still facilitates the general goal of an integrated pedestrian system for Tysons Corner.

d. The approximate location and character of plazas, courtyards, or other open spaces (including natural features) relating to a single building or shared by a complex of buildings.

e. The approximate location and character of special features such as bicycle trails, outdoor recreation facilities, ponds, and public parks.

f. Proposals, if any, for seating, lighting, or special paving.

g. A depiction of the proposed development's relationship to, compatibility and integration with actual or potential development of surrounding areas, through the provision of pedestrian linkages, open space, and other urban design amenities including plazas and courtyards.

TRANSPORTATION

Four basic types of transportation implementation mechanisms are recommended. These mechanisms address provision of on-site circulation and access features; a Level of Service (LOS) performance standard; a high occupancy vehicle (HOV) mode split performance standard and contributions to transportation improvements. The degree to which the various mechanisms will be sought is related to peak-hour traffic generation. Development proposals which will generate significant amounts of peak-hour traffic will be required to provide a higher level of commitments than those which will generate relatively few peak hour trips.

The means by which these transportation commitments are to be achieved is described below.

Provision of On-Site Circulation and Access Features.

Consistent with County policy, development proposals should provide appropriate on-site circulation and access improvements associated with the traffic levels generated by the development. These improvements should include construction of any necessary on-site local and collector streets, dedication of right-of-way and construction of improvements for arterial facilities at least along the frontage of the property, and provision of adequate access into and out of the site.

Pedestrian facilities should be provided in accordance with the Open Space and Pedestrian System Map and related guidelines in the Urban Design section. To enhance the continuity of the system, the pedestrian linkages should connect to adjacent properties and/or public right-of-way, in addition to providing connections to the regional and countywide trail system where feasible.

Attainment of Level of Service E

The Tysons Corner Plan establishes a Level of Service E standard in assessing transportation system adequacy with the exception of the following boundary street intersections which are to be assessed at a Level of Service D standard: all Magarity Road intersections (except Magarity Road and Route 7); the Gallows Road and Merry Oaks Lane intersection; and the Route 123 and Horse Shoe Drive intersection. However, it does not appear to be reasonable to require that Level of Service E performance be achieved as a precondition for approval of all development proposals within Tysons Corner. Development proposals generating relatively few peak hour trips do not have the transportation impacts associated with larger applications. Thus, it would appear reasonable to exclude such development proposals from demonstrating that the LOS E requirement is met. A threshold of 150 peak hour vehicle trips for all uses is the basis for applying this mechanism. This number is high enough to exclude most small free-standing uses, for example service stations, day care centers, and office buildings of less than 75,000 square feet. Trip generation rates from the current edition of Institute of Transportation Engineers (ITE) Trip Generation Manual shall be used to calculate peak hour trips for a development proposal to determine whether the peak-hour threshold is exceeded.

Development proposals which generate in excess of 150 peak-hour trips should demonstrate that LOS E traffic conditions can be attained except in those areas noted above where LOS D is applicable. If such conditions cannot be attained on the surrounding street system, applicants should provide commitments in compliance with the following Countywide transportation policies:

"Non-degradation" Policy. The non-degradation policy requires applicants to ensure that the transportation system affected by the application performs no worse after the project is developed than it would otherwise. This approach is primarily a performance based approach which requires applicants to provide improvements or other guarantees to maintain certain performance levels. These levels would be measured by levels of service or critical movement volumes or other measures as deemed appropriate by the Office of Transportation.

"Offsetting Impact" Policy. The "offsetting impact" policy requires applicants to contribute to transportation improvements. The contributions would be proportional to the traffic generated by the project and the amount of transportation capacity required to accommodate that traffic, presumably based on lane-miles. However, this policy would not ensure that the localized performance of the transportation system would be maintained. Instead, it recognizes that in some instances, it may be impossible for performance to be maintained or for one individual applicant to provide the transportation improvements which may be needed.

In general, the "non-degradation" policy would be pursued in reviewing development proposals, with the "offsetting impact" policy employed in those instances where the "non-degradation" policy is not appropriate.

HOV Mode Split Performance

As with the attainment of Level of Service E, the practicality of achieving a 20% or better HOV mode split will vary with the nature of the development application. Programs to increase the HOV mode split would be most effective when applied to predominantly employment uses, where peak-hour travel behavior can best be monitored and affected by TDM programs. Applications for employment uses that generate over 150 peak-hour trips should submit TDM plans designed with the goal of achieving the HOV mode split policy target, i.e. transit, carpooling, and so forth. In all cases, such attainment should be demonstrated with the provision of binding commitments to implement the TDM plan.

Contributions to Road Funds/Tax Districts

A mechanism should be established as soon as possible to provide for a dedicated source of funding generated by private sector development toward implementation of major or other planned transportation improvements, including rail transit. Such mechanisms could include a Road Fund or Tax District and should be designed to ensure timely and effective use of these funds. For the past several years, a voluntary contribution toward transportation improvements in the Tysons Corner area has been established on a defacto basis. Until revised procedures or amounts are adopted, this practice should be continued.

## OPEN SPACE/PARKS

Each development proposal should provide or contribute to the provision of appropriate active and/or passive recreation facilities and specified components of the open space system in accord with the Area-wide Recommendations and Land Unit recommendations in the Tysons Corner Plan.

PUBLIC FACILITIES

Each development proposal should provide or contribute to the provision of appropriate public facilities that are needed for the proposed development in accord with the Area-wide Recommendations and Land Unit recommendations of the Tysons Corner Plan.

## AREA-WIDE RECOMMENDATIONS

The area-wide recommendations that follow are intended to achieve the future vision for the Tysons Corner Urban Center. These area-wide recommendations present overall concepts for Tysons Corner as a framework for the specific Land Unit recommendations. These recommendations also provide guidance on area-wide issues that may not be specifically addressed in the Land Unit text because they uniformly apply to all land units.

The Area-wide Recommendations Section more specifically contains:

- The Land Use Section which identifies the maximum planned quantity of development and its general distribution or land use pattern; and sets forth land use guidelines that address land use compatibility and use flexibility for existing development and alternative future development;

- The Urban Design Section which provides streetscape and site design guidelines, maximum building height and the pedestrian system to interconnect Tysons Corner;

- The Transportation Section which provides transportation policy recommendations, recommended road improvements and rail transit alignment alternatives;

- The Open Space/Parks/Recreation Section which identifies existing parks serving the area, future park and open space opportunities and guidelines for the provision of recreation facilities; and

- The Public Facilities Section which identifies existing facilities serving the area and additional planned public facilities needed to serve future growth.

## LAND USE

To further define the broad Vision for the Urban Center and its objectives, a Land Use Concept was formulated which identifies an ultimate quantity and general distribution of development. In addition, since achievement of the vision for Tysons Corner as the County's Urban Center will be a long-term process, guidance on land use compatibility and land use flexibility is provided in this section.

### QUANTITY OF DEVELOPMENT

The Plan's development potential for Tysons Corner is based on an analysis of future planned infrastructure and environmental constraints. The capacity of the planned transportation system (which includes rapid rail transit serving the Dulles Corridor and 18 additional lanes of roadway serving the area) is the major influence in establishing the area's maximum development potential. By optimizing the capacity of the planned transportation system, Tysons Corner's development potential was determined to be almost twice the area's current (1993) development level. (See Figure 6 below for comparisons of the area's 1993 existing development and 1993 zoning potential to the Plan's maximum potential without and with rail transit through the core of Tysons Corner.)

**FIGURE 6: COMPARISON OF QUANTITY OF EXISTING LAND USE, ZONING AND THE PLAN**

| LAND USES | EXISTING DEVELOPMENT (1993) | ZONING ENVELOPE (1993) | PLAN POTENTIAL W/O RAIL TO THE CORE | PLAN POTENTIAL WITH RAIL TO THE CORE |
|---|---|---|---|---|
| NONRESIDENTIAL SQUARE FEET (% Above Existing) | 28,820,000 (N/A) | 47,000,000 (64%) | 50,000,000 (74%) | 55,000,000 (90%) |
| RESIDENTIAL SQUARE FEET Dwelling Units (% Above Existing) | 6,234,000 5,674 D. U. (N/A) | 7,000,000 6,400 D. U. (13%) | 10,000,000* 9,200 D. U. (71%) | 13,000,000* 12,700 D. U. (124%) |
| TOTAL SQUARE FEET (% Above Existing Dev.) | 35,054,000 (N/A) | 54,000,000 (55%) | 60,000,000 (71%) | 68,000,000 (93%) |

NOTES: *The Land Unit text provides flexibility for substantially more housing through additional housing options and mixed-use options.

Zoning envelope and Plan potential data rounded to nearest million square feet.

This magnitude of potential growth represents the highest intensity recommended for each parcel, including potential development intensification associated with the provision of rapid rail transit through the core of Tysons Corner that would connect to Dulles International Airport. If this maximum is achieved, build-out would result in over a 90% increase in development square footage above the 1993 development level which represents a 20% increase above the zoning envelope. This Plan also allows for more than a doubling of residential development over the 1993 development level. The expected timeframe for achieving the maximum build-out would be 30 to 40 years, depending upon the pace of future development and the presence of rail. However, it is not likely that the maximum build-out would be totally achieved, for it would necessitate every site developing at the maximum. Some existing site constraints and market conditions may result in development below the maximum intensity.

Most of the detailed Land Unit recommendations are structured with several land use and/or intensity options. Some of these options are dependent on the site's proximity to a future rapid rail transit station. Therefore, Figure 6 indicates the Plan's maximum potential for commercial development with and without a rapid rail transit alignment with three stations through Tysons Corner. Significantly more housing is permitted through the Plan's housing flexibility guidelines or through Land Unit specific housing options. Also, the development potential will vary, depending on the location of the rapid rail alignment and its associated stations. For example, if the rail alignment skirts Tysons Corner within the Dulles Airport Access Road, the Plan's maximum potential would be reduced by approximately 8 million square feet as indicated on Figure 6.

Under any scenario, the planned transportation system will need to be fully implemented including the provision of rapid rail service, if an acceptable level of service is to be maintained on the roadways. In 1993, the overall transportation level of service was at the D/E boundary, and exhibited a 10% HOV mode split. If Tysons Corner were to fully develop under the current zoning envelope, the overall level of service would deteriorate to E/F even with a 20% HOV mode split. At the Plan's maximum build-out, an HOV mode split greater than 20% would be required to maintain the level of service at the E/F boundary. Rail service through the center of Tysons Corner will best serve the existing and future employment concentrations, and is needed to accommodate the Plan's maximum build-out. Prior to rail service being provided to Tysons Corner, other transit enhancements and transportation demand management programs will be needed to accommodate additional development within an acceptable transportation level of service. (See Transportation Section for more information about transportation assumptions, improvements and conditions for future development).

## LAND USE PATTERN

The Land Use Concept's pattern of development reinforces the planning policy that has shaped Tysons Corner over the last three decades. This fundamental policy has been to establish a major core area and to provide well-defined transitional areas or "edges" adjacent to the surrounding single-family neighborhoods. The Plan further defines these major core areas, transition areas and the non-core areas of Tysons Corner (see Figure 7: Land Use Concept Map). A new dimension addressed is the potential impact of rapid rail transit on the development pattern.

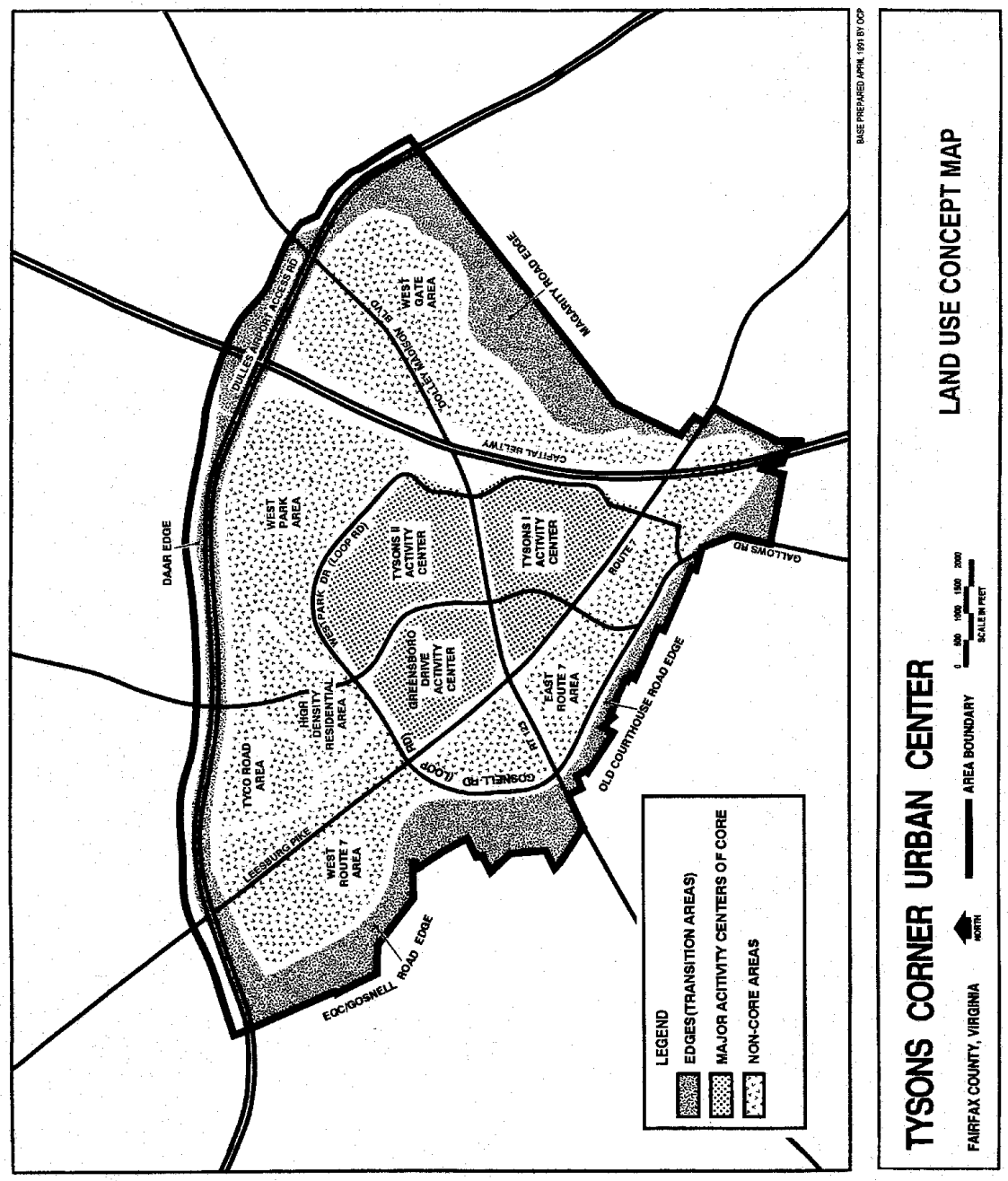

TYSONS CORNER URBAN CENTER
FAIRFAX COUNTY, VIRGINIA
NORTH
AREA BOUNDARY
0 500 1000 1500 2000
SCALE IN FEET
LAND USE CONCEPT MAP
LEGEND
EDGES(TRANSITION AREAS)
MAJOR ACITIVITY CENTERS OF CORE
NON-CORE AREAS
BASE PREPARED APRIL 1991 BY OCP
DAAR EDGE
DULLES AIRPORT ACCESS RD
WEST PARK AREA
TYCO ROAD AREA
HIGH DENSITY RESIDENTIAL AREA
LEESBURG PIKE
WEST ROUTE 7 AREA
EOC/GOSNELL ROAD EDGE
WEST PARK DR (LOOP RD)
GREENSBORO DRIVE ACTIVITY CENTER
TYSONS II ACTIVITY CENTER
BOULEVARD
BOULEY MADISON BLVD
WEST GATE AREA
MADARITY ROAD EDGE
CAPITAL BELTWAY
GOSNELL RD (LOOP RD)
RT 123
EAST ROUTE 7 AREA
TYSONS I ACTIVITY CENTER
ROUTE 7
GALLOWS RD
OLD COURTHOUSE ROAD EDGE

FIGURE 7

**Core Area and Activity Centers**

The major core area planned for Tysons Corner is bounded by Westpark Drive on the west and north, the Capital Beltway on the east, and Route 7 on the south. The core area contains both the Tysons Corner Center and Galleria at Tysons II regional shopping malls, as well as the Greensboro Drive office district, the Tysons II office area and a portion of the West Park office park. The area encompasses almost 350 acres, which is about 20% of Tysons Corner's land area. The core area is envisioned to absorb almost 40% of the Plan's potential square footage. The area is already intensively developed with intensities for office and mixed use development typically between 1.0 and 1.65 FAR. Portions of the core area are envisioned to contain an even greater concentration of uses and higher intensities within walking distance of rail, if a rail alignment through the center of Tysons Corner becomes reality.

The core area, because of its large size, is envisioned as a collection of three distinct but interrelated "activity centers" of about 90-130 acres each. With appropriate pedestrian facilities, it should be possible to traverse each activity center in 15 minutes or less. The three activity centers are: Greensboro Drive, Tysons II and Tysons I. Each activity center has its own distinctive character in terms of land use mix, pattern and planned future development. While a greater emphasis will be placed on mixed-use development throughout the core, the Greensboro Drive Activity Center is envisioned to remain a predominantly office employment center. The Tysons I Activity Center will be primarily characterized as a retail center. Both activity centers will have opportunities to increase the mixture of uses. The Tysons II area has the greatest potential to become a day and evening activity center with a more evenly balanced mix of office, retail, hotel and residential development.

Greensboro Drive Activity Center (Land Unit M)

The Greensboro Drive Activity Center is generally aligned along Greensboro Drive between Westpark Drive, Route 123 and Route 7. It contains the highest natural elevation in the County and its skyline is visible from great distances. This is an area of 10-15 story office buildings, several hotels, and support retail and support service uses. The 90-acre area is often identified as Tysons Corner's business and financial district and is primarily an employment area, drawing commuters to its office space and business people to its hotel and meeting room facilities. This area is already largely developed with intensities of 1.0-1.65 FAR and it has the most urban character of the three activity centers.

The Plan for the Greensboro Drive area will build upon existing development. While there is little vacant land in the area, there are opportunities for redevelopment. To create a more urban and pedestrian-oriented environment, the Plan encourages surface parking lots to be redeveloped for structured parking and additional office space, pedestrian plazas and courtyards. Building heights up to 150 feet are allowed in most portions of the Greensboro Drive area to take advantage of its high visibility. While office will remain the predominant use, support retail and other support service uses are also planned to serve office workers and to create a more pedestrian-oriented street level environment. In addition, high density residential uses are encouraged as a component in this activity center.

Tysons II Activity Center (Land Unit N and Sub-units L3 and L4)

The Tysons II Activity Center includes about 120 acres of land between Route 123, International Drive and Westpark Drive. The area contains the Galleria at Tysons II Shopping Mall and several low-rise office buildings on its eastern periphery within the West Park development, and a single high-rise office building and a hotel adjacent to the mall. About

one-half of the land in the activity center was vacant although this land was zoned for nine additional high-rise office buildings and an additional hotel (in 1993).

The Plan recommends that this activity center develop as a large multiple use area that integrates three major components: office, regional retail and hotel and allows for a fourth component of high density housing. Of the three activity centers, the Tysons II area represents the greatest opportunity for mixed-use development with day and evening activity because of the relatively large portion of vacant land. The office and the shopping mall already draw workers and shoppers to the area from morning through the evening. Business persons are drawn to the hotel and meeting facilities. Housing would provide for a resident population as well.

The Tysons II Activity Center also provides the greatest opportunity for creating a pedestrian and transit-oriented environment, again due to its currently undeveloped nature. Future buildings can be sited closer to roads and to each other to provide for a more concentrated built environment that people can walk through easily or that can be efficiently served by transit. This area will also contain some of the tallest buildings in Tysons Corner, up to 270 feet, to create visual focal points.

Tysons I Activity Center (Land Units O and P)

The Tysons I Activity Center has for over two decades been known for and characterized by Tysons Corner's first regional mall, which draws thousands of shoppers from the region. The activity center also includes Tysons Corner's largest office building, Tycon Towers, and a hotel on the southeastern side; and on the west side a mix of restaurants, office buildings and freestanding retail uses. This is the largest of the activity centers with about 130 acres of land located between the Capital Beltway, Route 7 and Route 123. Because they were developed individually, the existing uses function as separate entities, often due to building orientation, a lack of coordinated pedestrian facilities, and parking structures which create barriers for pedestrians between developments.

The Tysons I Activity Center will continue to be characterized by predominately retail use. However, this Plan envisions a more pedestrian character, using redevelopment as an opportunity to interconnect all portions of the activity center, especially with the activity center's dominant element, the Tysons Corner Center super-regional shopping mall. The intent is to create a mixed-use area that integrates the shopping mall with major office and hotel components and with community retail uses, as well as possible convention facilities and housing that may develop around the shopping mall.

**Non-Core Areas**

The non-core areas which surround the three activity centers encompass between 950 and 1,000 acres, which is approximately 55% to 60% of Tysons Corner's land area. The non-core areas are envisioned to absorb about 50% of the Plan's potential square footage. The overall character, which will be more pedestrian-oriented than today, is still planned to have a predominantly suburban appearance. The non-core areas are divided into six areas: West Park, West Gate, East Route 7, West Route 7, a high density residential area, and Tyco Road.

The two largest non core areas are West Park (Sub-units L1 and L2) and West Gate (Land Unit R) which are located north and east of the core area. Both areas are office parks with campus-like settings, and the vision for both is to continue their development as office parks. Additional development in West Park will be primarily infill office buildings on the numerous unimproved parcels. West Gate, which has few unimproved parcels, will instead see

redevelopment of low-rise office buildings to mid-rise and some high-rise office buildings. Opportunities exist to introduce a housing component in each area. Further opportunities exist for higher intensity development, if supported by rail transit stations.

The East Route 7 area (Land Units F and G) is located south of the core. Along Route 7, the area is developed in a variety of strip retail and large office buildings with support retail. Away from Route 7, to the south, the area is predominantly developed with mid-rise office buildings, lower in height and intensity than Route 7 development, as the beginning of the transition to Tysons Corner's edge. The Plan for the area along Route 7 allows redevelopment of the strip retail to mid-rise and high-rise office buildings with support retail. Away from Route 7, the Plan allows for compatible infill of mid-rise office buildings with structured parking replacing existing surface parking lots.

The West Route 7 area, (Land Units A, B, D and portions of H, I, and J) which is located west of the core, is predominantly developed with community retail strip centers and auto dealerships, with some offices and several hotels. The offices are concentrated away from Route 7. The vision for the area along Route 7 is a gradual redevelopment of the strip centers and auto dealerships to mid-rise and high-rise office buildings that include a significant amount of support retail and support service uses. In addition, it is desired whenever feasible, that auto showrooms and community retail be incorporated into new office buildings. Community retail uses include shopping centers and related retail facilities that primarily serve a community population of about 40,000 to 150,000, more broadly based than neighborhood shopping centers. With the exception of the auto dealerships that have a regional attraction, the retail uses along Route 7 serve the Tysons Corner, Vienna and McLean communities. The intent is to retain Route 7 as a strong retail area that serves a wide range of retail and service needs for employees working in Tysons Corner and for residents of the surrounding communities. The offices that have developed away from Route 7 are envisioned to remain as a relatively lower intensity and lower height development which begins a transition to Tysons Corner's edge; however, the unimproved property adjacent to the EQC and the portion of auto dealerships backing to the EQC are planned with an option for housing that can be integrated with the surrounding commercial developments.

The high density residential area (Land Unit K) contains two large multi-family developments with over 2,000 dwelling units, the Rotonda Condominiums and Lincoln Apartments. The Plan seeks to preserve and enhance this residential area and allows for additional residential development on adjacent properties.

The Tyco Road Area (portions of Land Units H, I, and J), which is located between the Rotonda and Route 7 West is developed with industrial/warehouse uses. The Plan has two future options: one is to retain its current function as an industrial area; the second option is to redevelop as a mixed-use area that provides additional housing, office and support retail uses.

**Transit Station Areas**

Rapid rail transit, although considered in planning concepts for Tysons Corner for over 20 years, has yet to become a reality. However, studies are underway by the Virginia Department of Rail and Public Transportation (VDRPT) to study the feasibility of an alignment within the Dulles Access Road Corridor with consideration of alternative alignments through the center of Tysons Corner. The alignment and its station locations will play a major role in shaping the area into the "Urban Center".

The Plan envisions three rapid rail transit stations on an underground alignment through the center of Tysons Corner, although an elevated alignment or a combination underground/elevated alignment should not be precluded as an alternative. These stations are envisioned to be generally located along Dolley Madison Boulevard at Westgate; on Route 123 between the Tysons II and Tysons I activity centers; and on Route 7 west of Westpark Drive. The planned level of intensity and mix of uses around the proposed transit stations would vary. Sites directly adjacent to a rail station or appropriately within 1,000 feet of the platform are planned for mixed-use development with intensities up to 2.0 FAR in the area between the Tysons II and Tysons Corner Center shopping malls (i.e. core areas), and up to 1.5 FAR in the Route 7 and the West Gate station areas (i.e. non-core areas). Sites within approximately 1,000 to 1,600-feet walking distance of the platform may be planned for increased intensities up to 1.65 FAR in the core and 1.0 in non-core areas. Within transit station areas, compatible transitions to existing development should be created and housing is encouraged to achieve the Plan's recommendation. Beyond 1,600 feet from the transit station, transit's influence on intensity will not be significant, since sites within this range will already have relatively high intensity, i.e., between .60 and 1.0 FAR. The areas beyond 1,600 feet of the station platform will need supplemental transit services such as shuttle buses or a fixed guideway "people mover" with short headways, to provide commuters with a reliable and effective alternative to their automobile. Further guidance on the maximum overall intensities for each potential transit station area is identified in the Land Unit Recommendations and bonus intensity for building housing is provided as indicated at the end of this section under Alternative Future Land Use Guidelines. For guidance on development intensification that coincides with the programming for design and construction of rail stations, see the Development Review Guidelines.

If the alignment is within the DAAR corridor with the only station at the Tysons Westpark site, the rapid rail transit service will have a relatively minor role in shaping the land use pattern because there are limited opportunities for redevelopment near that proposed site. Further, that site is located more than one-half mile from the major employment centers of Tysons Corner. In general, studies and experience have found that the greatest impact on development will occur within walking distance of rapid rail stations, which is generally defined as 1,600 feet from the station. Therefore, pedestrian traffic to and from the site will be limited since the area's existing and future employment concentrations are over one-half mile away. The availability of a substantial shuttle bus system or fixed guideway/people mover will be needed to serve Tysons Corner's employment concentrations. If, however, the alignment is through the center of Tysons Corner, preferably underground, the rail service could play a substantial role in providing increased access to the major employment concentrations within the core and areas adjacent to the core.

**Transition Areas: The Edges**

A critical planning issue has always been the need to restrict intense development within specified areas of Tysons Corner and not allow encroachment upon adjacent neighborhoods. The creation of transitional areas or "edges" that define the limits of Tysons Corner has taken several forms that provide a significant degree of land use compatibility with the adjacent single-family residential neighborhoods. Tysons Corner's transition areas include permanent open space, transitional uses such as low-rise and/or low intensity office, neighborhood retail, garden apartments, and expansive roadway right-of-way. Together the transition areas encompass approximately 400 acres, which is almost 25% of Tysons Corner's land area. These areas are envisioned to absorb relatively little additional development with about 10% of the Plan's potential square footage. The vast majority of the potential square footage is in residential development at 8 to 20 dwelling units per acre. The transition areas or edges are divided into

four areas: the DAAR Edge, the Magarity Road Edge, the Old Courthouse Road Edge, and the EQC/Gosnell Road Edge.

The DAAR Edge has long been recognized as the northern boundary of Tysons Corner. The DAAR, an expansive right-of-way 400 to 600 feet wide, provides a significant physical separation between Tysons Corner and the adjacent neighborhoods to the north.

Along the Magarity Road Edge, which is the eastern boundary, multi-family garden apartments provide a transition in scale and land use between West Gate's office development and the Pimmit Hills single-family neighborhood. The Plan retains the scale provided by the garden apartments directly adjacent to Pimmit Hills and permits some redevelopment of existing garden apartments to mid-rise multi-family use to encourage more housing adjacent to employment locations.

Along the Old Courthouse Road Edge, which forms the southern boundary, low-rise offices provide a transition in scale and intensity from the mid-rise and high-rise commercial development along Route 7 to adjacent single-family neighborhoods. The Plan for this edge is to retain the existing low-rise office character through compatible infill development.

The EQC/Gosnell Edge, which forms the western boundary, provides a significant visual and physical separation between Tysons Corner and the adjacent neighborhoods. The Old Courthouse Spring Branch EQC, which has been preserved with its dense vegetation, provides a substantial barrier from the DAAR southward toward Gosnell Road. At Gosnell Road to its intersection with Route 123, the transition is provided with a combination of public lands with dense vegetation adjacent to Vienna and a larger area being redeveloped with townhouses. The Plan is to complete the established development pattern through compatible infill development to form a strong boundary and transitional area on this edge of Tysons Corner.

## LAND USE GUIDELINES

The Land Unit section provides guidance for achieving the vision for Tysons Corner by recognizing existing and permitted uses and recommending specific land use and intensity for each property. In most instances, optional land uses and/or intensities are specified based on the fulfillment of specific conditions. If these specific conditions are appropriately addressed along with the Area-wide Recommendations and Development Review Guidelines, the vision for Tysons Corner can be successfully implemented.

However, since achievement of the vision for Tysons Corner as the County's Urban Center will be a long-term process, additional guidance beyond the Land Unit recommendations is also essential to the implementation of this vision. In reviewing development proposals within the Tysons Corner area, several situations may arise that the Land Unit recommendations may not adequately address: affordable housing, parcel consolidation, existing and infill development, and other land uses that could be compatible alternatives to those specified in the Land Unit recommendations. For these situations, the following guidelines apply:

### Affordable Housing and Parcel Consolidation

Two Countywide policy areas need to be specifically addressed for application within Tysons Corner: affordable housing and parcel consolidation. These two issues should be addressed within the parameters set forth by the following guidelines:

- For all development proposals with a residential component, affordable housing should be provided in accordance with the Affordable Dwelling Unit Ordinance and/or other Board-adopted policies regarding affordable housing.

- For all development proposals involving increased intensity/density, parcel consolidation should be provided when necessary to achieve the Comprehensive Plan objectives. Parcel consolidations should be of sufficient size to allow projects to function in a well-designed, efficient manner, and to not preclude the development of unconsolidated parcels in conformance with the Plan.

**Existing Development**

In some instances, existing land uses within Tysons Corner are not consistent with the long-term vision. In these instances, the vision anticipates the eventual redevelopment of these properties. It is the intent of this Plan to encourage the continuation of these existing land uses even if not consistent with the long-term recommendation of the Plan; and that adaptive reuse of these existing buildings should also be allowed prior to site redevelopment, provided that the following guidelines are addressed:

- Expansions and remodeling of existing land uses should be permitted as long as these changes will not inhibit achieving most long-term recommendations of the Plan. Improvements to the open space, pedestrian and/or roadway systems that are identified in the Plan are encouraged, or if not feasible due to the existing building's location on the site, alternative improvements could be considered which may help implement the Plan's intent.

- Retention of existing uses during redevelopment should be encouraged by permitting incorporation of the old use into the new, such as incorporating an auto dealership, community retail, or other commercial/business related uses into an office development.

- Landscape screening and buffers should be used to separate retail and industrial uses from office uses where necessary to achieve Plan objectives, but without blocking interparcel access recommended by the Open Space and Pedestrian System Map, Figure 11 and by the Land Unit Recommendations. For example, when a auto dealership is expanded, effective landscaping should be provided along the site's periphery to screen and buffer adjacent office and other uses.

**Alternative Land Uses**

When an alternative land use can be demonstrated to be compatible with the surrounding development and when the Plan's transportation needs, pedestrian orientation, and other aspects are adequately addressed, such uses can be considered. The following land uses are those alternatives which may be considered in addition to those specifically identified in the Land Unit Recommendations.

- In areas where the Land Unit Recommendations identify housing as a desirable option, additional housing should be encouraged by converting planned nonresidential use to housing: when a viable, quality living environment can be created which provides recreational facilities and other amenities for the residents; where the development is compatible with surrounding uses; where it generates less peak-hour traffic impacts than the specific land unit or sub-unit recommendation; and

where its scale is similar to the planned nonresidential use. Logical and substantial parcel consolidation should be encouraged that results in well-designed projects which function efficiently and do not preclude other properties from developing in accord with the Plan. The ratio for converting planned nonresidential intensity to residential use should be 1:3 (one nonresidential square foot for three residential square feet); to ensure a compatible scale, the maximum intensity increase under the replacement ratio should not be greater than 50% above the planned nonresidential intensity. The application of this conversion ratio is illustrated in Figure 8. In transit station areas, the 1:3 conversion ratio should only apply when its application would result in a development that is at least 1/3 housing. Where the development in a transit area would not be at least 1/3 housing, the conversion ratio should be 1:1 non-residential to residential.

Alternative types of housing should be encouraged to integrate into predominantly nonresidential developments, in order to provide a variety of housing, including affordable housing, within this employment center. Since the planned nonresidential intensities are relatively high throughout most of Tysons Corner, the housing type (when the above conversion is used) should be limited to multi-family development. Multi-family development has the design flexibility that is necessary to integrate within nonresidential areas, and provide a comparable and compatible scale.

**FIGURE 8: 1.0 FAR BASE INTENSITY AND 50% RESIDENTIAL BONUS CAP (1 NONRES. SQ. FT. TO 3 RES. SQ. FT. CONVERSION)**

| NONRES. FAR | NONRES. % | RESIDENTIAL FAR | RES. % | TOTAL FAR | |
|---|---|---|---|---|---|
| | | | | | |
| 1.00 | 100% | 0.00 | 0% | 1.00 | |
| 0.85 | 65% | 0.45 | 35% | 1.30 | |
| 0.80 | 57% | 0.60 | 43% | 1.40 | |
| 0.60 | 40% | 0.90 | 60% | 1.50 | 50% BONUS CAP |
| 0.45 | 30% | 1.05 | 70% | 1.50 | |
| 0.30 | 20% | 1.20 | 80% | 1.50 | |
| 0.00 | 0% | 1.50 | 100% | 1.50 | |

- Hotel use may be compatible in areas planned for office and retail use; therefore flexibility when interpreting the Plan should be applied when considering this use. Development proposals for hotels should generate less peak-hour traffic impacts than the specific Land Unit or sub-unit recommendations and should be of a similar scale and intensity provided by those recommendations.

- Retail and service use flexibility: Flexibility should be applied to ensure that a viable mix of local-serving or support retail and service uses will result by allowing these uses to be provided within office and residential buildings.

- Institutional, cultural, recreational, and governmental use flexibility: The Plan should be flexible to accommodate future opportunities for these uses which could enrich community life, improve the provision of public services, and/or enhance the area's competitive edge. For example, these facilities may include but not be limited to, a convention center, a trade center with exhibition space, museums, a theater/ performing arts center, or institutions of higher learning.

For any of the above alternative land uses, adequate vehicular access and circulation should be provided for the proposed alternative use. The use or uses should provide a circulation pattern that can efficiently serve the area and will not result in adverse impacts to the surrounding area. If residential development is under consideration, the analysis of access and circulation should examine how the residential community will be provided access to mass transit, public transportation, schools, parks and recreation facilities, and other community services. In addition, noise and light produced by a proposed alternative use must also be examined to determine that it does not adversely impact adjacent residential or non-residential uses.

# URBAN DESIGN

## THE ROLE OF URBAN DESIGN

The Urban Design Concept for Tysons Corner is an extension of the land use concept: the land use concept defines Tysons Corner as an Urban Center in terms of types and intensities of those uses, but it is the design concept that defines the form that development takes. Urban design fosters a relationship between buildings, streets, land use, open space, circulation, height, density, natural features and human activity in order to create a desirable environment in which to work, live and pursue leisure activities.

Development can take a suburban or an urban form, depending upon such factors as the relationship of buildings to each other and to the roadway; the location and type of parking (structured, underground, or surface); the location and type of open space and pedestrian facilities; and building heights. For example, suburban office parks usually have low- to mid-rise buildings set back from the road, separated by large areas of surface parking and perhaps a landscaped buffer. The distance from the building to the main road is relatively long, discouraging pedestrian traffic between buildings. In more urban settings, taller buildings would be closer to the road, either built next to the sidewalk or separated by a strip of visitor parking, with the remaining parking in a structure behind or underneath the building. The advantage of the urban form over the suburban is that the urban is more pedestrian- and transit-oriented, important factors for an area that faces serious traffic congestion. The intent of the design concept for Tysons Corner is to achieve generally a form closer to the urban than the suburban, to create Fairfax County's downtown.

### Principles of Good Design

In addition to defining urban or suburban character, urban design principles help define the image of an area. Urban design applies to more than just architecture; the entire built environment is examined through the eyes of the user. This includes the appearance of buildings, open spaces, roadways, pedestrian paths, signage — anything that people see and use to inform themselves about where they are, how to go elsewhere, and where different activities take place. Everything, from major buildings to park benches, can make a contribution if they are designed as part of a carefully integrated built environment.

Four principles underlie good urban design: function, order, identity and appeal.

Function: If an area is designed well, it works well. Function can be achieved if people can conduct their business easily, efficiently, and safely. For an area to function well, good linkages, i.e., good access for pedestrians and vehicles needs to exist, as well as a clear and easily understood circulation system. The fewer times people must change transportation modes or move their cars from one parking lot to another, the more easily they can conduct their business. In terms of safety, pedestrians should have a sidewalk/trail system that separates them from vehicles.

Order: Good design is logical and well organized. It presents a clear and coherent image. This can be achieved if an area can be quickly and easily understood: the area is laid out in a pattern that can be recognized and remembered. Drivers and pedestrians alike benefit from good signage and memorable landmarks (such as a distinctive building or a park) at decision points like major intersections.

Identity: Good design helps an area take on a special character. Good design strongly defines an area as a whole, as well as areas of special character. Gateways and edges are clearly defined; hence people know when they are "there." Identity can also be fostered by the use of special land use patterns, such as historic districts, mixed-use districts, and special shopping areas, to achieve a separate identity for small parts within the larger whole. Identity is also manifested through a cohesive use of design elements such as streetscape and signage. These might include planting a particular variety of street tree, using brick pavers at pedestrian crossings, or using a distinctive type of street light. Everything does not have to look the same, but there are some common elements that give the area identity.

Appeal: Appeal is subjective, but an area that is visually appealing usually displays the following characteristics:

- A high degree of visual unity exists, although, in an area as large as Tysons Corner, such visual unity is usually created within sub-areas through harmony of scale, style, landscaping, coordinated signage, and color. At the same time, visual diversity exists in terms of skylines, building heights and unique building forms, the latter being particularly effective as "gateway" buildings.

- The economic return of the area is high because people are attracted to it and return repeatedly.

- The image of the area is positive and human interaction is encouraged. A high level of activity exists because users enjoy being there.

Use of these four principles throughout the planning and development process, by public and private sector alike, will help focus attention on Tysons Corner as the Urban Center. This Urban Center has been built over the years through thousands of independent choices and decisions. When those who make the decisions about the built environment seek good design, high-quality development results that is functionally integrated, orderly, identifiable and attractive. It is the intent of the Urban Design Concept for Tysons Corner to foster this choice of good urban design.

## DESIGN CONCEPT FOR TYSONS CORNER URBAN CENTER

The Design Concept envisions the activity centers of the Core as the major focal points of Tysons Corner. These focal points are located at the juncture of major arterial roadways: Route 7, Route 123, International Drive and Gallows Road. By developing consistent and distinctive streetscape treatments along these major arterials, these roadways are envisioned to become significant unifying design elements which visually and physically link the Core with the surrounding non-core areas. (See Figure 9, Land Use Concept Map with Streetscape for Major Roadways). Within non-core areas, minor focal points or mini-cores should be encouraged to develop. Mini-cores can be formed through the grouping of relatively taller buildings around a plaza that is linked to the surrounding pedestrian system. Gateways at the entrances to Tysons Corner can be created through building design, height and landscaping. By encouraging the evolution of major focal points within the Core, minor focal points through the development of mini-cores within most subareas, the development of gateways at entry points and interlinking these areas with a unifying streetscape, a greater "sense of place" and a more pedestrian and transit-oriented environment can be created in Tysons Corner.

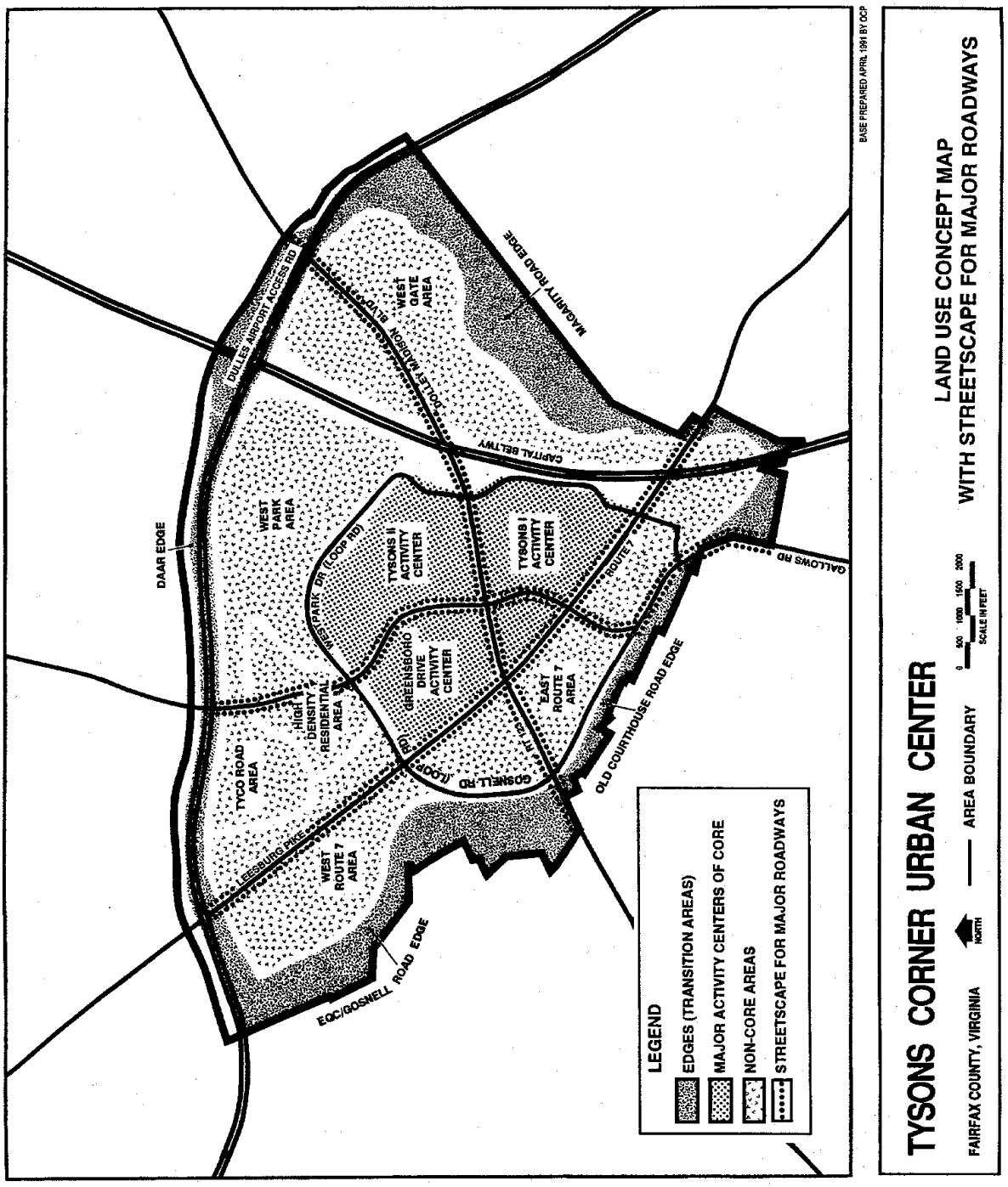

TYSONS CORNER URBAN CENTER
FAIRFAX COUNTY, VIRGINIA
NORTH
AREA BOUNDARY
0 500 1000 1500 2000
SCALE IN FEET
LAND USE CONCEPT MAP
WITH STREETSCAPE FOR MAJOR ROADWAYS
LEGEND
EDGES (TRANSITION AREAS)
MAJOR ACTIVITY CENTERS OF CORE
NON-CORE AREAS
STREETSCAPE FOR MAJOR ROADWAYS
EQC/GOSNELL ROAD EDGE
LEESBURG PIKE
TYCO ROAD AREA
WEST ROUTE 7 AREA
High DENSITY RESIDENTIAL AREA
DAAR EDGE
WEST PARK AREA
WEST PARK DR (LOOP RD)
GOSNELL RD (LOOP RD)
GREENSBORO DRIVE ACTIVITY CENTER
TYSONS II ACTIVITY CENTER
TYSONS I ACTIVITY CENTER
EAST ROUTE 7 AREA
ROUTE 7
OLD COURTHOUSE ROAD EDGE
GALLOWS RD
CAPITAL BELTWAY
DOLLEY MADISON BLVD
WEST GATE AREA
MAGARITY ROAD EDGE
DULLES AIRPORT ACCESS RD
BASE PREPARED APRIL 1991 BY DCP

FIGURE 9

Since Tysons Corner is large and complex, the Design Concept needs to address a variety of elements to encourage a more urban development pattern. The following elements provide guidance toward achieving this goal by addressing streetscape design, building heights, gateways, pedestrian and transit-oriented design that apply throughout Tysons Corner. Additional specified guidance for the Core, for the Route 7 Boulevard Concept is provided.

Implementation of the Design Concept will require a commitment by property owners, private sector organizations such as TYTRAN, the State and the County to provide those streetscape elements that are primarily in the public right-of-way. Other elements can be implemented through private development of sites. Overall, implementation needs to be a joint partnership that ensures the coordinated development of Tysons Corner.

**Building Heights**

The skyline should be valued as an asset because it gives Tysons Corner a visual identity, emphasizing to approaching travelers that they are entering the County's downtown. The skyline is the result of building height and topography. Because the Core is located at the highest natural elevation in Fairfax County, the Urban Design Concept emphasizes this natural feature by planning for some of the tallest buildings on the highest ground within the Tysons II and the Tysons I Activity Centers.

Throughout Tysons Corner, a variety of building heights and building articulation is encouraged, as well as varied roof forms, to create an interesting skyline. The Core is intended to be the most visually prominent part of the Urban Center, and building heights outside the Core gradually step down towards the Transitional Areas. Building heights adjacent to single-family residential neighborhoods, in general, are planned not to exceed 35 to 45 feet to provide an appropriate scale of development. The general Plan for building heights in Tysons Corner is shown on Figure 10. However, it should be noted that within the land unit recommendations, some flexibility to vary building height is provided under specified circumstances.

Guidelines

- One fundamental element of achieving maximum building heights should be provision of usable open space. In the absence of special factors such as security requirements and where appropriate to carry out the pedestrian-oriented design recommendations of the Tysons Corner Urban Center Plan, usable open space should be accessible to pedestrian traffic as well as site users.

- Varied building heights and roof lines are encouraged to enhance the Tysons Corner skyline.

- To create a focal point within a land unit or sub-unit, building height should be one of the elements used to identify a special area, in addition to such elements as plazas, courtyards, building orientation, and/or landscaping.

- Parcels that are split by two height designations should have flexibility to have building height increases above the lower height designation when development proposals provide height transitions similar to those indicated on the Building Heights Map (Figure 10), and improve the site's design in a manner supportive of other urban design objectives.

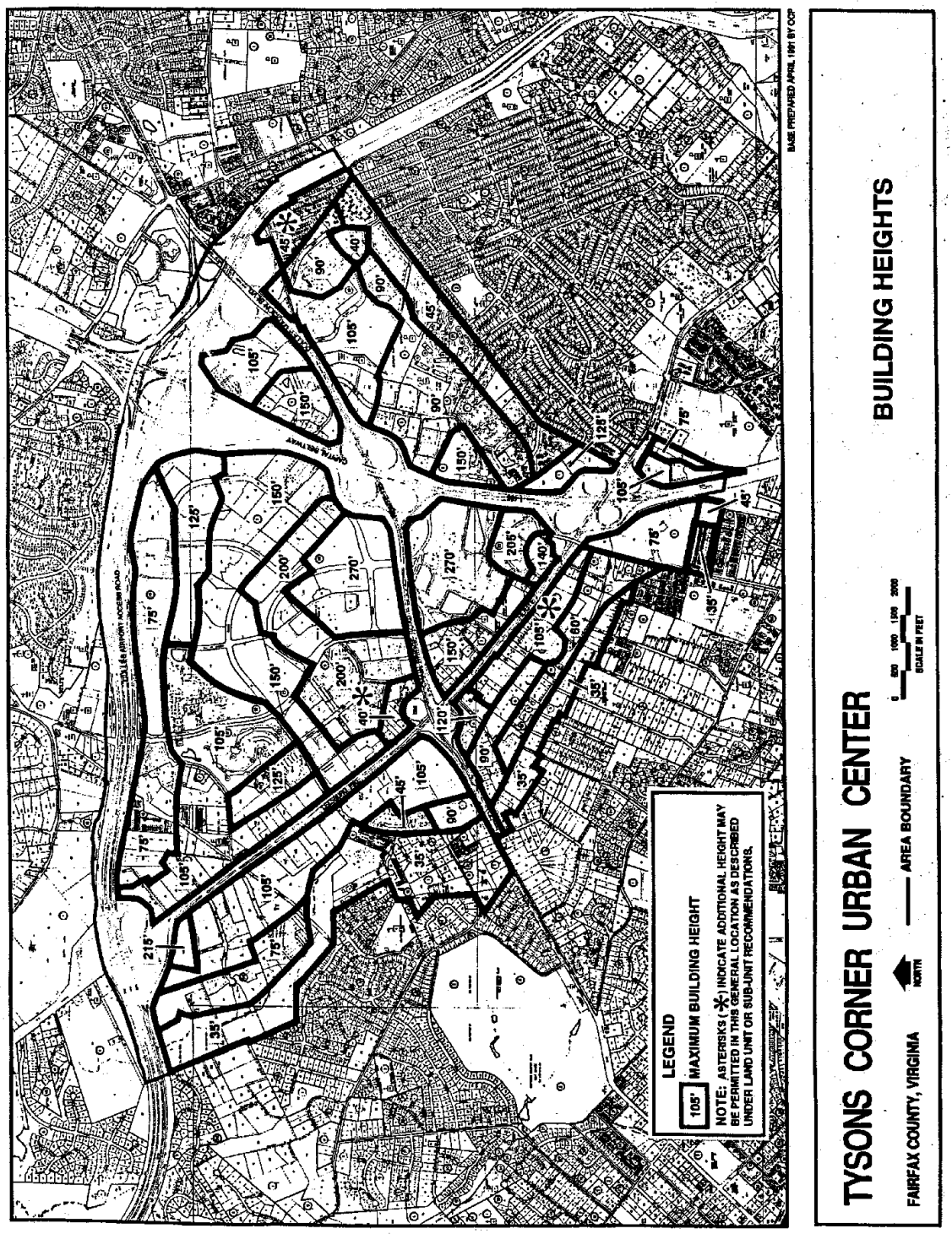

TYSONS CORNER URBAN CENTER
FAIRFAX COUNTY, VIRGINIA
NORTH
AREA BOUNDARY
0 500 1000 1500 2000
SCALE IN FEET
BUILDING HEIGHTS
LEGEND
105' MAXIMUM BUILDING HEIGHT
NOTE: ASTERISKS (*) INDICATE ADDITIONAL HEIGHT MAY BE PERMITTED IN THIS GENERAL LOCATION AS DESCRIBED UNDER LAND UNIT OR SUB-UNIT RECOMMENDATIONS.
BASE PREPARED APRIL 1991 BY OCP

FIGURE 10

- Maximum building heights may increase up to 30 percent above the heights indicated on the Building Heights Map, Figure 10, if the parcel is within 1,600 feet of a rapid rail station site that is programmed for design and construction. All transit-related height increases should be consistent with all other Building Height Guidelines and the specific sub-unit guidance. The resultant height should not adversely impact the character and development of adjacent and nearby lands or neighborhoods.

**Gateways**

Gateways define the major approaches to an area or community. They are generally easily recognized and may be identified by a sign, a structure, or other symbol to clearly distinguish the entrance to an area. Gateways assist travelers to orient themselves and also help define limits to an area. Gateways function better if they are easily identified by a landmark, usually a well-remembered physical object or group of objects. Gateway landmarks are often one or a group of buildings. Landmarks are not necessarily buildings, but can be a natural feature, or special landscaping designed to create a gateway landmark.

Because Tysons Corner has a development character that is distinctively different from the surrounding residential areas, appropriate gateway features should be placed at the major approaches to the area. Individual buildings are the most common landmarks at the major gateways to Tysons Corner. For example, the Tysons Sheraton Hotel is the western gateway landmark at the intersection of Route 7 and the DAAR. The Tycon Tower office building serves the same purpose at the southern gateway to Route 7 at I-495. The Tycon Courthouse office building is the landmark at the Route 123 gateway to Tysons Corner from the Town of Vienna. For minor gateways such as Gallows Road, appropriate landscaping and signage would be sufficient.

Guidelines

- The visual prominence of gateway buildings should be enhanced as specified in the Land Unit Recommendations Section and on the Building Heights Map, Figure 10.

- Where a tall building would be incompatible with adjacent land use, gateway landscaping and/or architectural features should be considered for gateway articulation. Gateway landscaping is a formal arrangement of plant materials that frames a major approach to an area. The plant materials should be chosen to be attractive in all seasons, including both evergreen and deciduous plants. Low maintenance materials should be selected for areas not likely to receive consistent maintenance or watering.

- Consideration should be given to providing a cohesive system of signage beside roadways that indicate the traveler is entering Tysons Corner, much the way the Town of Vienna and the City of Falls Church have signs at their borders.

**Pedestrian and Transit-Oriented Design**

One of the key objectives of the Tysons Corner Plan is to encourage alternative modes of transportation as substitutes for the single-occupant autos that are crowding the County's roads. Good design can contribute to the attainment of this goal by creating a convenient, pleasant and safe experience for the pedestrian, thus making walking a viable alternative to driving. The pedestrian system should consist of sidewalks and/or trails that connect with plazas, courtyards, or other open spaces to create places for pedestrians to walk, to rest, or to gather with others for

recreation or community activities. Such a system will reinforce the goal for high-quality design resulting in a transit and pedestrian-friendly environment.

To encourage workers to travel by public transportation, either by bus, rail or a "fixed guideway system," the walk from the transit station to the workplace must be an experience that pedestrians are willing to repeat twice a day. For this reason, planning for pedestrians and transit access is a vital part of the successful implementation of the Plan for Tysons Corner. Designing for transit access in Tysons Corner is complicated by the fact that no determination has been made about the type and location of transit service to be available in the future. When the transit system is being planned, the pedestrian paths to destinations should also be planned to help achieve the desired transit ridership. While the transit options are being examined, the groundwork needs to be laid for a comprehensive pedestrian network that can connect with transit stations or stops in the future.

Mixed-use developments are an important component of pedestrian-friendly design because each brings a variety of uses in proximity to each other. Pedestrian access between those uses should be convenient, safe, and pleasant to discourage use of automobiles. Designing for the pedestrian includes designing the streetscape to include trees, signage, and street furniture (benches, lighting, etc.). Trees are one of the most important features of the streetscape, as they provide shade to pedestrians, add natural beauty to the street appearance, and soften the hard edges of the building forms. Additional landscaping can also enhance pedestrian paths among buildings, between developments, or mid-block, making these attractive areas to encourage people to walk rather than drive between uses. Use of trees in ornamental grates, planter boxes, planting strips, or larger landscaped areas are some of the many techniques that could be employed to enhance the pedestrian experience.

Pedestrian safety should also be a consideration when designing the landscape, and pedestrian-level lighting should be factored into the design. Street lights and other street furniture, such as trash receptacles, seating, and gateway signage, could reinforce the identity of special areas and better define the Urban Center.

Good signage also contributes to good pedestrian-oriented design: signage within a development should be coordinated in terms of scale, design, color, materials, and placement in order to create a unified identity for the area. Signage should also be designed appropriately for its location and purpose, i.e., signs by the roadway to be read by motorists or signs along pedestrian paths or on a building should provide high legibility for individual businesses and corporations.

The Open Space and Pedestrian System Map, Figure 11, depicts the beginning of such a comprehensive, integrated pedestrian system to unify development within sub-areas and link neighboring sub-areas. This map is not intended to be definitive: as additional pedestrian connections are identified over time, they would be welcome refinements to the system. These connections could be either sidewalks or trails, alone or in combination with plazas, courtyards or parks. These connections are indicated conceptually because appropriate design, construction standards and alignments will be determined when specific development is proposed for a site and is submitted to the County in a development application.

Guidelines:

- In development proposals for new development or redevelopment, increased intensity/ density, increased building heights and/or those which substantially change the design of a

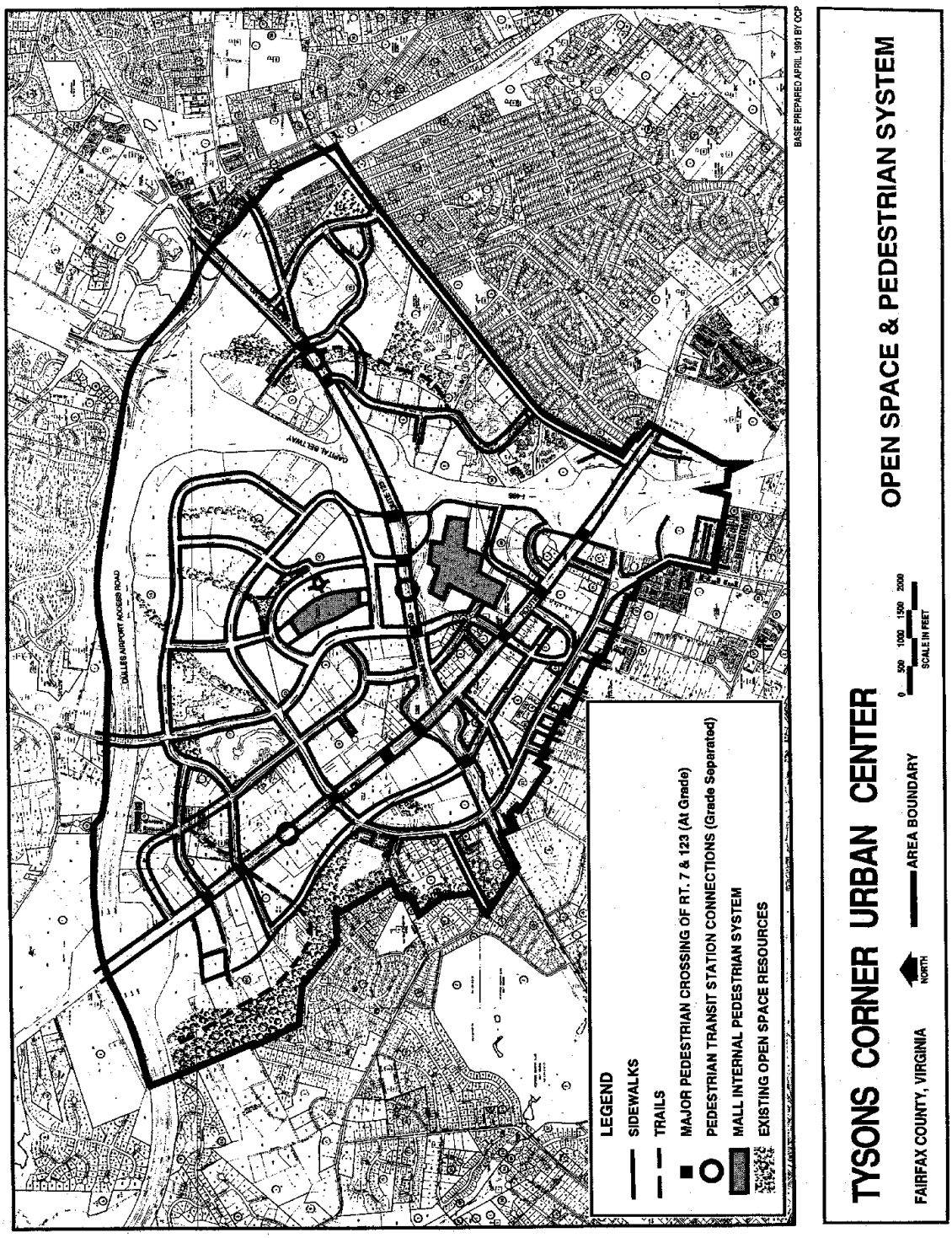

LEGEND
SIDEWALKS
TRAILS
MAJOR PEDESTRIAN CROSSING OF RT. 7 & 123 (At Grade)
PEDESTRIAN TRANSIT STATION CONNECTIONS (Grade Separated)
MALL INTERNAL PEDESTRIAN SYSTEM
EXISTING OPEN SPACE RESOURCES
DULLES AIRPORT ACCESS ROAD
CENTRAL ACCESS WAY
BASE PREPARED APRIL 1991 BY OCP
TYSONS CORNER URBAN CENTER
OPEN SPACE & PEDESTRIAN SYSTEM
FAIRFAX COUNTY, VIRGINIA
NORTH
AREA BOUNDARY
0 500 1000 1500 2000
SCALE IN FEET

FIGURE 11

previously approved development commitment, pedestrian links should be provided to adjacent development and to the regional and countywide trail system where feasible, connecting local sites with the larger community and enhancing the continuity of the system. Pedestrian links could include sidewalks, trails, plazas, courtyards, and parks with path systems. The super-regional malls provide pedestrian links through the interior of their large complexes; outside links to the surrounding pedestrian system should be provided. Where the proposed use requires a high security environment, the property owner should provide an alternative pedestrian system that meets the need of the user and still facilitates the general goal of an integrated pedestrian system for Tysons Corner.

- Additional sidewalks and trails beyond those indicated on the Open Space and Pedestrian System Map are encouraged and are described in the Land Unit Recommendations Section. Providing fewer connections than those on the map is discouraged, unless it can be demonstrated that those connections are not needed because another circulation pattern would serve the same users as well or better.

- Opportunities for pedestrians to sit down should be provided, especially in plazas, courtyards, and parks. These could include low walls, wide steps, benches and other outdoor furniture.

- Care should be taken to ensure that development is not designed to create barriers to area-wide pedestrian circulation as depicted on the Pedestrian System Map. The position of development on the site could create a barrier to pedestrians that interrupts the circulation system. Site design should also avoid creating pedestrian barriers with fences or walls without gates (unless required for safety or security); landscaping that blocks the most direct path; and grade changes without ramps/steps to connect the sidewalks at both levels.

- Auto and pedestrian traffic should be separated, i.e., pedestrians should not be required to walk in a travel lane or through a parking structure to reach their destination.

- Pedestrian safety should be an important factor in designing for both sidewalks and trails. Adequate lighting is essential, as is landscaping that does not impede visibility or create hiding places.

- Pedestrians (including those with disabilities) should be provided with safe and convenient access to the nearest transit stops/stations.

- Design of pedestrian linkages should minimize impacts on mature trees and other established vegetation that provide benefits such as shade. When pedestrian linkages (existing or new) have few shade trees, additional trees should be planted.

- Signage along roadways should be provided that contributes to good pedestrian orientation as well as vehicular orientation. Signage within a development should be coordinated in terms of scale, design, color, materials, and placement.

- Usable open space in the form of an urban park should be considered at transit station approaches to provide a strong pedestrian focus. For example, this could be a landscaped plaza with seating and other amenities that make it an attractive gathering place for the local workforce, shoppers, and residents. Such a park should be designed to accommodate informal activities and programmed events during lunch hours and after-work hours. (For

the definition of urban park, see the Policy Plan for the Park Classification System in the "Parks and Recreation Appendix.")

**Streetscape Design Concept for Major Roadways**

The visual appearance of an area can be positively affected by the streetscape, i.e., the placement of street trees, treatment of planting strips, widths of pedestrian ways, and building setbacks. In Tysons Corner, the implementation of generalized streetscape concepts for the major arterials could enhance the adjacent areas by improving the visual quality along roadways, helping orient travelers along the roadways, and creating more clearly recognized special areas within Tysons Corner. The major arterials include Route 7, Route 123, and International Drive/Gallows Road (see Figure 9).

The streetscape concept should create a unifying theme that is carried out along each of the roads that visually and physically link the Core with the surrounding non-core areas. In order to achieve the unifying theme, the streetscape concept for the major arterials establishes consistent guidance for street tree location, spacing, size, and type as outlined below (See Figure 12 for typical roadway sections):

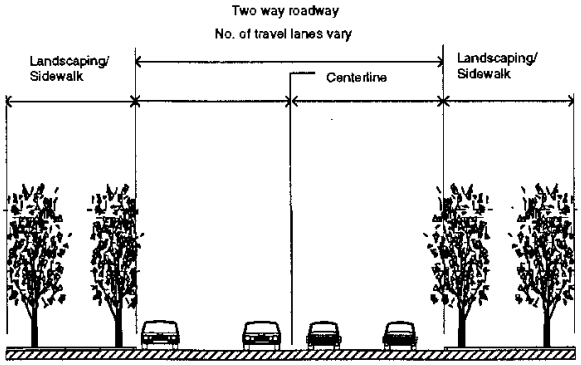
- Treatment of sidewalks and planting strips: To establish the visual continuity that is central to the Streetscape Design Concept, a 6-foot sidewalk parallel to the road should be flanked with a minimum 6-foot planting strip next to the road and a minimum 6-foot planting strip on the other side of the sidewalk. Both planting strips should have street trees planted 50 to 60 feet on center, in staggered rows. By having two staggered rows, the trees will actually have an appearance of one row of trees 25 to 30 feet apart. The trees should be a minimum 3 inch caliper in size at the time of planting. The trees should be hardy, require little to no maintenance, and be resistant to disease, heat and pollution. In both planting strips, special pavement treatments and trees in tree grates could be considered as alternatives to vegetation. Vegetation within planting strips should be low maintenance, and include grasses, ground cover, flowering plants, and/or ornamental shrubs. In addition, street furniture and other pedestrian amenities are encouraged to be placed within these planting strips.

  When infill or expansion of buildings or other existing features constrain a site's design, variation from the sidewalk and planting strip standards should be permitted provided that the variation results in acceptable sidewalk widths and amounts of street trees and landscaping. For example, when the staggered rows of street trees cannot be provided due to the location of the existing sidewalk and/or the width of existing planting strips, a single row of street trees planted 30 to 40 feet on center could be an appropriate alternative.

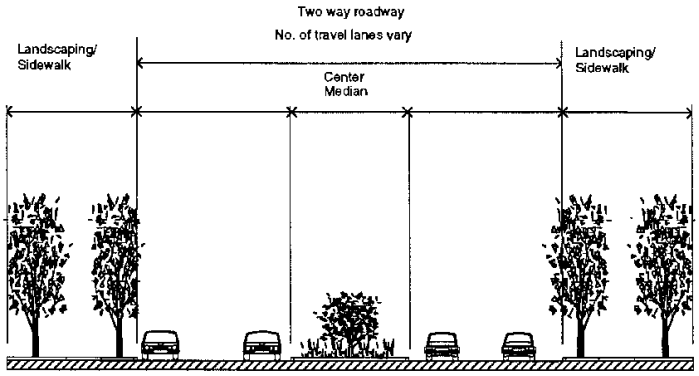
- Treatment of center median when provided: Low ornamental shrubs or small trees that require low maintenance, are resistant to disease, and are tolerant of heat and pollution should be provided when there is a center median. These can be planted in informal groupings. Low maintenance ground covers and flowering plants such as day lilies are also encouraged. At pedestrian crossings, ramps and special pavement on the median would create a safety island for pedestrians waiting to finish crossing the street.

- Treatment of the service median when provided: Within service medians, major shade trees should be planted 50 to 60 feet on center. The trees should be planted at a minimum 3 inch caliper in size, be low maintenance, and be resistant to disease, pollution and heat. The trees chosen should be hardy major shade trees that can be walked under. Special pavement treatments and trees in tree grates could be considered as alternatives to

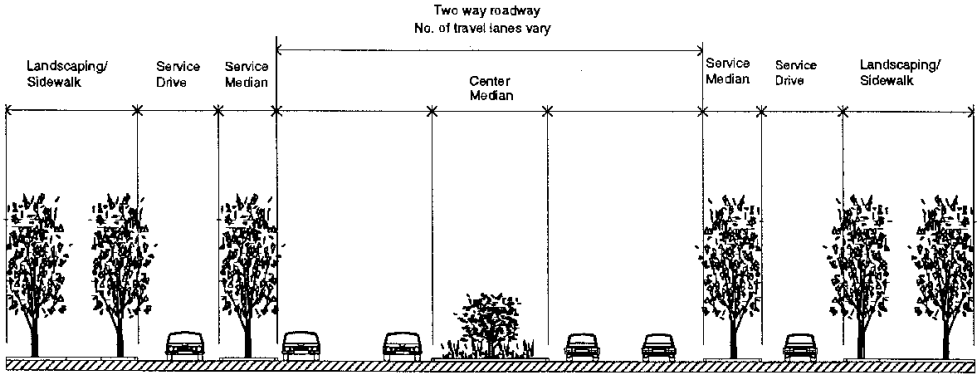
## FIGURE 12: Illustrations of Typical Streetscape Sections for Major Roadways




Streetscape without Medians




Streetscape with Medians, but with no Service Drive




Streetscape with Medians & Service Drives

vegetation in the planting strip. At pedestrian crossings, ramps and special pavement on the median would create a safety island for pedestrians waiting to finish crossing the street.

- Since these streetscape roadways traverse Tysons Corner, building setbacks, landscaping and other use of front yard areas will vary based on the character the Plan envisions for a specific area. Guidance on these issues is provided in this section under Guidelines for the Core, for the Route 7 Boulevard Concept and for Non-core Areas.

The intent of the above is to guide the implementation of the streetscape concept for major roadways. Implementation will occur through development proposals addressing private property and adjacent public right-of-way, and through the Capital Improvements Program (CIP) and/or joint public/private funding efforts as these roadways are improved. In situations where development or redevelopment is not likely to occur, implementing the streetscape design concept may require public/private cooperation in providing funding for these improvements.

When street trees and other plantings are to be located in proximity to roadways or within medians, special attention to clear zones, as well as, safety and sight distance should be observed in the design of streetscape for development proposals. Modifications to the above streetscape guidance should occur when necessary to conform to applicable Virginia Department of Transportation (VDOT) requirements and guidelines.

**Guidelines for the Core**

The Core with its three Activity Centers represents the largest concentration of mixed-use development in Tysons Corner, with the potential for the greatest intensity and height, and the greatest potential for a high volume of pedestrian traffic. However, there is currently very little pedestrian activity, and little usable public open space, such as a major plaza where open-air activities and community events can take place. The Activity Centers within the Core are envisioned to change to be more pedestrian- and transit-friendly by encouraging future building site design and streetscape to have the most urban character within Tysons Corner. If rail is aligned through Tysons Corner, future transit station areas within the core could further intensify and become even more urban and transit-friendly in character. The following guidelines and example of the streetscape design concept are intended to provide guidance for achieving this character.

<u>Guidelines</u>

- Buildings should be close to roadways after allowing for street trees, sidewalks, plazas, street furniture and landscaping; in addition, the nearest transit station/stop should be conveniently and safely accessible.

- The pedestrian environment should provide a visually diverse and enjoyable experience that will encourage walking. To do this, wider sidewalks should be provided to encourage strolling and browsing at store windows. Uses which will attract people, such as ground-floor retail with storefront display windows are encouraged, as are sidewalk cafes, flower vendors and other uses that promote a lively environment.

- Pedestrian connections between buildings are essential to ensure that people are not prevented from walking to nearby uses. The sidewalk system should be uninterrupted from parcel to parcel, providing safe crosswalks over driveways.

- Small plazas and/or courtyards are encouraged for individual buildings and/or for building complexes to serve the daily needs of local workers and visitors. These open spaces should be appealing places to gather, with seating, lighting, landscaping and other amenities.

- Each Activity Center within the Core should have a major plaza that is large enough for open-air activities such as musical performances by small groups before a lunchtime audience. A variety of benches, low walls and/or steps would provide abundant seating. Public art is encouraged to make the space appealing and attractive. Landscaping should be provided that is attractive in all seasons and shades the seating in the summer. Water features such as fountains and pools are encouraged because of their cooling effect in hot weather.

- Parking should be located at the side, back or underneath the building. Parking in front of the building may, however, be appropriate in several circumstances: limited parking for visitors and ground-floor retail customers, possible parking needed for retail expansions at the regional malls, and other existing retail within the Core which is primarily along Route 7. New retail buildings and centers should be designed with limited parking in the front; where this is not feasible due to site constraints, landscaping and other appropriate techniques should be used to achieve, to the extent possible, the design objectives of the Tysons Corner Plan.

- The use of trees throughout the Core is encouraged, both to make the streetscape attractive and to provide shade for pedestrians, an important factor in any effort to encourage people to walk in warm weather.

- Coordinated lighting and signage plans for a given development complex are encouraged, to reinforce the complex's identity through clearly recognizable common features. In addition, a coordinated streetscape plan, including street tree types, street furniture, signage and lighting should be provided. These plans should be coordinated not only within a development, but also be compatible with adjacent properties. Signage should be designed appropriately for its location and purpose.

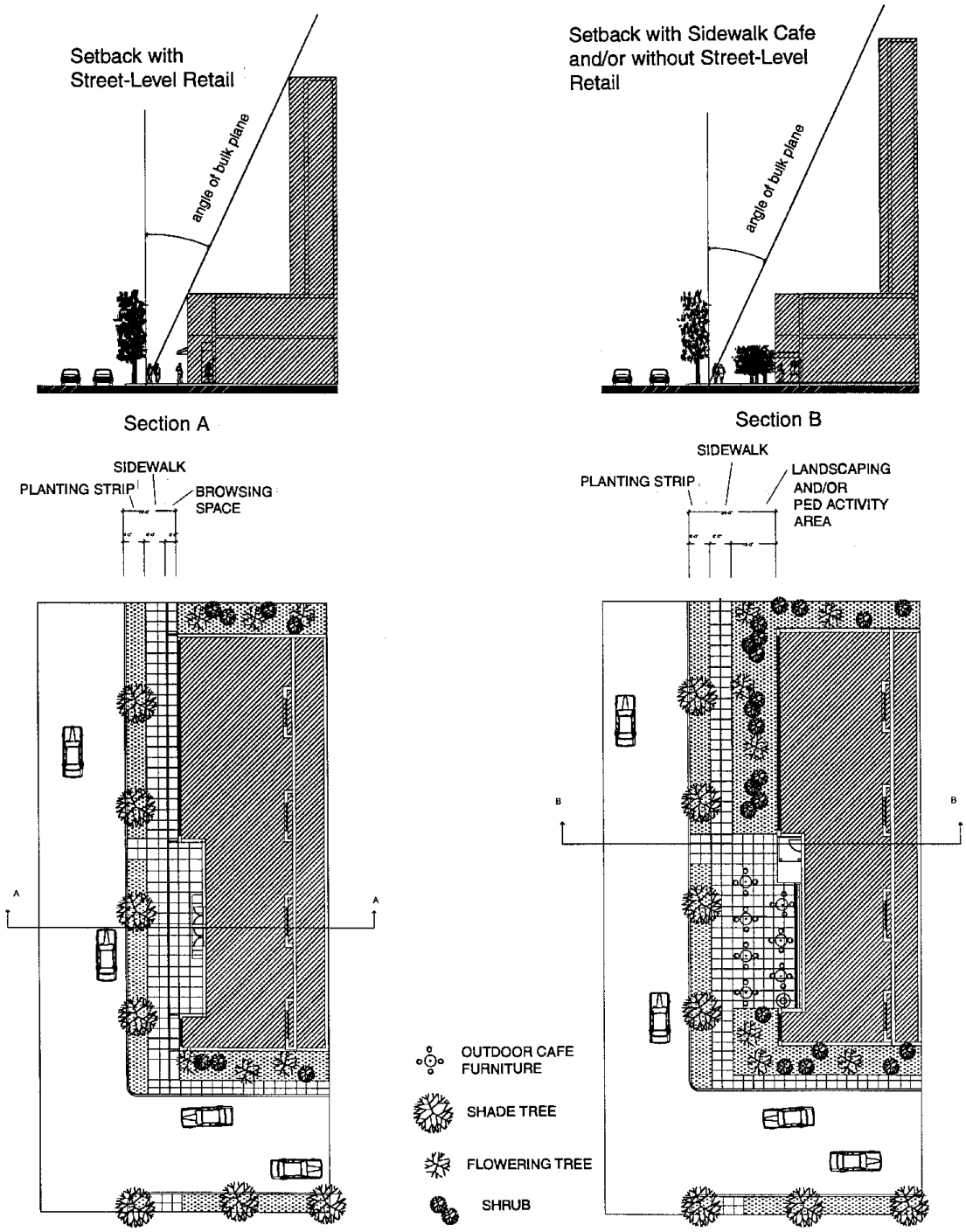
- Under grounding of utilities should be encouraged and should be coordinated with future roadway improvements.

The above guidelines provide a general framework for achieving the Core Area planning objectives. In addition, the following examples of streetscape design parameters and illustrations provides measurable detail to ensure that the most basic aspects of the Core Area design concept can be implemented. The actual dimensions will vary from the example below based on site specific conditions. Implementation will occur through development proposals addressing private property and adjacent public rights-of-way, and through the Capital Improvement Program (CIP) and/or joint public/private funding efforts for segments of public right-of-way as roadways are improved. In situations where development or redevelopment is not likely to occur, implementing the streetscape design concept may require public/private cooperation in providing funding for these improvements.

Example of the Core's Streetscape Design Concept (See Illustration, Figure 13):

The example of the Core's Streetscape Design Concept is intended to provide design guidance within the Core, except for the streetscape on major roadways (i.e. Route 7, Route 123, and International Drive). See prior section for streetscape guidance along major roadways.

**FIGURE 13: Illustrations of Core Area Concept**
**(NOTE: Dimensions will vary based on site specific conditions)**



- Treatment of sidewalks with planting strip next to roads: For continuity, a 6-foot sidewalk with a minimum 6-foot planting strip should be provided next to the road. Special pavement treatments and trees in tree grates could be considered as alternatives to vegetation in the planting strip. Vegetation within planting strips should be low maintenance, and include grasses, ground cover, flowering plants, and/or ornamental shrubs. In addition, street furniture and other pedestrian amenities are encouraged to be placed within this planting strip.

- Building setbacks/angle of bulk plane: Setbacks or front yards of 15 to 25 feet would achieve the goal of bringing new buildings closer to the roadway. The lesser front yard or setback is appropriate when retail uses with display windows are provided that encourage window shopping. The 15-foot front yard/setback includes 3 additional feet of browsing space next to the building, in addition to the sidewalk and planting strip. With the larger front yard/setback (up to 25 feet), a minimum 10-foot landscape/pedestrian activity area should be provided which could include a variety of treatments, including but not limited to the following: a plaza, a landscaped area with seating and lighting; a sidewalk cafe; formal arrangements of trees (bosques); informally grouped trees and other plantings; and any of the above with public art or a water feature. When front yards or setbacks are greater than 25 feet due to the placement of limited parking within this area, a minimum 6-foot planting strip should be provided between the sidewalk and the parking.

  To encourage the siting of buildings closer to the street, the allowable angle of bulk plane within many areas of the core should be reduced. For example, 20 to 25 degree angles of bulk plane, as illustrated on Figure 13, will encourage a more urban environment and pedestrian scale.

- Street trees for the planting strip next to the sidewalk: Major shade trees that can be walked under should be planted with spacing of 30 to 40 feet on center, using trees that are at least 3 inch caliper in size at the time of planting. The trees should be hardy and require little to no maintenance.

When street trees and other plantings are to be located in proximity to roadways or within medians, special attention to clear zones, as well as safety and sight distance, should be observed in the design of streetscape for development proposals. Modification to the above streetscape guidance should occur when necessary to conform to applicable Virginia Department of Transportation (VDOT) requirements and guidelines.

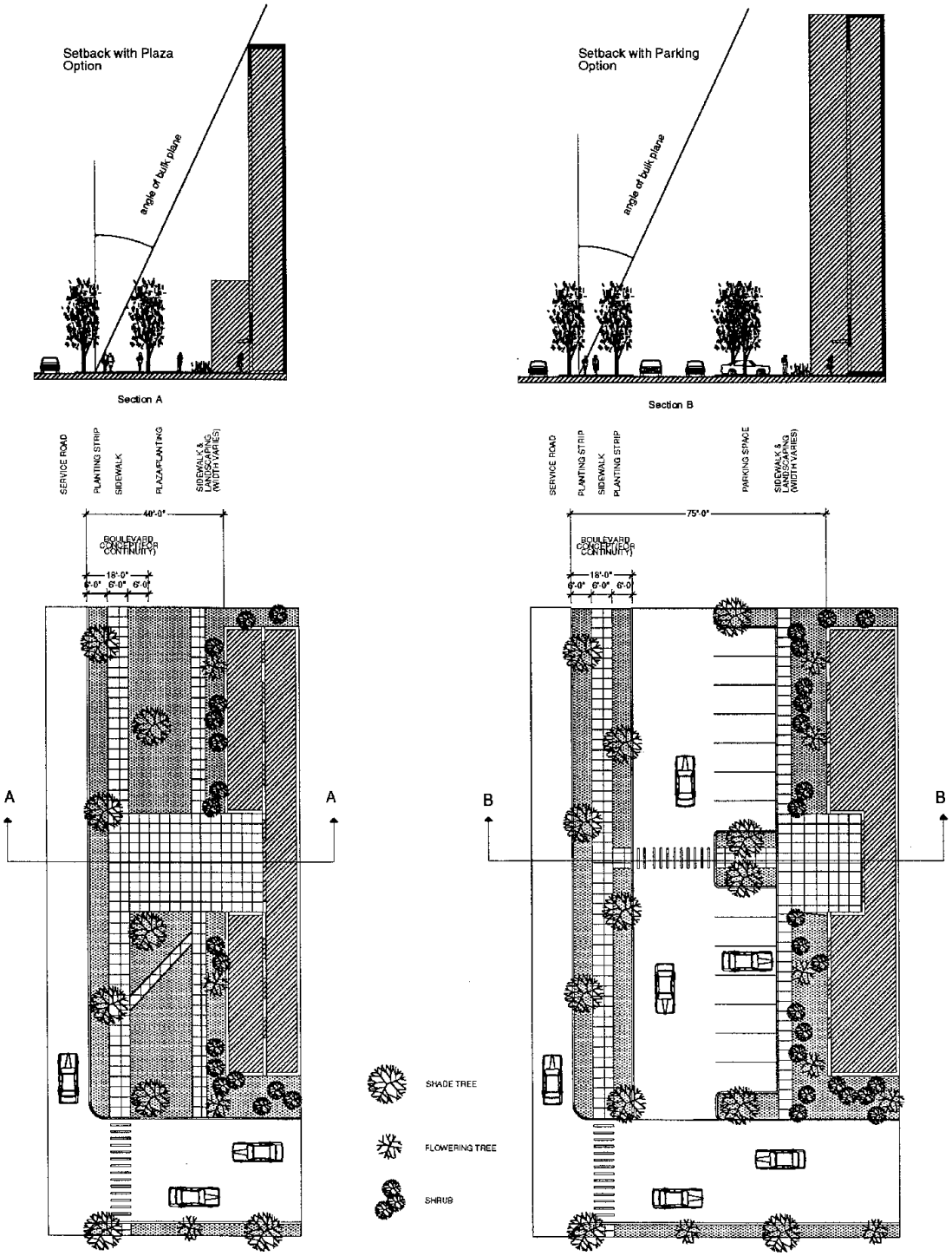
**Guidelines for the Route 7 Boulevard Concept**

In the Land Use Concept, Route 7 is defined as a community retail corridor. In the future, this development is encouraged to take a more urban form along the roadway. The following guidelines and example of the streetscape design concept are intended to provide guidance for implementing the Route 7 Boulevard Concept:

Guidelines

- The intent of the concept is to create a boulevard effect, i.e., a tree-lined corridor framed with buildings. To this end, buildings should be located close to the roadway and the streetscape should include rows of street trees flanking the service road and down the median of Route 7 (see Figure 14).

**FIGURE 14: Illustrations of Route 7 Boulevard Concept**
**(Note: Dimensions will vary based on site specific conditions)**



- Having buildings close to Route 7 means that most off-street parking is not on the street side of the building. For office and hotel development, structured, decked, or underground parking is preferred, with a limited amount of surface visitor parking. Except for a minimal number of parking spaces, most of the parking, either surface or structured, should be at the sides or back of buildings. For retail development only, surface parking should be allowed in front; however, streetscaping should be provided consistent with the Route 7 Boulevard Concept, with additional shrubs and/or berms for screening the parking.

- Ground-floor uses in office buildings, including retail uses such as restaurants and delicatessens, as well as support services such as dry cleaners and day care centers, should be encouraged to promote street-level activity. Innovative design is encouraged to incorporate non-traditional uses such as auto sales showrooms into the ground floor of office buildings.

- Pedestrian connections between buildings are essential to ensure that people are not prevented from walking to nearby uses. The sidewalk system should be uninterrupted from parcel to parcel, providing safe crosswalks across driveways.

- Coordinated lighting and signage plans for a given development complex are encouraged, to reinforce the complex's identity through clearly recognizable common features. A coordinated streetscape plan, including street tree types, street furniture, signage and lighting should be provided. These plans should be coordinated not only within a development, but also be compatible with adjacent properties. Signage should be designed appropriately for its location and purpose.

- Under grounding of utilities should be coordinated with future roadway improvements to Route 7.

The above guidelines provide a general framework for addressing many aspects of the Route 7 Boulevard Concept; whereas, the following example of streetscape design parameters provides measurable detail to ensure that the most fundamental aspects of the Concept can be implemented. The actual dimensions will vary from the example based on site specific conditions. Implementation will occur through development proposals addressing private property and adjacent public rights-of-way, and through the Capital Improvement Program (CIP) and/or joint public/private funding efforts for those aspects that address public rights-of-way as roadways are improved. In situations where development or redevelopment is not likely to occur, implementing the streetscape design concept may require public/private cooperation in providing funding for these improvements.

Example of the Route 7 Boulevard Streetscape Design Concept (See Illustration, Figure 14)

The example of the Route 7 Boulevard Concept is intended to provide both streetscape and design guidance for the front yards of parcels along Route 7, except for the portion of Route 7 within the Core where the streetscape guidance for major roadways will be applied.

- Building setbacks/angle of bulk plane: Building setbacks or front yards of 40 to 75 feet would achieve a goal of the Route 7 Boulevard Concept to bring new buildings relatively closer to the roadway. Some parking could be accommodated within this front yard area for office and hotel development, but parking on the Route 7 facade of these buildings should be limited to short-term visitor and handicapped parking with a maximum of one single-loaded aisle. The 40-foot setback (with appropriate landscaping and/or pedestrian activity area) would apply when no parking is being provided in front of offices and hotels

with Route 7 frontage; the 75-foot setback would apply when a single-loaded aisle of parking is provided. Within the range of setbacks between 40 and 75 feet, opportunities exist to design other intermediate solutions for hotel and office developments, such as a driveway with an attractively landscaped passenger drop-off area.

- For retail only, building setbacks or front yards may exceed 75 feet when necessary to provide customer parking. When substantial parking (i.e., more than two rows of parking) is located in front of retail uses, in addition to implementing the streetscape theme along the boulevard, there should be provided a minimum 25 foot wide landscaped area between the sidewalk and the parking. Substantial internal parking lot landscaping should also be provided. The additional landscaping is to soften the visual impact of large areas of surface parking, mitigate the adverse impact of a development's departure from the boulevard urban design scheme along Route 7, and should result in an improved pedestrian environment near these sites. Further, pedestrian paths from the street to the retail uses should be articulated with landscaping or special paving treatments.

  To encourage the siting of buildings closer to the street, the allowable angle of bulk plane should be reduced. For example, 20 to 25 degree angles of bulk plane as illustrated on Figure 14, will encourage a more urban environment and a pedestrian scale.

- Treatment of landscaping/pedestrian activity area adjacent to building (facing Route 7): Included in the building setback/front yard is an area of at least 10 feet that is the landscaping/pedestrian activity area. A variety of treatments could be used, including but not limited to the following: a plaza, a landscaped area with seating and lighting; a sidewalk and landscaped area; a sidewalk cafe; formal arrangements of trees (bosques); informally grouped trees and other plantings; and any of the above with public art or a water feature.

- Treatment of sidewalks and planting strips next to the service road: To establish the visual continuity that is central to the Route 7 Boulevard Concept, a 6-foot sidewalk next to the service road should be flanked with a minimum 6-foot planting strip next to the service road and a minimum 6-foot planting strip on the other side of the sidewalk. Both planting strips should have street trees planted 50 to 60 feet on center, in staggered rows. By staggering the rows, the trees will appear to be 25 to 30 feet apart. The trees should be at least 3 inch caliper in size at the time of planting. The trees should be hardy and require little to no maintenance, and be resistant to disease, heat and pollution. In both planting strips, special pavement treatments and trees in tree grates could be considered as alternatives to vegetation. Vegetation within planting strips should be low maintenance, and include grasses, ground cover, flowering plants, and/or ornamental shrubs. In addition, street furniture and other pedestrian amenities are encouraged to be placed in both planting strips.

  When infill or expansion of buildings or other existing features constrain a site's design, variation from the sidewalk and planting strip standards should be permitted provided that the variation results in acceptable sidewalk widths and amounts of street trees and landscaping. For example, when the staggered rows of street trees cannot be provided due to the location of the existing sidewalk and/or the width of existing planting strips, a single row of street trees planted 30 to 40 feet on center could be an appropriate alternative.

- Treatment of median between eastbound and westbound lanes of Route 7: Low ornamental shrubs or small trees that require low maintenance, are resistant to disease, and are tolerant of heat and pollution should be provided. These can be planted in informal groupings.

Low maintenance ground covers and flowering plants such as day lilies are also encouraged. At pedestrian crossings, ramps and special pavement on the median would create a safety island for pedestrians waiting to finish crossing the street.

- Treatment of the service median: On the planting strip, major shade trees like those next to the sidewalk should be planted 50 to 60 feet on center. The trees should be a minimum 3 inch caliper in size at time of planting, be low maintenance, and be resistant to disease, pollution and heat. Special pavement treatments and trees in tree grates could be considered as alternatives to vegetation in the planting strip.

When street trees and other plantings are to be located in proximity to roadways or within medians, special attention to clear zones, as well as safety and sight distance, should be observed in the design of streetscape for development proposals. Modification to the above streetscape guidance should occur when necessary to conform to applicable Virginia Department of Transportation (VDOT) requirements and guidelines.

**Guidelines for Areas Outside the Core**

In the Land Use Concept, the areas outside the Core are designated Non-Core and Transitional Areas. These areas include retail, office, and residential uses that are generally more suburban in character. Much of the office development is in the form of suburban office parks with large open areas or wooded buffers between buildings. Surface parking predominates. Aside from a relatively small number of warehouse and distribution uses, the industrial area includes a wide variety of retail sales and service uses in warehouse-style buildings. The garden apartments and townhouses are typically suburban. Exceptions are the more urban high-rise apartments found next to the Capital Beltway and the high-intensity mixed-use development on the southern edge of Route 7, across from the Tysons Corner Center.

Development is auto-oriented, another suburban characteristic, requiring an auto trip for most activities and lunch hour errands. Sidewalks and trails are not consistently provided: some areas do not have any or the facilities are intermittent. The provision of interparcel connections is most successful in the office parks, but fails in other areas where each building has been developed in isolation from those around it. In addition, distances between different types of uses and the lack of pedestrian amenities discourage walking. The urban design challenge is to make these areas more accessible for people and to enhance the visual quality of some areas. The following guidelines and example of the streetscape design concept are intended to help meet these goals for Non-Core areas except parcels fronting Route 7. (See the Route 7 Boulevard Concept for design guidance adjacent to Route 7.)

Guidelines: Improved Circulation and Parking

- Build sidewalks and trails indicated on the Pedestrian Systems Map and proposed in the Land Unit Recommendations to ensure easy mobility between uses. When feasible, build interparcel connections for vehicles as well, to limit unnecessary trips in and out of the parcel to get to adjacent parcels.

- Encourage improved parking lot design to ensure pedestrian safety by building some pedestrian walkways between parking aisles, as well as pedestrian crosswalks to the building.

- Provide shelters at transit stops (including existing bus stops) that protect patrons from the weather, and that are safe, easy to maintain and relatively vandal-proof.

Guidelines: Improving Visual Image and Identity

All the following guidelines are encouraged:

- For multi-building complexes, establish an architectural theme utilizing similar materials and relating building elements such as materials, entries, windows, and roof lines.

- Design retail development in physically unified complexes, not as scattered buildings with separate circulation and sometimes conflicting access points. Retail development with freestanding structures should generally be discouraged, unless coordinated design, access and circulation can be provided.

- Integrate the design of parking structures with that for the buildings being served, so that the whole complex is unified.

- Improve parking lot landscaping with shade trees and other plant materials, both along the aisles and at the ends, while maintaining good visibility for drivers. Break up large parking lots into smaller lots by using planting areas as dividers.

- Incorporate plazas or courtyards at major buildings or to serve a group of buildings. Such plazas could include distinctive paving to define them, as well as seating, landscaping, lighting and water features.

- Coordinated lighting and signage plans for a given development complex are encouraged, to reinforce the complex's identity through clearly recognizable common features. In addition, a coordinated streetscape plan, including street tree types, street furniture, signage and lighting should be provided. These plans should be coordinated not only within a development, but also be compatible with adjacent properties. Signage should be designed appropriately for its location and purpose.

- Provide a well-landscaped, high-quality image both toward the primary street entrance and on any facade that can be seen from adjacent buildings or side streets. Provide color, texture and seasonal visual interest in the landscaping scheme. Select low-maintenance materials for areas not likely to receive consistent maintenance.

- Under grounding of utilities should be encouraged and should be coordinated with future roadway improvements.

Since the character of non-core areas varies the most, the design concept indicates flexibility in building placement; however, projects should provide at least the minimum streetscape and sidewalk widths. The following streetscape design concept example and illustrations provide measurable detail to ensure that basic aspects of the Non-core Concept can be implemented. The actual dimensions will vary from the example based on site specific conditions. Implementation will occur through development proposals for those aspects addressing private property and adjacent public rights-of-way, and through the Capital Improvement Program (CIP) and/or joint public/private funding efforts for segments of public rights-of-way as roadways are improved. In situations where development or redevelopment is not likely to occur, implementing the streetscape design concept may require public/private cooperation in providing funding for these improvements. The following streetscape design concept and illustrations apply to areas outside the Core, except for the areas adjacent to Route 7,

Route 123, International Drive and Gallows Road, which are to be addressed by the guidance under Streetscape Design Concept for Major Roadways.
Example of Non-Core Areas Streetscape Design Concept (See Illustration, Figure 15):

- Treatment of sidewalks with planting strip next to roadways: For continuity, a minimum 4-foot sidewalk with 6-foot planting strip should be provided next to the road. Special pavement treatments and trees in tree grates could be considered as alternatives to vegetation in the planting strip. Vegetation within planting strips should be low maintenance, and include grasses, ground cover, flowering plants, and/or ornamental shrubs. In addition, street furniture and other pedestrian amenities are encouraged to be placed within the planting strip.

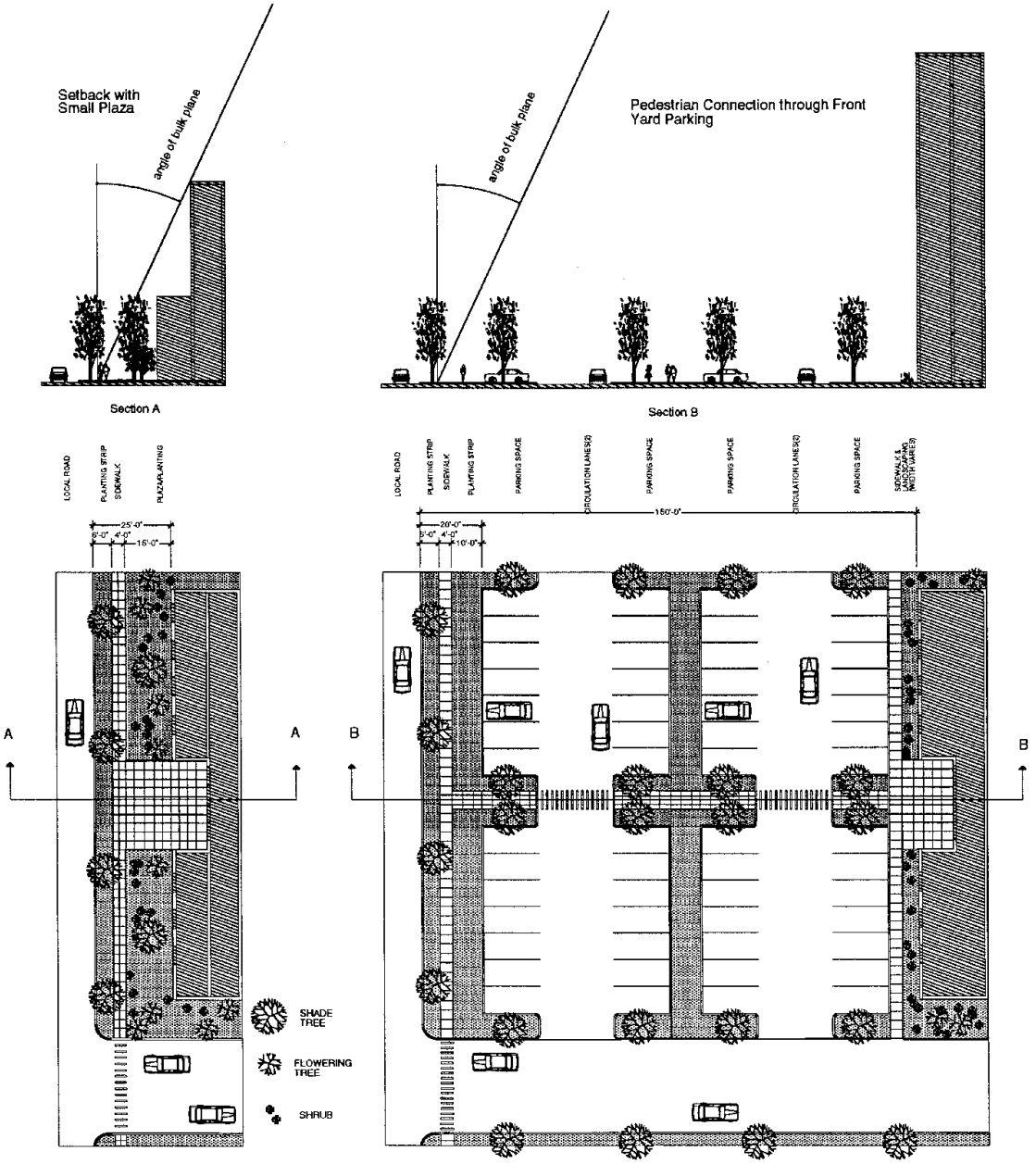
- Building setbacks/angle of bulk plane: Setbacks or front yards of 25 to 40 feet would achieve the goal of bringing new buildings closer to the roadway. The lesser front yard or setback is appropriate when no parking is located in front yard. With the larger front yards (greater than 25 feet to 40 feet), a 10-foot landscape/pedestrian activity area should be provided between the sidewalk and any parking or buildings. This 10-foot area could include a variety of treatments, including but not limited to the following: a landscaped plaza with seating and lighting; formal arrangements of trees (bosques); informally grouped trees and other plantings; and any of the above with public art or a water feature. A site's design may vary from these standards when greater setbacks are needed to create a focal point through the grouping of buildings, to infill within the constraints of existing structures, or to preserve natural features (i.e. steep slopes, dense vegetation, flood plain, etc.).

  To encourage the siting of buildings closer to the street, the allowable angle of bulk plane should be reduced. For example, 20 to 25 degree angles of bulk plane should be provided to ensure that portions of buildings with maximum heights are away from the front yard pedestrian areas in order to maintain the area's pedestrian scale (see Figure 15).

- Street trees for the planting strip next to the sidewalk: Major shade trees that can be walked under should be planted with spacing of 40 to 50 feet on center, using trees that are at least 3 inch caliper in size at the time of planting. The trees should be hardy and require little to no maintenance, and be resistant to disease, heat and pollution. Special pavement treatments and trees in tree grates could be considered as alternatives to vegetation in the planting strip.

When street trees and other plantings are to be located in proximity to roadways or within medians, special attention to clear zones, as well as safety and sight distance, should be observed in the design of streetscape for development proposals. Modification to the above streetscape guidance should occur when necessary to conform to applicable Virginia Department of Transportation (VDOT) requirements and guidelines.

## FIGURE 15: Illustrations of Non-Core Area Concept
## (NOTE: Dimensions will vary based on site specific conditions)



# TRANSPORTATION

Travel within and through Tysons Corner is affected by land uses and transportation facilities in neighboring areas as well as throughout the Northern Virginia region. The transportation network for this area is comprised of many elements which relate to the more extensive County and regional facilities, services, and policies. Transportation planning for Tysons Corner should be integrated with transportation planning for regional highway and transit facilities.

## BACKGROUND

### Existing Conditions and Trends

The Tysons Corner area is served by an extensive highway network, with access into the area provided by seven interchanges which interconnect the Dulles Airport Access Road, the Capital Beltway (I-495), Leesburg Pike (Route 7) and Chain Bridge Road/Dolley Madison Boulevard (Route 123). Transit service into the area was provided by 14 Metrobus routes as of 1993. In addition, the Tysons Shuttle provides express service during peak periods between the West Falls Church-VT/UVA Metro Station and major employment, retail, and residential destinations in the Westpark area.

Despite the enhanced accessibility afforded by these highway and transit networks, in 1993 traffic demand in most of Tysons Corner during peak hours of travel matched or exceeded the capacity of the roadway system. More traffic was attempting to enter Tysons Corner during the morning peak hour than the roadway system could accommodate. During the evening peak hour, the same tendency was displayed in the opposite direction. In the morning peak hour, a great imbalance between traffic volumes and roadway capacity was found at the southern and western approaches. Traffic volumes from these directions were substantially greater than the current capacity of the road system to accommodate them. Traffic demand was also nearing roadway capacity at the northwest approach and the two Capital Beltway approaches to Tysons Corner. During the evening peak hour, when traffic volumes were greater, the southwest, northwest, and Capital Beltway east approaches all displayed traffic demand saturating roadway supply.

Additionally, more than half of the intersections in Tysons Corner measured during 1990-91 were operating at Level of Service (LOS) E or F, indicating severe congestion or breakdown conditions at these locations. On an area-wide basis, Tysons Corner was at level of service E conditions during the critical peak hours, indicating saturation of the roadway system, with occasional breakdowns in traffic flow.

Specific problem locations within the Tysons Corner area have also been identified in previous transportation studies. The following needs have been cited as most critical:

- Added capacity on Routes 7 and 123 through Tysons Corner;
- Improved Capital Beltway access at the interchanges with Routes 7 and 123;
- Intersection improvements at the following locations: Route 7 and Springhill Road; Route 7 and Gosnell Road/Westpark Drive; Route 7 entrance to the Tysons Corner Center shopping center; Route 7 and Howard Street;
- Improved transit and pedestrian linkages; and

- Coordinated traffic signal systems.

Traffic levels of service in several Fairfax County employment centers including Tysons Corner, are expected to continue to deteriorate based on forecasted levels of population and employment growth in the County's Comprehensive Plan. Tysons Corner is expected to continue to attract a significant share of work and retail trips to Fairfax County. The majority of these trips are expected to continue to occur in low occupancy vehicles. As a result, traffic demand in and out of the area is forecasted to exceed supply even with full implementation of the adopted July 1991 Transportation Plan recommendations, which adds 18 lanes of roadway capacity to the area.

While Tysons Corner is provided extensive coverage by 14 Metrobus routes (as of 1993) and the Tysons Shuttle from the West Falls Church-VT/UVA Metro Station, less than 2 percent of peak period trips currently utilize public transportation. Combined with carpoolers, the Tysons Corner area exhibits a mode split for high occupancy vehicle (HOV) trips of only 10 percent. (High occupancy vehicles are defined as carpools, vanpools, buses and rail transit.) Major enhancements to the transit system, as well as implementation of demand management programs and related support measures, are needed to improve HOV utilization to meet the County's Comprehensive Plan goal of 20 percent HOV mode split set forth for the Tysons Corner Urban Center.

**Transportation Policies Underlying the Land Use Concept**

The Plan for Tysons Corner permits approximately 50 million square feet of nonresidential development, mostly office uses, and approximately 9,000 residential units. If rail transit is introduced through the core area, approximately 5 million square feet of additional nonresidential uses and an additional 4,000 residential units may be permitted in conjunction with redevelopment of designated transit station areas. The transportation system required to support this development concept includes many assumptions regarding future travel behavior and rests on several important policies adopted for Tysons Corner. These are explained below.

Roadway Buildout at Level of Service E

The Tysons Corner Urban Center land use concept is based on the complete buildout of the planned transportation system in and around the Tysons Corner area. This would provide approximately 18 additional lanes of freeway and arterial roadway capacity to the area. Included is the assumption that the Capital Beltway will be at least 10 lanes including an HOV facility.

Also underlying the land use concept is a Level of Service E traffic standard for assessing roadway capacity and system adequacy within Tysons Corner with the exception of several boundary street intersections where the LOS D standard applies. These boundary intersections are: all Magarity Road intersections (except Magarity Road and Route 7); the Gallows Road and Merry Oaks Lane intersection; and the Route 123 and Horse Shoe Drive intersection. This represents a revision of the current County standard of LOS D, if feasible, used when determining the need for roadway improvements within the Tysons Corner area. However, it acknowledges the more urban nature of Tysons Corner when contrasted to other parts of the County. It also implicitly acknowledges that traffic conditions have already reached LOS E levels, and maintenance of a LOS D standard without substantial reductions in development potential is unattainable.

Adoption of LOS E as a traffic standard means, in practical terms, that roadways would perform at maximum capacity during peak hours. If traffic exceeds forecasted levels, or if the

planned capacity improvements are not implemented in a timely manner, failing traffic conditions could be manifest throughout the area. Deficiencies would likely be most evident at the approaches to Tysons Corner. These include the Capital Beltway entrances and exits (both east and west), the Dulles Toll Road, Dolley Madison Boulevard, Route 123 at the Vienna town line, and Leesburg Pike in both directions to and from Tysons Corner. As development continues, the greatest capacity deficiencies would occur at the approaches to Tysons Corner from the south and southwest. This would include Old Courthouse Road, Route 123 through the Town of Vienna, Gallows Road, and the Capital Beltway.

Influence of Mixed-Use Development

Several major changes in land use policy are embodied in the Tysons Corner land use concept that should have a positive effect on travel behavior within the area. First, the development concept introduces more residential units into Tysons Corner, resulting in more non-peak direction trips and more walking to and from work and shopping. These have obvious benefits in lessening peak travel demand. However, the number of residential units alone is insufficient to offset the strong directional skew in traffic flow resulting from the Concept's potential of 40 to 45 million square feet of office and other associated employment uses within the Tysons Corner area. More importantly, the land use concept encourages mixed-use development. Based on the amount of acreage planned for mixed-use development, and factors determined from various studies, travel savings were estimated for the designated mixed-use development areas. On a peak hour/peak direction basis, these are reductions in vehicle travel estimated to occur due to the ability of people to walk between proximate uses.

Planned mixed-use development areas were estimated to result in total travel savings of between 4,100 to 5,400 peak directional trips under the land use concept. This equates to the elimination of four or more lanes of traffic demand from the roadway system during peak hours of travel. To the extent that planning and development regulations encourage mixed-use development, and necessary pedestrian access between and through such areas is provided, there will be a resulting transportation benefit to the area. However, should these mixed-use development levels fail to materialize, the future transportation system serving the area will be further impacted by excessive traffic growth from projected land uses.

Public Transportation Goals

The Countywide Policy Element of the Comprehensive Plan, adopted by the Board of Supervisors on August 6, 1990, sets forth a goal of 20 percent public transportation use for commuters to Tysons Corner. "Public Transportation" is defined in the Plan as encompassing rail, bus, carpooling and vanpooling, i.e., all forms of high occupancy vehicle (HOV) use.

A policy to adopt the 20 percent mode split goal for HOV trips to and from Tysons Corner, in conformance with the Policy Plan, was assumed in the transportation analysis and incorporated into the land use concept. Achievement of this goal would result in a doubling of the current 10 percent mode split.

Embodied in this policy is the recognition that supporting public transportation facilities and services, and transportation demand management (TDM) measures will need to be implemented to effectively cause commuters to shift away from single-occupant automobile usage and towards commuting by carpool, vanpool, bus or rail transit. Most important, implicit in this policy is an assumption that the 20 percent goal cannot be achieved without a rail extension from the West Falls Church-VT/UVA Metro Station to Dulles Airport, serving Tysons Corner.

Transportation Demand Management

The adopted transportation goal in the Policy Plan of a 20 percent HOV mode split for Tysons Corner is predicated upon major transit improvements being introduced into the area. This is an ambitious goal, one that will require a concerted effort to improve and develop not only public transit systems, but also to adopt corollary demand management measures that support and facilitate the use of HOV modes. These measures could include parking management programs, parking pricing, mixed-use development centers, and creation of effective TDM programs at employment locations, all of which are designed with the purpose of reducing single occupant automobile use. TDM measures alone will not bring about aggregate mode splits at this level. However, supporting TDM measures will be needed in conjunction with transit and other HOV improvements to reach these desired levels of public transportation usage.

In addition to State and County leadership in promoting HOV use, these programs will require the active support and assistance of the private sector in creating incentives and disincentives at the workplace. These measures might include flexible work hours, transit pass subsidies, alternative parking arrangements, and the provision of sidewalks and trails. The County's Policy Plan, under Objective 2, Policy R of the Transportation Element, indicates that development proposals are required to consider TDM measures, and where applicable, to provide commitments to such programs.

TRANSPORTATION RECOMMENDATIONS

The transportation recommendations for Tysons Corner are divided into three categories: Policy Recommendations, Roadway and Circulation Improvements, and Public Transportation Improvements. These are described below.

**Policy Recommendations**

The following Policy Recommendations have been developed to set the framework and guide future development of Tysons Corner:

1. Level of Service E Standard - The Policy Plan allows lower traffic level of service (LOS) standards to be applied to development centers and cores, where the Comprehensive Plan proposes that growth will be concentrated. Applicants for new development should demonstrate that their proposals meet the LOS E Standard adopted for Tysons Corner with the exception of the following boundary street intersections, where LOS D applies: all Magarity Road intersections (except Magarity Road and Route 7); the Gallows Road and Merry Oaks Lane intersection; and the Route 123 and Horseshoe Drive intersection. If conditions are already worse than LOS E or D as applicable, applicants should provide commitments to offset the impacts of their projects. Such commitments could include phasing of development to minimize adverse impacts, provision of additional monetary contributions proportional to the traffic generated by the project, and/or provision of additional TDM commitments associated with achieving peak hour vehicle trip reductions.

2. Twenty Percent HOV Mode Split Goal - The Policy Plan establishes a goal of 20 percent HOV use (carpools, van pools, buses and rail transit) to Tysons Corner. To help bring about this desired minimum level of high-occupancy vehicle trips, applications for new development should (a) demonstrate the level of HOV use that should be expected at the

site in question, taking into account the site's opportunities for HOV use and the level of HOV use necessary at that site if the overall Tysons Corner mode-split goal is to be met and (b) demonstrate that the proposal will achieve the required mode split at the work site. In the absence of a showing that a greater or lower HOV mode split is appropriate at a particular site, a 20 percent mode split target should be assumed. Measures to achieve these goals will need to be identified and committed to by the applicant. Contributions toward establishing new transit programs or facilities may be required.

On an area-wide basis, funding mechanisms such as a tax district may need to be established to facilitate direct rail or fixed guideway penetration of the Tysons Core Area over the longer term. In addition to individual employer actions, an area-wide transportation demand management (TDM) program should be implemented to encompass the entire Tysons Corner area. This TDM program should cover existing as well as future businesses, and could incorporate both private and public actions.

3. Funding of Transportation Improvements - Transportation improvements needed to support Tysons Corner development will require substantial increased capital investment. It is estimated that at least $300 million (in 1990 dollars) will be necessary for arterial highways (including Capital Beltway improvements) and at least $175 to $500 million (in 1994 dollars) for rail transit. These estimates are for capital costs only and do not include operating costs for proposed facilities or additional feeder services. However, increased public and private sector commitment should be made in recognition of the critical role Tysons Corner plays as the economic engine of the County, the source of the single largest concentration of County tax revenue. Improving the roadways to move traffic through and around Tysons Corner will serve the public interest by insuring that Tysons Corner remains a viable employment center.

   Some combination of public and private sector funding will be necessary to cover these costs and to expedite implementation. It will be necessary to supplement traditional Federal, State, and County sources with other public and private resources. Options for further consideration could include applications of a transportation tax district, a formula for providing contributions to an area-wide roadway improvement fund, a pro-rata projects reimbursement approach, and an impact fee program. One or more of these or other options may be necessary to satisfactorily address the funding of transportation capital improvements for the Tysons Corner area. Due to the complexity of issues involved, further detailed examination of these options is essential before a preferred approach is selected.

**Roadway and Circulation Improvements**

The roadway and circulation plan for Tysons Corner addresses three basic types of travel. These travel needs are provision for: 1) through traffic; 2) internal circulation of traffic; and 3) access to property. Roadway improvements planned for Tysons Corner are described below and illustrated on Figure 16. If development occurs in accordance with the land use recommendations of the Plan and if the transportation recommendations remain unfulfilled, it will be impossible to preserve LOS E on the roads of Tysons Corner.

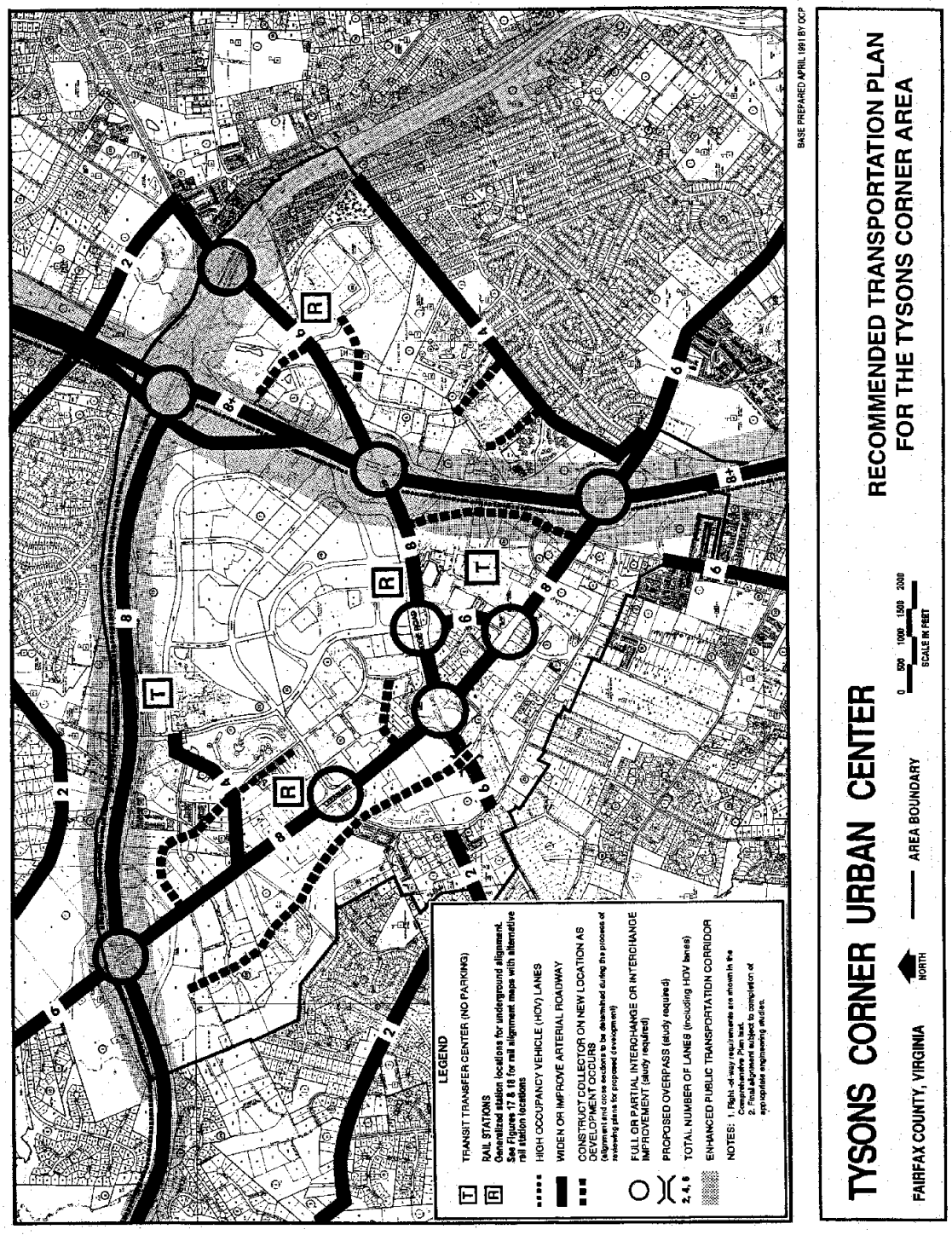

LEGEND
T TRANSIT TRANSFER CENTER (NO PARKING)
R RAIL STATIONS
Generalized station locations for underground alignment.
See Figures 17 & 18 for rail alignment maps with alternative rail station locations
HIGH OCCUPANCY VEHICLE (HOV) LANES
WIDEN OR IMPROVE ARTERIAL ROADWAY
CONSTRUCT COLLECTOR ON NEW LOCATION AS DEVELOPMENT OCCURS
(alignment and cross sections to be determined during the process of reviewing plans for proposed development)
FULL OR PARTIAL INTERCHANGE OR INTERCHANGE IMPROVEMENT (study required)
PROPOSED OVERPASS (study required)
2,4,6 TOTAL NUMBER OF LANES (including HOV lanes)
ENHANCED PUBLIC TRANSPORTATION CORRIDOR
NOTES: 1. Right-of-way requirements are shown in the Comprehensive Plan.
2. Final alignment subject to completion of appropriate engineering studies.
BASE PREPARED APRIL 1991 BY OCP
TYSONS CORNER URBAN CENTER
FAIRFAX COUNTY, VIRGINIA
NORTH
AREA BOUNDARY
0 500 1000 1500 2000
SCALE IN FEET
RECOMMENDED TRANSPORTATION PLAN
FOR THE TYSONS CORNER AREA

**FIGURE 16**

Arterial Roadways

Arterial roadways consist of freeways/expressways, other principal (or major) arterials, and minor arterials. On arterial roadway facilities, local access is subordinate to the primary function of carrying through traffic. Freeways and expressways are controlled access facilities providing for high-volume travel, with little or no access to abutting land. Other principal arterials provide some access to abutting land, although the primary function is to carry through traffic. Minor arterials carry a mix of local and through traffic, and link collector streets with principal arterials. Minor arterials are lower service roadways with partial control of access.

The following arterial roadway improvements are planned to serve Tysons Corner's planned land use and through traffic:

1. Widen the Capital Beltway (I-495) to at least 10 lanes, and include an HOV facility providing peak period service from both directions to the Tysons Corner area.

2. Widen the Dulles Toll Road to 8 lanes, and include an HOV facility providing peak period service from the west to the Tysons Corner area.

3. Widen Leesburg Pike (Route 7) to 6 lanes from at least Towlston Road to the Dulles Toll Road.

4. Widen Leesburg Pike (Route 7) to 8 lanes between the Dulles Toll Road and the Capital Beltway, and provide other access improvements in conjunction with the Route 7 design plans and boulevard concept.

5. Widen Leesburg Pike (Route 7) to 6 lanes between the Capital Beltway and I-66.

6. Widen Chain Bridge Road (Route 123) to 6 lanes from Old Courthouse Road to Route 7.

7. Widen Chain Bridge Road (Route 123) to 8 lanes between Route 7 and the Capital Beltway.

8. Widen Chain Bridge Road/Dolley Madison Boulevard to 6 lanes from the Capital Beltway to the Dulles Airport Access Road.

9. Widen Gallows Road to 6 lanes from Old Gallows Road to at least Idylwood Road.

10. Widen Spring Hill Road to 4 lanes between Route 7 and International Drive.

11. Widen International Drive to 6 lanes between Route 7 and Route 123.

12. Widen Magarity Road to 4 lanes between Lisle/Route 7 and Great Falls Street.

13. Improve Old Courthouse Road to a standard 2 lane section west of Gosnell Road.

Interchanges

New grade-separated interchanges are recommended at several locations along Routes 7 and 123. Reconfiguration of existing interchanges is also recommended at locations along the DAAR and the Capital Beltway. These interchanges function as the means of connecting arterial roadways to allow for the smooth and uninterrupted flow of traffic between these facilities.

The provision of an interchange has both land use and transportation planning implications. In terms of land use, caution must be exercised in reviewing development proposals in the immediate interchange area due to right-of-way implications. In terms of transportation planning, revised access patterns must be accommodated in the immediate area, since the interchange ramps cause grade changes and weaving/merging traffic conflicts. The amount of land needed, and the extent to which access must be re-oriented varies with the actual design of the interchange. Development or redevelopment of properties adjacent to future interchange improvements should recognize the need to reorient access in a manner consistent with the future interchange design.

The following interchange improvements are planned to serve Tysons Corner:

1. New interchange at Route 7/Westpark Drive/Gosnell Road.

2. New interchange at Route 7/Gallows Road/International Drive.

3. New interchange at Route 123/International Drive.

4. Improvements to Capital Beltway interchanges at

   - Dulles Toll Road/Airport Access Road
   - Route 123
   - Route 7

5. Improvements to Route 7/Route 123 interchange.

6. Improvements to Route 7/Dulles Toll Road interchange.

7. Improvements to Route 123/Dulles Airport Access Road interchange.

Collectors and Local Streets

Collector roadways route traffic to and from local streets to the arterial road system. Collector roads generally are not intended to attract through trips, but instead provide for internal traffic circulation, including transit service. For the most part, collector and local street improvements will occur in conjunction with redevelopment activity.

The following collector and local street improvements are planned to improve traffic circulation within Tysons Corner (See Figure 16):

1. Extend a new road through Land Units A and B, from Ashgrove Lane to Gosnell Road, and through Land Unit D, from Gosnell Road to Route 123. The alternative access proposed would remove the need to use Route 7 or the existing service drive to access these areas. A road connection through these properties would also eliminate the series of long cul-de-sac streets in Land Units A and B. The new roadway would require modifications of several parking and vehicle storage areas and a crossing of the Old Courthouse Spring Branch Creek to provide the connection to Gosnell Road. In addition, Gosnell Road would need to be widened between Route 7 and the alternative access road. The intersection geometrics of Gosnell Road at Route 7 and the service drive would also need to be improved. The new collector roadway would be constructed as redevelopment occurs in Land Units A, B, and D.

2. Extend Boone Boulevard across Route 123 to connect to the above new collector road. Such an improvement would need to grade-separate this Boone Boulevard extension from Route 123. This improvement would remove local circulating trips from Routes 123 and 7, and at the Route 123/Old Courthouse Road intersection, and improve the access to properties on either side of Route 123.

3. Extend Greensboro Drive through Land Units I and H. In conjunction with redevelopment of this area, an extension of Greensboro Drive westward would improve local circulation, and remove trips from Route 7. An extension to Route 7 would locate the point of intersection with Route 7 near the intersection of the DAAR ramps. When Greensboro Drive is extended past Tyco Road, the extension should tie into the service drive system along Route 7. No direct access should be permitted to Route 7.

4. Create a roadway connection in Land Unit M between Pinnacle Drive and the Route 7 service drive. This would improve circulation in Land Unit M, and would be implemented in conjunction with redevelopment.

5. Provide circulation improvements in Land Unit R. These proposals would improve circulation on the properties in the eastern section of Tysons Corner. The road connections would help alleviate traffic conditions on Dolley Madison Boulevard, and have been committed in conjunction with rezoning of the properties.

6. Extend Old Meadow Road to Magarity Road in Land Unit S. A roadway extension in this area will improve circulation in the section of Tysons Corner east of the Capital Beltway. It will be implemented through redevelopment of these properties. The Transportation Plan Map (Figure 16) shows two alignments that should be considered to extend Old Meadow Road to Magarity Road.

7. Improvements of the Loop Road in Tysons Corner Center Shopping Mall. If the development on the Tysons Corner Center shopping mall site is intensified or if redevelopment occurs, the Loop Road should be upgraded commensurate with the extent of the intensification or redevelopment. This is a private road, but it serves as an important connection between Route 123 and Route 7.

Pedestrian and Bicycle Circulation

Pedestrian and bicycle travel constitute other potential forms of circulation in Tysons Corner, providing access between employment, commercial, and residential land uses. Utilization of pedestrian and bicycle modes could provide benefits in reduced traffic congestion.

Coordinated pedestrian networks are recommended for all development in Tysons Corner. Comprehensive, coordinated walkway networks should provide full intra- and inter-parcel pedestrian circulation to and from buildings, parking, recreation facilities and public open space. The missing sections of the sidewalk network should be given a high priority for completion. High volume and high speed roadway intersection control and design should accommodate pedestrians through the use of pedestrian crossings, walkway incorporation into roadway grade separations, pedestrian activated signals, crosswalks and pedestrian refuge medians as appropriate. These elements are particularly necessary given the number of high volume traffic arteries in the area which are difficult to cross. Pedestrian circulation should be provided through and from parking lots, and to transit stops.

To encourage the use of bicycles as an efficient mode of commuter transport, support facilities are needed. Such facilities should include designated bicycle paths and secure bicycle parking at employment, business, apartment, and public uses. Long-term parking or storage should be provided at office, hotel, retail and apartment uses. These facilities require weather protection and security devices, such as bike lockers or controlled access areas. People will also use bicycles for shopping, personal business, and recreation trips which will result in a need for additional short-term bicycle parking. Bicycle parking racks in convenient locations in public view are recommended for all developments to encourage this mode of travel.

**Public Transportation Improvements**

The land use concept for Tysons Corner recognizes that the recommended road improvements alone cannot sustain the Plan's development potential. In order to maintain the healthy evolution of Tysons Corner into the 21st Century, there will be a need for public transportation improvements in the following areas: rapid rail transit; circulation systems to interface with rail transit; high-occupancy vehicle (HOV) facilities; and transportation demand management measures and programs. These recommended public transportation improvements are described below.

Rapid Rail Transit

The land use concept rests on an assumption that the modal share of high-occupancy vehicle trips will double in the future with the extension of rail transit service to the Urban Center, in combination with other HOV facilities and support programs. Such a rail connection would take the form of an extension from the West Falls Church-VT/UVA Metro Station to Dulles Airport. Horizontal alignments under consideration include staying within the median of the Dulles Airport Access Road (DAAR), with a transfer connection into Tysons Corner, or diverting from the DAAR corridor and directly traversing Tysons Corner via one of several routes. The vertical alignment would stay at-grade for a facility within the DAAR, while an above or below-grade alignment would be required for rail options which pass through the core area of Tysons Corner.

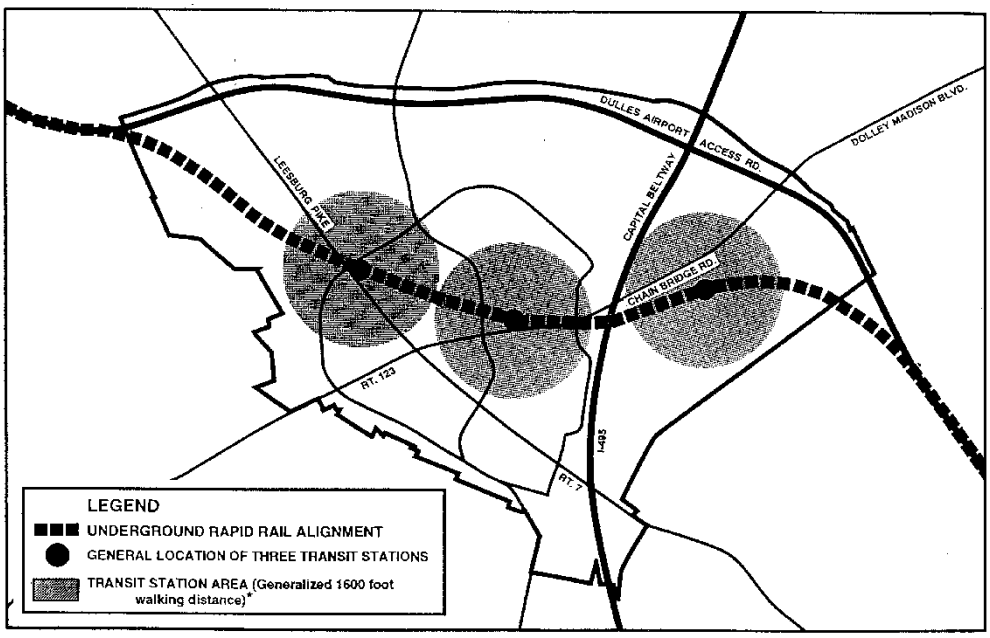
Figure 17 identifies the alternative alignments under consideration to serve Tysons Corner. Under the preferred alignment, the rail extension from West Falls Church would be diverted from the DAAR through the core of Tysons Corner, and connect back to the DAAR west of Route 7, with three stations to serve Tysons Corner. A tunnel rather than an elevated alignment is the preferred mode, in order to create minimum disruption to the area, while affording maximum flexibility in locating stations in conjunction with future development concentrations.

The advantage of an alignment that penetrates Tysons Corner, rather than skirting its edge, is that it would provide direct service to the large employment concentrations and the super-regional shopping malls of Tysons Corner, the economic engine of Fairfax County: Tysons Corner generates more tax dollars than any other single area in the County. Thus Tysons Corner is a major magnet attracting people to do business in the County and the Washington region, due to Tysons Corner's strategic location between Washington, D.C., and Washington Dulles International Airport. The wide variety of commercial activities attract people from all over the metropolitan area and tourists from out-of-state. A rail transit alignment through Tysons Corner would tap this large pool of patronage because of the efficiency of direct service.

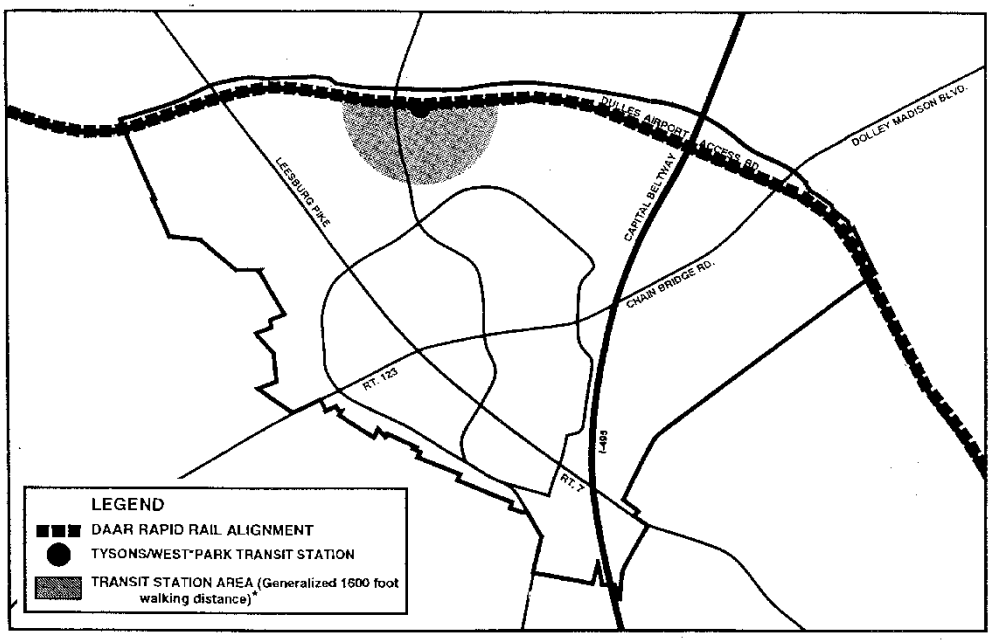
The underground alignment offers the advantages of being less disruptive and more convenient. For example, an underground rail transit system would not intrude visually as would an elevated system in the roadway median. Construction of an underground system would also

## FIGURE 17
## ALTERNATIVE RAPID RAIL CONCEPTS

### PREFERRED ALIGNMENT THROUGH TYSONS CORNER




### BY-PASS ALIGNMENT



be less disruptive, not requiring the road closings and other interruptions that surface construction cause. An underground alignment also offers opportunities for flexibility in siting stations. For example, an underground system could directly serve the entire Tysons Corner Core Area which includes both super-regional shopping malls and the Greensboro Drive area through the strategic siting of an underground station that offers underground access connections from convenient above ground entrances. An underground system also offers pedestrians protection from bad weather and the means to avoid crossing busy arterials.

Under the option where rail transit remains in the DAAR median, the Tysons/West*Park bus transit center under development at the intersection of Spring Hill Road and the DAAR would be the most likely location for a future rail transit station. This station is located on a transitional edge, not in the core of Tysons Corner which contains most of the area's employment. If rail transit service is available only to this point at the edge of Tysons Corner, an extensive people mover system would be required to adequately serve commuters to and from key trip destinations in the Tysons Corner area. This supplementary circulator system's additional costs to build and run should be evaluated as a component of the DAAR rapid rail alignment under the VDRPT study. The circulator system would have to run all day with short headways in order to provide the necessary efficiency to convince commuters to leave their autos at home and rely on transit to get to work, to meetings, and to appointments. In addition, transferring to a circulator system would add another mode to a commuter's daily trips, a factor that often discourages ridership. Although the rail station at Tysons/West*Park offers the advantages of being the easiest to construct and least expensive because the land is already committed for a station, these advantages must be considered in terms of the long range implications of rail transit service that only skirts the edge of the County's "downtown." The interests of the County as a whole are best served by a rail transit system that penetrates the core and brings riders to the jobs and shopping that are a major part of the foundation of the County's economic well-being.

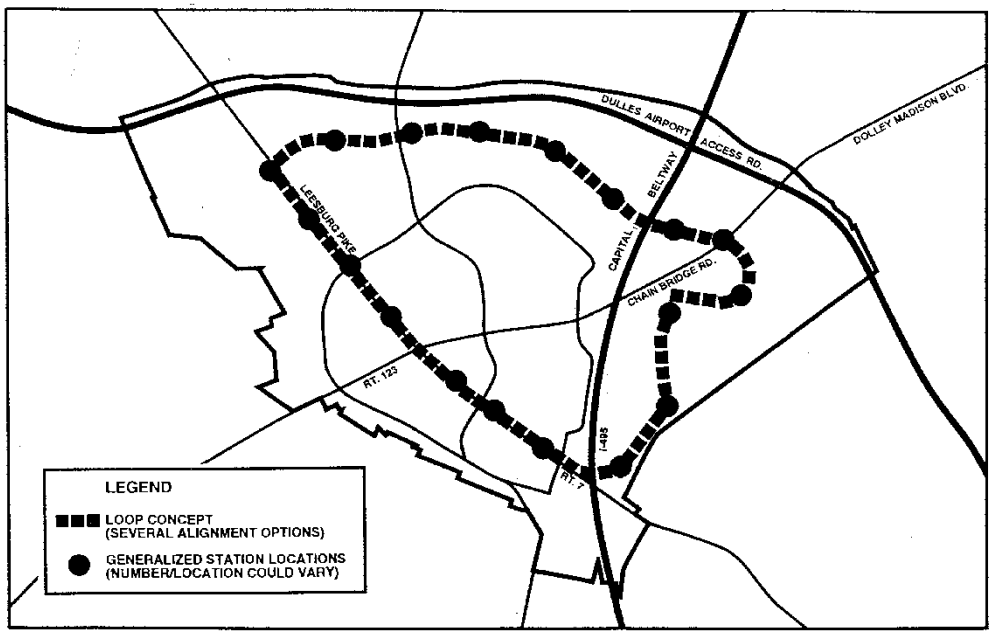
Circulator System to Interface with Rail Transit

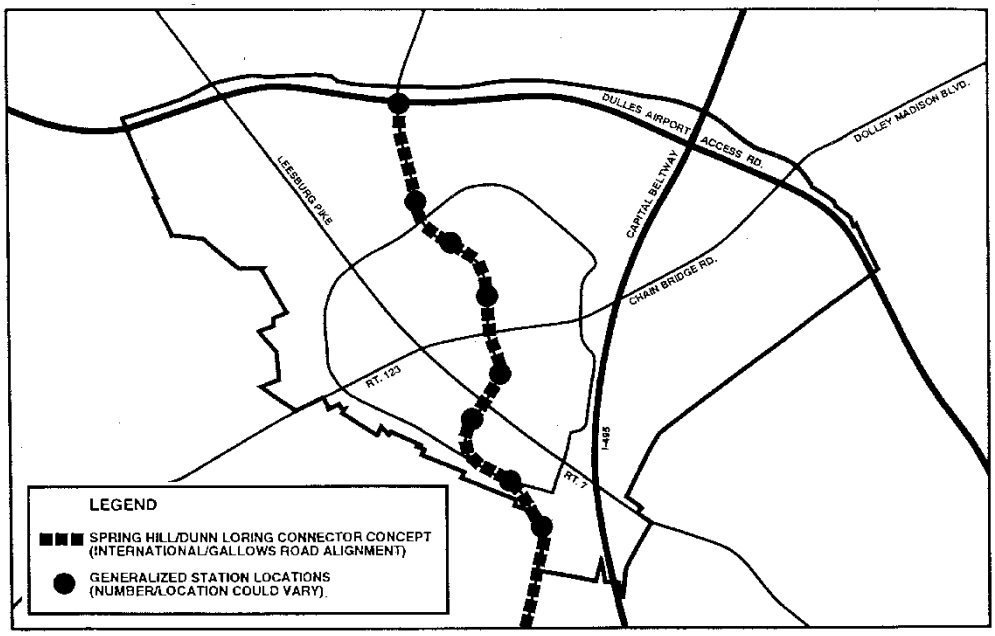
Under any of the rail transit options, Tysons Corner will need transit circulation systems to interface with the rail transit service. In its simplest form, this would involve feeder buses and related ancillary facilities to provide for convenient transfer of modes and quick transit trips to destination points. A more advanced option would be to provide a fixed-guideway "people mover" system that could move transit riders quickly and efficiently to key destination points away from the transit station areas.

If the DAAR mainline alignment is chosen to serve the Dulles Corridor, the need for such a fixed-guideway circulator system to serve the area becomes more critical, because only a single transit station would serve Tysons Corner at Spring Hill Road and the DAAR. There is little opportunity at that location for creating a concentration of higher intensity transit-related development, or facilitating walk trips to and from the station. Over a 5-15 year time period, this circulation need can be addressed with feeder buses bringing patrons to and from the Tysons/West*Park station at Spring Hill Road. Over the longer term, as development levels in the Urban Center increase, a fixed-guideway people mover system connecting to the rail station could fulfill the role of connecting rail transit riders to key trip destinations.

Figure 18 shows two alternative circulator concepts to interface with a future rail transit line. This figure illustrates two concepts, but many other variations of each concept can be considered in order to design the system that best serves Tysons Corner after the rapid rail alignment has been determined. The loop concept could connect more trip destinations. The number of internal traffic trips would be reduced within Tysons Corner by providing this

## FIGURE 18
## ALTERNATIVE CIRCULATOR CONCEPTS
## (TO INTERFACE WITH RAPID RAIL)



enhanced transit service. Conversely, the point-to-point system shown could serve many of these same areas while also providing the opportunity to provide fixed-guideway transit connections into the Urban Center from the south. Under one scenario, the line could extend from the Tysons/West*Park station south along International Drive and Gallows Road, to connect to the Merrifield area and the Orange Line at the Dunn Loring Metro Station. This would provide for fixed-guideway transit service into the Tysons Corner area from points served by the future Orange Line to Centreville, and help to alleviate the imbalance of forecasted traffic to the Urban Center from the south and western portions of the County. Both of these circulator concepts should be studied in conjunction with the study of rail transit alternatives in the Dulles Corridor.

High Occupancy Vehicle Travel Lanes

High occupancy vehicle (HOV) travel lanes that can provide benefits to Tysons Corner by creating incentives for carpoolers, vanpooling, and transit use are under consideration in the Dulles Airport Access Road and Capital Beltway Corridors. The 1991 adopted Transportation Plan incorporates these HOV lane improvements.

In the Dulles Corridor, plans are underway to provide an additional lane on the Dulles Toll Road that would be restricted during peak periods of travel to express buses, vanpools, and carpools of two or more passengers (HOV-2). The HOV diamond lane would begin at the western end of Fairfax County, and could be extended into Loudoun County with the construction of the Dulles Tollway Road extension to Leesburg. Over the longer term, the availability of the HOV lanes during peak periods of travel will induce more ridesharing and express bus travel to and from Tysons Corner. At the Tysons/West*Park station, feeder bus services are planned that will make it convenient for commuters and shoppers to transfer from the Dulles Corridor express buses in order to reach various destination points within Tysons Corner. The Tysons/West*Park station will also be available for employers to run private bus shuttles to and from the facility to their worksites. The Dulles Corridor express bus services and station are expected to become operational in the late 1990's.

On the Capital Beltway (I-495), conceptual designs for improvement of that facility call for the potential development of HOV lanes in conjunction with widening of that facility. The HOV lanes would serve travel demand from both directions during peak periods of travel. The facility could be either single or double lane in each direction, and could consist of HOV diamond lanes or a barrier-separated facility. Under both the alternatives being studied, HOV access to Tysons Corner is provided at both the Route 7 and Route 123 interchanges. No decision has yet been reached on the final design of the Capital Beltway Improvement project.

Transportation Demand Management Programs

Transportation Demand Management (TDM) measures and programs are identified as a necessary component of plans to increase public transportation usage in Tysons Corner. On an individual site basis, TDM programs have been found to result in significant HOV use at worksites around the country where there is a strong employer commitment to the program. TDM programs could induce a significant shift in travel behavior in Tysons Corner when individual employer TDM programs are coordinated with an area-wide TDM Program. However, TDM programs alone have little effect unless they are accompanied by major capital investments in HOV and transit facilities. In combination with such investments, the TDM programs serve to support the use of these facilities and facilitate the shift in travel behavior toward HOV modes, by creating incentives and disincentives at the worksite. Examples of such incentives and disincentives include paid parking, preferential treatment of carpools and

vanpools, monthly transit passes (often subsidized by the employer to reduce the cost), guaranteed ride home programs, and company vanpools. Oftentimes, such area-wide programs are administered by a privately-funded Transportation Management Association (TMA), or consortium of employers.

Tysons Corner contains many of the pre-conditions that could result in the successful implementation of an area-wide TDM program. Most importantly, TYTRAN, a functioning TMA, could take on the responsibility of administering such a program and coordinating the actions of individual employers. Of equal importance is the fact that several major HOV facilities in corridors serving the Urban Center are in the planning and design stages. As these facilities become operational, a successful activity center based TDM program can serve the role of catalyst in promoting and facilitating use of the facilities. Ultimately, the development of rail transit service in the Dulles Corridor will help to induce further shifts to HOV usage for commuters from the Reston/Herndon area and the regional core.

Both individual TDM measures, as administered through commitments that are made as a part of the zoning process, as well as an area-wide TDM program will be needed in the Tysons Corner Urban Center as components of a successful public transportation improvement program.

## OPEN SPACE/PARKS/RECREATION

The creative design and integration of parkland, pedestrian paths and recreation facilities in Tysons Corner can significantly contribute to creating a distinctive "sense of place" and to the area's economic vitality and quality of life. A revival of classic park concepts must be coupled, however, with innovative public and private sector mechanisms to meet the challenge of providing viable recreation opportunities in a late 20th Century urbanizing environment.

Public lands within Tysons Corner's boundaries comprise about 71 acres or 4 percent of the land area (in 1993). Existing public open spaces include 12 acres of the Old Courthouse Spring Branch Environmental Quality Corridor, currently owned by the Board of Supervisors, and four Fairfax County Park Authority sites:

- Raglan Road Park, a 12-acre undeveloped site, and Freedom Hill Park, a 6-acre Heritage Resource Park, are located on the western boundary of Tysons Corner (see Figure 19).

- Westgate Community Park, a 12-acre site adjacent to Westgate Elementary School, is developed with a youth baseball field, two tennis courts, open play and picnic areas.

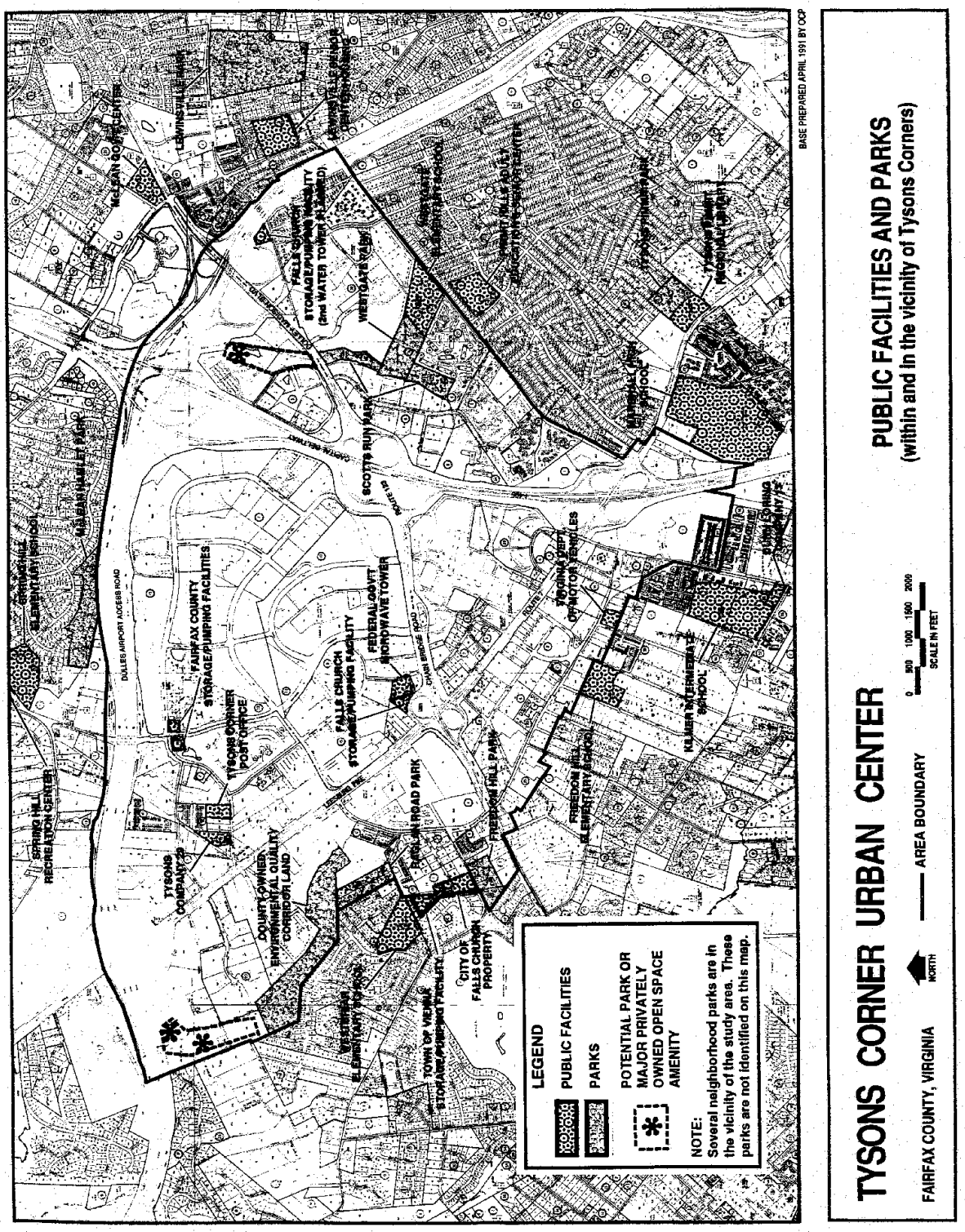
- Scotts Run Stream Valley Park is an 11-acre park in the Scotts Run Environmental Quality Corridor, south of Route 123 and adjacent to Westgate Community Park.

Public parkland outside Tysons Corner includes Spring Hill District Park, located just north of the DAAR. This District Park is accessible from the proposed pedestrian system and should be considered a key component of the Tysons Corner recreation system. The indoor recreation center offers a 25-meter swimming pool, racquetball/handball courts and activity rooms. Outdoor facilities at this 24-acre site include three athletic fields, and tennis courts are also planned. The contiguous 43-acre school site is under long term lease by the Park Authority and is suitable for development of active recreation facilities.

Potential parkland acquisitions within Tysons Corner are few. The most significant resources remaining are associated with the Old Courthouse Spring Branch EQC. This natural buffer zone should be preserved and maintained along the stream valley from the Dulles Airport Access Road to Gosnell Road, and from the stream valley to Freedom Hill Park. In addition to the stream valley and land dedicated to the County for open space, this buffer should include the stream influence zone and any tree stands which protect the adjacent low-density residential areas from the visual intrusion of the existing and planned high-density uses in the Tysons Corner Area. The whole of this buffer zone should be incorporated into the Old Courthouse Spring Branch Environmental Quality Corridor.

The following specific sites have been identified where additional opportunities exist to provide open space and protect natural and heritage resources:

- The Ashgrove house, outbuildings and surrounding property are of historic interest because of their connection with the descendants of Lord Fairfax who owned the property until the mid-19th century. The house was probably built around 1790, but was extensively restored after a major fire in 1960. The EQC and the vacant wooded land west of the EQC are important components in the open space system for Tysons Corner. Both Ashgrove and the EQC are high priority sites for protection. In keeping with its connection to Fairfax County history, Ashgrove could serve as a focal point for cultural events and community and corporate gatherings.


TYSONS CORNER URBAN CENTER
FAIRFAX COUNTY, VIRGINIA
NORTH
AREA BOUNDARY
0 500 1000 1500 2000
SCALE IN FEET
PUBLIC FACILITIES AND PARKS
(within and in the vicinity of Tysons Corners)
LEGEND
PUBLIC FACILITIES
PARKS
POTENTIAL PARK OR MAJOR PRIVATELY OWNED OPEN SPACE AMENITY
NOTE:
Several neighborhood parks are in the vicinity of the study area. These parks are not identified on this map.
BASE PREPARED APRIL 1991 BY OCP
SPRING HILL RECREATION CENTER
TYSONS COMPANY CO
DULLES AIRPORT ACCESS ROAD
DOUBLE TREE
DOUBLE TREE
DOUBLE TREE

- Privately held portions of Old Courthouse Spring Branch and Scotts Run EQCs should continue to be protected.

- On the western edge of Tysons Corner, segments of the open space belong to different jurisdictions (see the Public Facilities Map, Figure 19). The City of Falls Church and the Town of Vienna own property that is part of this open space system.

Achievement of open space, park and recreation objectives in Tysons Corner will require using a variety of techniques that could include the following: 1) implementation of the Pedestrian System and Urban Design Guidelines; 2) effective public/private partnerships to ensure that long term resource protection and recreation needs will be met; 3) coordination between public and private recreation providers to optimize the diversity of recreation opportunities; 4) dedication or acquisition of parkland to enlarge existing parks or to create new parks; 5) creating a system that connects open space with the pedestrian paths and recreation facilities.

**Area-wide Guidelines**

1. Safe and aesthetically pleasing walkways should be considered a high priority for recreation as well as for transportation purposes.

2. A variety of outdoor recreation opportunities should be co-located with the pedestrian system including:

   - Designated circuit walking/running courses: These courses should be lighted and identified with well designed directional and distance markers. Where feasible, separate running paths should be developed adjacent to sidewalks to minimize conflicts between users.

   - Recreation "nodes" ideally should be located throughout Tysons Corner for access by lunchtime users. Facilities of limited size might include exercise stations; basketball half-courts and volleyball and tennis courts; croquet and putting greens; miniature golf and small playgrounds. Facilities for some of these activities could be built on rooftops and parking structures.

   - Within the core, larger urban plazas should be developed as focal points for use during lunch and after-work activities, including musical events, art exhibits, and seasonal recreation opportunities such as ice skating.

   - Pocket parks, plazas and courtyards should be encouraged to create quiet places for passive activities.

   The above outdoor recreation opportunities can best be successfully implemented when land owners coordinate their provision of open space. For example, if two landowners plan a plaza along their adjoining property lines, a larger open space area may be created out of the adjoining pieces of property.

3. Year-round indoor recreation facilities are also appropriate in an urban setting, including, but not limited to, health and sports clubs. Shower and locker facilities should be encouraged to be incorporated into office development for those who bicycle to work or exercise during the lunch hour.

4. Neighborhood park facilities, e.g., tot lots, multi-purpose courts, open play and picnic areas, should be incorporated into residential development and day care facilities.

5. The residential growth of Tysons Corner will generate an increasing demand for athletic fields and other traditional outdoor recreation facilities. Since the high cost and limited availability of land severely constrain provision of such facilities within the Urban Center, other approaches will need to be explored to meet increased demand for facilities at Spring Hill District Park and other park and school sites that serve Tysons Corner.

## PUBLIC FACILITIES

The need for public facilities and services fluctuates as the demographics and development of an area change, as old facilities become obsolete, and as public expectations of service levels rise or decrease. In most cases, existing public facilities located in and around Tysons Corner have adequate capacity to accommodate planned growth, although certain facilities will need expansions or modifications to continue adequate service. Expansions and additional public facilities that are identified as future needs in Tysons Corner will require a 2232 Review public hearing before the County Planning Commission prior to being established unless they are specifically identified in the Plan text. Those facilities where a specific location for future construction has been identified in the Plan may be considered a feature of the Comprehensive Plan upon review of the Planning Director and concurrence by the Planning Commission. If a "feature shown" determination is made, these projects may not require a future 2232 Review public hearing. The existing network and future requirements of public facilities in Tysons Corner are described below. Also see Figure 19 for existing and planned public facilities within and adjacent to the Urban Center.

A total of eleven public schools currently serve the Urban Center which, in general, have enrollments below net capacity. While existing school capacities should accommodate any enrollment increases, changes to the attendance boundaries of schools having space available is also an option for accommodating future demand from additional future housing.

Library coverage is provided by the Dolley Madison and Patrick Henry Community Libraries and the Tysons-Pimmit Regional Library. These libraries meet the County's library locational standards and no additional facility requirements are anticipated. However, the provision of a mini-library or a specialized library (i.e. business and/or technology) may be desirable for inclusion in a new development or one of the shopping malls.

The McLean District Police Sub-station provides an adequate level of police service to Tysons Corner. Additional such facilities are not projected.

The Tysons Fire and Rescue Company 29, McLean Company 1, and Dunn Loring Company 13 all provide coverage to Tysons Corner. In addition, a new fire and rescue station is proposed just west of the area at the intersection of Beulah Road and Leesburg Pike. These existing and planned fire and rescue facilities are projected to provide sufficient coverage to the area.

The Tysons Corner area is composed of two principal sewer sheds: Difficult Run and Scotts Run. Sanitary sewer service is provided by lines owned by Fairfax County and the District of Columbia (Potomac Interceptor). In general, sewer lines have been sized to serve either the planned land use or existing zoning, whichever generates the greater flow. In some cases, as redevelopment occurs, trunk lines may need to be replaced with lines with greater capacity.

Public water to Tysons Corner is provided by the Fairfax County Water Authority and the Falls Church Department of Public Utilities. That portion of the area north of Route 123 and west of I-495 is served by the Fairfax County Water Authority with the remainder being served by the City of Falls Church.

The Fairfax County Water Authority has storage for 4.64 million gallons (MG) of treated water at their facilities located on International Drive. Falls Church has storage for 3.57 MG at their two locations, and proposes storage for an additional 1.5 MG in the Dunn Loring, Vienna, or Tysons Corner area. This future storage need for Falls Church will probably be met by providing a second water tower at their Chain Bridge Road /DAAR Site.