EXISTING CONDITIONS ANALYSIS

WAKEFIELD SMALL AREA STUDY

WAKEFIELD, NORTH CAROLINA

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DRAFT DATE:
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OPEN SPACE AND ENVIRONMENT ANALYSIS

STORMWATER AND WATER RESOURCES

The majority of the study area is part of the Richland Creek watershed which is considered a water supply watershed and is part of the urban watershed protection overlay district. The Richland Creek mapped floodway and 100-year floodplain within the study area have been impacted by development. To the north of Falls of Neuse, above and below ground utilities have likely led to "fill" within the floodplain. To the south of Falls of Neuse, the Columns of Wakefield apartment complex is located within the mapped 100-year floodplain. The riparian buffer of Richland Creek and most of its tributaries has been protected from development.

Richland Creek flows into the Neuse River south of the study area. A second stream system drains the area around the YMCA and Wakefield Townhouses. The extent of floodprone soils in the study area generally coincides with the 100-year floodplain. They extend beyond the floodplain near Common Oaks Drive south of Falls of Neuse Road. They are also found on the eastern boundary of the Wakefield schools complex.

Stormwater control measures (SCMs) that capture stormwater and help decrease impacts to streams and other water resources are located throughout the study area. The majority of the SCMs in the study area are wet and dry detention basins as well as bio retention cells and other measures (unidentified in the digital data). Most of the stormwater runoff from impervious surfaces in the study area is routed to the SCMs prior to discharge in wetlands or streams. However, there are some areas where the stormwater flows directly to streams such as the YMCA and Wakefield Townhouses off of Wakefield Drive.

Most of the runoff from streets bypasses the SCMs. Some exceptions include most of the surface streets. The Wakefield Hills Condos discharge to wetlands in the Richland Creek floodplain. While not a manmade SCM, it serves to slow stormwater before it enters Richland Creek. The Richland Creek buffer also slows stormwater runoff from Pines and North Pines Elementary Schools.

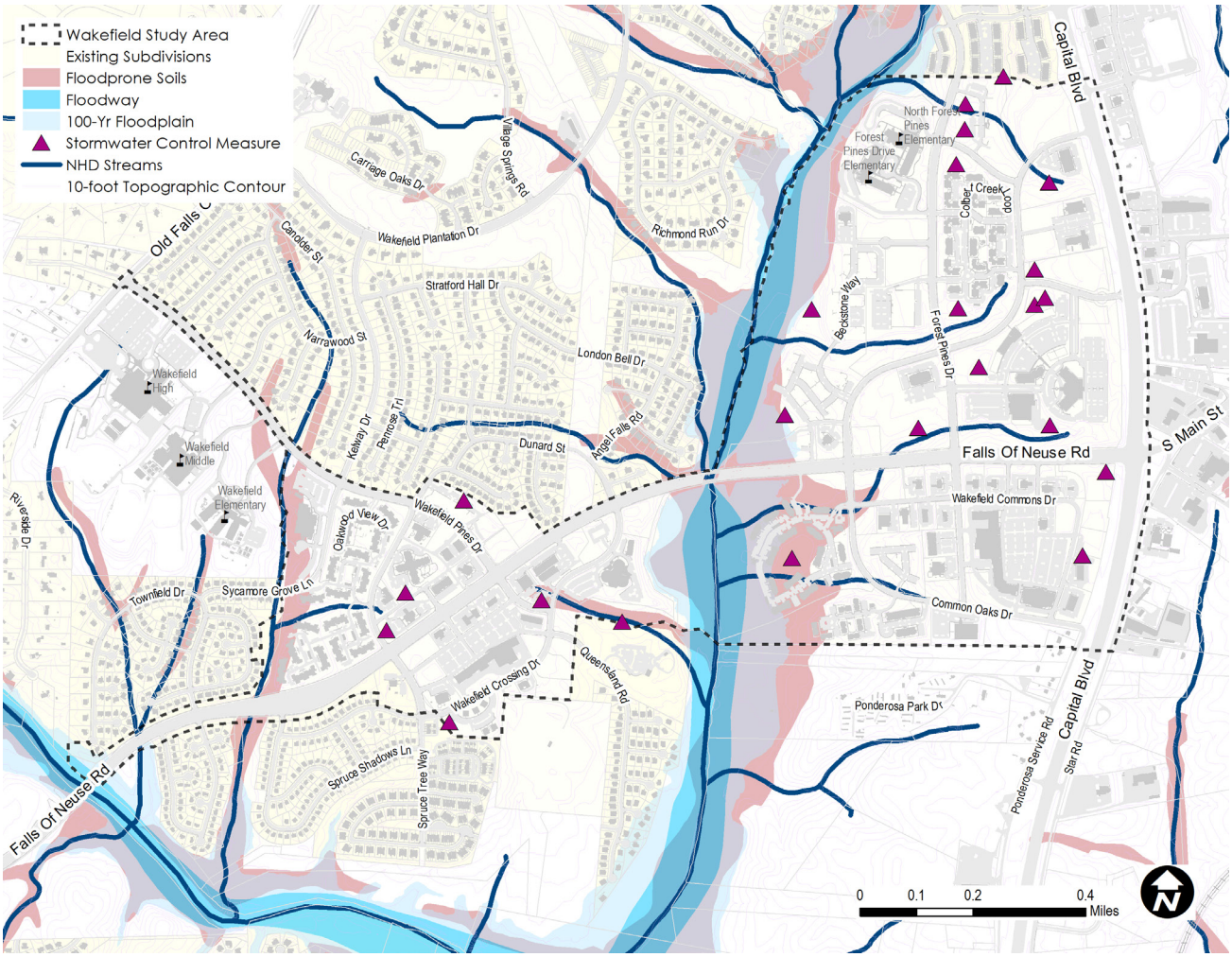
The area bounded by Common Oaks Drive, Popes Creek, and Capital Boulevard is only partially captured by SCMs with the remaining discharging to tributaries of Richland Creek.

There have not been many stormwater complaints or flooding issues within the study area. The City has jurisdiction over most of the roads and therefore related stormwater for all of the roads in the study area except for Capital Boulevard which is maintained by NCDOT.

LAND COVER ANALYSIS

Land cover data can be used to identify undeveloped areas and other types of open space. While the study area is mostly developed, there is open space around the densely developed areas. Most of this area is managed

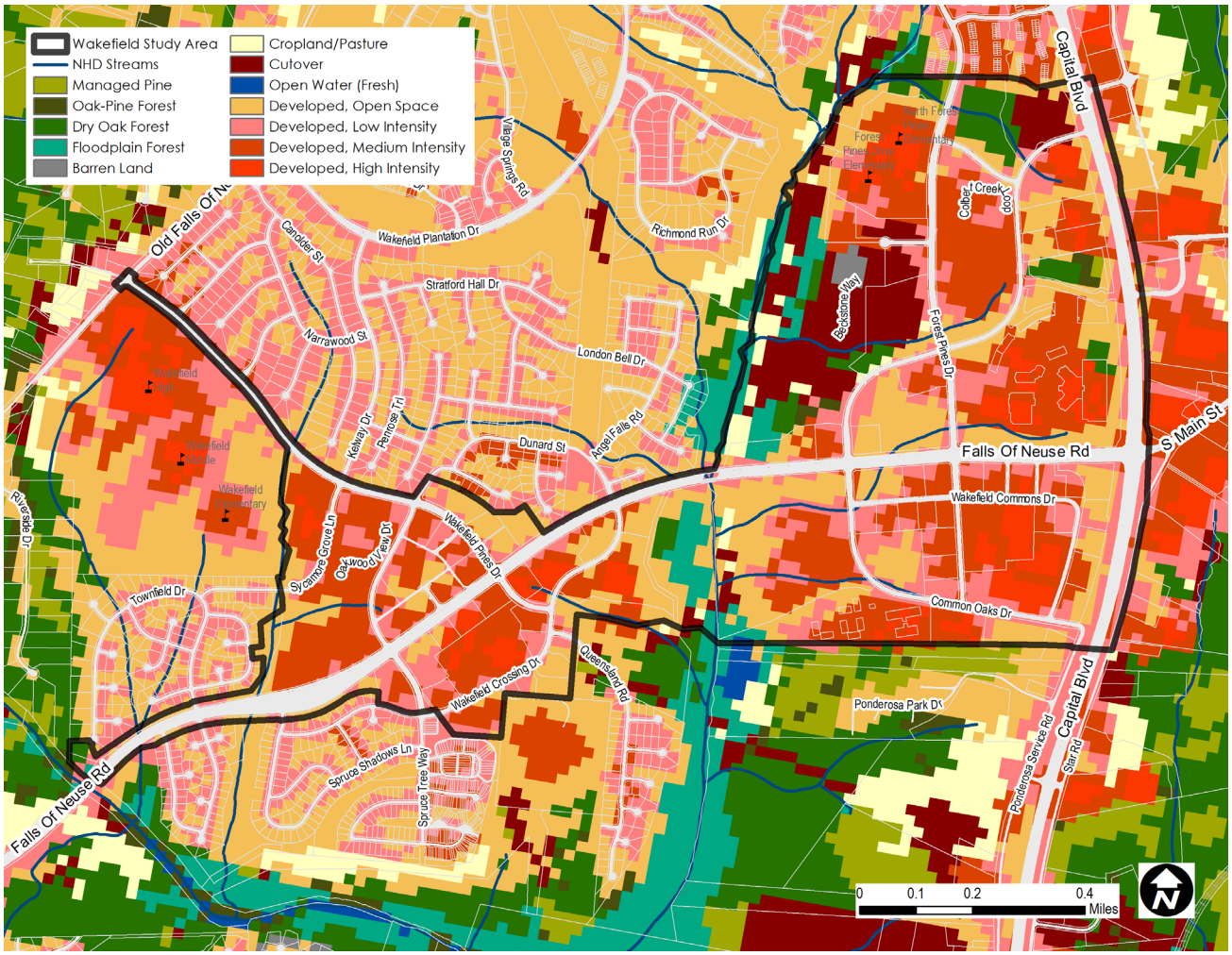
Hydro-Environmental Analysis Map



open space consisting of stormwater facilities, maintained lawns, and scattered trees. Land cover data shows a cutover area around Beckstone Way but that area has since been developed into a multi-family residential area. The only other open space in the study area is restricted to a narrow buffer along Richland Creek and a small area between Beckstone Way and Richland Creek near Forest Pines and North Forest Pines Elementary Schools.

This open space is classified as floodplain forest, cutover areas and pasture. The cutover areas and pasture are actually utility line rights-of-way that are infrequently managed. The floodplain forest areas are found within the floodplain and are generally unsuitable for development. All of these areas provide habitat for small mammals and birds.

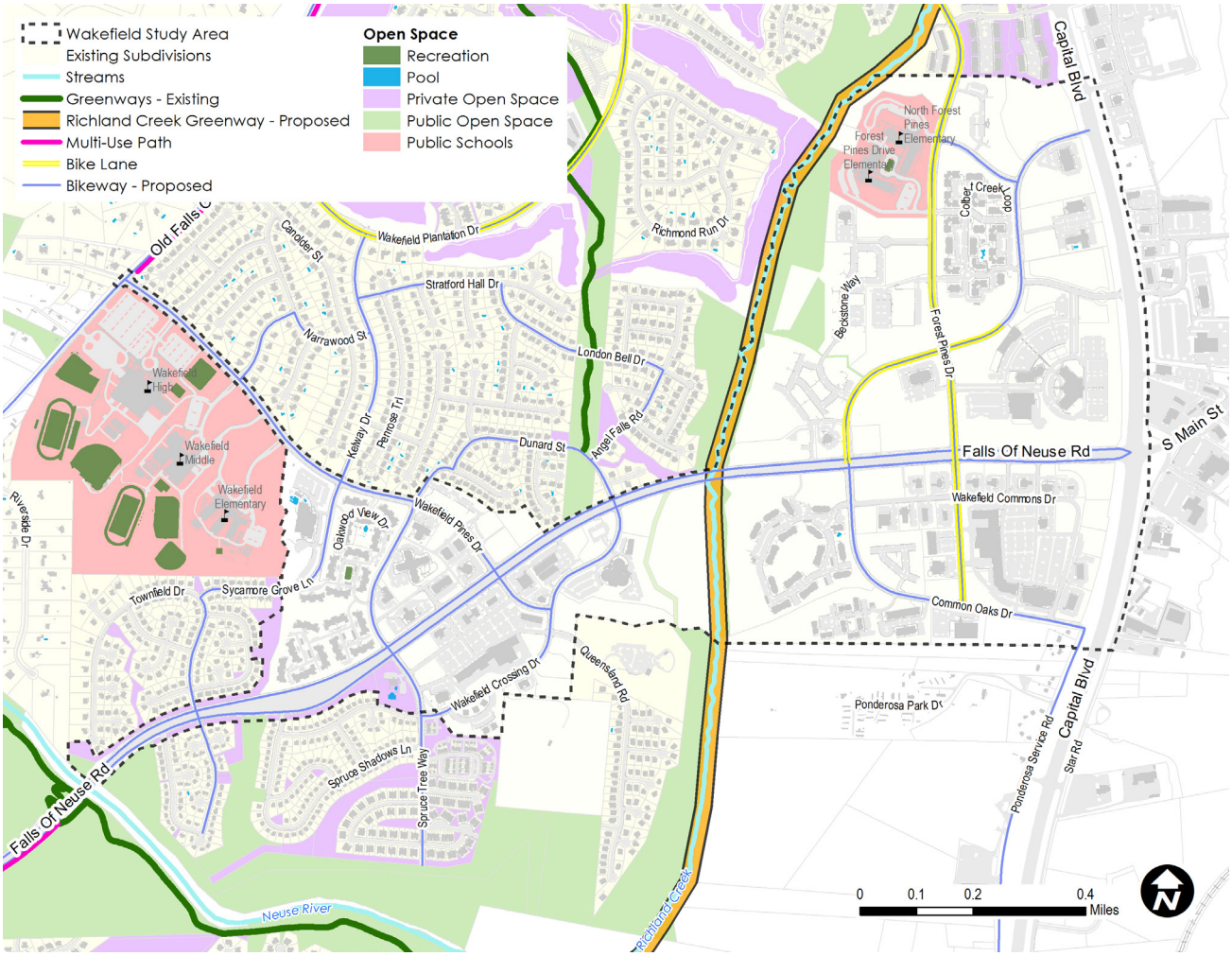
National Land Cover Database Environment Map



OPEN SPACE AND GREENWAYS

The open space around the schools contains playgrounds and open fields however it is not accessible to the general public outside of school hours. The school open space has the potential to serve as public open space pending agreements between the Board of Education and the City. Just beyond the study area boundary to the west is Forest Ridge Park. This City park has hiking, biking, a playground, wildlife garden and fishing areas. Currently there is no direct access to the park from the study area however there is a potential access point located across Old Falls of Neuse Road from Wakefield High School. South of the study area on the southern

Open Space and Greenways Map



side of the Neuse River, the Leonard Tract is a large undeveloped parcel owned by the City and identified as a future park. A canoe launch and parking area are located upstream of this area.

The study area does not contain any greenways although two existing greenways and two multi-use trails are located just outside the study area. The Neuse River Trail can be accessed via sidewalks on Falls of the Neuse Road. The Wakefield Trail can be accessed via sidewalk and is located just north of the study area. A multi-use trail is located on Old Falls of Neuse Road starting at the intersection of Wakefield Pines Drive and continuing north. A second is found along Falls of Neuse Road starting just south of the river and study area.

The proposed Richland Creek Greenway was included on the City's Capital Area Greenway Master Plan published in 1989. According to the City Parks, Recreation, and Cultural Resources (PRCR) staff, this corridor will also be included in the City's updated greenway master plan that is currently in draft format. This proposed greenway would provide a connection to Capital Boulevard to the north and the Neuse River Trail to the south. The City has acquired an easement along much of the proposed greenway. The trail would need a river crossing to connect to the Neuse River Trail or it could be follow the north banks of the Neuse to Falls of Neuse Road where the road could be used to cross the river.

It will be important to consider establishing access points from the apartment complexes to the east of the proposed trail, Forest Pines and North Forest Pines Elementary Schools, and the Northeast Regional Library. A wide floodway and 100-year floodplain are located along Richland Creek starting at Falls of the Neuse Road may make trail placement and access points difficult. Relocating the trail to the west of Richland Creek where there is another city owned linear parcel may be more feasible. Access points will be critical to the success of this trail.

TRANSPORTATION ANALYSIS

WHO MAINTAINS WHAT?

To understand the transportation system in the Wakefield Study Area, it is helpful to see a map defining City-maintained, State-maintained, and privately-maintained streets.

Street Standard of Maintenance Map

Many of the streets in the study area are maintained by the City of Raleigh. Portions of Capital Boulevard and Old Falls of Neuse Road are built to State standards. Some roads in the study area are privately maintained.

- City Maintained
- State Maintained
- Privately Maintained
- Buildings
- Water

SPEED & QUEUING OBSERVATIONS

SCHOOL QUEUEING

The project team conducted an on-site observation on May 13th, 2021. There were no observed queueing problems occurring at either of the three public schools (Wakefield HS, Middle School and Elementary School) during pick-up or drop-off. This may be contributed to COVID and a high percentage of "online" students. Queuing issues should be observed during Fall semester when majority of students are "in-person".

SPEED OBSERVATIONS

A limited field traffic observation was conducted along Old Falls of the Neuse Rd, Wakefield Pines Drive, and Falls of the Neuse. The field observation was conducted off-peak approximately 10am and 3pm on Thursday May 13, 2021. All three roadways have topographical characteristics along each corridor.

No significant congestion problems were noted.

Crossing guard

Student Drop-Off

Vehicular speed was estimated using an initial "floating" car methodology simply to determine if speeding was an issue. There were no significant speeding issues observed along Old Falls of the Neuse or Wakefield Pines Drive. However, speeding issues were observed along Falls of the Neuse Road (posted speed limit of 45mph). Additional speed measurements, using a speed gun, were taken along select locations of this roadway to determine if this was a consistent problem. From this data, it is estimated that 20% - 25% of the vehicles observed speeds greater than 50 mph. Also noted were several locations of blind spots, notably where there was a curve in the roadway at a residential entrance.

Intersection

MULTI-MODAL LEVEL OF SERVICE ANALYSIS

The consultant team also conducted a Multi-Modal Level of Service Analysis for the study area. Multimodal Level-of-Service subjectively measures and categorizes the level of service for multimodal transportation options into six-letter grades based on the corridor's characteristics.

Taking into consideration traffic speed and volume, signals and phasing, bicycle and pedestrian facility prevalence and type, and transit amenities from both State and local sources, Multimodal Level-of-Service analysis aggregates and synthesizes this data to create hierarchy of the roadway users' perceived satisfaction with the facility.

The resulting letter grades provide a clear and composite image of areas of concern along the corridor for all users, vehicular and pedestrian. As a conceptual tool, MMLOS helps the planner and consultant to determine needs and prioritize among competing alternatives in planning and decision-making.

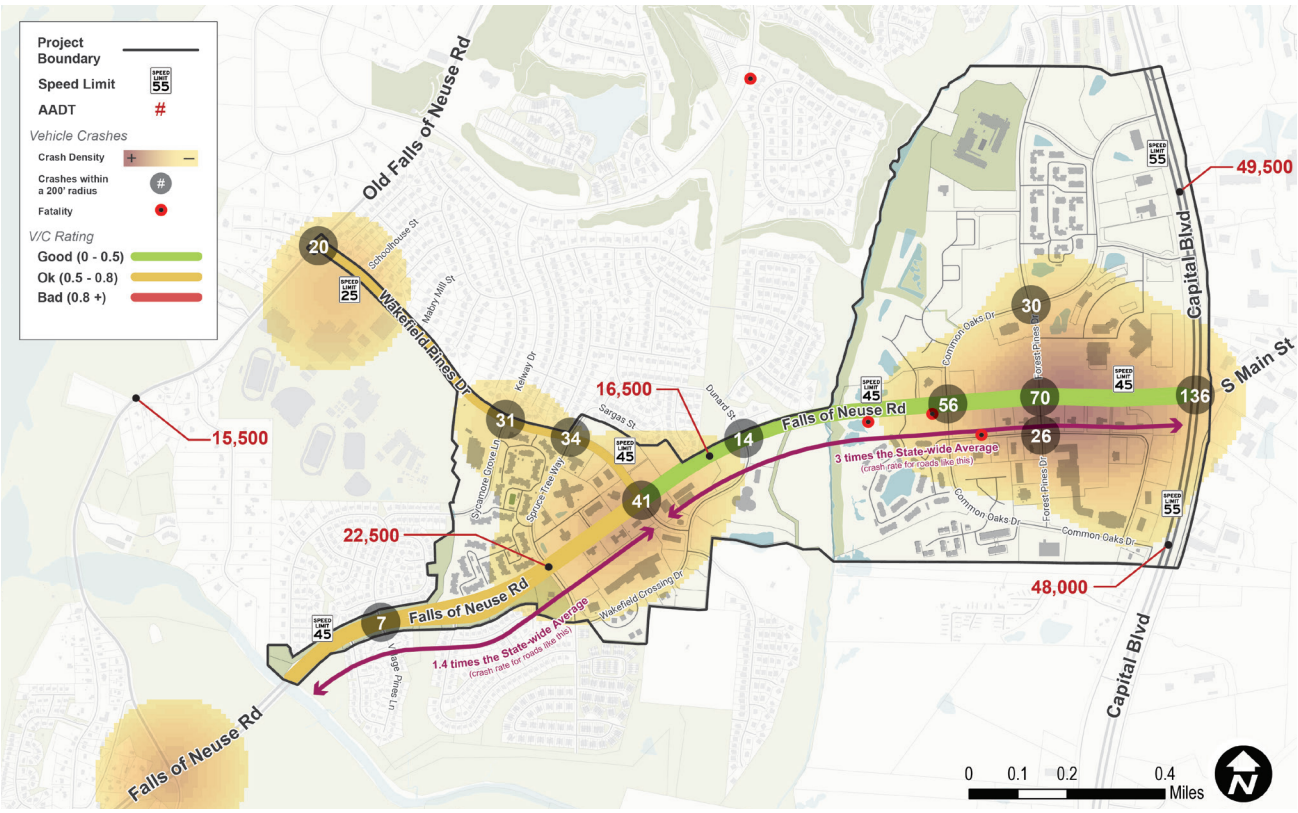
VEHICLES

(V/C Ratio=Volume over Capacity; number of cars per day divided by the number of cars that the corridor 'could' move per day)

Motor vehicle users in the Wakefield area find the roadway comfortable and amenable. Volumes are light relative to the roadways' capacity throughout the study area, although conditions worsen along Falls of Neuse Road and Wakefield Pines Drive the further one travels from Capital Boulevard.

Vehicular crashes are largely concentrated near intersections, with most occurring at the Capital Boulevard intersection (136). These crashes, however, are noteworthy, as the crash rate for this stretch of Falls of Neuse Road is between 1.4 to 3 times the statewide average for similar roads (urban secondary routes with 4-lanes and divided median).

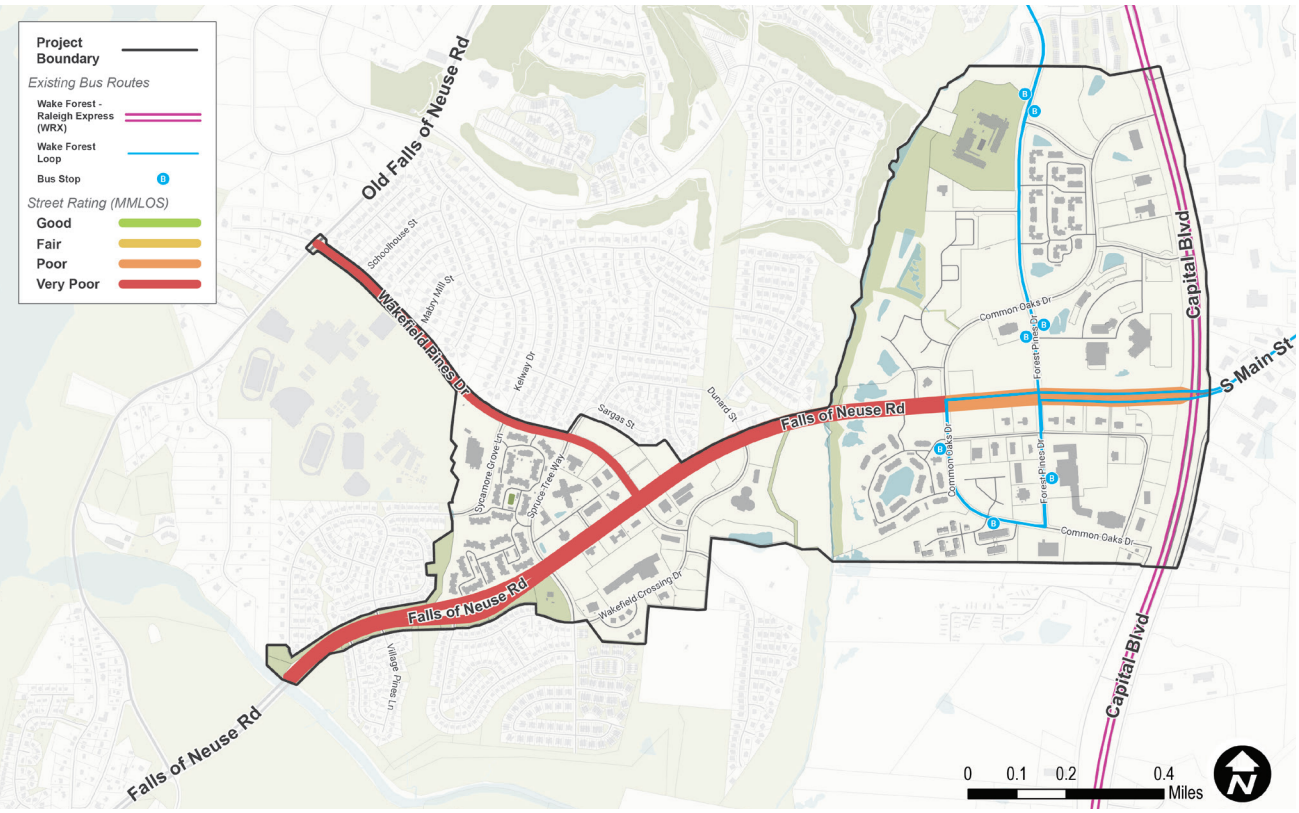
Existing Conditions Vehicle V/C Map



TRANSIT

The Wake Forest Loop, passes through the study area, but there are no transit stops along the main roads where commercial destinations are most concentrated. A total of seven (7) bus stops exist along Forest Pines Drive and vicinity, however most lack amenities, such as lighting, shelters or trash receptacles, as well as marked crosswalks for safe access.

Multimodal Existing Conditions Transit LOS Map (MMLOS)



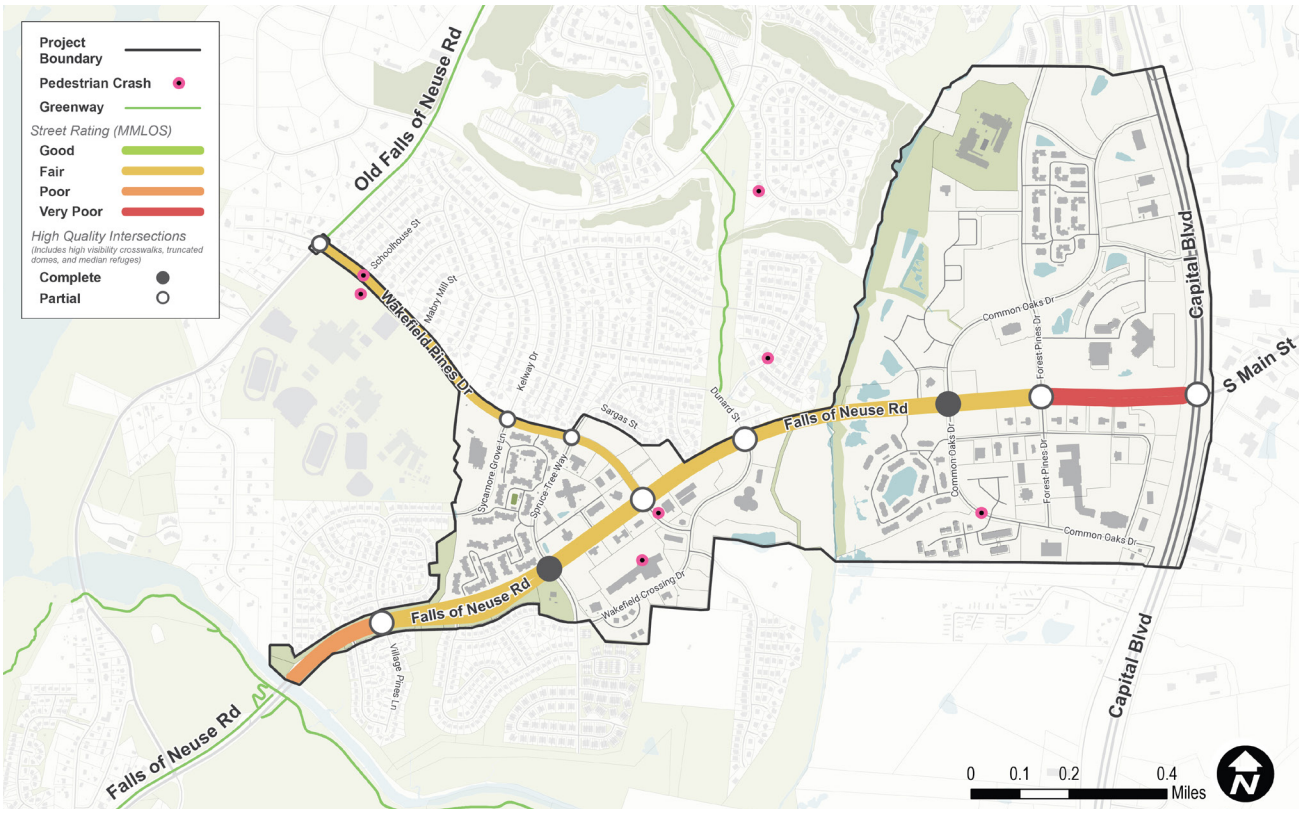
PEDESTRIANS

Pedestrians face mixed conditions within the Wakefield area. For much of Falls of Neuse Road, where traffic speed and volumes are lower and sidewalks separated, conditions are fair. Two high quality intersections at Common Oaks Drive and Spruce Tree Way make crossing in this section easier and safer. Toward the east/west edges of the study area extents, however, conditions worsen, and pedestrian facilities along Forest Pines Drive and Capital Boulevard are lacking.

Complete Intersection = All essential elements for pedestrians to cross safely

Partial Intersection = Missing essential elements for pedestrians to cross safely

Multimodal Existing Conditions Pedestrian LOS Map (MMLOS)

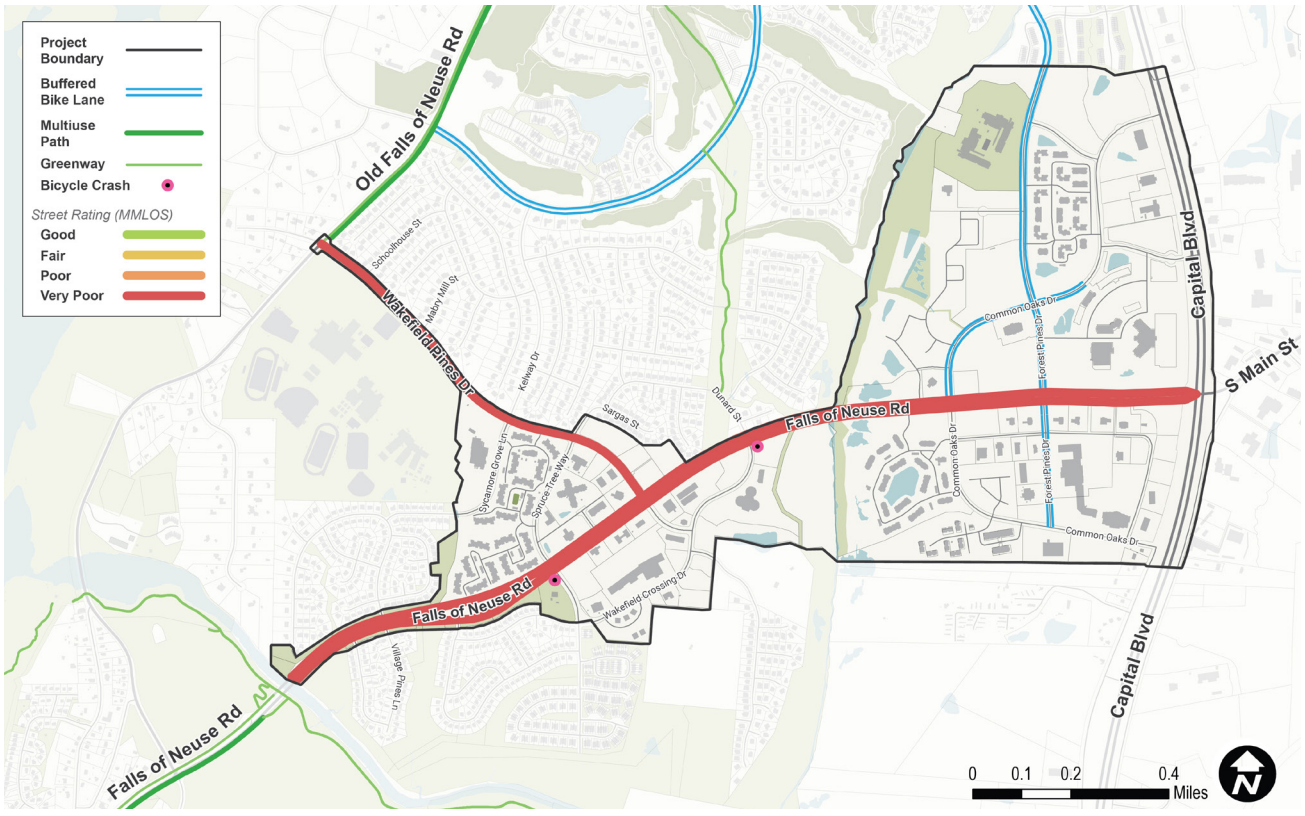


CYCLING

Bicyclists experience mixed conditions in the Wakefield area. Recreational bicyclists have two greenway options (Neuse River Trail, and Richland Creek Greenway) near the study area connecting to greater Raleigh, as well as buffered bike lanes existing along Forest Pines Drive and Common Oaks Drive. The two main roads, Falls of Neuse Road and Wakefield Pines Drive, however, lack bicycle facilities.

With two of the area's bicycle crashes occurring along Falls of Neuse Road, the lack of facilities here may force bicyclists into unsafe or risky road behavior.

Multimodal Existing Conditions Bicycle LOS Map (MMLOS)



DRAFT PREFERRED ACCESS PLAN

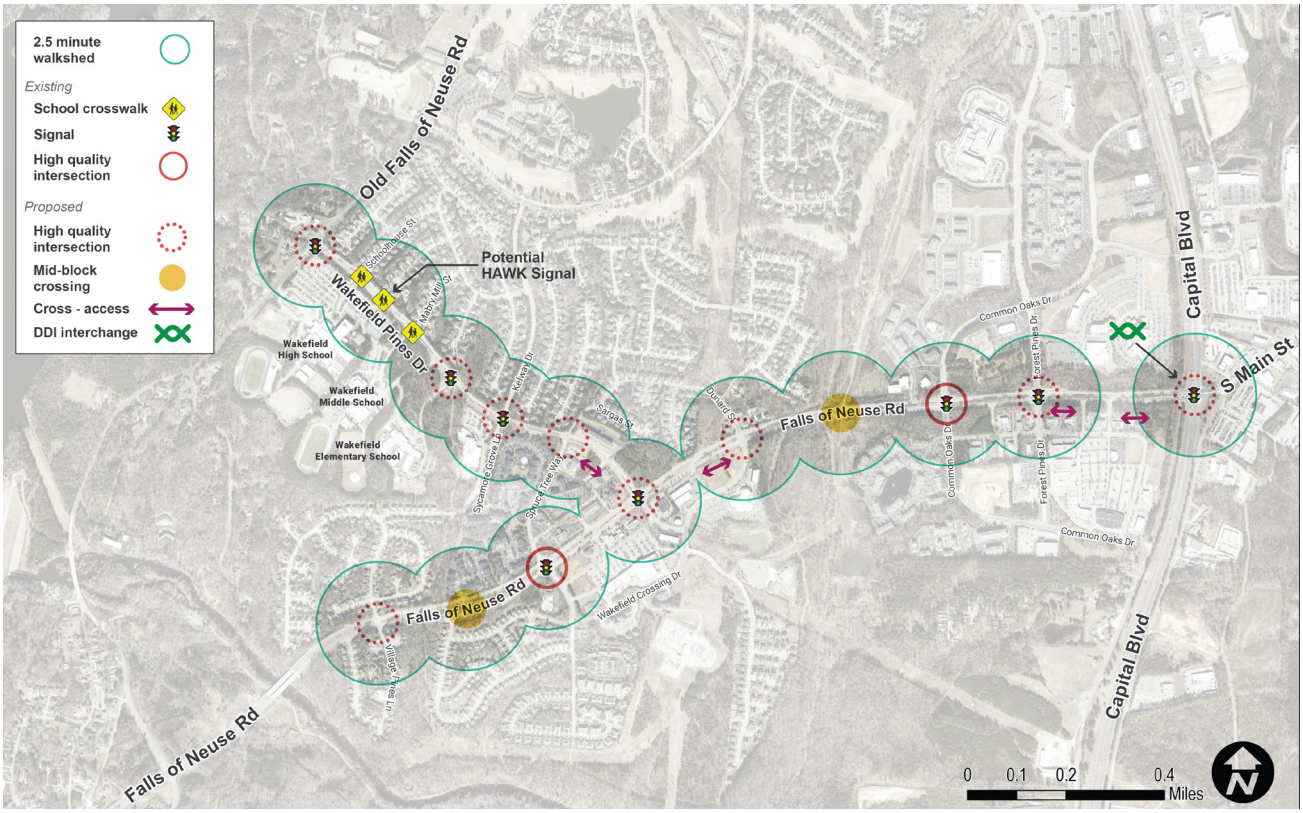
After reviewing existing conditions, facilities, and fields observations, a Preferred Access Plan (PAP) is developed. The purpose of the PAP is to identify the most-appropriate crossing locations, and use this as a guide to improve crossings between existing signalized intersections, at regular intervals.

Applying a 2.5-min walkshed (~600') to each crossing location, the project team is able to identify proposed crossing locations that are less than 5-min apart.

Note, there are two (2) existing High Quality Intersections along Falls of Neuse Road, and seven (7) proposed crossing improvements. Similarly, there are no (0) existing High Quality Intersections along Wakefield Pines Drive with three (3) existing school crosswalks (presumably staffed by a crossing guard).

We propose four (4) proposed crossing improvements along this corridor.

Multimodal Existing Conditions Bicycle LOS Map (MMLOS)



High Quality Intersection

High Quality Intersection refers to safe crossing locations (in all directions) for non-motorized travel, including mobility-impaired pedestrians, and typically incorporate ADA curb ramps, marked crosswalks, lighting, and direct connections with sidewalk or bus stop/shelter facilities. High Quality Intersections are most often located at signalized intersections, though mid-block locations that incorporate a Rectangular Rapid Flashing Beacon (RRFB), Pedestrian Hybrid Beacon (PHB), or similar traffic control device to slow/stop vehicles are necessary and effective.

LAND USE ANALYSIS

WAKEFIELD AREA POLICY ANALYSIS

Early in the area planning process, the City of Raleigh Planning & Development Department developed the "Wakefield Community Snapshot" to provide an overview of the study area's existing conditions and demographics. The following policy analysis is intended to build upon this work and provide additional detail.

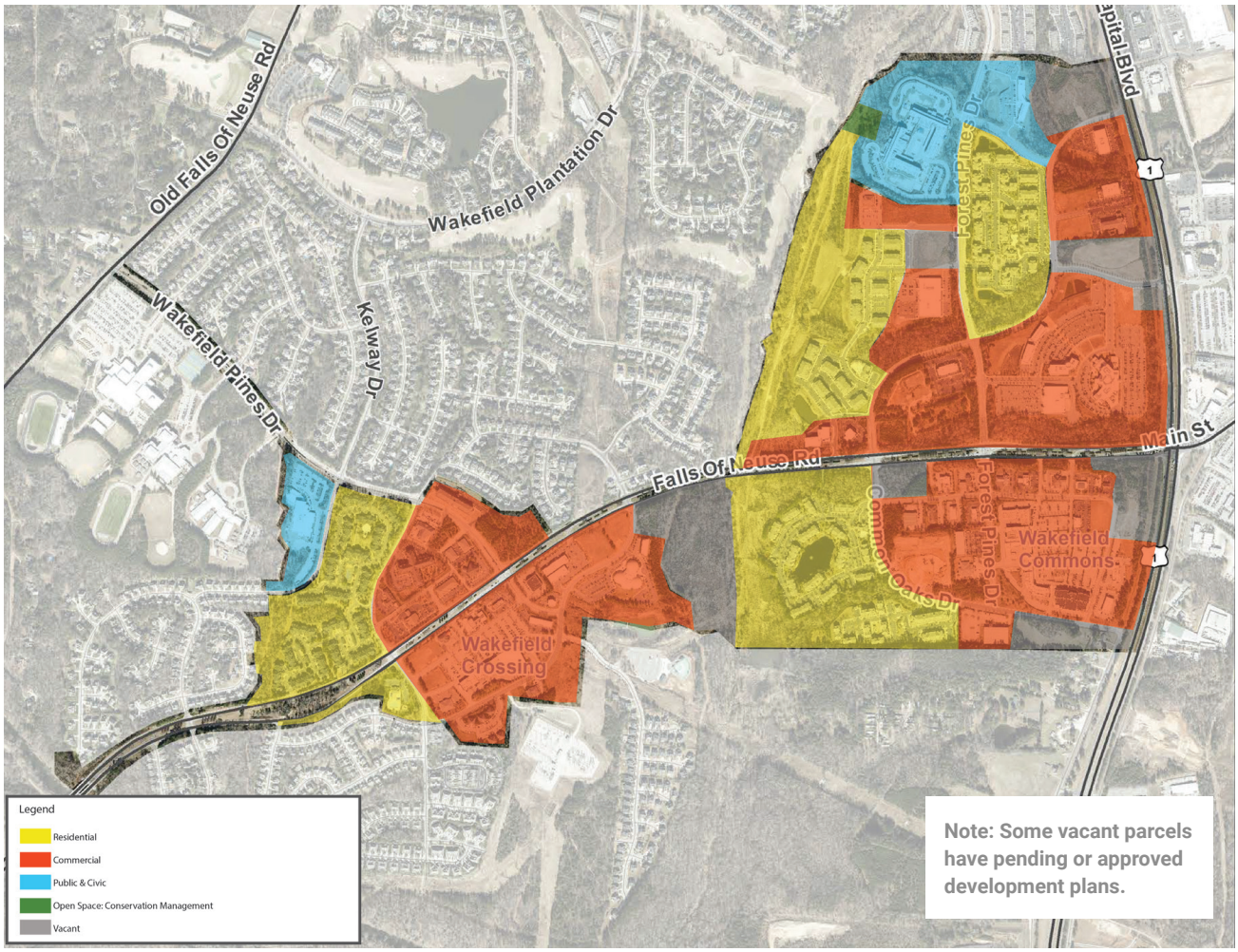
Wakefield Community Snapshot Excerpt - Aerial

EXISTING LAND USE

The study area includes the neighborhoods and commercial developments along Falls of Neuse Road between the Neuse River and Capital Boulevard, abutting the boundaries for the Town of Wake Forest. These areas include Wakefield Crossing, Wakefield Commons, and the UNC Rex healthcare cluster of offices and outpatient facilities.

Existing land uses in the plan area include residential, office, commercial, institutional, parks and open space, a grocery store and elementary school. The majority of the land area is developed for commercial and includes large surface parking lots, large, planted buffers, and street trees. Most structures range from 1 to 3 stories tall. There are smaller, scattered vacant parcels throughout the study area; although the developability of these parcels is limited due to existing regulations.

Existing Land Use Illustration (adapted from Wakefield Community Snapshot)



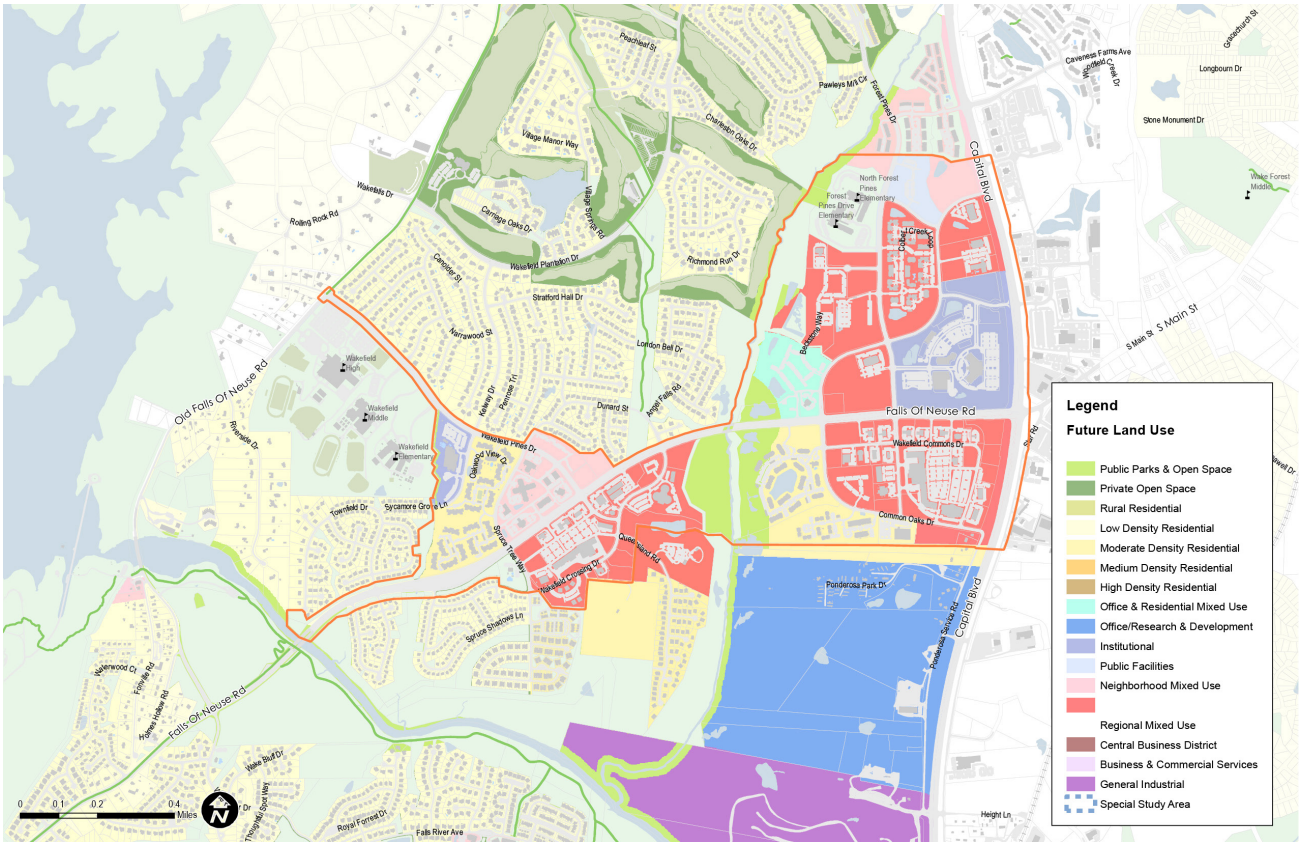
COMPREHENSIVE PLAN GUIDANCE

FUTURE LAND USE

The Future Land Use Map (FLUM) is used to guide land use and zoning designations throughout the city. The Wakefield study area contains several different future land use designations including Community Mixed Use, Office & Residential Mixed Use, Public Parks & Open Space, Moderate Density Residential, and others.

The recommendations for future proposed land uses correlates with existing land uses; indicating that the nature and character of the development in the area should remain similar in nature to its current condition. As buildings and developments age out or require renovation, new developments are recommended to maintain the current mix of uses.

Wakefield Future Land Use Map



URBAN FORM MAP

The Urban Form Map provides guidance on appropriate frontages to integrate land uses with transportation improvements. Frontage refers to the relationship a commercial, mixed-use or multifamily development has with the street.

The parameters of frontage include the placement of the building on the site, the location of primary entrances, landscaping provided along the front of the property, and the location of parking. Frontage is considered a fundamental urban design attribute, as it governs the relationship between private investment on private land, and the public's investment in the public realm.

Existing Land Use Illustration (adapted from Wakefield Community Snapshot)

The Capital Boulevard and Falls of Neuse Corridors both indicate a Parkway frontage which is appropriate in a suburban environment where densities are low and multi-modal access is not anticipated to be significant within the time horizon of the plan, or where other frontage approaches are not feasible or practical.

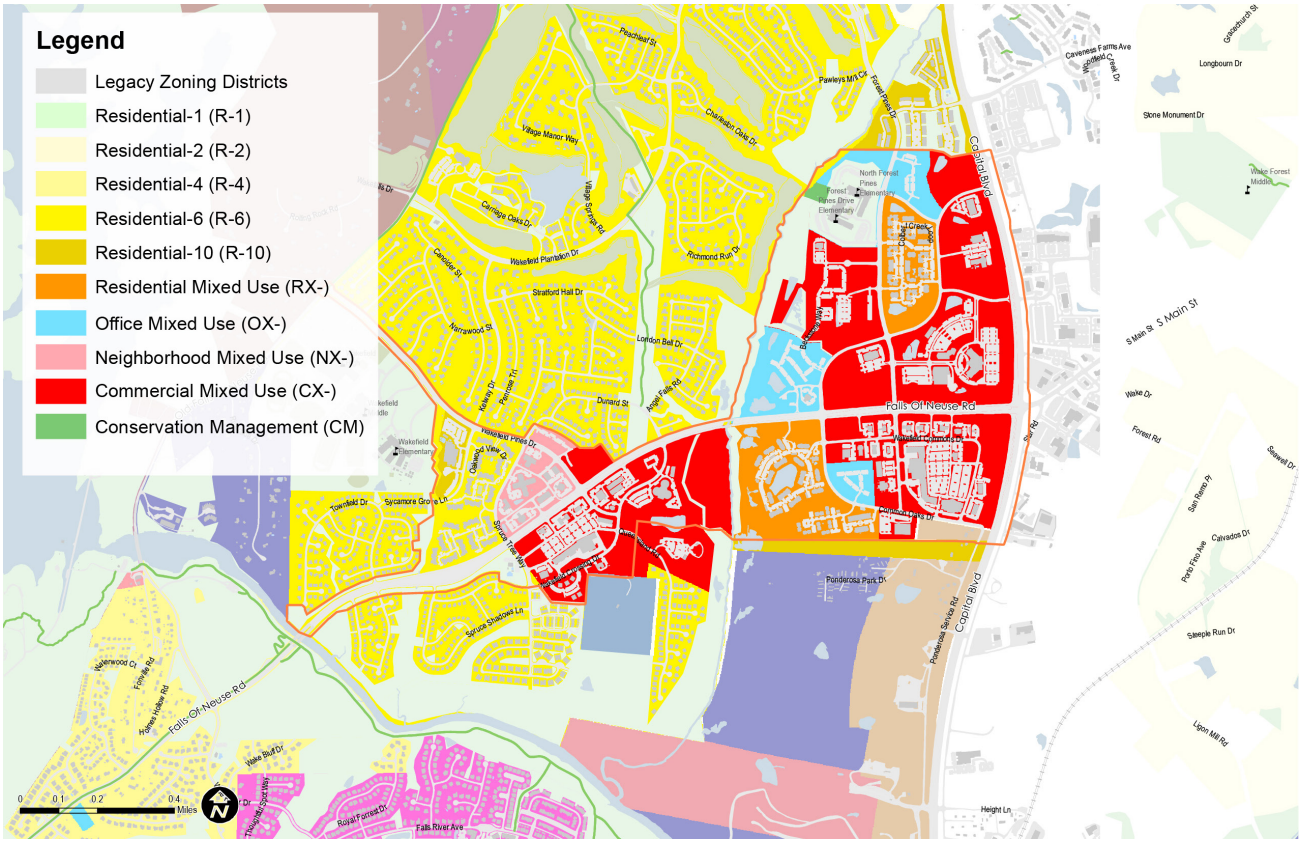
Pedestrian access and circulation are still accommodated, however, prescriptive standards for building location are not required and parking between the building and street is an acceptable outcome. The current zoning in the study area is indicative of this type of solution.

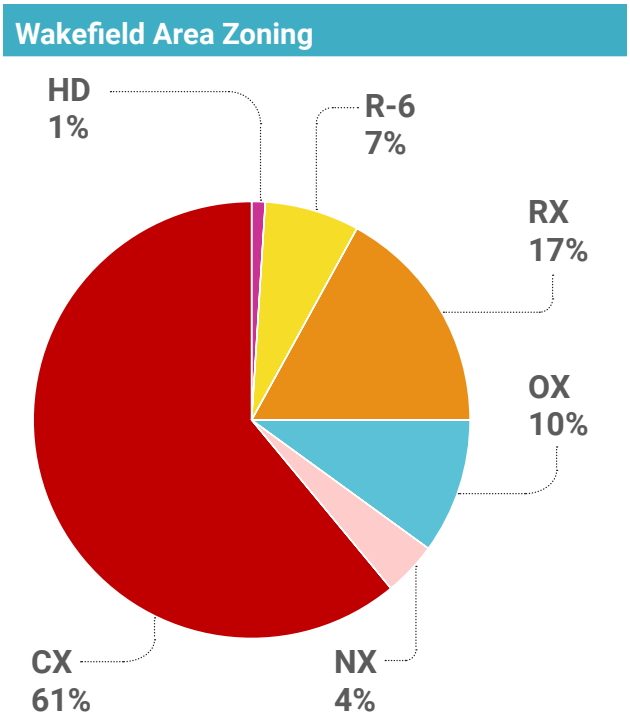
ZONING

WAKEFIELD AREA ZONING

There are a variety of zoning districts within the Wakefield Plan Area. The most prevalent zoning allows more intensive mixed-use development including commercial mixed-use and residential mixed-use; with smaller areas of office mixed-use and neighborhood mixed use permitted.

Wakefield Zoning Map





Zoning Designations with Wakefield Study Area

Wake County Zoning District: Highway District (HD)

A small assemblage of parcels along Capital Boulevard are designated HD. The Highway District is a low-density residential district (maximum density of 1.45 dwelling units per acre) comparable to the R-30 District – but one that allows a wide range of nonresidential uses with a Special Use Permit.

Residential Districts

Within the City of Raleigh, residential districts are designed for neighborhoods with densities of up to 10 dwelling units per acre and building heights no taller than three stories and 40 feet. They allow residential uses as well as civic uses like schools and churches. The areas adjacent to the study area contain numerous examples of R6 and R-10 zoning. The underlying zoning for the Wakefield Schools site is R-6; which is part of annexation processed in 1995. Included in the 1996 annexation is a 28.85 acre site zoned R-6 which lies within the study area.

Mixed-use Districts

Mixed-use districts offer greater flexibility in use and density while still allowing for appropriate transitions between residential, commercial, and industrial areas. Lower intensity districts like Residential Mixed Use (RX), Office Mixed Use (OX), and Office Park (OP) restrict the amount of retail use in a development and are intended to provide an active but compatible buffer for residential districts. Neighborhood Mixed Use (NX), Commercial Mixed Use (CX), and Industrial Mixed Use (IX) allow a greater range and concentration of uses, making them well-suited to commercial centers and corridors.

Special Districts

In addition to residential and mixed-use districts, Raleigh has a set of special districts for areas and uses that require customized regulation. Special districts can address the unique needs of sensitive environmental areas, agricultural uses, or heavy industry.

Overlay Districts

The last type of zoning district used by the City of Raleigh is the overlay district. Overlays add an extra set of regulations related to an environmental, cultural, or infrastructure feature that may extend across numerous parcels and various base districts.

Wake County Zoning District: Highway District (HD)

The Highway District is basically a low-density residential district (maximum density of 1.45 dwelling units per acre) comparable to the R-30 District – but one that allows a wide range of nonresidential uses with a Special Use Permit.

Zoning Summary for Wakefield Area Plan	
Land Use	Acres
Residential-4 (R-4)	0
Residential-6 (R-6)	31.76
Residential-10 (R-10)	0
Residential Mixed-Use (RX-)	78.1
Office Mixed-Use (OX-)*	47.67
Neighborhood Mixed-Use (NX-)	19.02
Commercial Mixed-Use (CX-)	288.53
Conservation Management (CM)	1.76
County Zoning: Highway District (HD)	4.5
Total Developed Land	**471.34**

Zoning Categories by Acreage; *does not include acreage of split-zoned lot along Common Oaks Drive

Urban Watershed Protection Overlay District (-UWPOD)

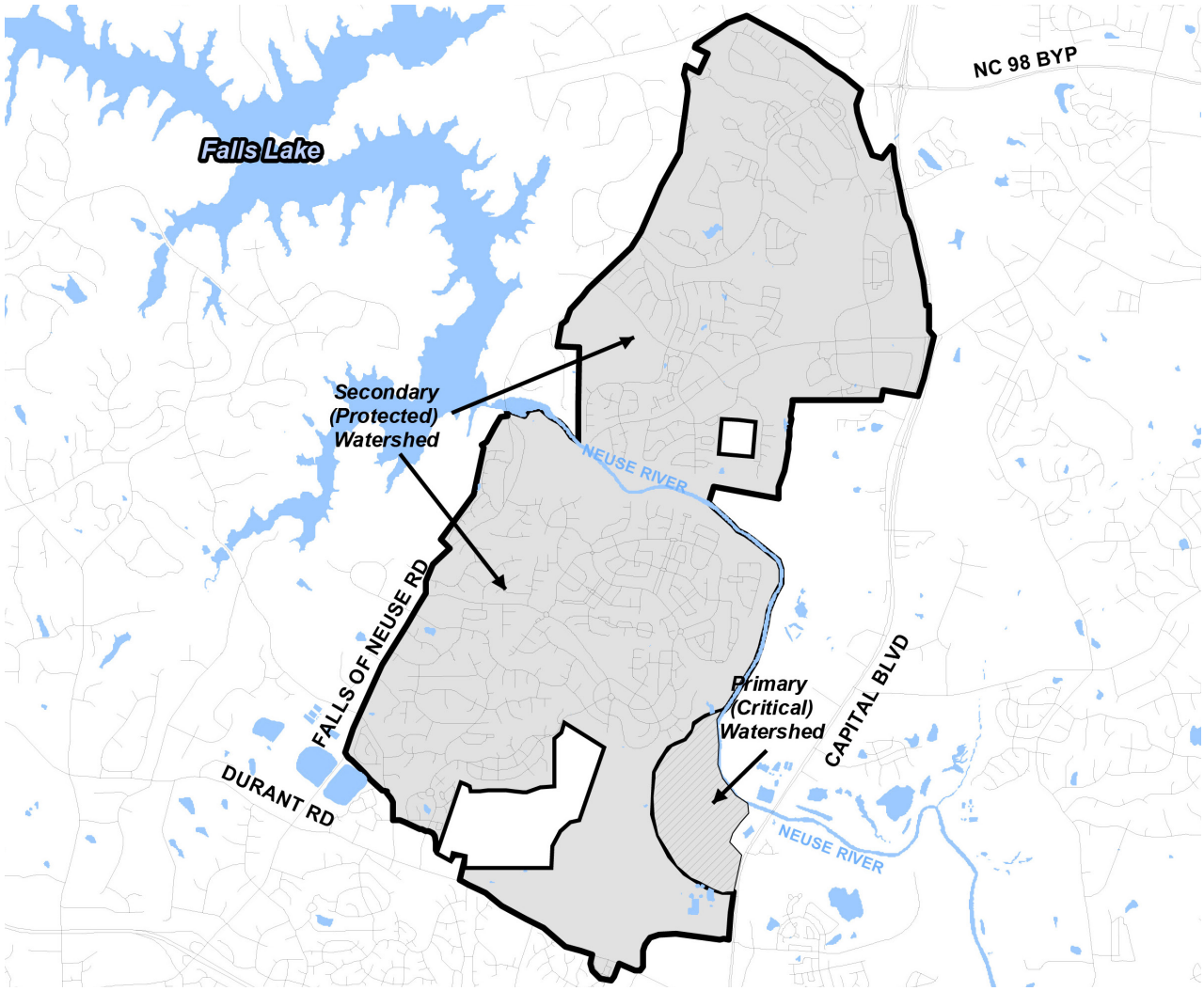
The overwhelming majority of the of the study area is subject to The Urban Watershed Protection Overlay District (-UWPOD) which protects the natural environment in any future development. The intent of the -UWPOD is to protect the City of Raleigh's and Town of Wake Forest's drinking water sources. The watershed overlay includes additional impervious surface limitations, watercourse buffers, and stormwater runoff and water quality standards.

A specialized zoning overlay to protect the City's water supply was developed in 2008 as the "Urban Water Supply Watershed Protection Area Overlay District" as part of a city-initiated rezoning (Z-053-08), and adopted in 2009. The rezoning was filed to bring the City of Raleigh into compliance with the 2004 North Carolina Water Supply Watershed Act.

The Neuse River-Richland Creek Watershed Plan, adopted in April 2005, included properties to the north and south of the Neuse River below the Falls Lake Reservoir and upstream of an existing water intake on the Neuse River west of Capital Boulevard. Richland Creek on the north and several tributaries on the south side of the Neuse River were included within a drainage area that is bounded within the City of Raleigh jurisdiction by Durant Road, Falls of Neuse Road, NC-98 and Capital Boulevard. The State of North Carolina Environmental Management Commission (EMC) reclassified the Neuse-Richland Watershed to a Class WS-IV NSW with an effective date of July 1, 2004.

Per the State of North Carolina reclassification in 2004, a Class WS-IV NSW water supply watershed included a Critical Area within one-half mile upstream and draining into the river intake. These areas were recommended for a mix of uses including residential, commercial, and industrial as recommended in the Area Plans for what was then called the "North Planning Districts." Additionally, impervious surface coverage could not exceed 50% for critical areas and 70% for other protected areas. Developments with impervious surfaces exceeding 24% were required to control the runoff from the first inch of rainfall, and a 100-foot natural buffer yards along perennial streams wase required to diffuse storm water flow and provide an area for pollutant filtration.

Various Zoning Districts with Urban Water Supply Watershed Overlay District (~5,000 acres)



Source: City of Raleigh (2009)

The State EMC reclassified the Neuse-Richland watershed in response to a request by the Town of Wake Forest to establish a drinking water supply intake on the Neuse River. In August of 2008, the State EMC issued a letter to the City of Raleigh granting a 120-day time to attain full compliance with the State's Water Supply Watershed Protection Rules.

When the Unified Development Ordinance was adopted in 2013, the "Urban Water Supply Watershed Protection Area Overlay District" became the "Urban Watershed Protection Overlay District" or -UWPOD. The overlay limited unsuitable development and restricted impervious coverage totals much like the previous Part 10 code had done. (See current iteration of Article 9.5 Watershed Protection Areas in appendix).

Sec. 5.2.3. Urban Watershed Protection Overlay District (-UWPOD)
A. Base Standards Apply
Unless specifically set forth in this section, allowed uses, dimensional requirements, height limits and general development standards of the underlaying zoning district apply.
B. Prohibited Uses
The following uses are prohibited:
1. New landfills; and
2. New sites for land application of sludge, residuals or petroleum contaminated soils
C. Additional Development Standards
Watercourse buffer, impervious surface, stormwater runoff and water quality requirements are set forth in Sec. 9.5.1.
Excerpt from Unified Development Ordinance, 10th Supplement

The watershed overlay includes additional impervious surface limitations, watercourse buffers, and stormwater runoff and water quality standards. Additionally, a new reference to the -UWPOD is seen in article 9.1 Tree Conservation. With this new reference, the -UWPOD was required to set aside 40% of lot area for wooded tree area.

Sec. 9.1.9. Watershed Protection Overlay Districts
A. Except as otherwise provided below, every lot located within a -UWPOD, -FWPOD or -SWPOD must provide and maintain an area set aside for trees equal to at least 40% of the lot area. Within this area, trees must either be preserved or planted in accordance with the following:
1. Tree areas may be 1 contiguous area or scattered areas throughout the lot, but no required tree area may be less than 1/5 of the total gross land area required to be set aside for trees;
2. All areas required to be set aside for trees shall be maintained as wooded areas;
3. Wooded areas may consist of either areas where active tree preservation is observed or tree planting areas;
4. Each active tree preservation area must contain a minimum of 2 inches of tree caliper per every 100 square feet and within such areas, active tree preservation shall be followed;
5. Areas that are set aside for trees that do not meet the standards for active tree protection areas must be planted with shade trees; and
6. The minimum size and planting rate of new tree plantings used to fulfill this requirement shall be either 1 bare-root seedling at least 14 inches tall planted per 100 square feet (10 feet by 10 feet centers) or one 2-inch caliper tree planted per 200 square feet.
Excerpt from Unified Development Ordinance, 10th Supplement

Timeline of Water Supply Protection Actions

2004
The State of North Carolina Environmental Management Commission (EMC) reclassified the Neuse-Richland Watershed to a Class WS-IV NSW

2005
The Neuse River-Richland Creek Watershed Plan adopted

2008
The State EMC issued a letter establishing a deadline to attain full compliance with the State's Water Supply Watershed Protection Rules

2009
Urban Water Supply Watershed Protection Area Overlay District adopted

2013 - 2016
Board of Adjustment grants numerous variances for forestation requirements due to hardship

2013
Unified Development Ordinance adopted with Urban Watershed Protection Overlay District

2015 - 2017
Three (3) development plans received in the study area

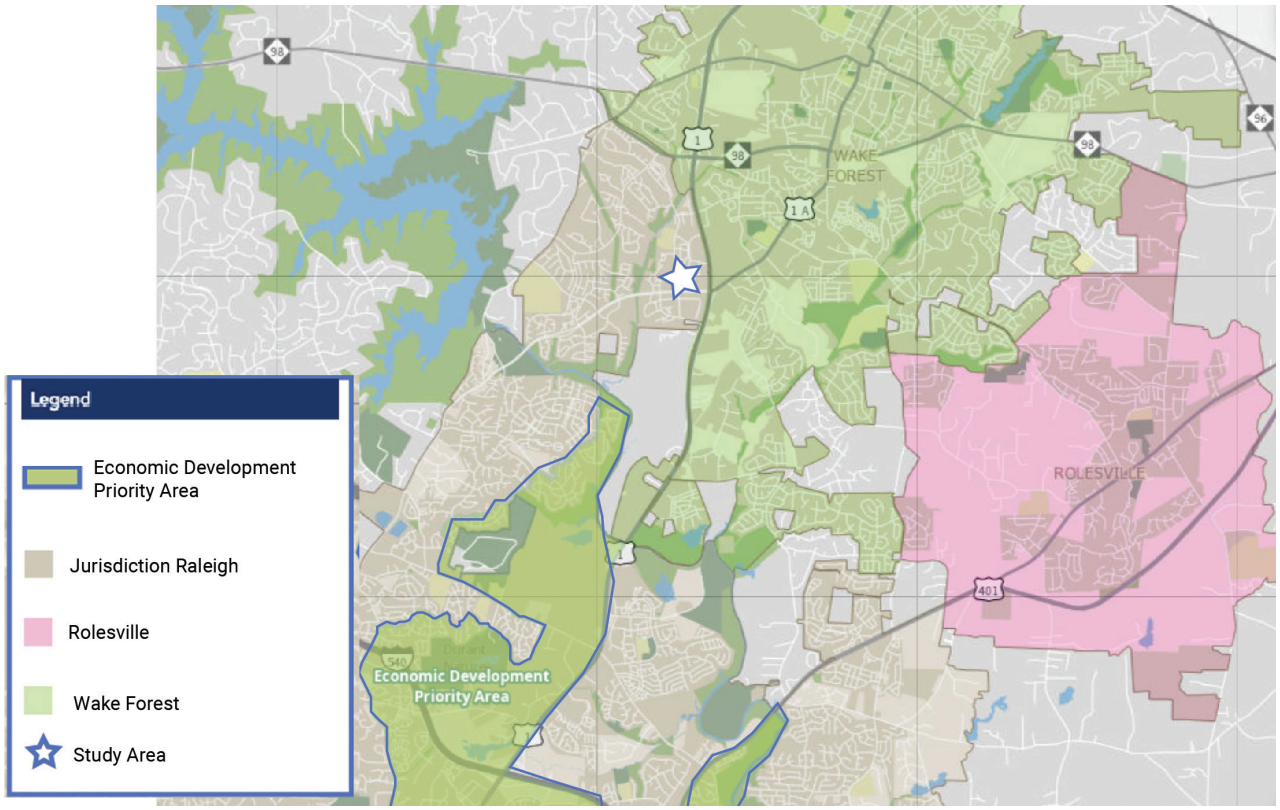
2018 - 2020
Nine (9) development plans received in the study area

Source: City of Raleigh

ECONOMIC DEVELOPMENT PRIORITY AREAS

The City's policy guidance reflected in the 2030 Comprehensive Plan, and specifically in Map ED-1 "Priority Areas for Economic Development," is one of the City's primary economic development policy tools. This map and associated text box are part of a Comprehensive Plan amendment, CP-3-21: Economic Development Priority Map Update. The amendment proposes to modify Map ED-1 and the accompanying text box to reflect the most recent available and relevant data for demographics.

Economic Development Priority Area Map



Source: Adapted from City of Raleigh iMaps

Census data used for the proposed update is from 2019 American Community Survey (ACS) 5-year datasets. Criteria for designation are also clarified, including the definition of high-poverty areas and the inclusion of designated redevelopment areas. The text box is proposed to be updated to allow parcels across the street from the displayed areas to be included as priority areas. This change was requested by a citizen petition and affirmed by the City Council. A decision by the Raleigh City Council is anticipated at their June 15, 2021 meeting.

The map is primarily used in the evaluation rubric for grants administered by the Office of Economic Development and the Raleigh Urban Design Center, such as the Façade Grant or Building Upfit Grant. Each type of grant has a set of scoring factors that provide an impartial way of selecting grant recipients. If a business is located in a priority area identified on Map ED-1, that may improve its likelihood of receiving a grant.

The areas within the economic development zone are determined by evaluating census and land use information. The study area does not currently meet, not is it anticipated that it would meet in the near future, the definitions of "high poverty" or other criteria that would lead to a designation as an economic development priority area. As such, properties within the study boundary would have limited access to many City-sponsored grant programs.

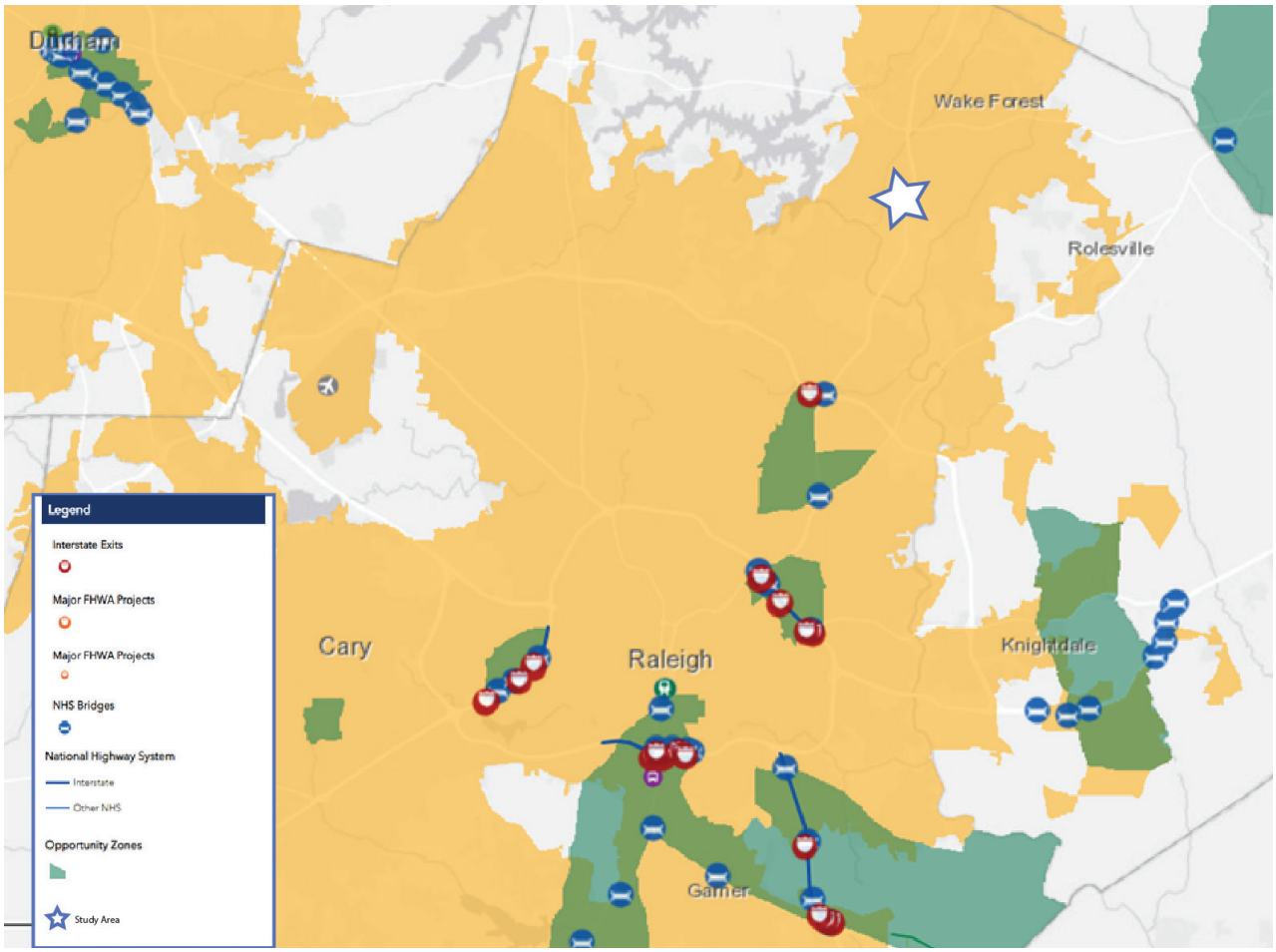
OPPORTUNITY ZONES

Created under Tax Cuts and Jobs Act of 2017 (Public Law No. 115-97), Opportunity Zones are an economic development tool that allows people to invest in distressed areas in the United States. Their purpose is to spur economic growth and job creation in low-income communities while providing tax benefits to investors.

The U.S. Department of Transportation is promoting transportation projects within Opportunity Zones to allow infrastructure improvements to catalyze further reinvestments in these low-income areas. The nearest Opportunity Zone is approximately 6 miles from the study area (to the south within the City of Raleigh 540 beltline and to the east in Franklin County).

At this time no substantial redevelopment projects have been announced in the closest Opportunity Zone area with the City of Raleigh. The impact of significant redevelopment in these areas is unlikely to cause direct impacts to the study area. Impacts would need to be reassessed should improvements in the transit system to and through the study area be coupled by policy or regulation change for the Opportunity Zones resulting in acceleration of redevelopment.

Opportunity Zones Map



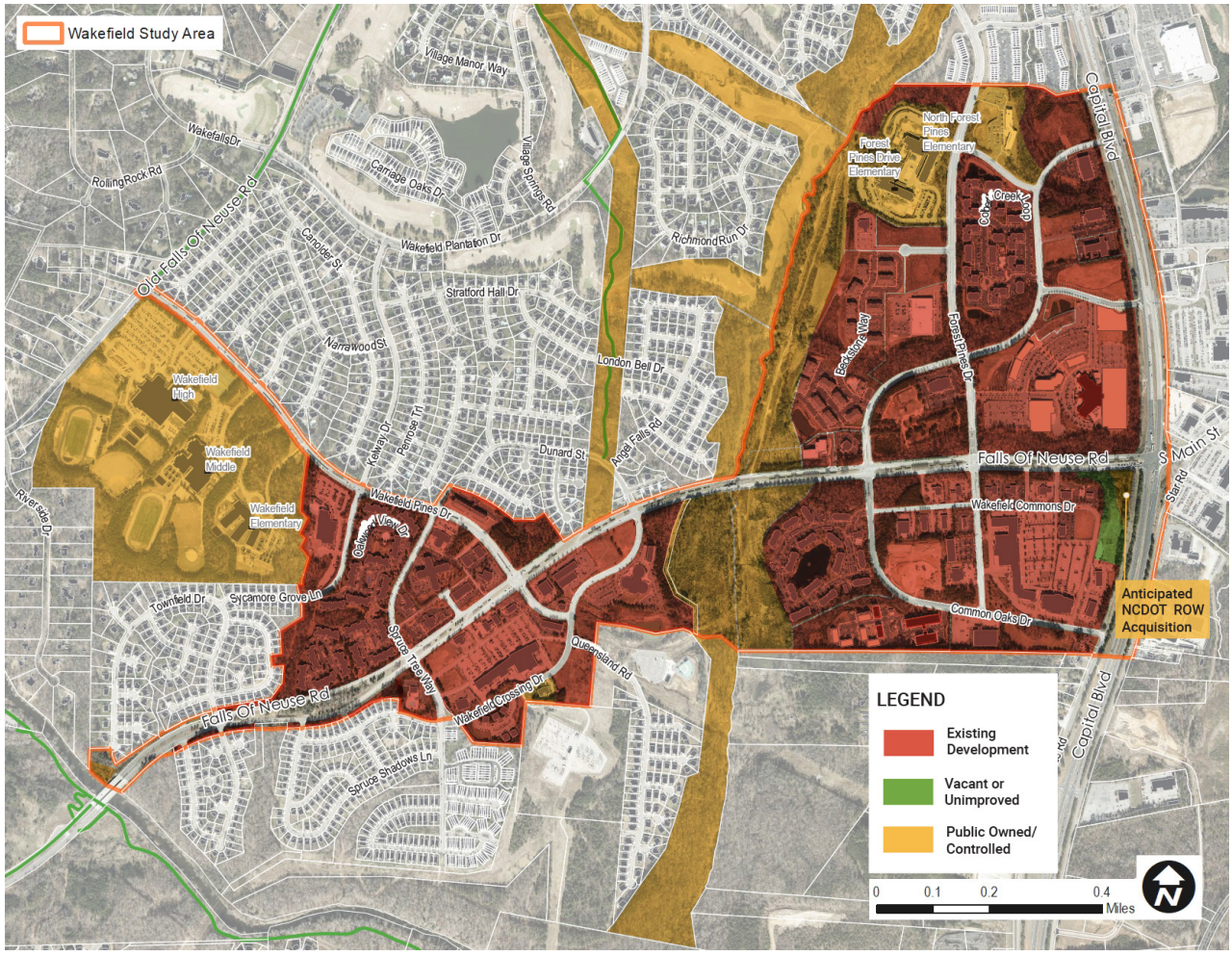
Source: Opportunity Zones and Transportation Improvements (Adapted from USDOT, https://www.transportation.gov/opportunity-zones/opportunity-zones-interactive-map)

SOFT SITE ANALYSIS

The map below is often described as a "soft" sites analysis and used to identify vacant or unimproved areas. Clearly, only a small amount of property falls into that category within the Wakefield Small Area Study.

Between the anticipated NCDOT right-of-way acquisition noted and the required 40% reforestation, development of those outparcels at Falls of Neuse Road and the future Capital Boulevard interchange are limited.

Soft Site Analysis Map



Note: Some areas noted as "Existing Development" areas may be vacant currently; however, these sites have pending or approved development plans.

A more likely scenario would be for currently developed parcels to evaluate the transformation of large parking areas as part of a walkable, mixed use village center. Transformations like this are happening across the country and are often termed “suburban retrofits”; often times, the larger boxes stay in place while incremental, smaller scale shops fill in over time.

APPENDIX

Excerpts from Unified Development Ordinance, Article 9.5 Watershed Protection Areas

Article 9.5. Watershed Protection Areas

Sec. 9.5.1. Urban Watershed Protection Overlay District (-UWPOD)

A. Natural Resource Buffer Yards

Natural resource buffer yards consistent with *Sec. 9.2.3.* must be established along all perennial watercourses.

B. Impervious Surface Coverage

1. All lots or portions of lots in existence prior to April 19, 2005 or lots established outside the subdivision process after that date, no additional impervious surface may be added to the property, which would result in greater coverage by impervious surface than allowed by the following table:

Area	No Stormwater Control Measures	Retention, Detention or Capture First 1/2 Inch of Runoff
Primary water supply watershed protection areas	24% or 2 units of a single-unit living per acre or 20,000 square foot lot.	50%
Secondary water supply watershed protection areas	24% or 2 units of a single-unit living per acre or 20,000 square foot lot or 3 dwellings per acre or 36% built upon area for projects without curb and gutter street systems.	70%

2. Land will be deemed compliant with the intensity requirements if the intensity of all existing development at the time of reclassification does not exceed the density requirement when densities are averaged throughout the area.
3. Impervious surfaces include all proposed streets within the development approved after April 19, 2005 and all impervious surfaces on any lot and common area.
4. Calculation of the area of the development includes all lots, street rights-of-way and common areas within the watershed. Calculation of the area of the development must exclude any widening of existing street rights-of-way, existing street rights-of-way and new street rights-of-way reserved in accordance with the Roadway Corridor Official Map Act, N.C. Gen. Stat. Chapter 136 Article 2E.
5. Redevelopment is permitted when the activity does not result in a net increase of impervious surface and provides equal or greater stormwater control than the previous development and substitutions of impervious surfaces is done in accordance with *Sec. 10.3.5.A.*
6. Any lot of record existing prior to October 12, 2008, that does not conform to the area or impervious surface coverage regulations of this section and which contains a detached house is exempt from the regulations of this overlay district, except there may be no exemption if the lot is contiguous to any other lot owned by the same person. Additions and expansions to existing structures must comply with the requirements of this overlay district, however, impervious surfaces existing prior to the initial application of these regulations must not be included in the impervious surface coverage calculations.

C. Required Stormwater Measures

1. Stormwater Retention, Detention and Capture

Within any primary or secondary watershed protection area, lots which are connected to both City water and sewer utilities and have a total maximum impervious surface of more than 24%, provided that the first ½ inch of stormwater which directly or indirectly runoff off the surface in excess of 24%, from the lot is:

a. Retained for water harvesting and use on the site, infiltration into the soil, evaporation into the air, or a combination of these;
b. Detained for at least a 12-hour period
c. Captured by an approved stormwater treatment device; or
d. A combination of the above.

2. Stormwater Runoff From Streets

Where impervious surface coverage is greater than 24%, the first inch of stormwater which directly or indirectly runs off any street must be contained within the development in accordance with the retention or detention or capture methods set forth above.

D. Maintenance of Stormwater Control Measures

When retention devices, detention devices or wet ponds serve more than 1 lot and are located on private property, a maintenance covenant which complies with *Sec. 9.2.2.G.2.* for sharing the maintenance costs must be recorded. After approval by the City, a map must be recorded in the Wake County Registry, showing the location of the retention device, detention device or wet pond on the lot; the map must bear the following note: "The stormwater control facilities, which serve more than 1 lot, that are not accepted for maintenance by a governmental agency are required by the Raleigh City Code to be owned and maintained by a property owners association for which all lot owners shall be a member."

E. Exemptions

1. The impervious surface coverage limitations and stormwater retention, detention and capture requirements within the secondary water supply watershed protection area of the -UWPOD are inapplicable to any street, right-of-way, lot or improvement if its stormwater runoff flows by gravity to a watercourse located outside the overlay district. All gravity flow drainage plans shall be approved by the Engineering Services Department.
2. Any lot of record existing prior to October 12, 2008, that does not conform to the area or impervious coverage regulations contained in the schedule of Maximum Impervious Surface Limits in a -UWPOD and Required Measures and which lot contains a dwelling used for single-unit living is exempt from the regulations of this overlay district, except there shall be no exemption if the lot is contiguous to any other lot owned by the same person. Additions and expansions to existing structures shall comply with the requirements of this overlay district, however, impervious surfaces existing prior to the initial application of these regulations shall not be included in the impervious surface coverage calculations.
3. For all lots or portions of lots in existence prior to October 12, 2008 or lots established outside the subdivision process after that date, the impervious surface coverage limitations and stormwater retention, detention and capture requirements within the -UWPOD are inapplicable to any single development that disturbs less than 1 acre.

Sec. 9.5.2. Falls Watershed Protection Overlay District (-FWPOD)

A. Natural Resource Buffer Yards

Natural resource buffer yards consistent with *Sec. 9.2.3.* must be established.

B. Impervious Surface Coverage

1. For all lots or portions of lots in existence prior to March 1, 1988 or lots established outside the subdivision process after that date, no additional impervious surface may be added to the property which would result in greater coverage by impervious surface or by built area than allowed by the following table:

Area	No Stormwater Control Measures	Retention, Detention or Capture First Half Inch of Runoff	Management of First Inch of Rainfalll
Primary water supply watershed protection areas	6% impervious surface; or 3,500 sq. ft. if this is not more than 12% impervious surface	N/A	N/A
Secondary water supply watershed protection areas not connected to both City water and sewer utilities	12% impervious surface; or 3,500 sq. ft. if this is not more than 24% impervious surface	N/A	N/A