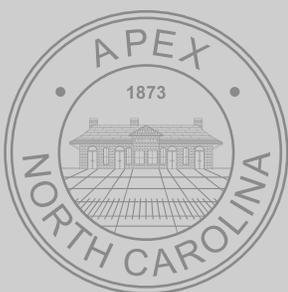


*Town of Apex*

# FUTURE LAND USE MAP UPDATE

ADOPTED FEBRUARY 5, 2019



## ACKNOWLEDGEMENTS

Thank you to the local residents, community leaders, and government staff that participated in the development of this plan through meetings, workshops, comment forms, and plan review. Special thanks to those who participated as Steering Committee members, listed below.

### ADVANCE APEX STEERING COMMITTEE

Mayor Lance Olive	Town Council Planning Committee
Bill Jensen	Town Council Planning Committee
Danielle Bedotto	Planning Board
Reggie Skinner	Planning Board
Corey Schmidt	Development Community
Amy Sackaroff	Schools / Safe Routes to School
David Cole	Bike Apex Steering Committee
Jeff Roach	Parks and Recreation Advisory Commission
Andrew Werking	Town of Apex Transit Committee
Sara Owen	Town of Apex TreeCAP Committee
Marlow Campbell	Town of Apex Chamber of Commerce
Shane Reese	Apex Downtown Business Association
Trevor Autphenne	Apex Student Representative



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Prepared for the Town of Apex, North Carolina

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Adopted by the Town of Apex on February 5, 2019

## Introduction

### Overview

Advance Apex: The 2045 Plan (Advance Apex) is one process resulting in two plans—a long-range transportation plan and an updated future land use map. The community-driven planning process was intended to:

- Establish the 2045 vision for the transportation system and land use in Apex,
- Identify needs and deficiencies,
- Guide growth and development,
- Recommend specific projects and strategies, and
- Create an action plan for implementation.

This paper presents the 2045 Land Use Map and the supporting planning process. It is intended to serve as an addendum to Peak Plan 2030: The Apex Comprehensive Plan, which served as the starting point for the future land use vision for Apex.

### Land Use Map Purpose

A land use map is a recommendation for future development. It establishes long-range land use patterns for the Town, sets expectations for future development, and influences infrastructure improvements. A land use map is different from zoning, which is regulatory and sets immediate restrictions on a property at the time of development. Within the context of Advance Apex, the land use plan update serves the following purposes:

- Evaluate new options for areas most likely to change,
- Reflect amendments and recent development approvals,
- Align future land use with community preferences,

#### *Peak Plan 2030*

Peak Plan 2030 is the Town's Comprehensive Plan adopted in 2013. The Peak Plan identifies specific issues and opportunities facing Apex in order to proactively address concerns and capitalize on possibilities to improve the quality of life for Apex citizens. It provides a broad vision of the future for Apex based on a set of goals defined by residents, business owners, community leaders and other stakeholders. In addition, the plan presents strategies for achieving that vision. Among these strategies is the Peak Plan 2030 Land Use Map. The 2045 Land Use Map is a supplement to the Peak Plan, not replacing the overall framework and recommendations, but updating the land use map and land use descriptions based on the Town's vision for 2045.

- Align future land use with transportation recommendations, and
- Consider minor changes to land use descriptions.

## Land Use Principles

Advance Apex included numerous opportunities for public engagement including: in-person workshops, two online surveys, a website, focus group meetings, and a Steering Committee. From this outreach, a consistent theme emerged – the Town's built environment (streets, utilities, buildings, and neighborhoods) and natural resources (parks, open spaces, bodies of water, and working farms) directly influence quality of life. Stakeholder feedback also helped establish three overarching land use principles that informed the development of the 2045 Land Use Map. These principles are:

-  *Preserve rural character in the western portion of the study area.*
-  *Create more walkable mixed use areas.*
-  *Invest in key corridors and emerging activity centers.*

## Process

The land use planning process included four steps: land use screening, identification of drivers and trends, establishment of focus areas, and evaluation of alternatives.

### Land Use Screening

#### Development Status

Development status categorizes each parcel in the study area based on tax value (land and improvement value), size, and land use to identify areas susceptible to change. The development status analysis is based on December 2017 Wake County tax parcel data. **Table 1** provides more detail on the categories and shows the breakdown of the study area by category. **Figure 1** shows the study area's development status.

**Table 1: Development Status**

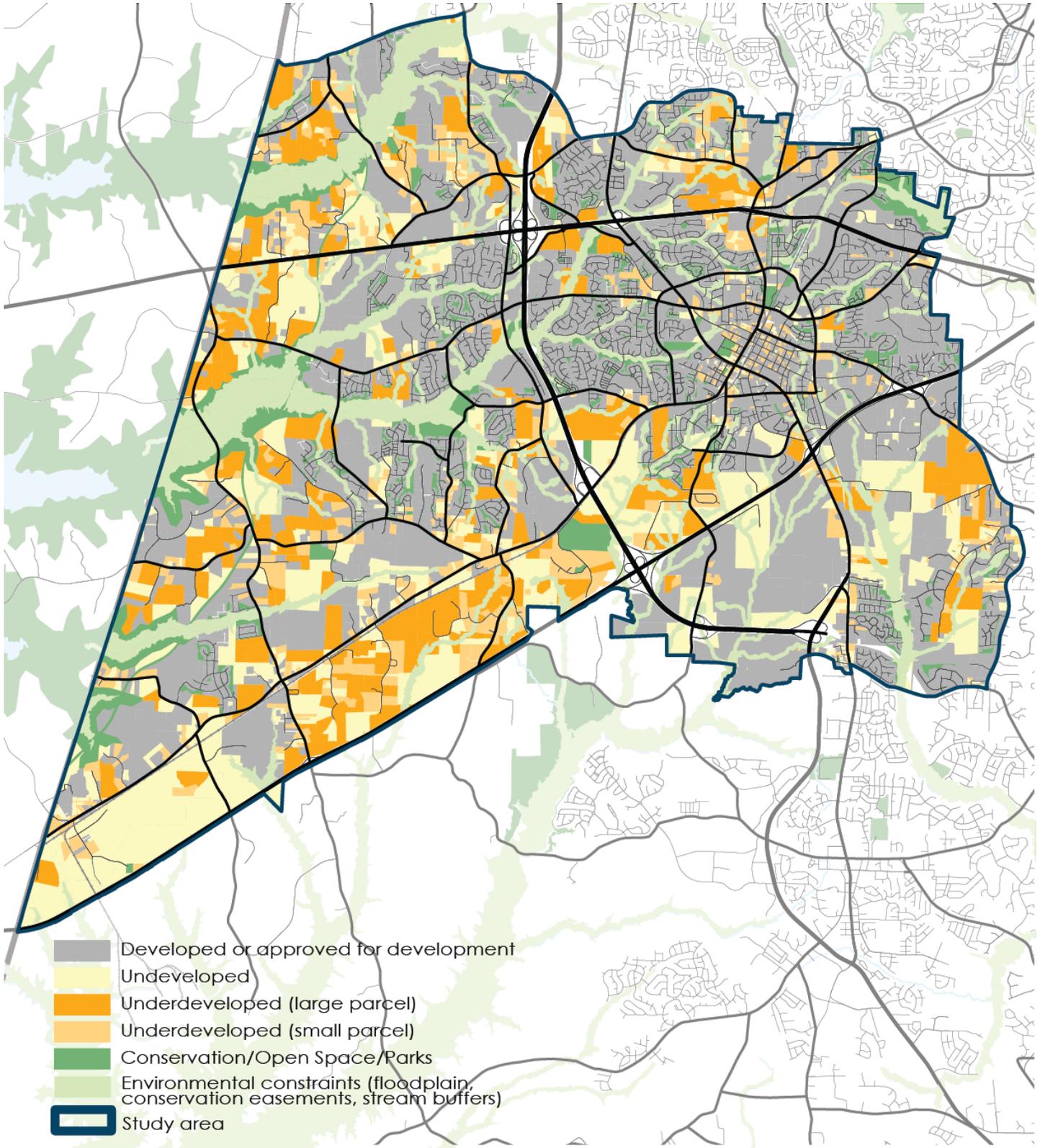
<b>Name</b>	<b>Description</b>	<b>Area (acres)</b>	<b>Percent of Study Area</b>
<b>Developed</b>	<ul style="list-style-type: none"> <li>• Building value is greater than land value</li> <li>• HOA-owned land</li> </ul>	13,606	41.9%
<b>Undeveloped</b>	<ul style="list-style-type: none"> <li>• Designated as “vacant”</li> <li>• Parcels with a building value of 0</li> </ul>	5,228	16.1%
<b>Underdeveloped, Large Parcel</b>	<ul style="list-style-type: none"> <li>• Parcels larger than 10 acres where building value is less than land value but greater than 0</li> </ul>	3,969	12.2%
<b>Underdeveloped, Small Parcel</b>	<ul style="list-style-type: none"> <li>• Parcels smaller than 10 acres where building value is less than land value</li> </ul>	2,618	8.1%
<b>Conserved Open Space</b>	<ul style="list-style-type: none"> <li>• Parks, conservation buffers, open space, cemeteries, and other areas not available for development</li> </ul>	3,853	11.8%
<b>Right-of-Way</b>	<ul style="list-style-type: none"> <li>• Designated as transportation right-of-way</li> </ul>	3,162	9.7%
<b>Total</b>		<b>32,436</b>	<b>100%</b>

Development status directly drove the next steps in the land use planning process by identifying parcels theoretically able to receive new growth. Areas with high concentrations of parcels designated as undeveloped or underdeveloped were considered as potential areas of change. Conversely, areas mostly designated as developed, conserved open space, or right-of-way were not considered for future changes.

### Environmental Screening

A high-level screening helped identify environmental constraints that were likely to affect the area's development potential. The North Carolina Green Growth Toolbox, a GIS screening tool developed by the North Carolina Wildlife Resources Commission, formed the basis for this screening, as well as the Town's GIS data. Areas were considered constrained if they were within the floodplain, part of an existing conservation easement or managed area, or within the statutory riparian buffer. These areas were overlaid on the development status results to obtain the results of the land use screening, as shown in **Figure 1**.

**Figure 1: Land Use Screening Map**

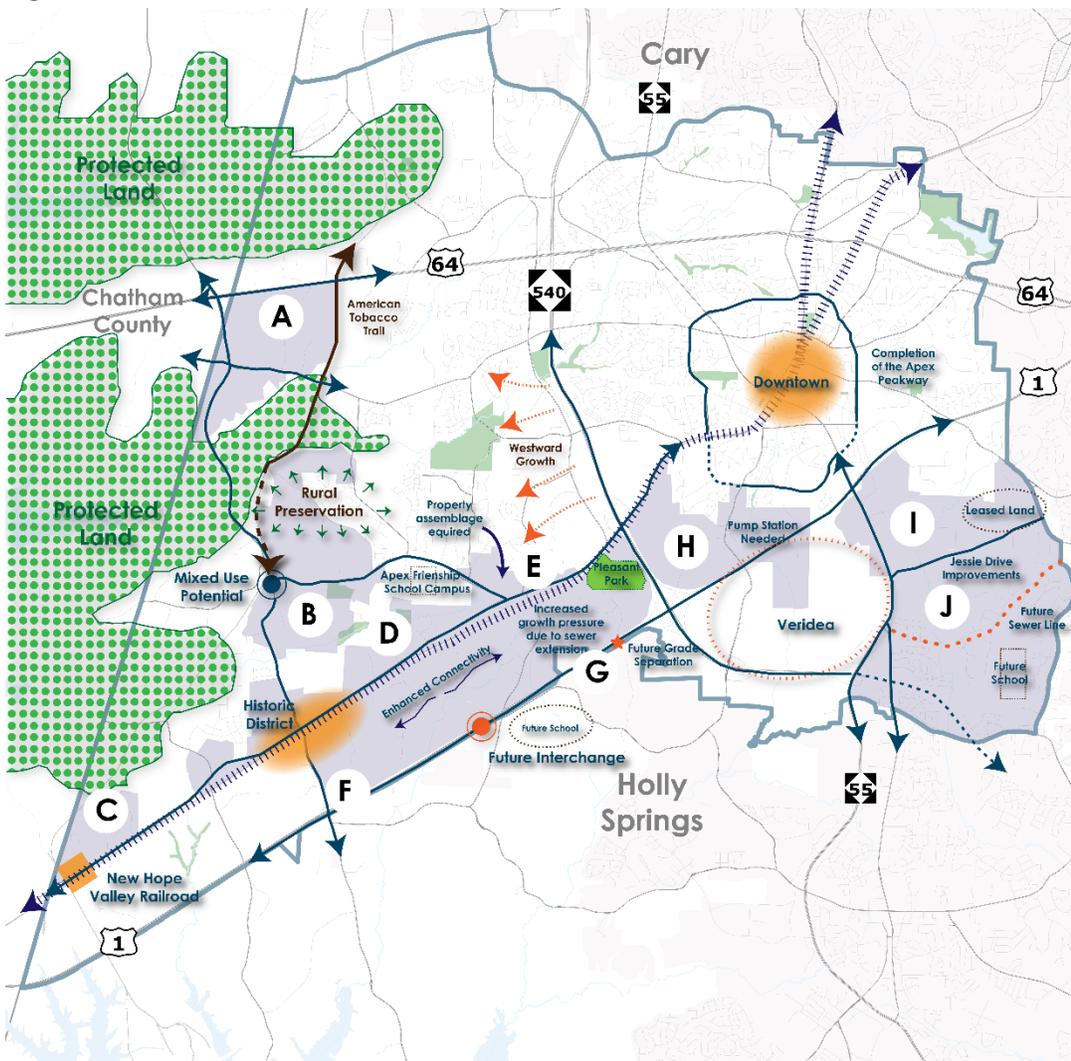


## Drivers and Trends

Factors that likely will influence land use, growth, and development in the future are shown in **Figure 2** and include:

- Readily available water and sewer infrastructure.
- Completion of NC 540 and other future roadway improvements (US 64, Ten Ten Road, and NC 55) provides greater connectivity to the rest of Wake County.
- Completion of the Apex Peakway will improve connectivity around the downtown core.
- Pleasant Park is likely to be a regional draw and attract some level of auxiliary development.
- A strong desire to both preserve rural areas and create walkable mixed use areas.
- High-quality schools and the park system are draws, with expansions likely to attract developers.

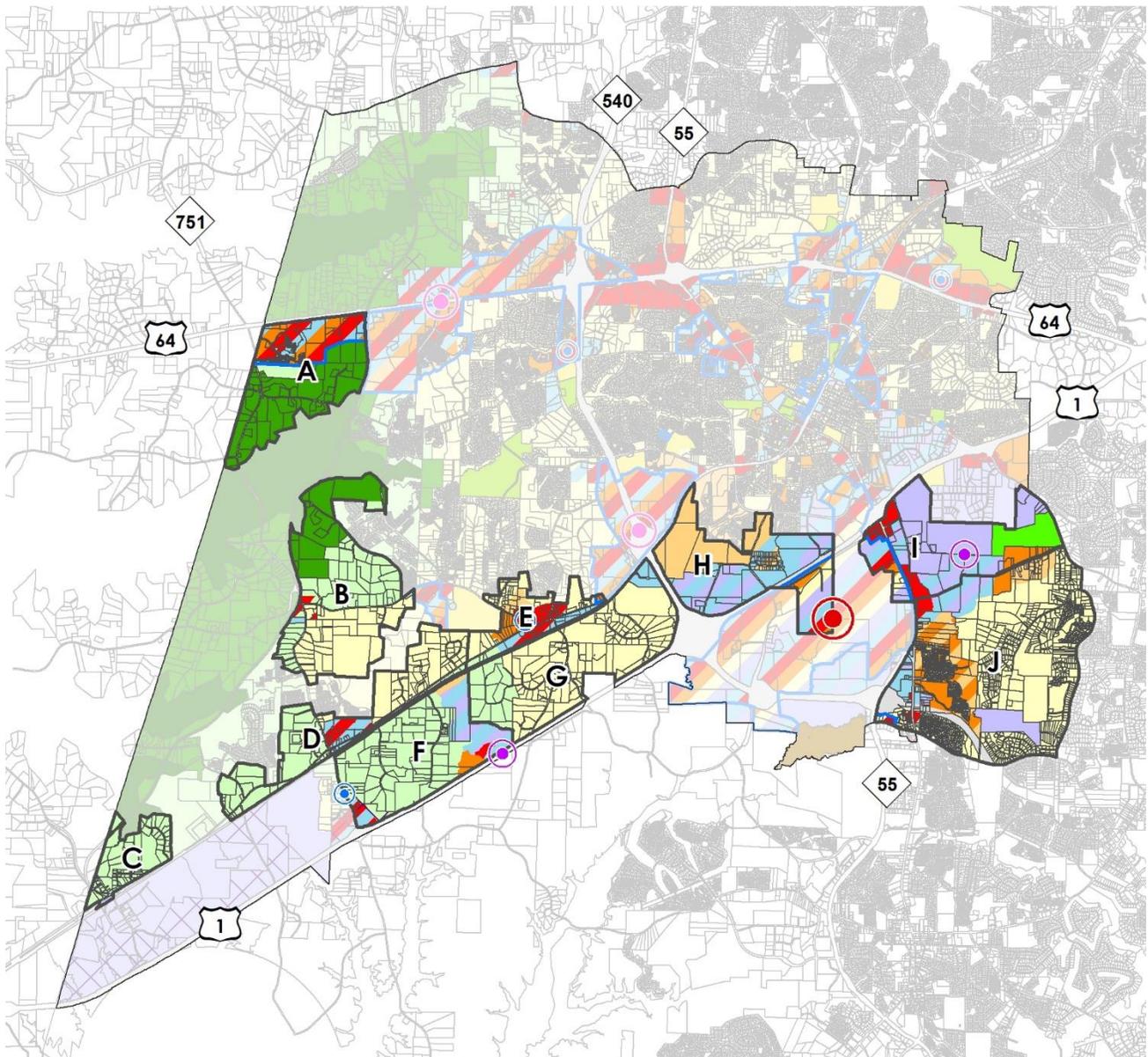
**Figure 2: Drivers and Trends**



## Focus Area Identification and Alternatives Evaluation

The land use screening informed the selection of ten focus areas. Each of these areas were identified because of their susceptibility to future change as well as the presence of one or more identified drivers likely to affect the area's market potential as well as the overall development characteristics of future growth. Land uses within these focus areas were considered for possible changes, while most areas outside of the focus areas remained unchanged from the 2030 Land Use Map. The focus areas are shown in **Figure 3** with their land use designations from the 2030 Land Use Map.

**Figure 3: Focus Areas**





At least one alternative to the 2030 Land Use Map was created for each focus area to show possible options that respond to the drivers and trends while remaining true to the land use principles. The alternatives were presented to Town Staff, the Advance Apex Steering Committee, and community members at a public workshop in August 2018. Participants were asked to select their preferred alternative for each focus area and provide optional comments to explain their decision. An online survey allowed for Town residents unable to attend the workshop to provide similar feedback. A complete summary of input gathered is available in the Advance Apex Appendices, available on the Town's website.

The input gathered became the basis for the ultimate selected land use alternatives that formed the draft land use map. In some cases public input led to a blend of two alternatives or a new recommendation.

A description of each focus area is provided in the following section.

# Focus Areas

## A: US 64 West

### Location:

Near the northwest corner of the study area, US 64 West is generally bounded by the Chatham County line, US 64, the American Tobacco Trail, Reedy Branch, and Beaver Creek.

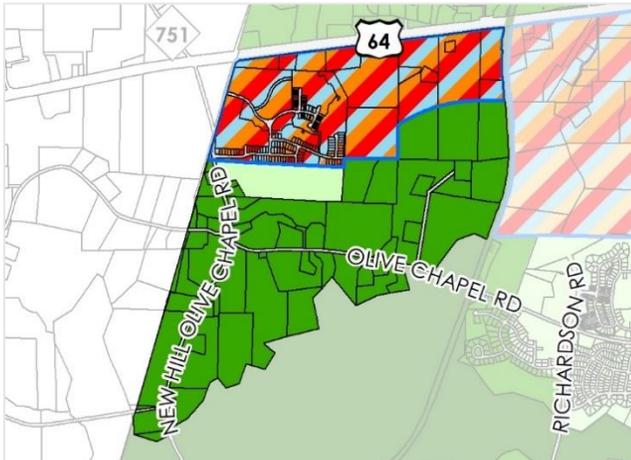
### Existing Conditions:

Rural areas near US 64 are transitioning. The Deer Creek development is under construction and includes townhomes, single-family homes, and space for future non-residential uses. Additional residential development has been recently approved to the south of Deer Creek.

### Key Considerations:

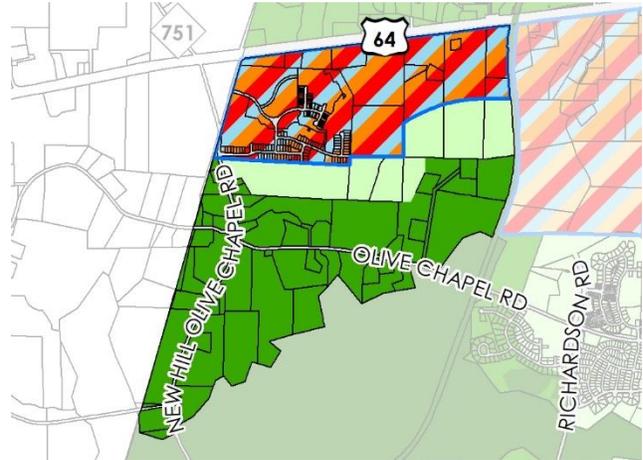
Acknowledge development that is underway. Balance the preservation of rural character and open space. Avoid additional access points to US 64, which should be treated as a strategic highway corridor.

### 2030 Land Use Map:



Peak Plan recognizes US 64 as a major corridor appropriate for Mixed Use development and designates areas adjacent to protected open space (Jordan Lake) as Rural Density Residential.

### 2045 Land Use Map:



Advance Apex adds a Low Density Residential buffer between the Commercial Services/Office Employment/High Density Residential Mixed Use area and the Rural Density Residential areas to serve as a transition.

### Advance Apex Key Principles:

- Preserve rural character
- Invest in key corridors and activity centers

## B: Buckhorn

### Location:

In the western section of the study area, Buckhorn extends north and south of Humie Olive Road and is generally bounded by the American Tobacco Trail, Beaver Creek, Ragan Road, and Little Beaver Creek.

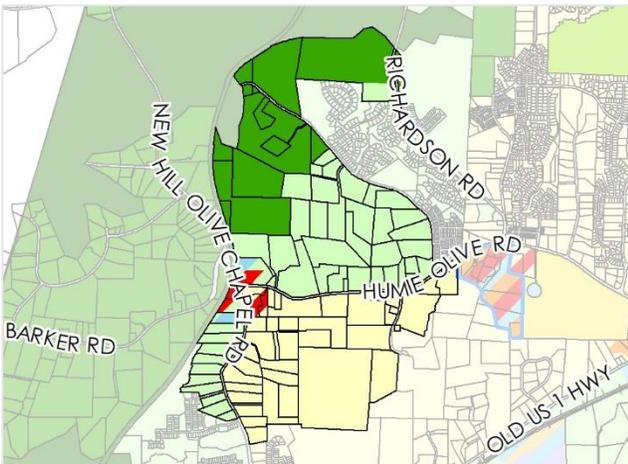
### Existing Conditions:

Mostly rural density residential with some agricultural land. The American Tobacco Trail borders a portion of the focus area. There are several potential historic sites adjacent to the Humie Olive Road/New Hill Olive Chapel Road intersection.

### Key Considerations:

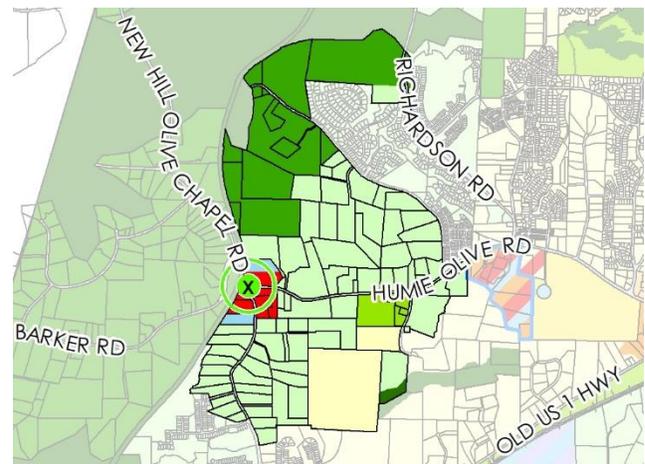
Leverage the American Tobacco Trail, potential historic sites, and proximity to the future park on Humie Olive Road. Acknowledge the proximity to natural areas as well as surrounding development projects.

### 2030 Land Use Map:



Peak Plan envisions Commercial, Office, and Medium Density Residential at the main intersection. North of Humie Olive Road is planned for lower density residential than south of Humie Olive Road.

### 2045 Land Use Map:



Advance Apex envisions the unique opportunity for a Recreational Mixed Use Activity Center at the Humie Olive Road/New Hill Olive Chapel Road intersection. Residential densities are lowered both north and south of Humie Olive Road.

### Advance Apex Key Principles:

- Preserve rural character
- Invest in key corridors and activity centers

## C. Bonsal

### Location:

In the southwest corner of the study area, Bonsal is bordered by the Chatham County line, the New Hope Valley Railway railroad corridor, the approved Gracewood Planned Unit Development, and Old US 1.

### Existing Conditions:

Predominantly rural density residential. The New Hope Valley Railway runs excursion rides and a museum. Nearby, several residential projects are under construction or have recent zoning approved.

### Key Considerations:

The New Hope Valley Railway is a distinct asset to this area with potential future connections to the American Tobacco Trail. Nearby development underway is low density single-family residential.

### 2030 Land Use Map:



Peak Plan calls for Low Density Residential throughout the area, with Industrial Employment emanating from the New Hope Valley Railway location to outside of the focus area between Old US 1 and US 1.

### 2045 Land Use Map:



Advance Apex identifies a second Recreational Mixed Use Activity Center at the location of the New Hope Valley Railway and lowers residential density adjacent to Protected Open Space.

### Advance Apex Key Principles:

- Preserve rural character
- Invest in key corridors and activity centers

## D. New Hill

### Location:

New Hill is generally bounded by the approved Gracewood Planned Unit Development, Jordan Pointe, Jordan Manors, Woodbury, Little Beaver Creek, the approved Peak Landing subdivision, and the CSX Railroad corridor.

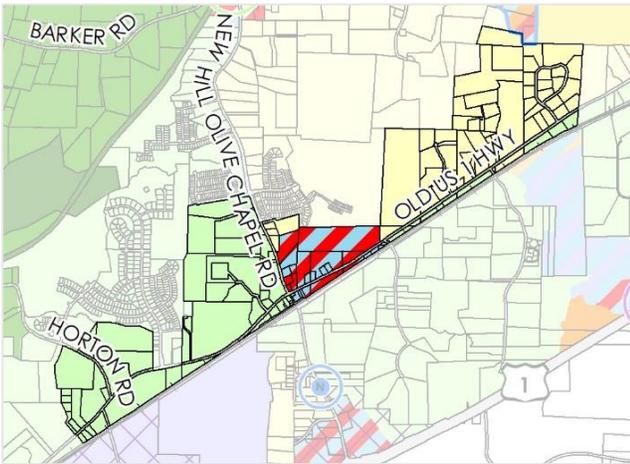
### Existing Conditions:

Predominantly rural density residential. There are numerous potential historic sites surrounding the New Hill Olive Chapel/New Hill Holleman Road and Old US 1.

### Key Considerations:

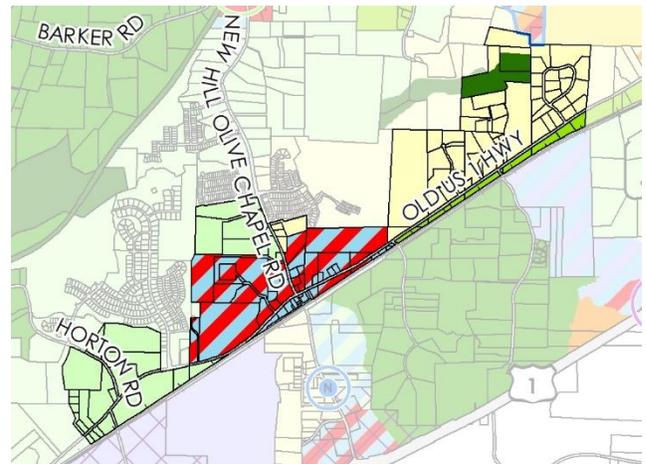
Substantial development is occurring nearby, spurred by the Apex Friendship schools and available water and sewer. This area is a buffer between non-residential uses to the east and rural areas to the west. Limited non-residential uses may be supported at the intersection of New Hill Olive Chapel/New Hill Holleman Road and Old US 1.

### 2030 Land Use Map:



Peak Plan calls for Medium Density Residential transitioning to Low Density Residential west of New Hill Olive Chapel/New Hill Holleman Road. Office Employment and Commercial Services are envisioned northeast of the CSX Railroad/New Hill Holleman Road intersection.

### 2045 Land Use Map:



Advance Apex expands the non-residential area to both sides of New Hill Olive Chapel/New Hill Holleman Road near the Old US 1 intersection. Beginning at Mason Road, the area between Old US 1 and the CSX Railroad corridor is designated as Park—Public or Private to support the vision for a linear park.

### Advance Apex Key Principles:

- Invest in key corridors and activity centers
- Create walkable, mixed use areas

## E. Friendship

### Location:

The Humie Olive Road/Old US 1 intersection is the center of the Friendship focus area. The Apex Friendship High School, Middle School, and future Elementary School campus is just to the west, Bella Casa neighborhoods to the north, the approved West Village Planned Unit Development to the east, and the CSX Railroad corridor to the south.

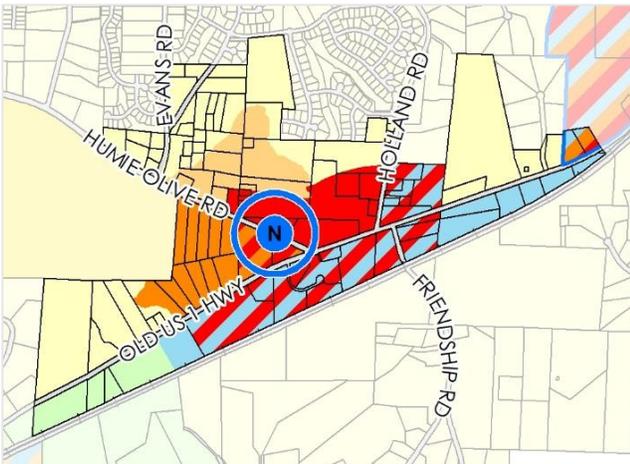
### Existing Conditions:

Predominantly rural residential but bordered by the Apex Friendship schools campus and several recently constructed or approved residential developments.

### Key Considerations:

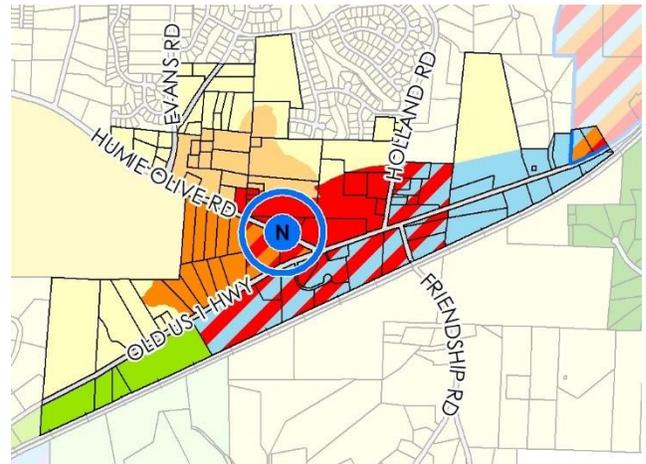
The area has experienced growth and increased traffic. Public sentiment is to maintain Medium Density Residential along the west side of Evans Road. Access to the land between Old US 1 and the CSX Railroad corridor is limited.

### 2030 Land Use Map:



Peak Plan calls for a Neighborhood Mixed Use Activity Center at the intersection of Humie Olive Road and Old US 1, with surrounding residential uses decreasing in density with distance from the center.

### 2045 Land Use Map:



Advance Apex designates the southwestern portion of the focus area between Old US 1 and the CSX Railroad corridor as Park—Public or Private. Office Employment is expanded east of Holland Road along Old US 1. Expansion of Medium/High Density Residential is limited to the east side of Evans Road.

### Advance Apex Key Principles:

- Invest in key corridors and activity centers
- Create walkable, mixed use areas

## F. Bosco

### Location:

Bosco is the area between US 1 and the CSX Railroad corridor, bounded on the west by New Hill Holleman Road and on the east by large-lot Wake County subdivisions just east of Bosco Road.

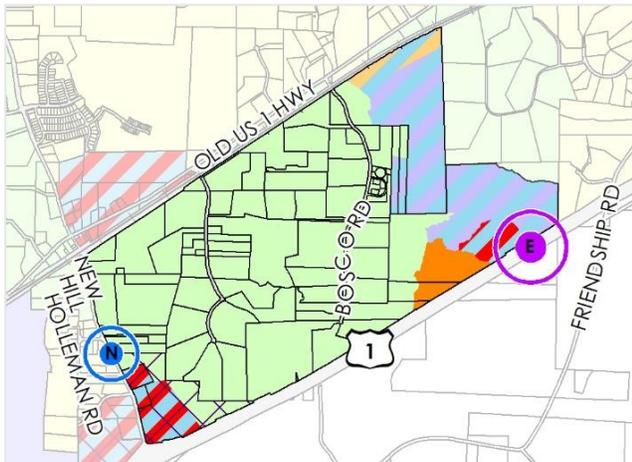
### Existing Conditions:

Predominantly rural density residential and forest land with some agricultural uses.

### Key Considerations:

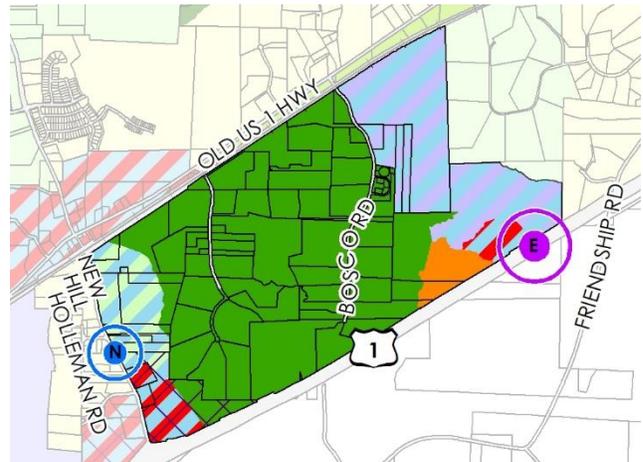
Richardson Road is planned to extend through the focus area and intersect with US 1. Holly Springs has a certified economic development site just south of this future interchange.

### 2030 Land Use Map:



Peak Plan recommends mostly Low Density Residential and identifies two Mixed Use Activity Centers near interchanges: one just north of the existing US 1 interchange on New Hill Holleman Road and the other at the future interchange of Richardson Road and US 1.

### 2045 Land Use Map:



Advance Apex maintains the Mixed Use Activity Centers but lowers planned residential densities to Rural Density Residential. The Office Employment/Industrial Employment area is extended north to the Railroad corridor and the segment of Bosco Road that will become future Richardson Road. Office Employment is also added as a development option for the full eastern frontage of New Hill Holleman Road.

### Advance Apex Key Principles:

- Preserve rural character
- Invest in key corridors and activity centers

## G. Pleasant Park

### Location:

Encompasses future Pleasant Park and the land area between the Bosco focus area, the CSX Railroad corridor, NC 540, and US 1.

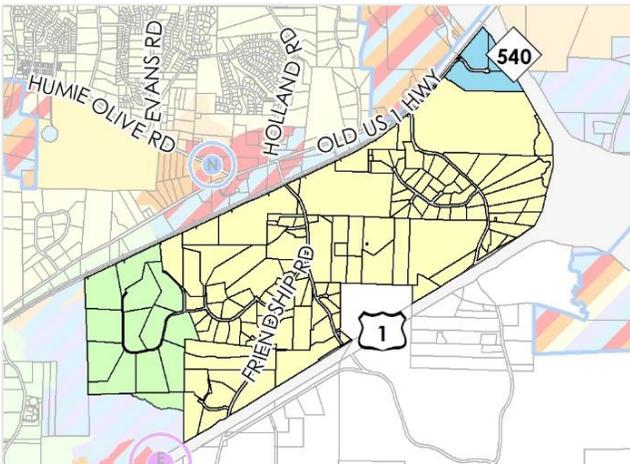
### Existing Conditions:

Currently mostly low density and rural residential, with several established horse farms in the area.

### Key Considerations:

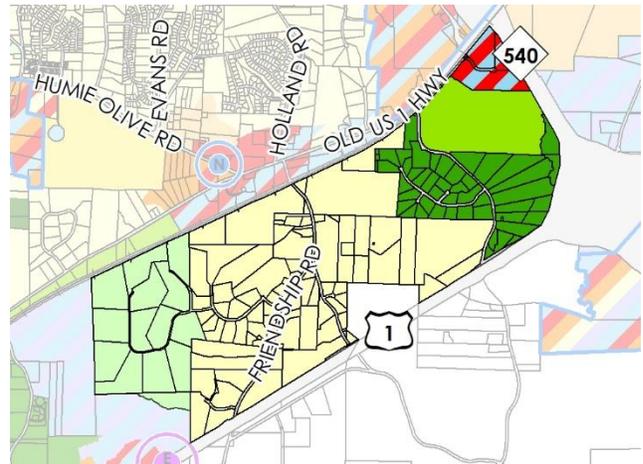
Pleasant Park, sewer extension, and the proximity to a major interchange support development, while public comments indicate a desire to maintain current land use. Transportation plans include future extension of Pleasant Plains Road across US 1 into Holly Springs.

### 2030 Land Use Map:



Peak Plan calls for Medium Density Residential, with Low Density Residential to the west and Office Employment near the Old US 1 and NC 540 interchange.

### 2045 Land Use Map:



Advance Apex classifies Pleasant Park as Park—Public or Private, and it adds Commercial Services to the area identified for Office Employment to support uses complementary to the park. South of the park, Medium Density Residential is changed to Rural Density Residential in response to public comments.

### Advance Apex Key Principles:

- Preserve rural character
- Invest in key corridors and activity centers

## H. Tingen

### Location:

Encompasses the northeast quadrant of the NC 540/US 1 interchange, bounded by the CSX Railroad corridor, Salem Village, existing developments south of Apex Peakway, and the properties south of US 1 sited for a future interchange with the extension of Perry Road.

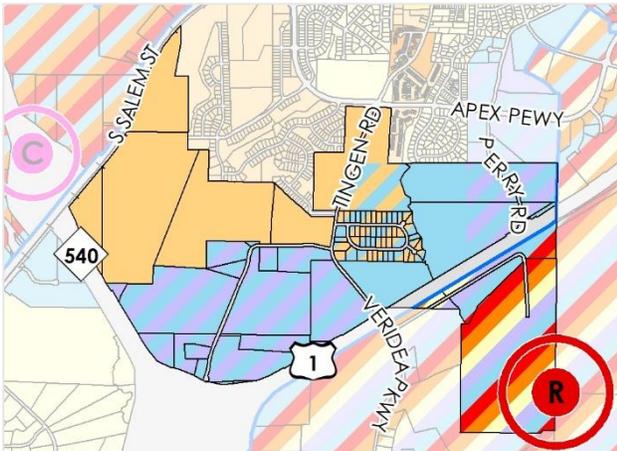
### Existing Conditions:

Mostly vacant or agricultural land. Salem Village extends along the northern boundary and includes stub streets that can be extended for future development. The portion of the focus area south of US 1 is surrounded by Veridea.

### Key Considerations:

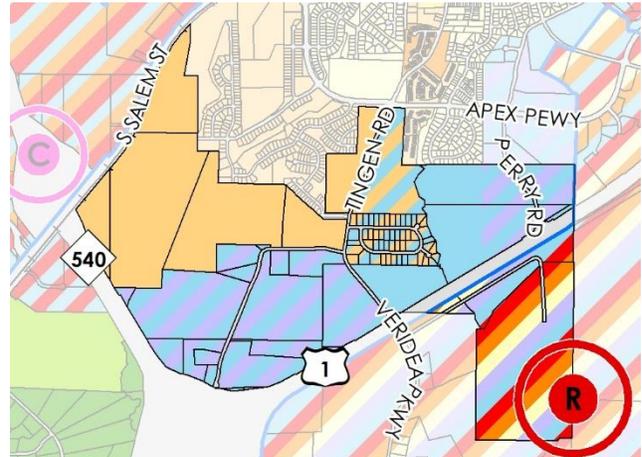
Long range plans include future commuter rail service to this area. When the Veridea Traditional Neighborhood Development moves forward, there will be a drastic change to this area. The focus area is easily accessible to major regional corridors, including NC 540 and US 1.

### 2030 Land Use Map:



Peak Plan calls for Industrial Employment and Office Employment close to the NC 540/US 1 interchange, with a Regional Mixed Use Activity Center where the future extensions of Perry Road and Jessie Drive will intersect.

### 2045 Land Use Map:



Advance Apex slightly extends the Medium/High Density Residential/Office Employment along Tingen Road to Apex Peakway. While increasing residential densities supportive of rail and other forms of transit was considered, public preference was to maintain the Peak Plan.

### Advance Apex Key Principles:

- Invest in key corridors and activity centers
- Create walkable, mixed use areas

## I. Middle Creek North

### Location:

Within the southeastern portion of the study area, generally bounded by E. Williams Street (NC 55), US 1, Ten Ten Road, and Jessie Drive (existing and future).

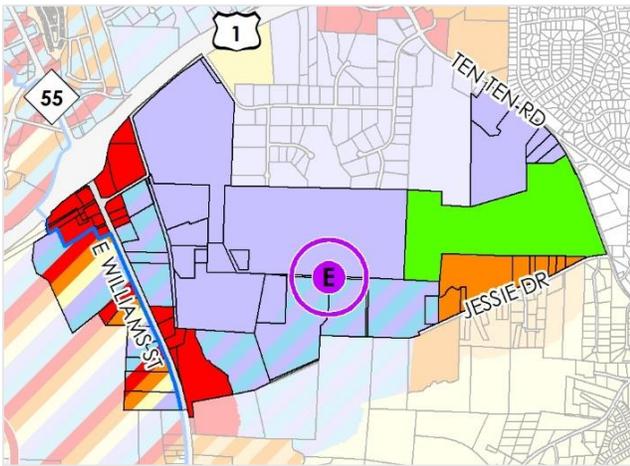
### Existing Conditions:

Mostly commercial and industrial uses as well as Lufkin Road Middle School and Knight's Play Golf Center. Rezoning for Cash Corporate Center (certified economic development site) was approved in September, 2018.

### Key Considerations:

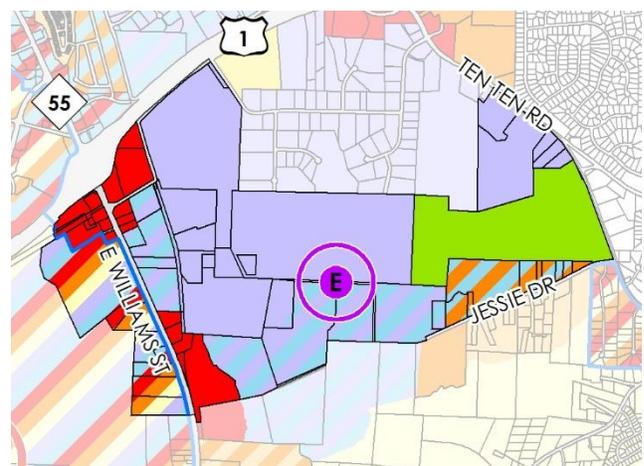
Knight's Play Golf Center is leased and not protected as public or open space. Ten Ten Road will be improved in the next 5 years. Improvements to the US 1/NC 55 interchange and extension of Jessie Drive are in developmental stages.

### 2030 Land Use Map:



Peak Plan calls for mostly Industrial Employment with some Commercial Services and Office Employment along the NC 55 and Jessie Drive corridors as well as Golf Course and High Density Residential along Ten Ten Road at Jessie Drive.

### 2045 Land Use Map:



Advance Apex identifies Knight's Play as Park—Public or Private and envisions Office Employment along the north side of Jessie Drive in addition to High Density Residential.

Advance Apex Key Principles: Invest in key corridors and activity centers

## J. Middle Creek South

### Location:

The southeast corner of the study area, bounded by NC 55 Bypass, E. Williams Street (NC 55), Jessie Drive (existing and future), Ten Ten Road, Smith Road, Stephenson Road, Sunset Lake Road, and Old Smithfield Road.

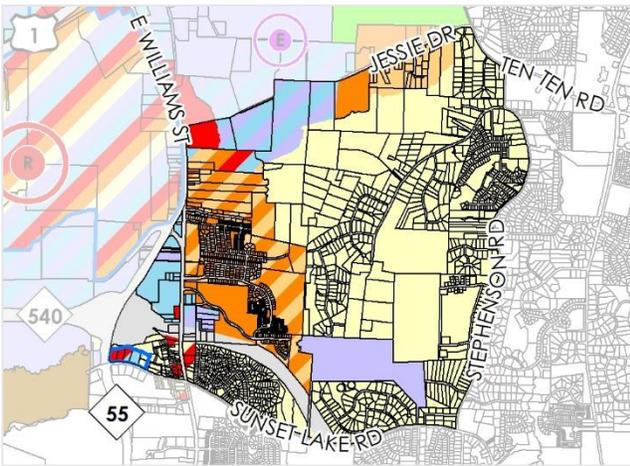
### Existing Conditions:

A variety of uses are present, including different types of residential developments with a range of densities, a construction and demolition (C&D) landfill, and commercial.

### Key Considerations:

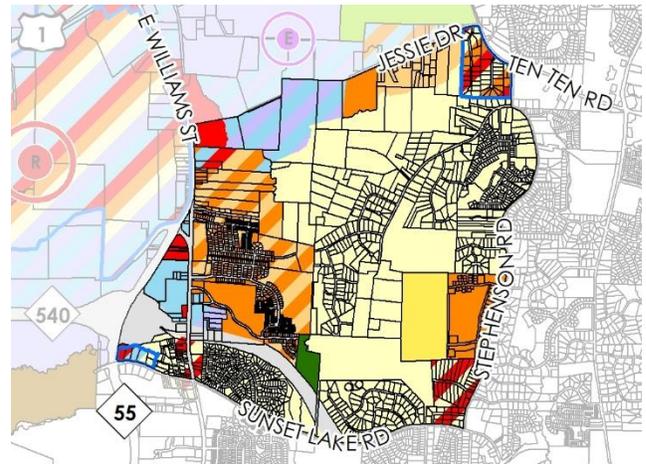
A high school is slated for the area. Connectivity will improve with the extension of Jessie Drive and collector streets. In the future, transit service will extend to this section of NC 55, which may shift desired uses and density around future stops.

### 2030 Land Use Map:



Peak Plan recommends Medium/High and High Density Residential along NC 55 and Jessie Drive, Office/Industrial Employment and Commercial Services near the future Jessie Drive/NC 55 intersection, and Medium Density Residential approaching Stephenson Road.

### 2045 Land Use Map:



Advance Apex identifies the future high school site and increases residential densities and mixed use opportunities near the school and along corridors. The corner of Smith Road and Ten Ten Road is identified for Mixed Use.

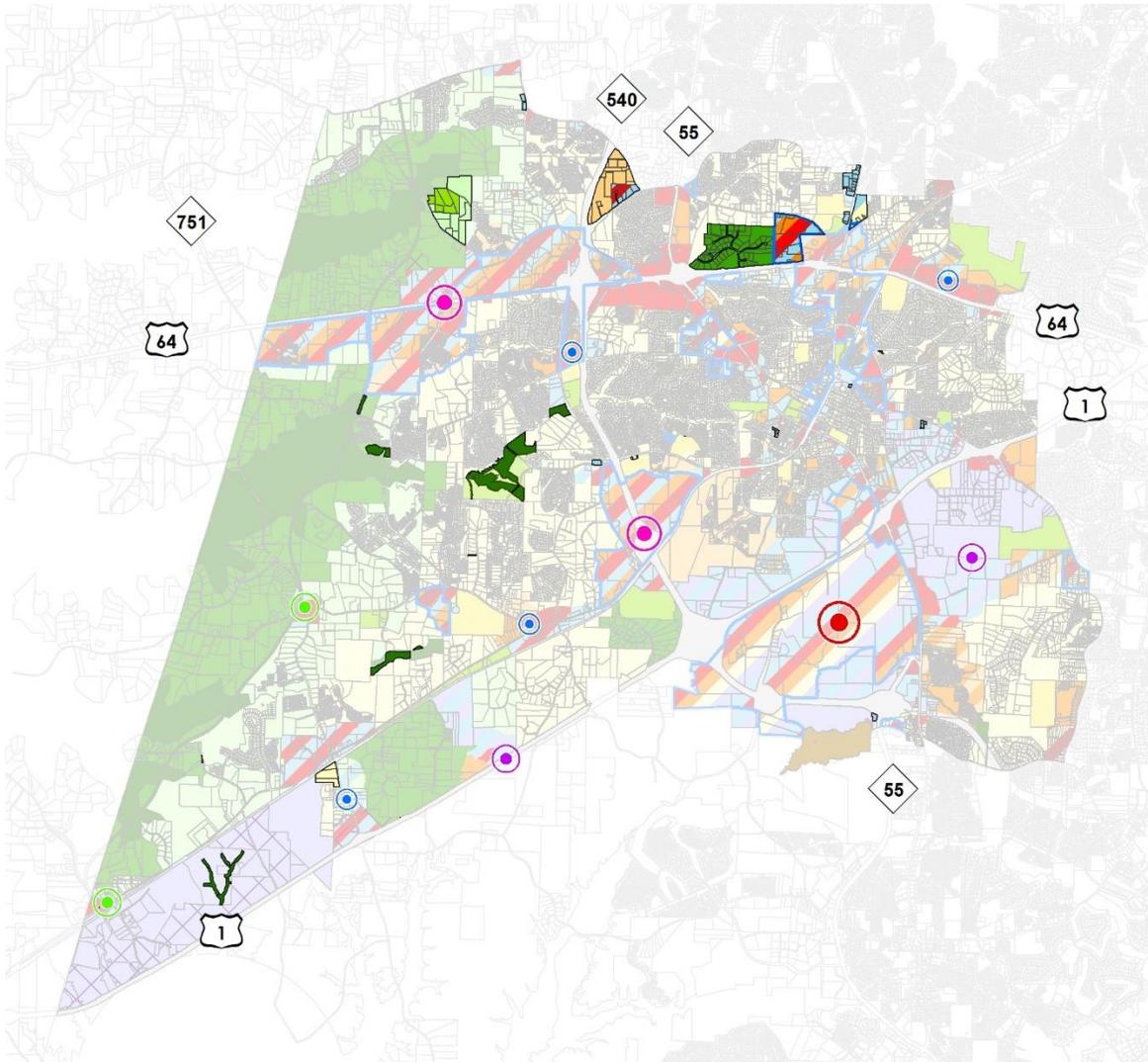
### Advance Apex Key Principles:

- Preserve rural character
- Invest in key corridors and activity centers
- Create walkable, mixed use areas

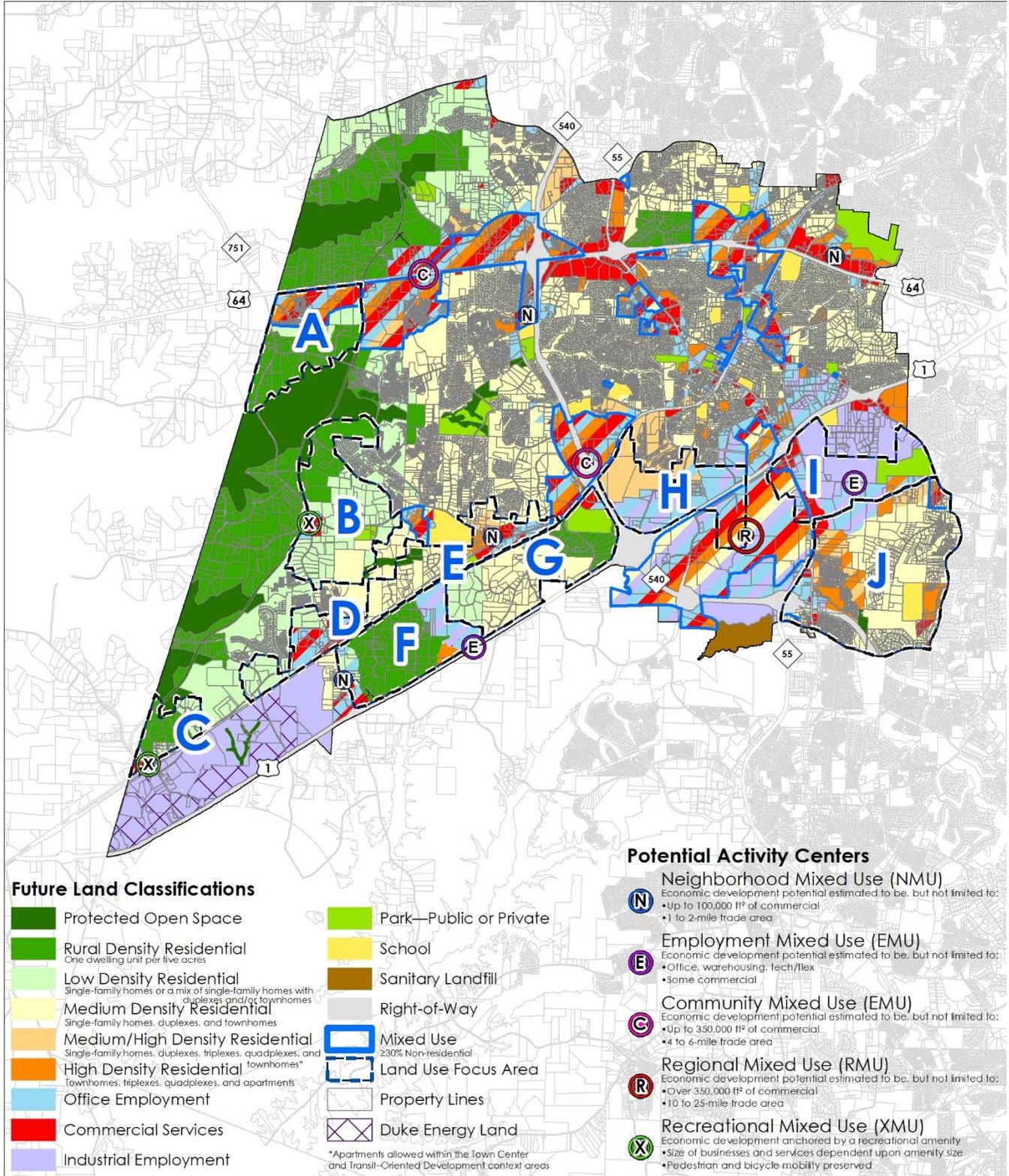
## Other Changes

Additional modifications to the 2030 Land Use Map outside of the ten focus areas are shown in **Figure 4**. These changes are intended to: address small pockets where change is likely, show where new parks are envisioned, and identify the current locations of protected lands. These other changes are shown in the map below. The most substantial change is between West Williams Street (NC 55), Old Jenks Road, Davis Drive, and US 64. Here, Advance Apex slightly expands the land area envisioned as Mixed Use and changes the Castlewood area from Low Density Residential to Rural Density Residential. This recommendation is responsive to public comments which showed a preference for maintaining the rural character of the large-lot neighborhood. **Figure 5** shows the 2045 Land Use Map with the ten focus areas outlined. **Figure 6** shows the final 2045 Land Use Map.

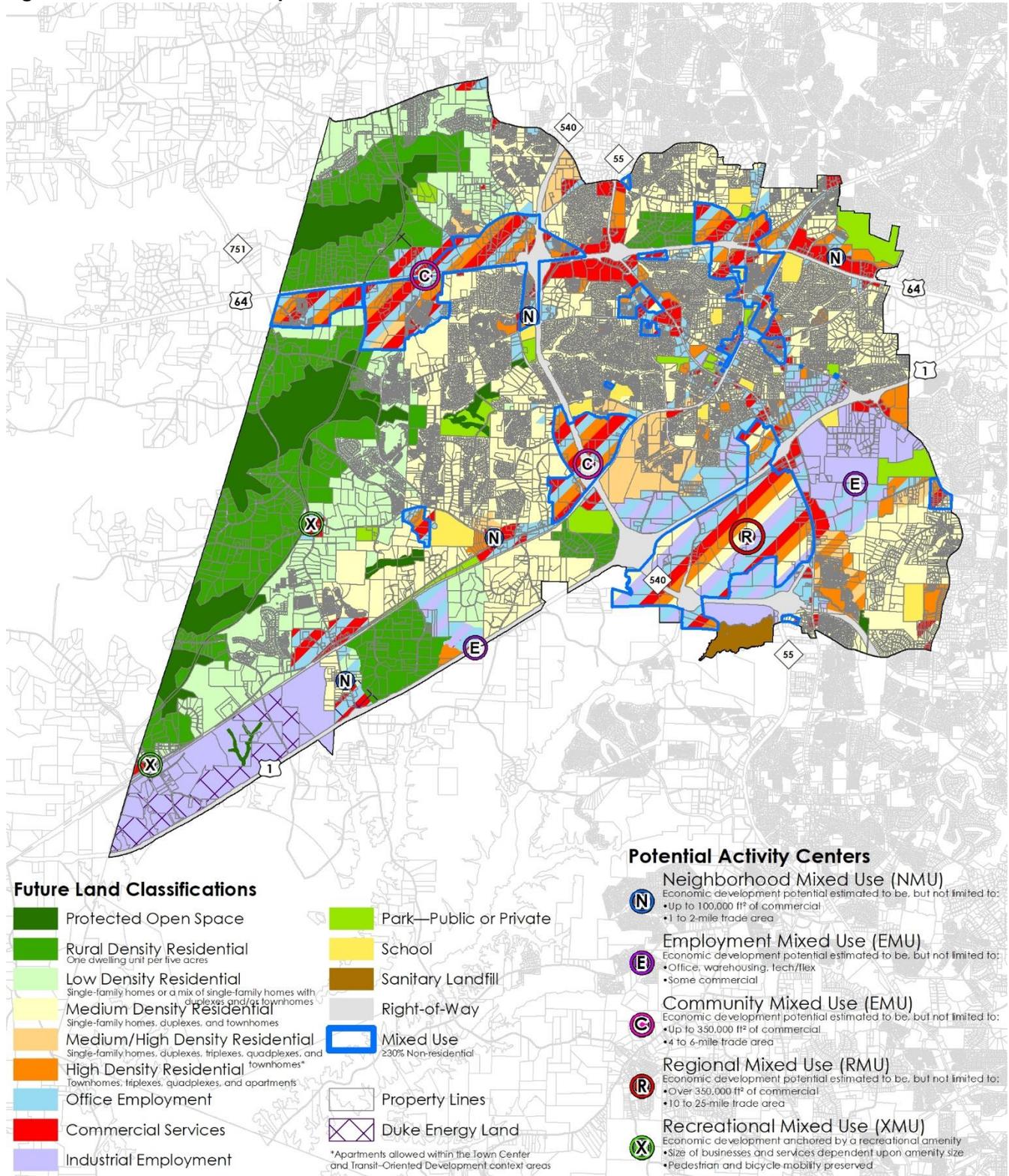
**Figure 4: Additional Land Use Changes**



**Figure 5: 2045 Land Use Map with Focus Area Boundaries**



**Figure 6: 2045 Land Use Map**



## Description of Land Uses

Thirteen land use categories are depicted on the map, including variations of mixed use development in certain areas. Each category is intended to indicate a predominant land use—or set of uses—as well as other features that define the character of the category. Each description is consistent with the ideas and vision the community has for the future development pattern. These descriptions do not propose a change to existing development within each category; instead, they suggest a direction moving forward and list qualities to be embodied by new development and redevelopment. Residential densities, where provided, indicate a preference rather than a requirement.

### Protected Open Space

- Protected Open Space characterizes land areas with permanent protections that are not likely to develop, such as the land adjacent to Jordan Lake owned by the federal government and managed by the North Carolina Wildlife Resources Commission.

### Rural Residential

- Rural Residential is intended to protect and enhance the rural character of primarily the western-most and southwestern portions of the study area. The land is to remain minimally developed with single-family residential uses at very low densities.
- The area is characterized by single-family development up to one dwelling unit per five acres and large tracts of agricultural lands.
- Rural Residential provides a transition from the Protected Open Spaces around Jordan Lake and Shearon Harris Reservoir to Low Density Residential.

### *Substantive changes to land use descriptions in Peak Plan 2030:*

**Rural Residential** – Changed to one dwelling unit per five acres.

**Low Density Residential** – Added duplexes and/or townhomes in a mix with single-family homes.

**Medium Density Residential** – Added duplexes. Changed to three to seven units per acre.

**Medium-High Density Residential** – Added duplexes, triplexes, quadplexes, and, within the Town Center and Transit-Oriented Development context areas, apartments. Revised to seven to fourteen units per acre.

**High Density Residential** – Added triplexes and quadplexes. Set a minimum density of fourteen units per acre with maximum density determined at the time of rezoning or site plan approval.

**Park** – Revised to Park – Public or Private.

**Landfill** – Revised to Sanitary Landfill.

**Recreational Mixed Use Activity Center** – New classification.

## Low Density Residential

- Low Density Residential is intended to provide for single-family residential development or single-family residential development with a mix of duplexes and/or townhomes on lots smaller than those in Rural Residential areas.
- The area is characterized by single-family homes, duplexes, and townhomes with densities not to exceed three units per acre.
- Low Density Residential provides a transition from the more suburban areas of Apex to the rural edges of western Wake County.

## Medium Density Residential

- Medium Density Residential primary uses include single-family homes, duplexes, and townhomes with densities no less than three and no more than seven dwelling units per acre.
- Medium Density Residential provides a transition from the more urbanized areas of Apex to the low density neighborhoods in the western part of the study area.

## Medium/High Density Residential

- Medium/High Density Residential primary uses include single-family homes, duplexes, triplexes, quadplexes, townhomes, and, within the Town Center and Transit-Oriented Development context areas, apartments with densities no less than seven and no more than fourteen dwelling units per acre.
- Medium Density/High Density Residential provides for a variety of housing options located in close proximity to major transportation corridors.

## High Density Residential

- Townhomes, triplexes, quadplexes, and apartments with densities no less than 14 dwelling units per acre are included in the High Density Residential category. The maximum density shall be determined at the time of rezoning or site plan approval.
- High Density Residential provides for housing options to be located in close proximity to major commercial areas and transportation corridors.

## Office Employment

- Office Employment is intended to provide land that allows for a wide range of businesses that provide professional, managerial, or administrative services in the study area.

- Depending on the location in question and the mixture of uses, the character and intensity of Office Employment varies from neighborhood business services to large-scale regional employment centers.

## Commercial Services

- Commercial Services is intended to delineate land where commercial uses are appropriate to serve the residents of Apex and the greater region.
- A mix of commercial conveniences is encouraged in the areas defined as Commercial Services.
- The mixture of uses, character of development, and intensity of Commercial Services varies from neighborhood-oriented commercial to large-scale regional retail centers.

## Industrial Employment

- Industrial Employment is intended to delineate land that allows for industrial uses such as light manufacturing, tech-flex, warehousing, and processing facilities in the study area.

## Park— Public or Private

- Park – Public or Private recognizes existing parks serving the study area, as well as future parks and recreation centers planned to serve the community's future needs. They vary in size, range of activities offered, and level of programming depending on the type of park.

## School

- School recognizes existing and planned schools serving the study area.

## Sanitary Landfill

- Sanitary Landfill notes the site of the existing sanitary landfill in Apex. Particular attention should be paid to adjacent uses to avoid nuisance conflicts.

## Right-of-Way

- Right-of-Way illustrates the major transportation corridors in the study area.

## Description of Mixed Use Activity Centers

The Advance Apex Land Use Map identifies five types of mixed use designations, each with their own character and economic development potential. While the uses within each may vary, all should be designed as walkable, pedestrian-oriented areas. In addition, this plan recognizes that economic and market conditions fluctuate. While the specific location and development program of each may

change over time, the primary characteristics of each should serve as a flexible guide to help shape growth in Apex.

## Neighborhood Mixed Use

As illustrated in the Humie Olive Development Concept, the neighborhood mixed use activity center is suited for a variety of residential uses developed around a concentration of retail and commercial uses. The scale of a neighborhood mixed use activity center varies depending on the market, purchasing power of surrounding neighborhoods, and number of competing centers in close proximity. Typical neighborhood mixed use activity centers range from 30,000 square feet to 100,000 square feet of commercial uses and have a service area of one to two miles.

Key characteristics of neighborhood mixed use activity centers include an interconnected street system that provides linkages to shopping, services, housing, and amenities and a well-connected pedestrian and bicycle network. Residential development should be most dense around the retail core. Apartments and townhomes in close proximity to convenience retailers provide for more daily trips to be taken on foot or by bike. New single-family homes should provide the transition from the center to existing residential neighborhoods. Pocket parks and community greens should be connected by an internal network of sidewalks and greenways. In addition, the neighborhood center should be connected to adjacent facilities by greenways and trails to provide a safe, off-road transportation facility.



*Humie Olive Development Concept*

## Community Mixed Use

Compared to neighborhood mixed use activity centers, community mixed use activity centers typically serve a larger population and include up to 350,000 square feet of commercial uses. The typical trade area of a community mixed use activity center is four to six miles.

As illustrated in the Westford Development Concept, a community mixed use activity center should be anchored by a large commercial use such as a grocery store. Additional retail and commercial services should be oriented on an internal network of streets. Office and civic uses such as libraries or recreation facilities are also appropriate in community mixed use activity centers. Where the market permits, housing could be integrated as part of a vertical mix of uses in the community center core. Parking requirements should be reduced to maximize the amount of land used for buildings or public space. As with a neighborhood mixed use activity center, apartments and townhomes in close proximity to retailers provide for more daily trips to be taken on foot or by bike. All portions of the development should be accessible by both a direct and convenient road network and a system of sidewalks and greenways. A safe and attractive pedestrian network should also connect community amenities such as pocket parks, pedestrian plazas, and recreation facilities. Single-family homes should provide the transition from the denser core of the commercial activity to adjacent developments.



*Westford Development Concept*

### Recreational Mixed Use

A recreational mixed use activity center includes businesses and services anchored by a recreational amenity, such as a regional trail or park. The size and scale of this activity center varies in size depending

on scale of the amenity it is built around and could be expected to draw business from both the local area as well as from visitors and tourists.

A recreational mixed use activity center should be anchored by commercial uses tailored toward recreational and outdoor visitors, such as bicycle shops, outdoor equipment rental locations, and restaurants, and breweries. Office, civic uses, and additional recreation facilities may also be appropriate in this context to provide a range of services in a compact manner. Where appropriate, housing could be integrated as part of a horizontal mix of uses, with townhomes, duplexes, and single-family homes connected to the center core through a comprehensive pedestrian and bicycle network. Housing also can provide a transition from the commercial services to the more rural adjacent land. True to its purpose, pedestrian and bicycle mobility should be preserved or provided throughout the center, along with attractive green space, landscaping, and seating areas that invite people to rest, relax, and spend time visiting the area businesses.

### Employment Mixed Use

The employment mixed use activity center supports a greater diversity of land uses in Apex and promotes areas for job growth. Employment activity centers could include a variety of non-residential uses including light industrial, warehousing, office, research, tech-flex, etc. As illustrated in the Middle Creek Development Concept, the employment uses should be mixed with a limited amount of supporting commercial uses such as restaurants and convenience retailers to serve employees. Where feasible, buildings should be oriented around a common focal point such as a common green space or water feature. An internal network of sidewalks and pedestrian plazas would encourage employees to walk between destinations, promoting a healthy workforce.



*Middle Creek Development Concept*

## Regional Mixed Use

A regional mixed use activity center, like the development planned at Veridea, provides the best opportunity for a vertical mixture of retail, employment, and residential uses in Apex. Regional activity centers are ideally located at the intersection of major regional thoroughfares. These prime locations provide the high visibility and accessibility sought by large-scale retailers and businesses. Regional mixed use activity centers typically have over 350,000 square feet of commercial uses and draw from a trade area that ranges from ten to twenty-five miles.

An interconnected system of roadways and pedestrian and bicycle facilities should provide a variety of transportation options that are safe and accessible to all users internal and external to the site. Transit and transit stops should be integrated into the development. Residential options should vary from apartments and townhomes to detached single-family units. A network of parks, plazas, and natural areas should provide residents, employees, and visitors alike an opportunity for both active and passive recreation.

## Land Use Relationship to Zoning

Land use categories are broad representations of development characteristics. Zoning designations provide detailed specifications on the types of allowable land uses, density and intensity, and development regulations. The following zoning districts are described in detail in the Town's Unified Development Ordinance:

- RA – Residential Agricultural District
- RR – Rural Residential District
- LD – Low Density Residential District
- MD – Medium Density Residential District
- HDSF – High Density Single-Family Residential District
- HDMF – High Density Multi-Family Residential District
- MH – Manufactured Housing Residential District
- MHP – Mobile Home Park District
- MORR – Mixed Office-Residential-Retail District
- O&I – Office and Institutional District
- B1 – Neighborhood Business District
- B2 – Downtown Business District
- PC – Planned Commercial District
- TF – Tech/Flex District
- LI – Light Industrial District
- CB – Conservation Buffer District
- MEC – Major Employment Center Conditional Zoning District
- TND – Traditional Neighborhood Development Conditional Zoning District
- PUD – Planned Unit Development Conditional Zoning District
- SD – Sustainable Development Conditional Zoning District

*The following changes to the allowable zoning districts were made from Peak Plan 2030:*

- Added CB district to all land use classifications
- Removed RR from Rural Density Residential
- Removed RA from Low Density Residential
- Added HDMF to Medium/High Density Residential within the Town Center and Transit-Oriented Development Context Areas
- Added MORR to Office Employment and Commercial Services within mixed use areas and the Small Town Character Overlay District

**Table 2** shows the relationship between the Advance Apex land use categories and the Town's existing zoning districts.

**Table 2: Allowable Zoning Districts by Land Use Map Classification**

Land Use Map Classification	Allowable Zoning Districts
<b>Protected Open Space</b>	CB
<b>Rural Density Residential</b>	CB, RA, PUD
<b>Low Density Residential</b>	CB, RR, LD, PUD
<b>Medium Density Residential</b>	CB, MD, PUD
<b>Medium/High Density Residential</b>	CB, MH, MHP, HDSF, HDMF†, PUD, TND
<b>High Density Residential</b>	CB, HDMF, PUD, TND
<b>Office Employment</b>	CB, O&I, MORR‡, TF, PUD, MEC
<b>Commercial Services</b>	CB, MORR‡, B1, B2, PC, PUD
<b>Industrial Employment</b>	CB, LI, TF, PUD, MEC
<b>Park – Public or Private</b>	Refer to Section 4.2 Use Table, in the Town of Apex Unified Development Ordinance, for zoning districts where recreational uses are allowable
<b>School</b>	Refer to Section 4.2 Use Table, in the Town of Apex Unified Development Ordinance, for zoning districts where school uses are allowable
<b>Sanitary Landfill</b>	LI
<b>Mixed Use (multicolor striped areas with ≥3 uses)</b>	CB, MORR, SD, and the zoning districts in the classifications represented in the striped area

† The HDMF district is allowed only within the Town Center and Transit-Oriented Development context areas.

‡ The MORR district is only allowed where office, residential, or commercial land uses are depicted by a striped area that includes both residential and non-residential land use classifications within the Small Town Character Overlay District.

### Land Use Relationship to Other Plans

The future land use map recommendations were closely coordinated with recommendations for the Town's transportation network, documented in Advance Apex: The 2045 Transportation Plan. Land use also affects other systems, including: stormwater, water, wastewater, and the network of parks and recreation facilities. It is recommended that the Town use the 2045 Future Land Use Map to evaluate and consider potential updates to the master plans guiding development of these systems.