

4. Future Land Use Plan and Transportation Network

Introduction

This chapter describes how the recommended future land use plan and multimodal transportation network have been planned and coordinated to achieve the County’s vision of a livable, desirable community. After defining several important terms, the rest of the chapter is organized into five major sections. First, the Future Land Use Plan section defines the land use designations shown on the Future Land Use Map. It continues with a description of how the land uses are distributed, their structure, and their intensity. An explanation of the land use tables and their relationship to urban form follows. Then, a discussion of key subareas completes this first section.

The second section, Parks & Green Systems, covers the open space network and related amenities, including a description of the Parks & Green Systems Map.

The third section describes the multimodal future transportation network: how its design supports convenient access to new and existing land uses and provides a broad range of transportation choices to residents, workers, and visitors. The section addresses roadway elements, transit elements, and bicycle and pedestrian elements. It includes recommended cross sections for key network roads and concludes with information on potential road improvements beyond 2025.

The fourth section explains the difference between the 20-year implementation timeframe and ultimate buildout illustrated on the Future Land Use Map. Then, it outlines the development capacity that results from the designation and distribution of land uses.

The fifth section is a step-by-step explanation of how to use the maps and tables in the chapter.

Please note: the Future Land Use Map, Parks & Green Systems Map, and related tables are located at the end of this chapter.

Definitions

Here are the definitions for several terms used throughout this chapter:

- “By Exception”—a term used in the Land Use Tables (LU1 and LU2) to indicate when a guideline is flexible. If a guideline given in the table is labeled “or by exception,” a change may be made during the approval process for a rezoning or special use permit. This allows for changes that are appropriate under the right circumstances.
- “Flex”—a term used to describe a use when that use is made up of two or more uses. For example, a flex use might be one where a business assembles small electronic devices, stores them onsite, ships them from the same location, has a showroom where the devices are demonstrated and sold, and includes an office where the business is administered.
- Flex Space—A building designed for a flexible range of employment uses, which may include: administrative or other office space, Research & Development (R&D), laboratories, and even small assembly or manufacturing areas. The building is designed so space can be reconfigured as uses change. The uses have relatively few

impacts on surrounding properties. Nearly all traffic will be employee vehicles, with some customer and some delivery vehicles. Flex buildings are attractive to many new and growing businesses whose space requirements may change as their businesses mature or react to changing market conditions. These buildings mix very well with support service uses, such as retail, restaurants, and drycleaners. “Flex space” should not be confused with the “Flex” use designation (see the definition of “Flex” under Land Use Designations below).

- “Large Format” Retail or “Big Box” —A retail establishment of at least 80,000 square feet, usually one story in height, and surrounded by surface parking. Some of these retail establishments can be as large as 250,000 square feet. Examples are: department or general merchandise stores, home improvement/builder’s supply stores, office supply stores, electronics/appliance stores, and others. Several of these stores located together are called a “power center.”
- Live/work Units—A residential unit that includes commercial space for small-scale businesses or enterprises.
- Mixed Use—Development within a single parcel or several adjacent parcels that incorporates different uses that complement each other and provide activity throughout the day. Uses can be mixed within a single structure (vertical mixed use), such as ground floor retail and upper floor residential, or by mixing individual single use buildings on the same or adjacent sites (horizontal mixed use).
- Mixed Use Centers—A cluster of compatible and complementary uses (horizontally and/or vertically mixed), such as residential, commercial, industrial, office, and institutional in a walkable, pedestrian-oriented urban environment. Mixed use centers vary in scale and can range from ones with small neighborhood-serving uses to ones that serve the entire region. More information about Centers is in Chapter 5, Place Types (see page 5-2).
- Place-making—Refers to the act of designing and arranging buildings, streets, landscaping, and other elements of the community environment into a human-scale, comfortable, functional, and memorable place that supports and invites people to be active there.
- Single Use—A building or parcel that accommodates only one type of use, such as residential, commercial, or light industrial. An example is an office building that offers only office space (it does not contain a cafeteria, newsstand, or other retail use that would serve employees working in the building or nearby buildings).
- Single Use Area—A group of parcels that accommodates only one type of use, such as residential, commercial, or light industrial. An example would be a residential neighborhood (all residential uses) or an office park (just offices).
- Urban Form (or Built Form)—The physical urban environment that results from a combination of transportation infrastructure, buildings and other structures, and open spaces.

Future Land Use Plan

The Future Land Use Plan follows the principles of the Neighborhood Model and organizes new development and major redevelopment into a pattern of mixed-use centers, with surrounding land uses oriented toward the Centers. In general, achieving the desired pattern of development would mean that all land in the Development Areas would be within one-quarter (1/4) to one-half (1/2) mile of either a Center (Neighborhood Service, Community, or Destination) or the Uptown. However, established suburban neighborhoods like Forest Lakes, Raintree, Dunlora, and Woodbrook would retain their current land use pattern and not include new mixed-use centers.

The land use patterns shown on the Future Land Use Map, as well as the network of open spaces shown in the Parks & Green Systems Map, are based on planning concepts outlined in the Neighborhood Model. The Future Land Use Map is central to establishing the desired pattern of Centers and surrounding walkable areas. The Future Land Use Map is closely linked to the network of open spaces and transportation facilities for the area. The transportation network consists of multimodal, interconnected roads, and includes routes parallel and perpendicular to US 29. This network of roads is an important prerequisite for Centers with an orientation toward the parallel and perpendicular roads. The multimodal transportation network also includes transit, pedestrian pathways, bicycle routes and other amenities. The network of open spaces and public parks complements the higher intensity of land uses in the Future Land Use Plan and is essential to creating the livable urban environments envisioned by the Comprehensive Plan.

Relationship of Existing and Future Uses

In addition to preserving existing residential developments, care has been taken to balance existing development—both residential and commercial—with future needs and potential development.

The overall goal for existing residential neighborhoods within the Places29 area is to protect and enhance them. With few exceptions, existing residential uses have the same designation on the Future Land Use Map as they do in the 1996 Land Use Plan. Limited exceptions occur where changes were made to create a better fit between a pattern of new land uses that surround an existing residential area and the residential area. Changes from the existing use to the new use designated in the Master Plan are expected to be driven by the real estate market and decisions made by property owners and developers.

The Community, Industrial, and Regional Service designations in the County's 1996 Land Use Plan that dominate much of the Places29 area have been modified on the Future Land Use Map to accommodate mixed use centers and uses oriented toward them. These new Centers and surrounding uses will form new Neighborhoods. Except for undeveloped areas, much of this transformation will occur through redevelopment.

Further, the single Industrial Service designation used in the 1996 Land Use Plan has been divided in the Places29 Master Plan into three designations in order to recognize the changing nature of industrial uses and the different impacts each type of industry may have on surrounding uses. In the past, most industrial uses needed to be segregated because of potential impacts, such as odors, noise, vibrations, and traffic, among others. Today, many industries, especially those located here in Albemarle County, have only traffic impacts. These “cleaner” industries can be located in the same proximity to residential and commercial development as large office complexes and even large shopping centers; the primary impact of these uses on surrounding property is traffic. The three uses represent a continuum of industrial uses from Office/R&D/Flex, which is expected to have impacts similar to an office use; to Light Industrial, where the impacts

may be greater; to Heavy Industrial, where the impacts usually require that the use be segregated from other nonindustrial uses. The three new industrial designations defined below and used on the Future Land Use Map are: Office/Research & Development (R&D)/Flex, Light Industrial, and Heavy Industrial.

Land Use Designations

This section gives the definitions of land use designations shown on the Future Land Use Map. Part of each definition is a list of primary and secondary uses in that designation. The section after this one defines and gives examples of those primary and secondary land uses. In general, the primary land uses listed under each designation are the main focus of that particular designation; most of the development in that designation should be one (or more) of these primary uses. Secondary land uses are intended as support uses for the primary ones. While these secondary uses should represent a smaller proportion of the development or the building, they are very important to “place-making”; adding them to a Center or the area around a Center increases the mix of uses and makes the area more of a complete Neighborhood. The determination of primary and secondary uses is expected to be made over an entire contiguous designation, not an individual parcel (unless the designation is restricted to a single parcel).

Some uses are also described as “incidental,” which means that they are dependent on the primary use. For example, a showroom where a light industrial business offers its products for sale would be considered a retail use that is incidental to the light industrial use. The distinction between secondary and incidental uses is important. Secondary uses are standalone uses that support the primary uses in an area. For example, neighborhood-serving retail is a secondary land use in Urban Density Residential; mini-marts and small restaurants serve or support the residents of a neighborhood. Another example would be an office supply store located in an Office/Research & Development (R&D)/Flex designation. On the other hand, an incidental use, such as the showroom mentioned above, is part of an individual business.

There are two Land Use Tables located at the end of this chapter. The guidelines listed in each table, when combined with the information in the land use definitions below, indicate what the urban form of a potential development should be. Land Use Table 1 (LU1) lists the guidelines for the primary and secondary uses in the Centers that are shown on the Future Land Use Map. All of the Centers are designated Urban Mixed Use. Land Use Table 2 (LU2) gives the guidelines for primary and secondary uses in the areas around the Centers. More information about how to use these two tables, the Future Land Use Map, and the Parks & Green Systems Map is given in the section “How to Use the Maps and Tables in this Chapter” located at the end of this chapter.

Urban Mixed Use. This designation is used both inside and outside of the Centers. In Centers and in the Uptown, it includes a balanced mix of retail, housing, commercial, employment, and office uses, along with some institutional and open space uses. The types of retail and services, as well as dwelling unit types, vary depending upon the type of Center (see Land Use Table LU1) and the land uses in the area around the Center (see Land Use Table LU2):

Primary uses: community and regional retail, commercial service, office, and other employment generators, with a mix of residential types. At least two different types of dwelling units are recommended. In the Uptown, office, research & development (R&D), and flex uses are also considered primary uses.

Secondary uses: office, research & development (R&D), and flex (where appropriate in smaller Centers), with open space and institutional uses that are essential to place-making within Centers.

In the areas around Centers (see Table LU2), there is also a limited amount of land designated Urban Mixed Use. These designations are intended to provide space for uses that do not fit within a Center because the use requires more land for larger buildings and/or parking lots. Auto commercial service uses are examples of uses that may require more space than is available for a single use in a Center (see Land Use Table LU2). There are no changes in use or building form permitted by exception in these areas.

Neighborhood Density Residential. This designation is used in areas around Centers where single-family detached and attached housing are desired with a gross density range between 3 – 6 units per acre. This designation is also applied to existing residential areas with densities within or below this range (see Land Use Table LU2). This designation is essentially the same as the Neighborhood Density Residential designation in the current Comprehensive Plan.

Primary uses: single-family residential, including two or more housing types.

Secondary uses: retail, commercial, and office uses that support the neighborhood, live/work units, open space, and institutional uses. Retail, commercial, office, and institutional uses are encouraged to locate in Centers so they are accessible to residents throughout the surrounding area and so they benefit from co-location with other neighborhood-serving businesses. However, they may be located by exception in areas around Centers designated Neighborhood Density Residential provided they are compatible with surrounding uses.

Urban Density Residential. This designation is used in areas around Centers where multifamily housing with a gross density range between 6.01 and 34 units per acre is desired. It is also applied to existing residential areas with densities within this range (see Land Use Table LU2). This designation is essentially the same as the Urban Density Residential one in the current Comprehensive Plan.

Primary uses: multifamily and single-family residential.

Secondary uses: retail, commercial, and office uses that support the neighborhood, live/work units, open space, and institutional uses. Retail, commercial, office, and institutional uses are encouraged to locate in Centers so they are accessible to residents throughout the surrounding area and so they benefit from co-location with other neighborhood-serving businesses. However, they may be located by exception in areas around Centers designated Urban Density Residential provided they are compatible with surrounding uses.

Commercial Mixed Use. This designation is applied only to areas that are already developed or that have been approved for development as commercial shopping areas. This designation is used in the areas around Centers (see Land Use Table LU2) and is intended to support the eventual conversion of these areas to a more mixed-use type of development that will support adjacent mixed-use centers. These areas have the potential to integrate some nonretail uses, such as multifamily housing, office, or institutional uses, and to develop stronger links with adjacent Centers. In the future, no new Commercial Mixed Use should be designated; retail and other commercial activities will be focused instead into the mixed-use Centers.

Primary uses: community and regional retail, commercial service, auto commercial service, and office uses.

Secondary uses: office, research & development (R&D), flex, residential, open space, and institutional uses. There are no changes in use or building form permitted by exception in this designation.

Office/Research & Development (R & D)/Flex/Light Industrial. This designation allows a range of employment generating uses and is applied to the majority of the nonretail employment areas within the Places29 area to create Employment Neighborhoods. These uses are the “new” industry that is more employee-intensive and may be less involved with manufacturing. As such, these uses are expected to have the fewest impacts on surrounding uses (e.g., noise, vibrations, odors), although they may have a greater traffic impact due to the number of employees. The designation is used in the areas around Centers (see Land Use Table LU2).

“Office” includes the typical commercial office buildings that may house a variety of users. It may also include professional offices, such as medical or real estate offices, although these offices may also be located in commercial and mixed use areas.

“Research & Development (R&D)” is applied to an administrative, engineering, and/or scientific research, design, or experimentation facility that engages in research, or research and development, of innovative ideas in technology-intensive fields. Examples include research and development of computer software, information systems, communication systems, transportation, geographic information systems, and multi-media and video technology. Development, construction, and testing of prototypes may be associated with this use. Such a business does not involve the mass manufacture, fabrication, processing, or sale of products. It also does not require the use of animal husbandry, such as testing of products on animals. Many research & development uses can locate in traditional office buildings or buildings that resemble office buildings, rather than traditional industrial facilities.

“Flex” describes business that may include several uses, such as a manufacturing facility with warehouse space for components and completed products, a showroom for sale of the products, and office space where administrative duties for the business take place. Another example is a business “incubator” which supports new businesses. A Flex use may include: research & development, manufacturing, warehousing, distribution, office, retail, customer service, and showrooms, among others. Different businesses will have different combinations of these uses and in varying percentages. Another feature of Flex is the need for space that can be reconfigured as a business grows or adds products.

“Light Industrial” is described below. Light Industrial uses that are combined with Office/R&D/Flex uses will not usually have impacts, other than traffic, on adjacent uses.

Primary uses: office, research & development (R&D), and flex, light manufacturing/storage/distribution uses.

Secondary uses: retail, commercial, and light manufacturing uses that are associated with the primary uses, open space and institutional uses. Light manufacturing uses may be permitted in this designation by exception if they are consistent with the surrounding uses and the character of the area.

Light Industrial. This designation allows uses that involve manufacturing, predominately from previously prepared materials, of products or parts, and may include processing, fabrication, assembly, treatment, packaging, incidental storage, sales, and distribution of these products. It does not include basic industrial processing (see Heavy Industrial). The Light Industrial designation allows for a range of employment and commercial uses that may have impacts that would not be suitable in or adjacent to residential uses, retail uses, commercial uses, or many types of commercial office or research activities. This designation is applied to areas around Centers to create Employment Neighborhoods (see Land Use Table LU2).

Primary uses: light manufacturing/storage/distribution

Secondary uses: related offices and retail activities (particularly wholesale), research & development (R&D), flex, and other commercial uses that are associated with the primary uses in the area, larger auto commercial service uses, open space, and institutional uses.

Heavy Industrial. This designation allows for manufacturing or other enterprises with significant external effects or which pose significant risks due to the involvement of hazardous materials. This designation applies to a range of employment, production, and commercial uses that are likely to create impacts that are not suitable adjacent to residential uses or many types of office or research activities. These impacts may be more intense or more difficult to mitigate than those created by Light Industrial land uses. Light industrial uses may also be located in this designation. This Heavy Industrial designation is applied to areas around Centers to create Employment Neighborhoods (see Land Use Table LU2).

Primary uses: heavy manufacturing/storage/distribution and warehousing/distribution.

Secondary uses: related offices and retail activities (particularly wholesale), and office, research & development (R&D), flex, and other commercial uses that are associated with the primary uses in the area, larger auto commercial service uses, open space and institutional uses.

Institutional. This designation allows for a range of civic uses, such as schools, libraries, water treatment facilities, and other County-owned properties (see Land Use Table LU2).

Primary uses: schools, libraries, water treatment, and similar facilities.

Secondary uses: any related facilities that support the primary uses.

Public Open Space. This designation allows for a range of public recreation and open space uses. This designation is used in Centers and the areas around Centers to provide for public activities. It is also used in combination with Semi-Private and other Open Space to define the edges of some Neighborhoods (see Land Use Table LU2). The Future Land Use Map shows Public Open Space as a lighter, brighter green (than Semi-Public Open Space described below).

Primary uses: public open spaces, such as parks, greenways, trails, and other public open spaces.

Secondary uses: related institutional uses.

Semi-Public Open Space/Floodplain/Stream Buffer. This designation includes open space that is owned and managed by private or semi-public entities, such as homeowners associations,

private homeowners, commercial or business park land owners, and others. These areas consist of recreational and passive open space amenities, and may include floodplains, steep slopes, wetlands, and other areas with environmental constraints where construction of buildings is discouraged (see Land Use Table LU2). The Future Land Use map shows Semi-Public Open Space in a slightly darker green (than the Public Open Space described above).

Primary uses: semi-public open spaces, such as semi-public parks, greenways, trails, and other recreational and passive open spaces that are owned by homeowners associations or other similar entities and are open to property owners and their guests.

Secondary uses: related institutional uses.

Primary and Secondary Uses

The following *lists of examples are illustrative, not all-inclusive*, of the primary and secondary land use types that may be found within each of the land use designations defined above. As stated above, primary land uses are the main focus of the particular designation; most of the development in that designation should be one (or more) of the primary uses. Secondary land uses are intended as support uses for the primary ones. These secondary uses should represent a smaller proportion of the whole development or the building.

Primary and secondary uses are listed along the left side of Land Use Tables 1 and 2 (LU1 and LU2). Guidelines for developing each of these uses in each Center (LU1) are listed under the Center type. These guidelines are intended to encourage development that will support a pedestrian-, bicycle-, and transit-friendly mixed-use environment. Guidelines for areas around the Centers (LU2) are intended to encourage development that will support a compact, walkable area. In a few instances, a larger building footprint or use is allowed “by exception.”

The term “by exception” is used in several places in the Land Use tables. In some instances, a property owner or developer may wish to construct a building with a larger footprint or a taller building than that recommended in the table. Where “by exception” is listed in the table, the County will consider changing a building footprint, allowing a taller building, or other change. The decision to allow or not allow a larger footprint building or other changes to building form or use will be made as part of the legislative process; property owners seeking to rezone will need to include the request for larger footprint buildings in their application narratives and concept/application plans. During review of the rezoning, staff will determine if the larger building or use fulfills the goals of the Master Plan and the Neighborhood Model, including walkability, compact development, interconnected streets, block and lot sizes, and so on. When a larger building or use still meets the intent of the guidelines, the development may be allowed by exception.

Residential: includes a variety of homes with a variety of lot configurations. Buildings should not be taller than four (4) stories, unless by exception. Exceptions may be granted where the taller residential building is compatible with the surrounding uses. *Examples* include:

- Single-family attached and detached homes
- Semi-detached and attached single-family houses, such as duplexes, triplexes, quadriplexes, townhouses, atrium houses, and patio houses
- Accessory apartments

- Apartments/condominiums in the form of garden units, street-front “walkups,” mid-rise, and similar configurations
- Townhouses and rowhouses
- Dwelling units above retail, office, and/or commercial uses
- Mobile and modular homes

Neighborhood Retail: these businesses are intended to draw a significant portion of their clientele from the surrounding neighborhood. Many customers or clients could walk to the business. These businesses may be clustered. Except where noted otherwise on Land Use Table 2 (LU2), buildings should not be taller than three (3) stories, unless by exception. Exceptions may be granted where a taller residential building is compatible with the surrounding uses and the character of the neighborhood. *Examples* include:

- Local retail, such as florist, newsstand, or other similar uses
- Small restaurant or café, or similar businesses serving prepared food and beverages
- Small food sales businesses, such as bakery, deli, butcher, or other similar uses
- Convenience store or small grocery store
- Small pharmacy or drug store
- Personal retail service, such as hair salon, barber shop, dry cleaner/laundry, laundromat, tailor, seamstress, and similar uses

Community & Regional Retail: these retail businesses serve a wider market than a single neighborhood, so the majority of their customers will drive (or take transit) to them. Generally, these businesses are also larger than Neighborhood Retail uses. Groups of retail businesses may cluster with smaller neighborhood-scale retail businesses into a shopping center or along a retail street and form the nucleus of a Center. Except where noted otherwise on Land Use Table 2 (LU2), buildings should not be taller than three (3) stories, unless by exception. Exceptions may be granted where a taller building is compatible with the surrounding uses and the character of the neighborhood. *Examples* of community and regional retail include:

- Grocery store
- Pharmacy or drug store
- Department store
- Clothing, book, antiques, gifts, jewelry, crafts, or other specialty retail business
- Hardware store
- Furniture, home appliance, and other household good sales and service
- Farmers’ market
- Restaurant, café, and other businesses serving prepared food and beverages.
- Feed and seed stores
- Retail nurseries and greenhouses
- “Big box” or large format retail stores: home improvement/builders’ supply, office supply, department or general retail, and other retail uses that are 80,000 square feet or larger.

General Commercial Service: these are service businesses open to the general public that rely on customers visiting the business, not primarily retail uses or office uses (with the exception of medical offices). Except where noted otherwise on Land Use Table 2 (LU2), buildings should not be taller than three (3) stories, unless by exception. Exceptions may be granted where a taller building is compatible with the surrounding uses and the character of the neighborhood.

Examples include:

- Entertainment, such as cinemas, theatres, video arcades, night clubs, or similar uses
- Hotel, motel, inn, or bed and breakfast
- Hospitals, including emergency care/walk-in medical facilities
- Indoor athletic facilities, such as ice skating rinks, laser-tag facilities
- Recreation establishments, such as bowling alleys and pool halls
- Health spas
- Real estate, insurance, attorney, and other professional offices
- Medical offices, including dental, medical, optical, and other similar uses with significant numbers of patients
- Financial institutions, such as banks, savings and loans, and credit unions.
- Day care, child care, nursery
- Reproduction and mailing services
- Funeral homes and crematories
- Veterinary office and hospital, kennel, animal shelter
- Auction houses
- Printing and publishing
- Contractor's office and storage yards

Auto Commercial Service: these are the auto-oriented commercial uses that require a higher level of site control because of their tendency to create pedestrian-unfriendly environments. Except where noted otherwise on Land Use Table 2 (LU2), buildings should not be taller than two (2) stories, unless by exception. Exceptions may be granted where a taller building is compatible with the surrounding uses and the character of the neighborhood. *Examples* include:

- Automobile, truck, recreational vehicle, and boat sales, service, and/or rentals
- Automobile service station, with or without repair services
- Auto body/repair shop (fully contained in a building with appropriate ventilation and other environmental controls)

Office: these are primarily employment uses that, except for the professional offices, involve a limited number of customer visits. *Examples* include:

- Professional offices: medical, legal, architectural, engineering, accounting, and similar professional businesses
- Administrative and business offices, including software design and other high-tech related businesses that do not require laboratory or assembly facilities

- Call centers and data processing services

Research & Development (R&D): these uses are examples of the “new” industry, with relatively few impacts on surrounding properties, except for possible traffic impacts. Nearly all traffic will be employee vehicles, with some customers and some delivery vehicles. Businesses that require a significant number of deliveries by semi-trailer are considered light industrial uses. Buildings for these uses may also include “flex” space that can accommodate different types and sizes of businesses. These uses mix very well with support service uses, such as retail, restaurants, drycleaners, and similar businesses. Except where noted otherwise on Land Use Table 2 (LU2), buildings should not be taller than four (4) stories, unless by exception. Exceptions may be granted where a taller building is compatible with the surrounding uses and the character of the neighborhood. *Examples* include:

- Research laboratories (both wet and dry)
- Research & development
- Communication and information systems
- Offices
- Call centers
- Assembly and fabrication facilities (all indoors, with no external noise, odor, or other nuisance impacts)

Flex: a business that combines several uses, such as production of goods, storage, distribution, sales, and office/showroom. Generally, these uses do not create impacts greater than a similarly sized office use. Except where noted otherwise on Land Use Table 2 (LU2), buildings should not be taller than four (4) stories, unless by exception. Exceptions may be granted where taller residential building is compatible with the surrounding uses and the character of the neighborhood. *Examples* include:

- Software development, testing, sales, and distribution
- Assembly of a product, storage, sales, and distribution
- Research, development, and testing of a prototype
- Customer service centers/call centers

Light Manufacturing/Storage/Distribution: these uses may have some traffic impacts, but little or no noise, fumes, or vibration impacts. In some instances, materials used may be hazardous, requiring the segregation of that use. Except where noted otherwise on Land Use Table 2 (LU2), buildings should not be taller than four (4) stories, unless by exception. Exceptions may be granted where a taller building is compatible with the surrounding uses and the character of the neighborhood. *Examples* include:

- Light manufacturing and assembly, such as jewelry, musical instruments; surgical, medical, and dental instruments and supplies
- Auto body shops (not fully contained in a building)
- Compounding of drugs
- Mini-storage warehouses
- Accessory storage and distribution facilities that may be enclosed or in rear yards

- Contractor's office and storage yards

Heavy Manufacturing/Storage/Distribution: these are heavy industrial uses that, because of traffic impacts (particularly from larger trucks and more frequent access), and possibly noise, fumes, and vibration, need to be segregated from other uses. *Examples* include:

- Manufacture, processing, fabrication, assembly, distribution of products
- Engineering, engineering design, assembly, and fabrication of machinery and components that may involve: machining, babbiting, welding, and sheet metal work
- Concrete and brick manufacturing, and sand and gravel distribution facilities
- Dry cleaning plants
- Concrete mixing plant, storage, distribution
- Machine shops, tool and die, blacksmithing, boiler shops, and similar uses
- Manufacture of building components
- Sawmills, planing mills, wood preserving operations, woodyards
- Contractor's office and storage yards
- Towing and storage of motor vehicles
- Accessory storage and distribution facilities

Warehousing/Distribution: these are businesses that rely on semi-trailer trucks to deliver and pick up goods, so these businesses need to be segregated from businesses without this requirement. *Examples* include:

- Moving businesses, including storage facilities (except mini-storage warehouses)
- Regional or bulk warehouse facilities
- Heavy or refrigerated distribution facilities
- Truck terminals
- Air cargo storage and distribution facilities

Institutional: these are public and private facilities, offices, and related facilities; and land reserves for future such facilities. *Examples* include:

- Public Facilities, such as schools, libraries, and community centers
- Private Facilities, such as, educational, technical, fine arts, and trade schools; places of worship; community centers; clubs, lodges, and civic and fraternal facilities
- Hospitals, nursing homes, assisted living facilities, and convalescent homes

Open Space: these are generally undeveloped areas for recreational, visual, and preservation purposes. They may be heavily landscaped. These are areas owned and managed by a public or private entity, including homeowners associations (HOAs). *Examples* include:

- Public, semi-private, or private parks or recreational fields
- Greenways and blueways
- Trails and paths

Parks & Green Systems

Open Space Defined

For Places 29, parks and green systems are synonymous with the term “open space.” The term open space has multiple applications. Open space areas may be designed to provide a sense of arrival and place—community focal points with a strong civic character. These may also be environmentally sensitive areas which need to be protected such as floodplain, steep slopes, wetlands, and streams.

As civic areas, open space may be:

- Landscaped parks, sometimes called village greens or village commons
- Active recreational areas such as tot lots or playing fields
- Paved plazas with seating areas
- Large parks with a combination of these features
- Grassy lawns or play areas that adjoin institutional uses such as schools or libraries

The most important aspect of a civic area is that it is a feature of a center or neighborhood, and it is publicly accessible or accessible to nearby residents, visitors, or clients.

As protected areas, open space may be

- Lakes, streams, or stands of trees
- Natural features, which are not mowed or accessible
- Passive recreational areas such as greenway trails and overlooks
- Paved trailheads
- Paved access points for river activities

Protected areas are not usually a central feature of a neighborhood, although they can be. Public accessibility is not required, unless the area contains greenway trails or public river access points. Although most of the County’s protected open space is outside of the Development Areas, inside the Development Areas the purpose of this open space is to provide for livability through protection of the network of streams and other natural features. These protected open spaces often have the dual benefits of connecting habitats for plants and wildlife and of supporting nonmotorized travel via greenway trail connections. Open space can also be an effective means of transitioning between two different land uses. Finally, open space is an amenity that County residents and property owners need and want.

Open space terms used in this section of the Plan, as well as in the General Design Guidelines for Development Areas include:

- Parks
- Plazas
- Urban parks
- Open spaces in neighborhoods
- Open spaces of human scale

- Urban open spaces
- Public open spaces
- Squares
- Publicly accessible urban open space
- Plazas
- Pocket parks
- Tot lots
- Built and natural forms

Although the meanings of these terms are fairly well known, each of the terms is defined and described in the General Design Guidelines for Development Areas.

Albemarle County's natural features and scenic areas are at the heart of the County's character and livability, and have attracted many residents to the County. These open spaces also provide a counterpoint to the urban character of the Development Areas. Because some of the new neighborhoods in the Northern Development Areas will be among the County's most urban places, it is important to maintain a sense of connectedness to the natural features and open spaces in the Development Areas. It is equally important to provide public parks that meet the recreational needs of current and future residents. These parks and other elements of the County's green systems are described in this section and illustrated on the Parks & Green Systems Map. Additional information about types of spaces in the Development Areas is located the Neighborhood Model part of the Comprehensive Plan and the General Design Guidelines for Development Areas.

The Parks & Green Systems Map (located at the end of the chapter) illustrates the recommended system of public and semi-public open spaces that will serve the active and passive recreation needs of residents, workers, and visitors in the Places29 Area. The map shows a network of linear open spaces that connect the various elements of the green systems in the Northern Development Areas. Such networks provide ecological benefits to flora and fauna, can be integrated into stormwater management solutions, and may be used to create non-roadway connections for pedestrians and bicyclists.

The map also shows the recommended network of existing and proposed trails, multi-use paths, and bicycling facilities that will provide convenient non-vehicular connections between different parts of the Development Areas, open space amenities located throughout, and major recreational facilities located in the Rural Areas, such as the North and South Forks of the Rivanna River, Ivy Creek Natural Area, and Chris Greene Lake Park.

The map shows several types of environmental features that will require special consideration when planning a new development or redeveloping an existing area. These features include floodplains, stream valleys, steep slopes, wetlands, and other features. Property owners and developers must consult both the Future Land Use Map and the Parks & Green Systems Map to understand fully the development potential of and constraints on a property.

Finally, the Map illustrates key community facilities such as existing and planned schools, fire stations, and libraries. Showing these facilities with the network of bicycle and trail connections illustrates potential routes to schools and libraries.

Additional information about using these maps and the land use tables is given in the last section of this chapter, “How to Use the Maps and Tables in this Chapter.”

Specific Areas Shown on the Parks & Green Systems Map

Parks

This Master Plan includes specific requirements for parks and public open spaces in future developments. Many of the existing public parks in the Places29 area are associated with public schools. Parks associated with schools will continue to play an important role in providing public playing fields and other facilities for active recreational use. Due to the type of facilities provided, these parks have the potential to attract users from beyond the neighborhoods that immediately surround them. The bicycle paths and trails network illustrated on the Parks & Green Systems Map provides the necessary connections.

New parks and public open spaces are to be included in every Neighborhood Service Center, Community Center, Destination Center, and the Uptown. Guidance on open space that should be devoted to civic areas is provided in Land Use Table (LU1) located at the end of this chapter.

New centers which are currently undeveloped should provide civic areas approximately in the middle of the development. The illustrations in Figures 5.1, 5.9, 5.13., 5.15, and 5.18 show the desired relationships between the public open space and the rest of the center. At least 10% of the area of new centers should be devoted to civic areas/public open space with emphasis on the civic area’s role in creating the sense of place. For this reason, a large part of the 10% should be contained in a single area.

Provision of parks and public open space will be more challenging in redevelopment of centers. Parcel-by-parcel development may not afford opportunities for large civic areas. In this event, at least 10 percent of the area to be redeveloped should be devoted to civic areas. Where a large public amenity, such as a County park, is already within walking distance of the center, and pedestrian access is or will be provided to the amenity, the required open space may be reduced or even eliminated. However, the amenity must correspond to needs generated by the development. For example, if a property is to be developed as a retail use without any residential uses, a plaza may be more suitable to the development than a public park one-half mile away.

Future Civic Spaces (Generalized Locations)

In addition to the open spaces listed above, the Parks & Green Systems Map gives approximate locations, illustrated with green star shapes, for additional open spaces that are outside of Centers and the areas around Centers. These open spaces are intended to be focal points for development that is further than one-half mile from a Center and beyond the areas around the Centers. The final location of these future civic spaces will be determined either during the planning stages of larger rezonings or during preparation of the Small Area Plans. The approximate location of the open spaces will be determined by analyzing the extent of walkable areas around all the Centers and the Uptown. Whenever new development falls outside the walkable areas, this Master Plan recommends locating an open space to provide a focal point for the Neighborhood.

Semi-Public Open Space and Other Open Space Network Elements

This designation on the Parks & Green Systems Map combines significant clusters and contiguous areas of steep slopes, the 100-year floodplain, and stream buffers with larger areas of semi-public open space in existing developments. Together, these features combine to create a significant and comprehensive open space network, which may also include space for proposed

multi-use paths and trails. Where this designation extends onto private property, it indicates that steep slopes are present and disturbance should be avoided. These slopes should be considered

Greenways and Blueways

The County's Greenways Plan contains a number of existing and proposed Greenways in the Places29 area. Additional Greenways are proposed in this Master Plan in the form of multi-use paths and trails shown on the Parks & Green Systems Map. The network of Greenways and Blueways will provide extensive access to County parks, the Rural Areas, and other open spaces, as well as the two Forks of the Rivanna, with their boating and other recreational opportunities.

The Parks & Green Systems Map also shows access points to the Greenway System. Additional locations for access points should be determined during the next update of the Greenways Plan and/or during review of proposals for new development.

The County's Greenways Plan defines the following three types of access points:

1. Major Public Access Points: are located at established activity centers, such as public parks. These access points provide a full range of facilities and services, including restrooms and public parking.
2. Minor Public Access Points: are located at schools, offices, or major commercial areas. Typically, amenities other than public parking are not provided at Minor Public Access Points.
3. Neighborhood Access Points: These are located in or near residential or mixed use development. The developer or neighborhood association will determine the level of amenities and parking provided. Neighborhood Access Points may be located on public or private land.