



2030 COMPREHENSIVE PLAN UPDATE

STAFF REPORT

Section 3: Land Use

OVERVIEW

The *Land Use* section is the primary source of policy guidance for the regulation of growth and development in the Comprehensive Plan. Describing the low-density, use-separated land use context that characterizes Raleigh’s past growth, the section establishes the fundamental policy rationale for a more mixed-use, compact, and sustainable city. Critically, the section applies that policy in the form of the Future Land Use Map, which serves as a key guide to zoning changes. Furthermore, the section describes the current land use allocation in the city, as well as the zoning districts that govern these land uses.

The “Land Use and Transportation Coordination” and the “Mixed-use Development” subsections received the most substantial revisions and are proposed to better align the 2030 Comprehensive Plan with the Wake County Transit Plan.

The Update includes a number of new and revised policies and actions that address issues such as transit-oriented development; transitions between more dense, mixed-use development and lower-scale residential areas; accessory dwelling units; and infill compatibility.

In summary, the revisions seek to accommodate new development in a way that creates a more equitable and environmentally-friendly city while carefully addressing existing neighborhoods with a strong established identity.

As part of the Update process, the entire Plan received a round of general copy editing. Corrections for errors in grammar, punctuation, and internal consistency were made as needed without notation. Other minor technical changes to verbiage or terminology may have also been made without notation. For example, references to the city’s defunct Zoning Ordinance were replaced with references to the Unified Development Ordinance, references to the “Multi-modal Transit Center” were replaced with “Union Station.”

An account of detailed changes can be found in the attached “blackline” documents.

Update for May 23, 2019 Committee of the Whole meeting

A compilation of comments received from the Planning Commission or public during Commission review is included at the end of this report. Staff analysis and recommendations are included for each.

Policies to be Amended by the Update:

New Policies (5)

- LU 5.7 Building Height Transitions
- LU 8.16 Accessory Dwelling Units
- LU 10.7 Micro-retail
- LU 11.6 Brownfields
- LU 12.5 Dix Property Planning

Removed Policies (2)

- LU 8.15 Acquisition of Vacant Lots
- LU 9.5 Small Area Studies in Institutional Areas

Revised Policies (16)

- LU 1.2 Future Land Use Map and Zoning
- LU 2.3 Open Space Preservation
- LU 3.3 Annexation Agreements
- LU 4.5 Connectivity
- LU 4.6 Transit-oriented Development
- LU 4.7 Capitalizing on Transit Access
- LU 4.10 Development at Freeway Interchanges
- LU 5.1 Reinforcing the Urban Pattern
- LU 6.1 Composition of Mixed-use Centers
- LU 6.2 Complementary Land Uses and Urban Vitality
- LU 6.3 Mixed-use and Multimodal Transportation
- LU 7.2 Shopping Center Reuse
- LU 7.3 Single-family Lots on Major Streets
- LU 8.1 Housing Variety
- LU 10.4 Siting of Regional Retail
- LU 12.1 Planning Process for Large Sites

Actions to be Amended by the Update:

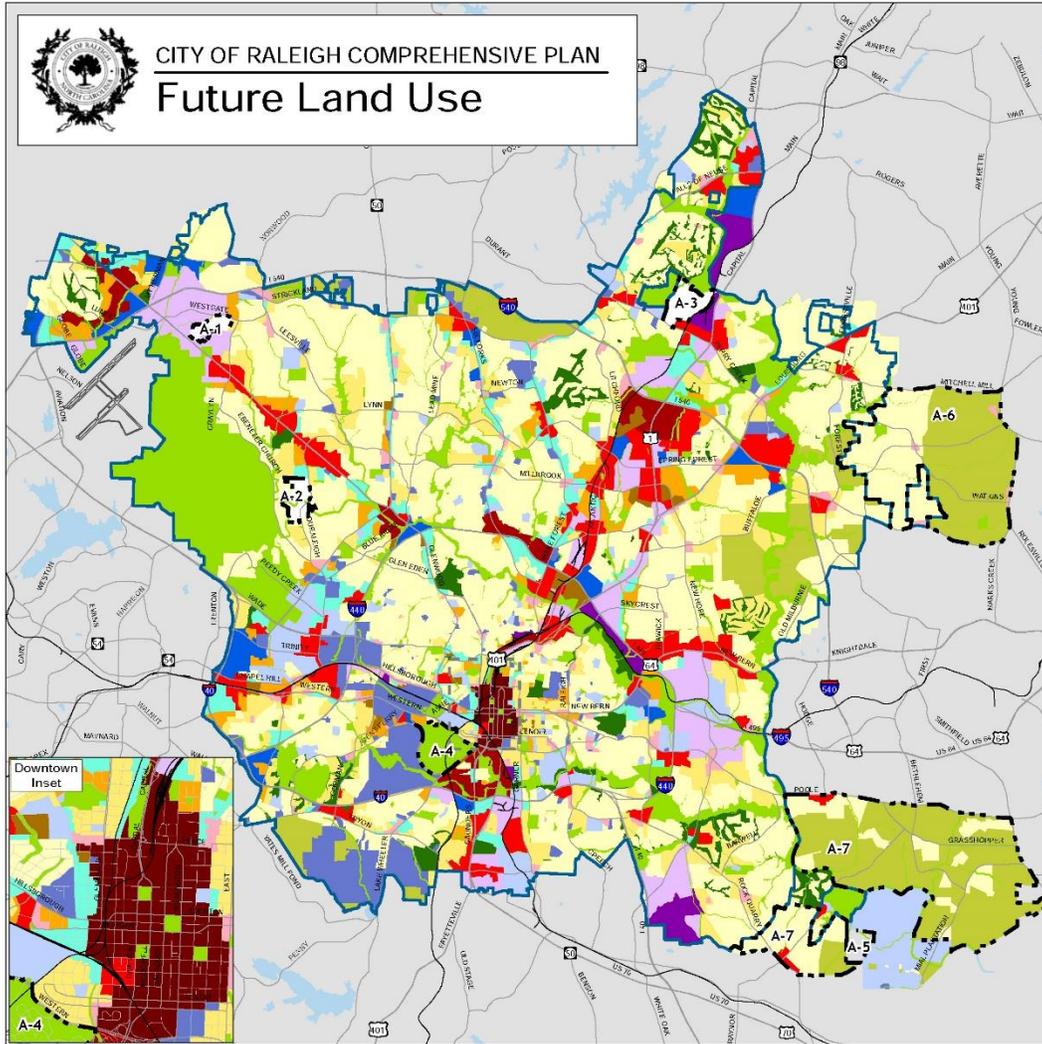
New Actions (1)

- LU 8.6 Infill Compatibility Analysis

Revised Actions (3)

- LU 1.3 Special Study Area Plans
- LU 4.3 Station Area Plans
- LU 12.3 Dix Property Plan

Future Land Use Map: 2009 Version



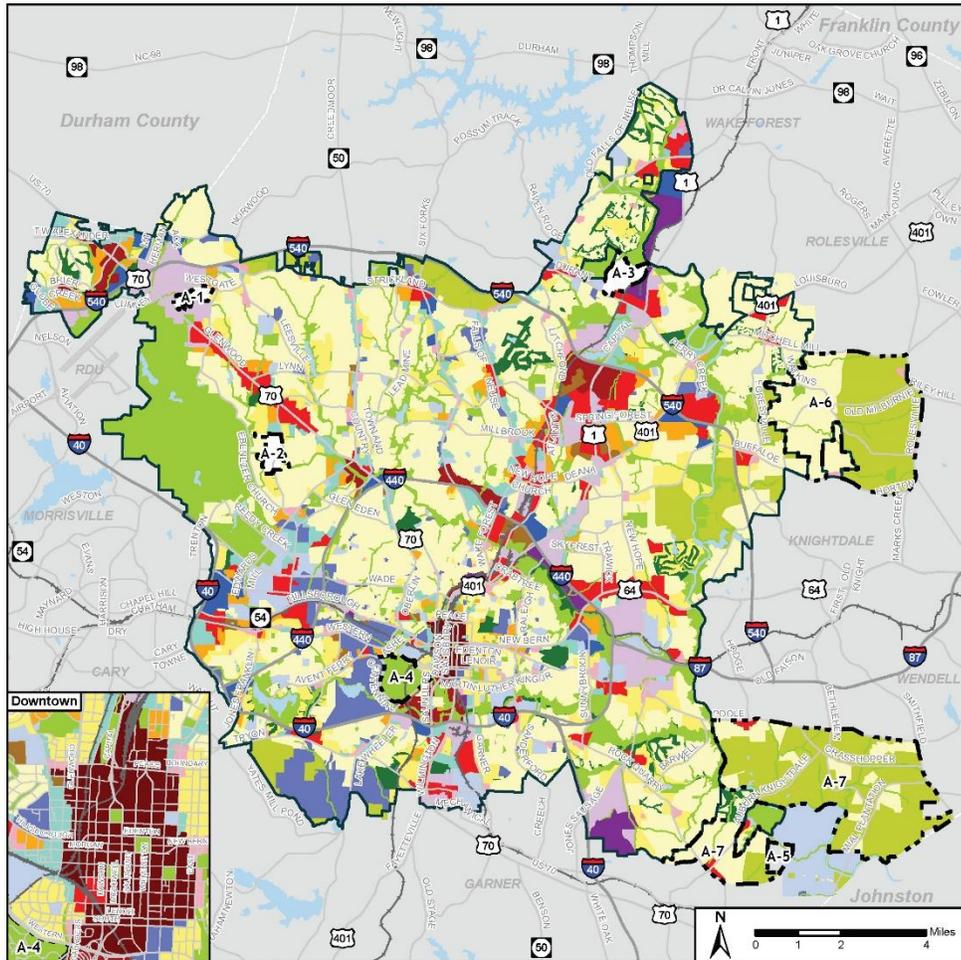
MAP LU-3

Rural Residential	Central Business District	Raleigh Jurisdictional Limit
Low Density Residential	Office/Research & Development	Special Study Areas
Moderate Density Residential	Business & Commercial Services	A-1: Northwest Quarry
Medium Density Residential	General Industrial	A-2: Duraleigh Quarry
High Density Residential	Public Facilities	A-3: Major Industrial/Chemical Facility
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Neighborhood Mixed Use	Public Parks & Open Space	A-5: Southeast Waste Facility
Community Mixed Use	Private Open Space	A-6: North Urban Service Area
Regional Mixed Use	Special Study Areas	A-7: South Urban Service Area

Map created 11/10/2015 by the City of Raleigh
Department of City Planning

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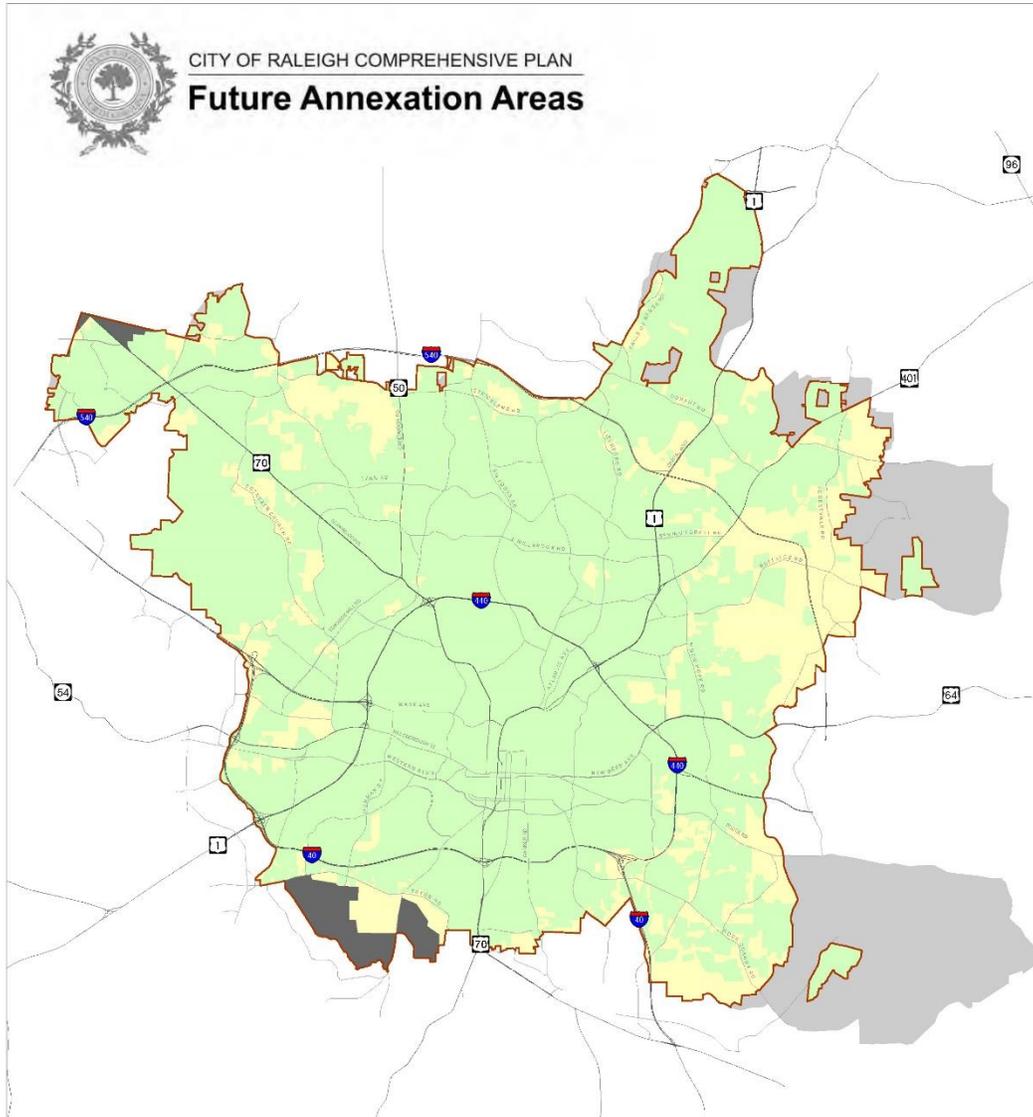
LU-3: Future Land Use



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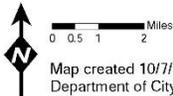


MAP LU-4

Jurisdiction

- Non-Annexation Area within ETJ
- Raleigh City Limits
- Raleigh ETJ
- Urban Service Areas

- ETJ
- Highway
- Major Streets

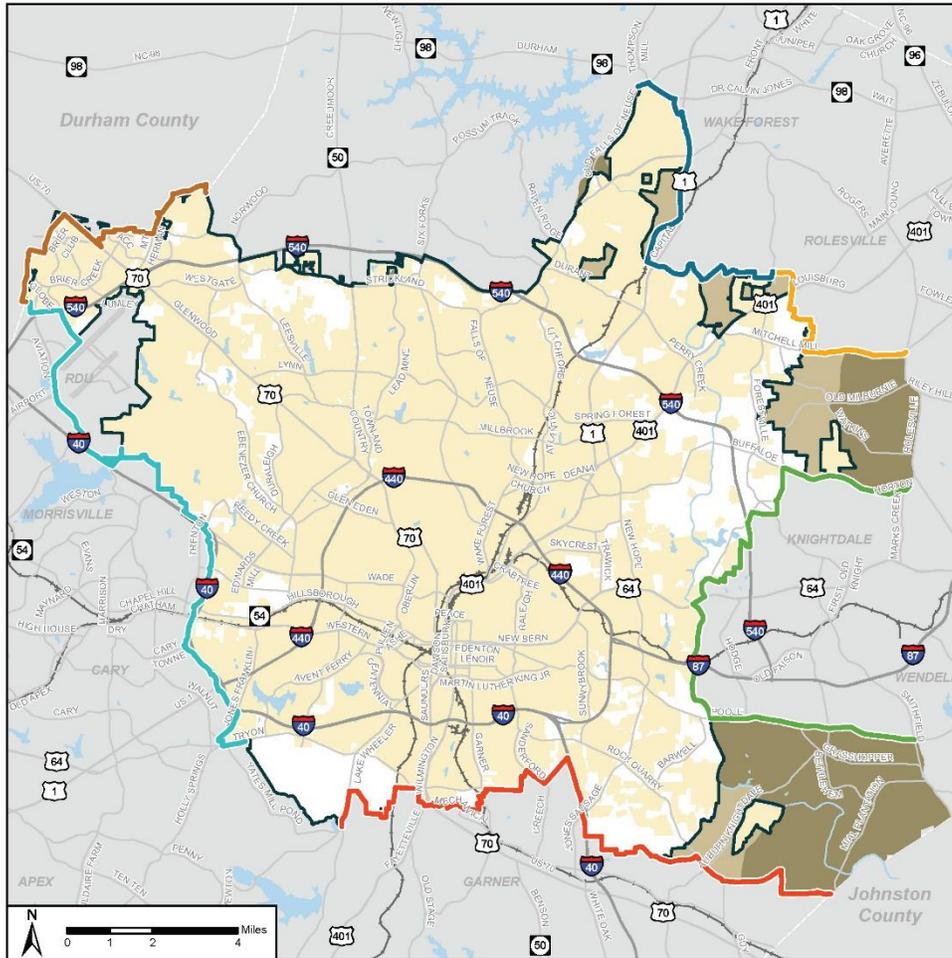


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Department of City Planning & GIS Division

Future Annexation Area Map: 2019 Version

Land Use

LU-4: Jurisdictional Limits and Annexation Boundaries



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| Raleigh City Limits | Annexation Boundary Agreements | |
| Short-Range Urban Service Area | Cary | Knightdale |
| Long-Range Urban Service Area | Durham | Rolesville |
| Raleigh Jurisdiction Limit (ETJ) | Garner | Wake Forest |
- ETJ: Extraterritorial Jurisdiction

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History of Revisions

Relevant Policies or Plans Adopted Since 2009

Wake County Transit Plan

The Wake County Transit Plan, funded in 2016, envisions the most significant new transit investment in the city's history. It will fund the creation of several bus rapid transit corridors, a large expansion of areas served by buses running every 15 minutes or less, and commuter rail service reaching to Durham and Garner. The *Land Use* section incorporates significant new content that describes the goals and provisions of the Transit Plan. It also includes revisions to policies relevant to transit-oriented development, as do the *Transportation* and *Urban Design* sections of the Update.

Strategic Plan

The City of Raleigh Strategic Plan was adopted in 2015 and is guiding many efforts that implement or align with key Comprehensive Plan goals and actions. The *Land Use* section revisions include many items that advance the Strategic Plan's objectives, including the transit plan-related additions described above and transition policies that serve to allow growth while respecting the form of adjacent areas.

Relevant Topics from the White Paper

The white paper forecasted and informed the changes included in this Update.

- A primary change will be the updating of land use statistics presented in the Introduction. ***These statistics were updated based on information compiled in the 2016 City of Raleigh Data Book.***
- A Comprehensive Plan Amendment CP-2-14 was approved in 2014 that included language from the City Attorney's office with respect to evaluating zoning cases for consistency with the Comprehensive Plan. This change should be incorporated into the text box on page 38 titled "Evaluating Zoning Proposals and Consistency with the Comprehensive Plan." ***This text box was revised to reflect this change, which more directly aligns the analysis of a rezoning request with a consideration of the benefits and detriments and with the public interest involved in the decision.***
- Section A.3 needs updating to reflect current North Carolina annexation law. ***This section was revised significantly to reflect current law.***
- Section A.4 will need a narrative and policy update to reflect the new Wake County Transit Plan. ***Significant new content outlining the goals and specific provisions of the transit plan was added.***
- Since the 2009 publication of the Plan, the Unified Development Ordinance has come into effect, providing new regulations for transitions and buffer yards. These changes affect the policies contained within this section. Refinements to the transition policies and Table LU-2 are recommended. ***The plan includes new***

language that accompanies Table LU-2 to clarify height guidance when a site is both adjacent to high-frequency transit and lower-density neighborhoods. The new language states that new buildings should not be as tall as would be recommended in purely transit areas but can be taller, at least away from the edge of the site, than would be recommended if no transit was present at all. The section also includes a new height transition policy (LU 5.7 Building Height Transitions) that provides further guidance. That policy would limit height increases to a 45-degree angle in areas where low or moderate density areas abut areas with building heights of more than seven stories.

- Many of Raleigh’s commercial corridors are underperforming. Section A.7 should include new policies that address the physical retrofit and revitalization strategies for such areas, in a way that complements economic development policies for corridors contained in Section D.1. ***This topic was handled in two other sections of the plan. Urban Design policy 3.3 Strip Shopping Centers, which relates to the form of commercial corridors, was revised to specifically reference areas along the Urban Form Map. Changes also were made to the Economic Development section, which includes a new action regarding commercial reinvestment along commercial corridors.***
- Accessory dwelling units, though not permitted in the Unified Development Ordinance, remain a topic of local and national importance. In order to reflect continued support of such dwellings in some communities, Section A.8 should provide policy guidance for the planning and permitting of such uses. ***The section includes a new policy (LU 8.16 Accessory Dwelling Units) that supports the provision and regulation of ADUs. Following the publication of the Update, Council approved a text change that established an overlay zoning process for ADUs. The policy, however, is still relevant and could play a role in any future discussions that may occur on the topic.***
- In order to better plan for research and development, as well as institutional uses, Section A.9 should include a map of existing uses. ***This section was revised to refer back to map LU-3, which shows envisioned future land uses as a means of illustrating the policies in the section.***
- Small commercial hubs, including limited footprint retail establishments, are needed in many of Raleigh’s residential neighborhoods in order to provide commercial services accessible by alternative modes of transportation. Section A.10 should incorporate new policies to address this need. ***A new “micro-retail” policy (LU 10.7) was added to provide policy support for these establishments.***
- As Raleigh’s industrial landscape continues to shift and formerly industrial lands become targeted for redevelopment for other uses, Section A.11 should include policies that address how the city will manage brownfield redevelopment. ***A new***

policy (LU 11.6) that supports incentivizing brownfield redevelopment was added.

- In order to better plan for large site development, Section A. 12 should include a map of large sites. *New language was added referring the reader to map LU-3, which specifically illustrates large sites and corresponds directly to the “Special Study Areas” shown on the map.*
- Section A.12 should include new policies related to a future master planning framework for the Dorothea Dix site. *A new policy (LU 12.5 Dix Parking Planning) was added that encompasses both the current park-oriented process and future processes that address land use in adjacent areas, transportation, and other issues.*

Other Changes

New actions added:

- **LU 8.6 Infill Compatibility Analysis.** Study regulations that govern infill development to ensure they meet the intent of infill policies while providing a reasonable opportunity for new construction to occur. *Infill development continues to be an issue for many residents. The intent of this action is to create a process that leads to outcomes that are more acceptable to residents and better aligned with the intent of Plan policy. Following the publication of the Update, Council approved a text change that addresses infill development in some circumstances. The policy remains relevant in that it is supportive of that change and any future adjustments that may be considered.*

Policies removed:

- **LU 8.15 Acquisition of Vacant Lots.** Identify smaller vacant lots within developed areas for potential acquisition for public open space. *Policies in the Park System and Land Acquisition portion of Section 8, Parks, Recreation, and Open Space, address this topic much more specifically and refer to a more rigorous process of identifying need.*
- **LU 9.5 Small Area Studies in Institutional Areas.** Prepare small area studies for the areas surrounding large educational, health care, and research facilities to ensure orderly, low-impact growth. *Language and policies in the Implementation section of the Plan address the topic and process of area planning studies.*

Several policies have revised language, generally minor or technical wording changes that do not change the intent of meaning of the policy. Examples including adding references to bus rapid transit or replacing “thoroughfares” with “major streets.”

The one possible exception is **LU 4.7 Capitalizing on Transit Access**, which was changed as follows: “Sites within a half-mile walking distance of planned and proposed fixed guideway existing and proposed rail and bus rapid transit stations should be developed with intense

residential and mixed uses to take full advantage of and support investment in transit infrastructure.”

As the policy now refers to both BRT and rail stations, and as a reasonable walking distance will vary by context, the “half-mile” distance was replaced with “walking distance” to better calibrate the geographic applicability of the policy with actual conditions.

Consistency with Vision Themes

The *Land Use* section is, in many ways, the heart of the Comprehensive Plan, and the Plan’s Vision Themes are interwoven throughout the section. The Update involves aspects of each of the six themes as well.

The themes of ***Coordinating Land Use and Transportation*** and ***Managing Our Growth***, both of which envision denser, more mixed-use development tied to improved alternatives to the automobile, are advanced by the inclusion of a new section on the Wake County Transit Plan and the updating of policies related to transit-oriented development. Those changes also strongly support the theme of ***Greenprint Raleigh – Sustainable Development***.

The themes of ***Managing Our Growth*** (again) and ***Growing Successful Neighborhoods and Communities*** are addressed by the inclusion of a new policy regarding height transitions and clarified language about height in areas that are both adjacent to frequent transit and lower-density neighborhoods.

The theme of ***Economic Prosperity and Equity*** is advanced by policies that encourage small-scale commercial hubs (within a strong regulatory framework) and brownfield development. The latter topic also addresses the theme of ***Greenprint Raleigh – Sustainable Development***.

Finally, the theme of ***Expanding Housing Choices*** is addressed by the new policy supporting Accessory Dwelling Units.

Departments Consulted

Land Use policy is part of the core mission of the Department of City Planning, so much of the internal process for updating this section accordingly involved intradepartmental analysis and communication. However, collaboration with other departments was a part of the process, and all city departments were consulted for input on the *Land Use* section of the Update. In particular, the Parks, Recreation, and Cultural Resources and Transportation departments provided input that shaped the final document.

Additional Notes

The draft document and Future Land Use Map were finalized in summer of 2018 and do not reflect changes since then. In order to avoid modifying the draft at multiple points during the approval process, this Update will incorporate all such amendments into the final draft at the time of adoption.

Comments received during Planning Commission review

- **Comment 1:** Revise description of typical uses in the Future Land Use Map’s Neighborhood Mixed Use category.
Response: Video stores is not included in the final draft version, but incorrectly shows up as remaining in the blackline version.
- **Comment 2:** Check statistics related to land use categories and total city land area.
Response: Correction made. Replaced reference to total land area with a reference to total area within the city’s extraterritorial jurisdiction.
- **Comment 3:** Should the concept of “missing middle” housing be included? Should the section refer to the Cottage Court building type?
Response: The concept of “missing middle” housing – housing types such as duplexes, triplexes, and fourplexes that provide additional variety while maintaining the same scale as detached houses – is an important one.

The update includes two new references to the concept. They include an addition to H 1.8 Zoning for Housing (a key policy for rezoning) and UD 8.3 Transit Area Infill. Both are included below:

H 1.8 Zoning for Housing - Ensure that zoning policy continues to provide ample opportunity for developers to build a variety of housing types, ranging from single-family to dense multi-family. Keeping the market well-supplied with housing will moderate the costs of owning and renting, lessening affordability problems, and lowering the level of subsidy necessary to produce affordable housing. In areas characterized by detached houses, accommodations should be made for additional housing types while maintaining a form and scale similar to existing housing.

Policy UD 8.3 Transit Area Infill - Encourage sensitive densification in areas surrounding transit routes by promoting “missing middle” housing and accessory dwelling units in nearby residential areas, and the retrofit or redevelopment of existing underutilized properties.

Two forthcoming planning processes, one focusing on land use along bus rapid transit corridors and one looking directly at “missing middle” opportunities, offer opportunities to add additional policy on the topic to the Plan. However, as the concept is an important one, it may be helpful to introduce it in the form of a brief text box within the Land Use section.

- **Comment 4:** Include language about housing affordability in policies such as LU 4.7 Capitalizing on Transit Access, LU 4.8 LU 6.1 Composition of Mixed Use Centers, and LU 6.2 Complementary Land Uses and Urban Vitality and the introduction to 3.6 Mixed Use Development? Specific suggestions are shown in blackline form below.

LU 4.7 Capitalizing on Transit Access - Sites within walking distance of existing and proposed rail and bus rapid transit stations should be developed with intense residential and mixed uses, including housing options that are affordable by persons with low and moderate incomes, to take full advantage of and support investment in transit infrastructure.

LU 4.8 Station area Land Uses - A complementary mix of uses, including multifamily residential, offices, retail, civic, and entertainment uses, should be located within transit station areas.

LU 6.1 Composition of Mixed-Use Centers - Mixed-use centers should comprise a variety of integrated residential and commercial uses – mixed both vertically and horizontally - that have well-planned public spaces that bring people together and provide opportunities for active living and interaction.

LU 6.2 Complementary Land Uses and Urban Vitality - A complementary integration and mixture of land uses should be provided within all growth centers and mixed-use centers to maintain the city’s livability, manage future growth, provide affordable housing options at all income levels, and provide walkable and transit accessible destinations. Areas designated for mixed-use development in the Comprehensive Plan should be zoned consistently with this policy.

Response: The plan addresses affordability in a number of locations, particularly within the Housing section. Examples include:

Policy LU 8.1 Housing Variety - Accommodate growth in newly developing or redeveloping areas of the city through mixed-use neighborhoods with a variety of housing types.

Policy H 1.1 Mixed-income Neighborhoods - Promote mixed-income neighborhoods throughout the city, particularly within high-density development at employment centers, downtown, within NRSAs, and along transit corridors.

Policy H 1.8 Zoning for Housing - Ensure that policy continues to provide ample opportunity for developers to build a variety of housing types, ranging from single-family to dense multi-family. Keeping the market well-supplied with housing will moderate the costs of owning and renting, lessening affordability problems, and lowering the level of subsidy necessary to produce affordable housing. In areas characterized by detached houses, accommodations should be made for additional housing types while maintaining a form and scale similar to existing housing. (Key policy)

Policy H 1.9 Housing Diversity - Promote housing diversity and affordable housing choices for households at 60 percent of AMI or below in the immediate area around transit corridors.

Action H 2.24 Zoning for Mixed Income - Develop zoning provisions for transit-oriented development that promote housing diversity and affordable housing choices available to households at 60 percent of AMI or below in the immediate area around transit corridors.

Affordable Housing Location Policy (In Housing Section) The purpose of the Affordable Housing Location Policy is to set forth desired outcomes relative to the creation or preservation of affordable multifamily rental housing with the overall goal of affirmatively furthering fair housing choice for all residents. Specific objectives of the Policy include the following:

- To increase the supply of affordable housing in underserved locations near employment and commercial centers.
- To encourage the development of affordable housing near existing and proposed transit services.
- To provide for affordable housing in and near downtown Raleigh and in neighborhoods having approved revitalization plans.
- To prevent further concentrations of minority and low-income persons and subsidized housing.

The reference could be added in each of these locations, but housing affordability is addressed in other locations in the plan. Additionally, the plan seeks to avoid redundancy where possible. However, as the Land Use chapter does not specifically mention affordability, it would be reasonable to add at least one reference in the section. Staff suggests adding it to subsection 3.2 Citywide Growth, in the following form:

Raleigh has expanded and grown dramatically over the last 20 years based on an auto dependent land use pattern of separated land uses. Due to rising infrastructure costs, diminishing land resources, local environmental impacts, and global climate change, Raleigh is now committed to a smart growth pattern of development for its future and desires to be a model “sustainable city.”

Raleigh’s citywide growth policies seek to guide development and redevelopment and promote more compact development, walkable neighborhoods, varied and affordable housing options, and transit-accessible corridors to use land efficiently, increase connectivity, lower vehicle miles traveled, and improve air quality.

- **Comment 5:** How do policies that encourage design quality, such as LU 2.1 translate into what is built?

LU 2.1 Placemaking - Development within Raleigh’s jurisdiction should strive to create places, streets, and spaces that in aggregate meet the needs of people at all stages of life, are visually attractive, safe, accessible, functional, inclusive, have their own distinctive identity, and maintain or improve local character.

Response: This is a very broad policy that in many ways serves as a foundation for more specific policies that address issues such urban design, residential-commercial transitions, a mix of uses, and more. Many of these policies are implemented through specific requirements within the Unified Development Ordinance. This policy provides ongoing support for those provisions.

- **Comment 6:** Should additional policies be designated as “key policies” that play significant roles in determining whether a proposed rezoning is consistent with the Plan?

Response: Generally speaking, key policies should meet a few criteria. First, they should be particularly important policies – if many policies are key, then the concept of a “key policy” is weakened. The test would be whether, if the policy is not met, a rezoning would likely be detrimental to the public interest. Second, a key policy must intersect with a zoning decision. Many Plan policies support existing development regulations but do not address issues that are part of the rezoning process or involve a level of detail that is difficult to address through a rezoning and instead is addressed through regulations that govern site plans. Finally, is the policy so broad that, while it may serve as a foundation for other policies in the Plan, is difficult to apply to an individual zoning request. Staff analysis with respect to these criteria is applied to each of the specific suggestions below.

- **Comment 6A:** LU 2.1 Placemaking - Development within Raleigh’s jurisdiction should strive to create places, streets, and spaces that in aggregate meet the needs of people at all stages of life, are visually attractive, safe, accessible, functional, inclusive, have their own distinctive identity, and maintain or improve local character.

Response: This is an important policy but is very broad and may be difficult to apply consistently to a rezoning.

- **Comment 6B:** LU 3.5 Watershed Management - When the city annexes land that includes designated watershed supply areas, development of these lands should be managed to minimize impervious surface cover and protect the quality of the water supply.

Response: Existing regulation, including specific zoning overlay districts that apply to these areas, implements this policy.

- **Comment 6C:** LU 5.7 Building Height Transitions - When a mixed-use or nonresidential area contemplated for building heights in excess of seven stories abuts an area designated for low or moderate density on the future land use map, building heights should not exceed a 45-degree plane starting 10 feet from the adjoining lower-density area. When any mixed-use or non-residential area is separated from an area of low- or moderate-density by an intervening street other than a Major Street, building faces along the frontage facing the residential area should not exceed three stories.
Response: This policy is specific, significant, and intersects with rezoning. Staff recommends designating it a key policy.

- **Comment 6D:**

LU 6.1 Composition of Mixed-Use Centers - Mixed-use centers should comprise a variety of integrated residential and commercial uses – mixed both vertically and horizontally - that have well-planned public spaces that bring people together and provide opportunities for active living and interaction.

LU 6.2 Complementary Land Uses and Urban Vitality - A complementary integration and mixture of land uses should be provided within all growth centers and mixed-use centers to maintain the city’s livability, manage future growth, and provide walkable and transit accessible destinations. Areas designated for mixed-use development in the Comprehensive Plan should be zoned consistently with this policy.

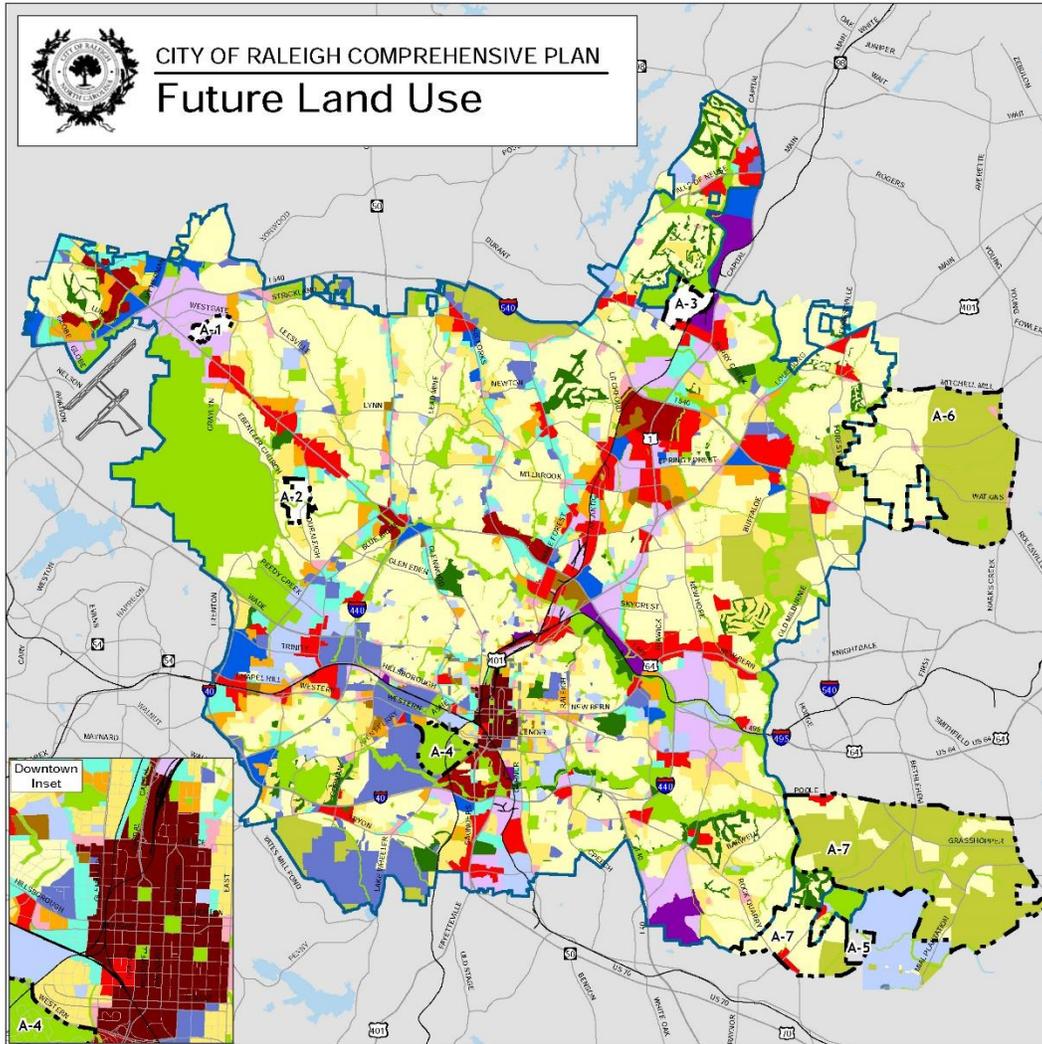
Response: These two policies address the desire for a balanced mix of uses within larger centers. Currently, code *accommodates* a mix of uses, but does not require it. It may be reasonable to consider making these a key policy, with application to larger parcels seeking a mixed-use zoning category. Note that a comment above also suggested including language about affordable housing in LU 6.2

- **Comment 7:** Suggested wording change to Policy LU 2.1 Placemaking Current wording: Development within Raleigh’s jurisdiction should strive to create places, streets, and spaces that in aggregate meet the needs of people at all stages of life, are visually attractive, safe, accessible, functional, inclusive, have their own distinctive identity, and maintain or improve local character.

Proposed wording: High-density developments in mixed-use centers, as they are approved for greater height and bulk, should activate the public realm at ground level with enhanced open space, site and architectural design features and art to achieve the goal of excellence in placemaking.

Response: Policy UD 2.3 Activating the Street, as well as other policies in the Urban Design section, contains similar language and addresses similar issues. No change is recommended.

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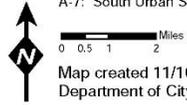


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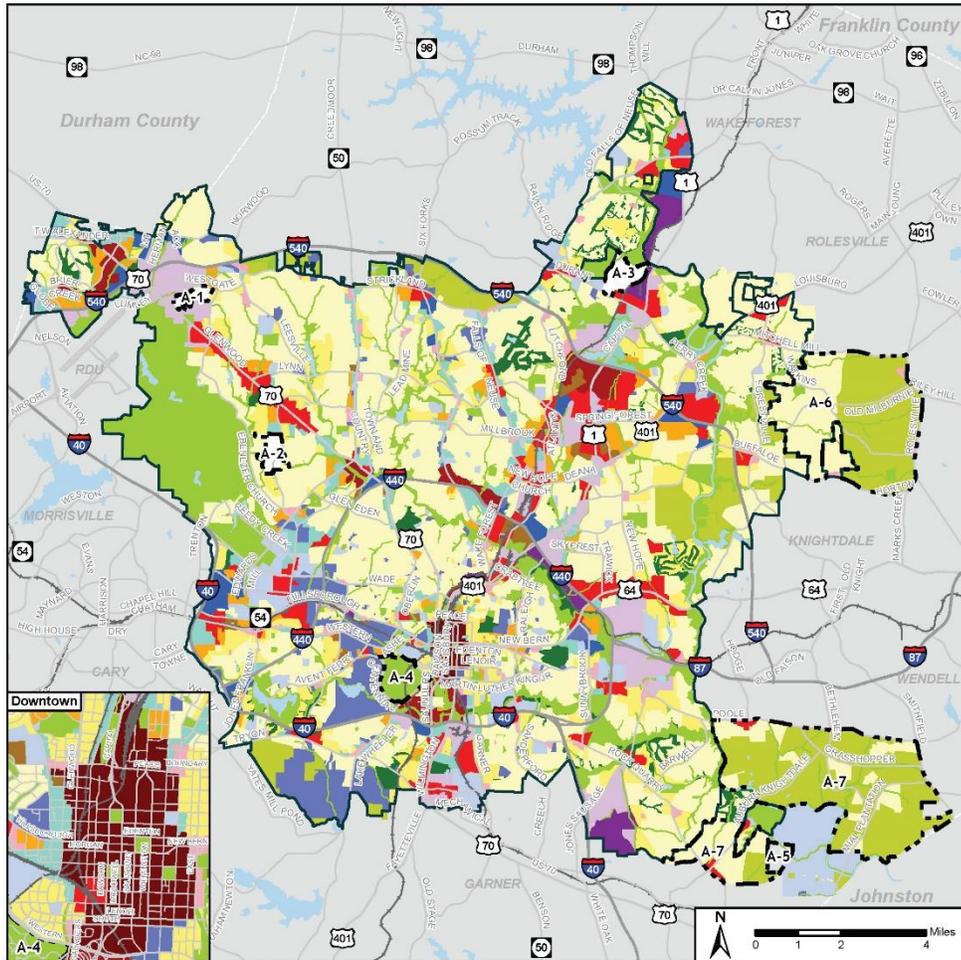
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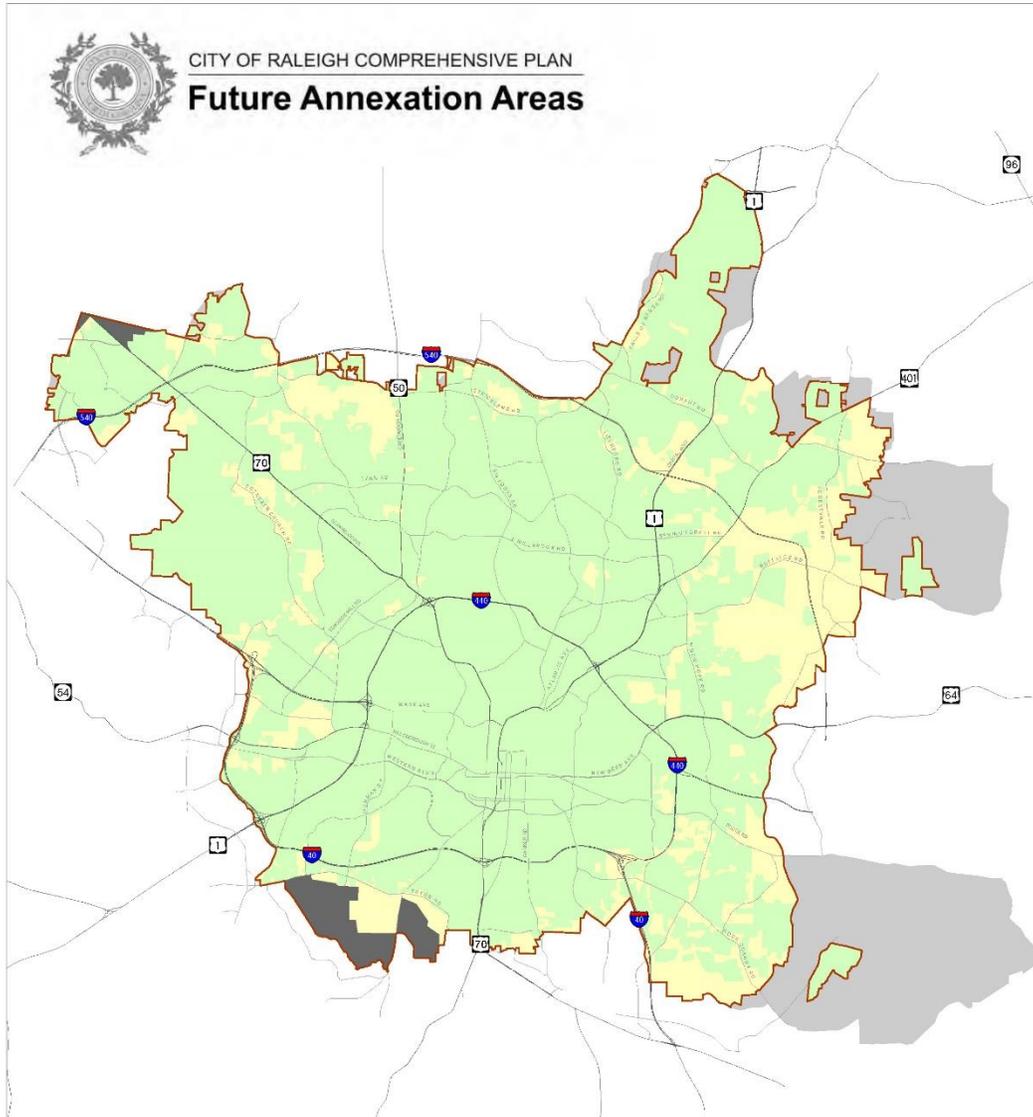
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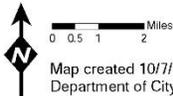


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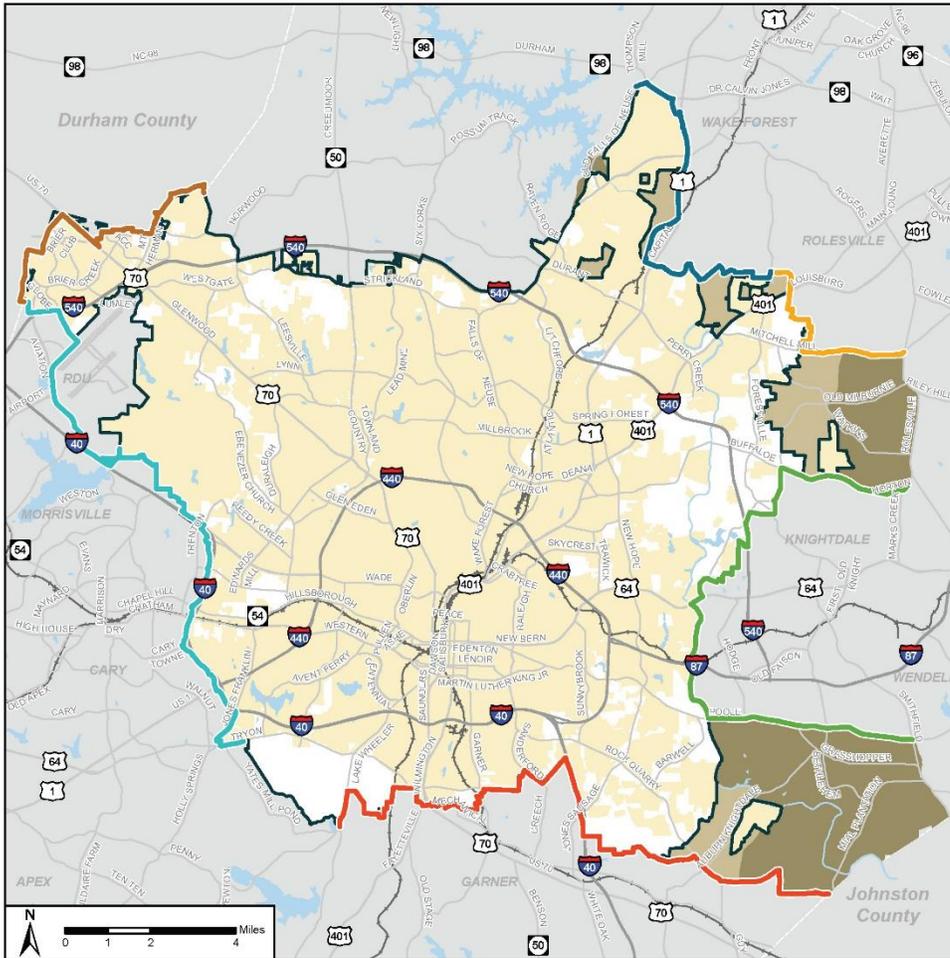


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The white paper forecasted and informed the changes included in this Update.

- A primary change will be the updating of land use statistics presented in the Introduction. ***These statistics were updated based on information compiled in the 2016 City of Raleigh Data Book.***
- A Comprehensive Plan Amendment CP-2-14 was approved in 2014 that included language from the City Attorney's office with respect to evaluating zoning cases for consistency with the Comprehensive Plan. This change should be incorporated into the text box on page 38 titled "Evaluating Zoning Proposals and Consistency with the Comprehensive Plan." ***This text box was revised to reflect this change, which more directly aligns the analysis of a rezoning request with a consideration of the benefits and detriments and with the public interest involved in the decision.***
- Section A.3 needs updating to reflect current North Carolina annexation law. ***This section was revised significantly to reflect current law.***
- Section A.4 will need a narrative and policy update to reflect the new Wake County Transit Plan. ***Significant new content outlining the goals and specific provisions of the transit plan was added.***
- Since the 2009 publication of the Plan, the Unified Development Ordinance has come into effect, providing new regulations for transitions and buffer yards. These changes affect the policies contained within this section. Refinements to the transition policies and Table LU-2 are recommended. ***The plan includes new***

language that accompanies Table LU-2 to clarify height guidance when a site is both adjacent to high-frequency transit and lower-density neighborhoods. The new language states that new buildings should not be as tall as would be recommended in purely transit areas but can be taller, at least away from the edge of the site, than would be recommended if no transit was present at all. The section also includes a new height transition policy (LU 5.7 Building Height Transitions) that provides further guidance. That policy would limit height increases to a 45-degree angle in areas where low or moderate density areas abut areas with building heights of more than seven stories.

- Many of Raleigh’s commercial corridors are underperforming. Section A.7 should include new policies that address the physical retrofit and revitalization strategies for such areas, in a way that complements economic development policies for corridors contained in Section D.1. ***This topic was handled in two other sections of the plan. Urban Design policy 3.3 Strip Shopping Centers, which relates to the form of commercial corridors, was revised to specifically reference areas along the Urban Form Map. Changes also were made to the Economic Development section, which includes a new action regarding commercial reinvestment along commercial corridors.***
- Accessory dwelling units, though not permitted in the Unified Development Ordinance, remain a topic of local and national importance. In order to reflect continued support of such dwellings in some communities, Section A.8 should provide policy guidance for the planning and permitting of such uses. ***The section includes a new policy (LU 8.16 Accessory Dwelling Units) that supports the provision and regulation of ADUs. Following the publication of the Update, Council approved a text change that established an overlay zoning process for ADUs. The policy, however, is still relevant and could play a role in any future discussions that may occur on the topic.***
- In order to better plan for research and development, as well as institutional uses, Section A.9 should include a map of existing uses. ***This section was revised to refer back to map LU-3, which shows envisioned future land uses as a means of illustrating the policies in the section.***
- Small commercial hubs, including limited footprint retail establishments, are needed in many of Raleigh’s residential neighborhoods in order to provide commercial services accessible by alternative modes of transportation. Section A.10 should incorporate new policies to address this need. ***A new “micro-retail” policy (LU 10.7) was added to provide policy support for these establishments.***
- As Raleigh’s industrial landscape continues to shift and formerly industrial lands become targeted for redevelopment for other uses, Section A.11 should include policies that address how the city will manage brownfield redevelopment. ***A new***

policy (LU 11.6) that supports incentivizing brownfield redevelopment was added.

- In order to better plan for large site development, Section A. 12 should include a map of large sites. *New language was added referring the reader to map LU-3, which specifically illustrates large sites and corresponds directly to the “Special Study Areas” shown on the map.*
- Section A.12 should include new policies related to a future master planning framework for the Dorothea Dix site. *A new policy (LU 12.5 Dix Parking Planning) was added that encompasses both the current park-oriented process and future processes that address land use in adjacent areas, transportation, and other issues.*

Other Changes

New actions added:

- **LU 8.6 Infill Compatibility Analysis.** Study regulations that govern infill development to ensure they meet the intent of infill policies while providing a reasonable opportunity for new construction to occur. *Infill development continues to be an issue for many residents. The intent of this action is to create a process that leads to outcomes that are more acceptable to residents and better aligned with the intent of Plan policy. Following the publication of the Update, Council approved a text change that addresses infill development in some circumstances. The policy remains relevant in that it is supportive of that change and any future adjustments that may be considered.*

Policies removed:

- **LU 8.15 Acquisition of Vacant Lots.** Identify smaller vacant lots within developed areas for potential acquisition for public open space. *Policies in the Park System and Land Acquisition portion of Section 8, Parks, Recreation, and Open Space, address this topic much more specifically and refer to a more rigorous process of identifying need.*
- **LU 9.5 Small Area Studies in Institutional Areas.** Prepare small area studies for the areas surrounding large educational, health care, and research facilities to ensure orderly, low-impact growth. *Language and policies in the Implementation section of the Plan address the topic and process of area planning studies.*

Several policies have revised language, generally minor or technical wording changes that do not change the intent of meaning of the policy. Examples including adding references to bus rapid transit or replacing “thoroughfares” with “major streets.”

The one possible exception is **LU 4.7 Capitalizing on Transit Access**, which was changed as follows: “Sites within a half-mile walking distance of planned and proposed fixed guideway existing and proposed rail and bus rapid transit stations should be developed with intense

residential and mixed uses to take full advantage of and support investment in transit infrastructure.”

As the policy now refers to both BRT and rail stations, and as a reasonable walking distance will vary by context, the “half-mile” distance was replaced with “walking distance” to better calibrate the geographic applicability of the policy with actual conditions.

Consistency with Vision Themes

The *Land Use* section is, in many ways, the heart of the Comprehensive Plan, and the Plan’s Vision Themes are interwoven throughout the section. The Update involves aspects of each of the six themes as well.

The themes of ***Coordinating Land Use and Transportation*** and ***Managing Our Growth***, both of which envision denser, more mixed-use development tied to improved alternatives to the automobile, are advanced by the inclusion of a new section on the Wake County Transit Plan and the updating of policies related to transit-oriented development. Those changes also strongly support the theme of ***Greenprint Raleigh – Sustainable Development***.

The themes of ***Managing Our Growth*** (again) and ***Growing Successful Neighborhoods and Communities*** are addressed by the inclusion of a new policy regarding height transitions and clarified language about height in areas that are both adjacent to frequent transit and lower-density neighborhoods.

The theme of ***Economic Prosperity and Equity*** is advanced by policies that encourage small-scale commercial hubs (within a strong regulatory framework) and brownfield development. The latter topic also addresses the theme of ***Greenprint Raleigh – Sustainable Development***.

Finally, the theme of ***Expanding Housing Choices*** is addressed by the new policy supporting Accessory Dwelling Units.

Departments Consulted

Land Use policy is part of the core mission of the Department of City Planning, so much of the internal process for updating this section accordingly involved intradepartmental analysis and communication. However, collaboration with other departments was a part of the process, and all city departments were consulted for input on the *Land Use* section of the Update. In particular, the Parks, Recreation, and Cultural Resources and Transportation departments provided input that shaped the final document.

Additional Notes

The draft document and Future Land Use Map were finalized in summer of 2018 and do not reflect changes since then. In order to avoid modifying the draft at multiple points during the approval process, this Update will incorporate all such amendments into the final draft at the time of adoption.



2030 COMPREHENSIVE PLAN UPDATE

STAFF REPORT

Section 4: Transportation

OVERVIEW

The *Transportation* section of the Comprehensive Plan lays out a vision for future development of the city's network for motorized and nonmotorized transportation. The changes in this section are designed to advance the city's vision for increased connectivity supporting a network of motorized and non-motorized transportation options.

Included are policies and actions related to the adoption of the Wake County Transit Plan, the update to the city's 2016 BikeRaleigh Plan, and implementation of bikeshare. Accordingly, the "Public Transportation" subsection was the most heavily revised. A new "Emerging Technologies" subsection is meant to lay the policy foundation to begin preparing the city for autonomous vehicles, ridesharing, and other transportation innovations.

As part of the Update process, the entire Plan received a round of general copy editing. Corrections for errors in grammar, punctuation, and internal consistency were made as needed without notation. Other minor technical changes to verbiage or terminology may have also been made without notation. For example, references to the city's defunct Zoning Ordinance were replaced with references to the Unified Development Ordinance, references to the "Multi-modal Transit Center" were replaced with "Union Station."

An account of detailed changes can be found in the attached "blackline" documents.

Update for May 23, 2019 meeting

A compilation of comments received from the Planning Commission or public during Commission review is included at the end of this report. Staff analysis and recommendations are included for each.

Policies to be Amended by the Update:

New Policies (12)

- T 4.19 Service Targets and Evaluation
- T 4.20 Transit Efficiency
- T 4.21 System Appeal
- T 4.22 Regional Transit
- T 4.23 Bike, Ride and Car Share as Public Transportation
- T 4.24 Innovation
- T 6.10 Parking Technology
- T 7.6 Low-speed Streets
- T 10.1 Automated Vehicles
- T 10.2 Ride-hailing and Vehicle Sharing
- T 10.3 Curbside Space
- T 10.4 Bikeshare

Removed Policies (1)

- T 4.17 Anticipating Streetcar Service

Revised Policies (14)

- T 2.7 Conditions for Roadway Closure
- T 2.9 Curb Cuts
- T 2.14 Employer-based Trip Reduction
- T 2.18 Roadway Tree Canopies
- T 3.1 Complete Street Implementation
- T 4.2 Short-term Bus Improvements
- T 4.3 High-quality Priorities
- T 4.8 Bus Waiting Areas
- T 4.9 Pedestrian and Bicycle Improvements Near Transit
- T 4.18 Transit Service Coordination
- T 5.1 Enhancing Bike/Pedestrian Circulation
- T 5.3 Bicycle and Pedestrian Mobility
- T 7.2 Traffic Calming
- T 7.5 Reducing Cut-through Traffic

Actions to be Amended by the Update:

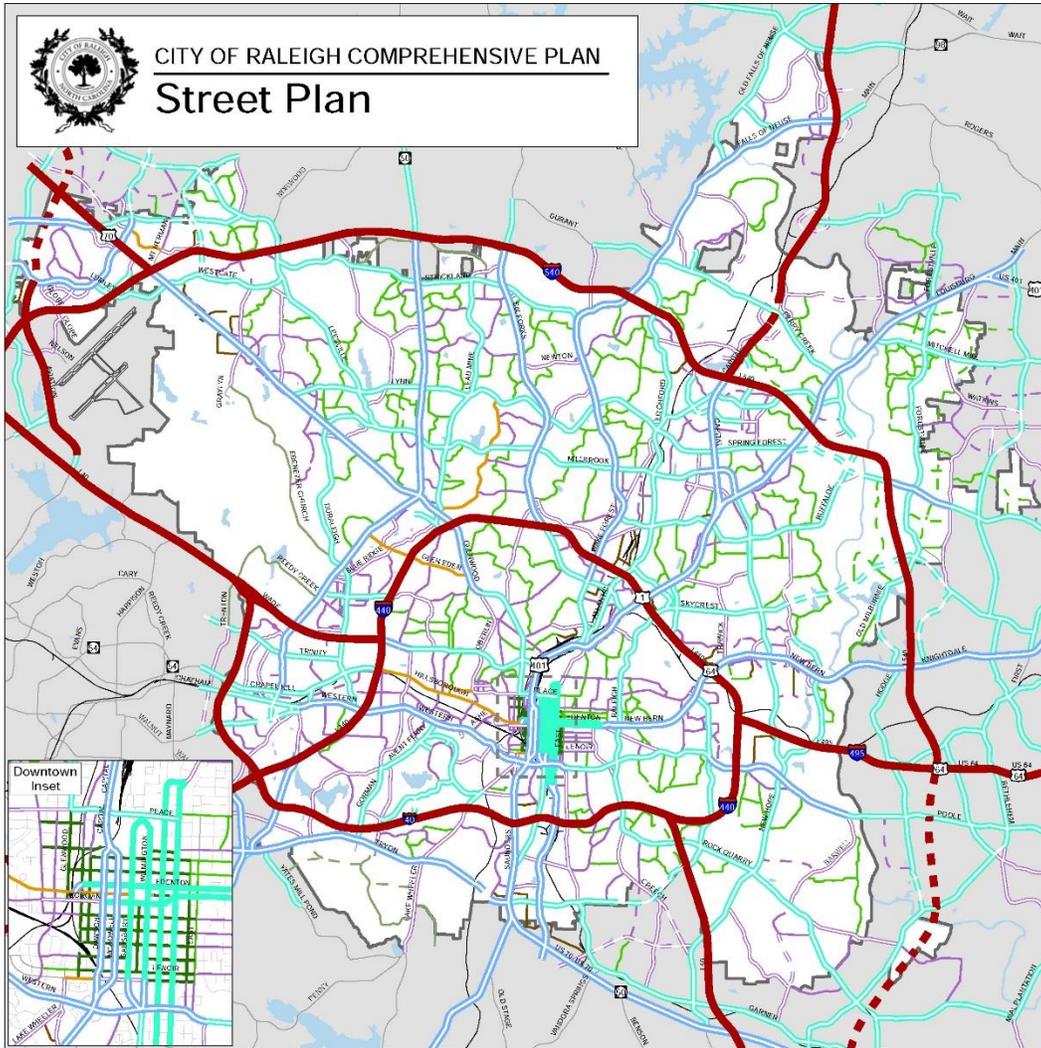
New Actions (11)

- T 4.14 Service Targets
- T 4.15 Frequent Network Map
- T 4.16 Downtown Services
- T 4.17 Paratransit Efficiency and Coordination
- T 4.18 Public Education and Marketing
- T 4.19 Bike, Ride and Car Share
- T 5.15 Bikeshare
- T 7.3 Traffic Calming
- T 10.1 Curbside Space
- T 10.2 Parking Demand
- T 10.3 Automated Vehicles

Removed Actions (2)

- T 4.3 Intercity Fixed Route Transit
- T 4.4 Streetcars

Street Plan Map: 2009 Version

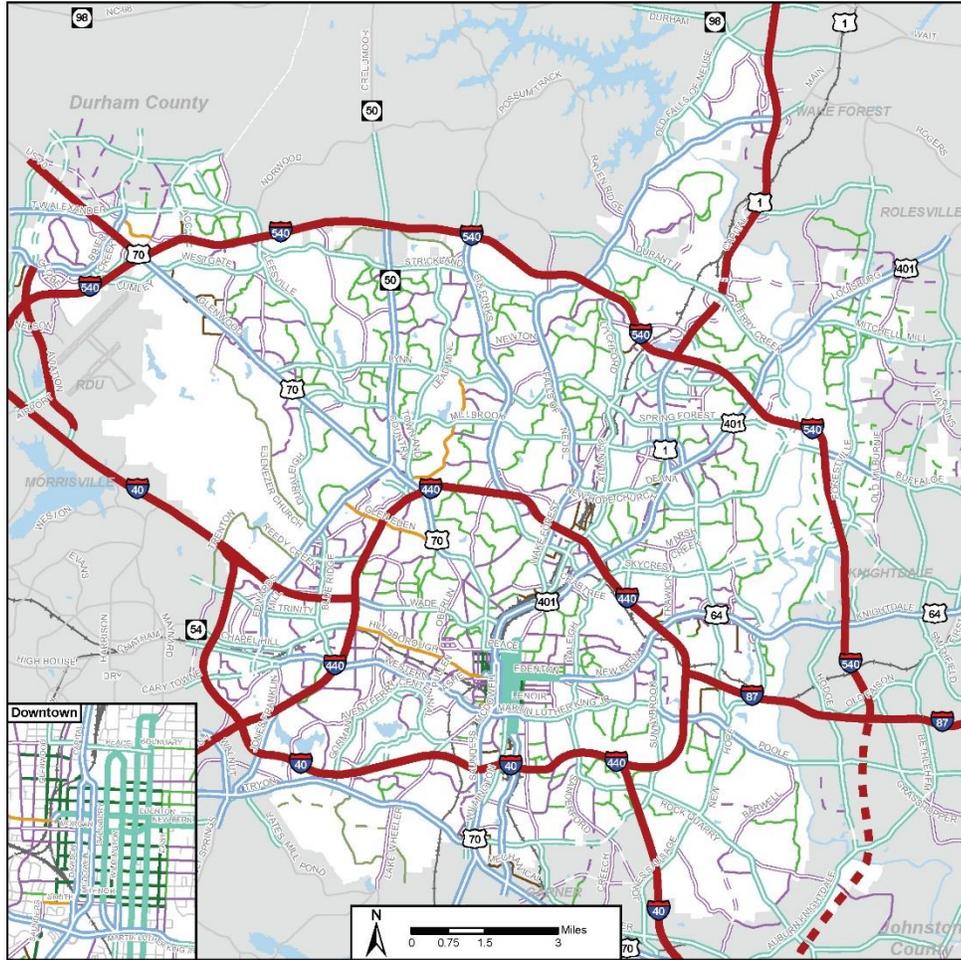


MAP T-1

- | | | | | |
|----------------------------------|--|--|---|--|
| A. Sensitive Area Streets | <ul style="list-style-type: none"> — Sensitive Area Parkway — Sensitive Area Parkway Proposed — Sensitive Area Avenue — Sensitive Area Avenue Proposed | <ul style="list-style-type: none"> — Avenue 2-Lane, Divided — Avenue 2-Lane, Divided Proposed — Avenue 3-Lane, Parallel Parking — Avenue 3-Lane, Parallel Parking Proposed — Main Street, Parallel Parking — Main Street, Parallel Parking Proposed — Main Street, Angle Parking — Main Street, Angle Parking Proposed | <ul style="list-style-type: none"> — Avenue 6-Lane, Divided — Avenue 6-Lane, Divided Proposed — Multi-Way Boulevard, Parallel Parking — Multi-Way Boulevard, Parallel Parking Proposed — Multi-Way Boulevard, Angle Parking — Multi-Way Boulevard, Angle Parking Proposed | |
| B. Local Streets | <ul style="list-style-type: none"> — Neighborhood Street — Neighborhood Street Proposed — Multifamily Street — Multifamily Street Proposed | <ul style="list-style-type: none"> — Avenue 4-Lane, Parallel Parking — Avenue 4-Lane, Parallel Parking Proposed — Avenue 4-Lane, Divided — Avenue 4-Lane, Divided Proposed | <ul style="list-style-type: none"> — Industrial Street — Industrial Street Proposed | <ul style="list-style-type: none"> — Other Streets — Limited Access Highway — Limited Access Highway Proposed — Raleigh Jurisdictional Limit |
- Map created 10/9/2015
by the City of Raleigh
Department of City Planning

Street Plan Map: 2019 Version

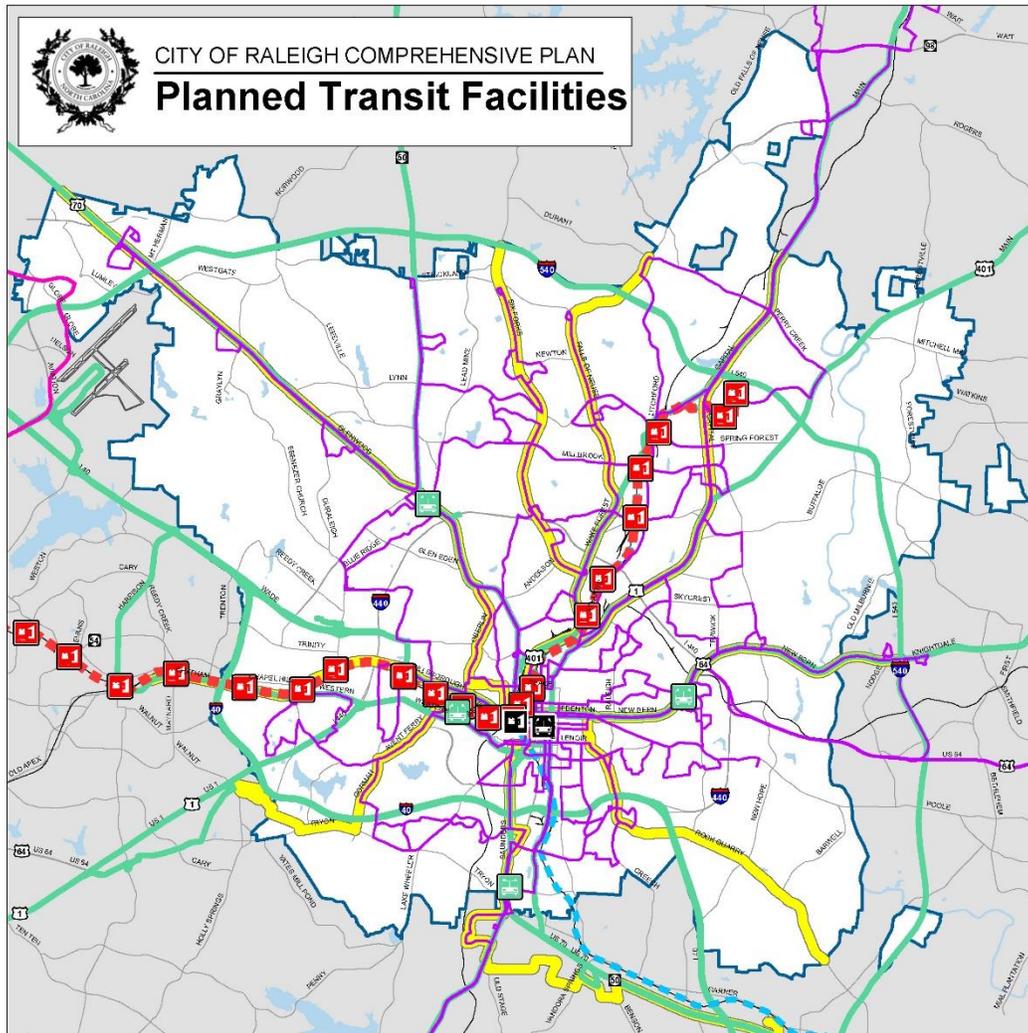
T-1: Street Plan



- | | | |
|---|--|---|
| <p>Sensitive Area Streets</p> <ul style="list-style-type: none"> — Sensitive Area Parkway — Sensitive Area Parkway Proposed — Sensitive Area Avenue — Sensitive Area Avenue Proposed <p>Local Streets</p> <ul style="list-style-type: none"> — Local Street — Local Street Proposed <p>Mixed Use Streets</p> <ul style="list-style-type: none"> — Avenue 2-Lane, Undivided — Avenue 2-Lane, Undivided Proposed | <ul style="list-style-type: none"> — Avenue 2-Lane, Divided — Avenue 2-Lane, Divided Proposed — Avenue 3-Lane, Parallel Parking — Avenue 3-Lane, Parallel Parking Proposed — Main Street — Main Street Proposed <p>Major Streets</p> <ul style="list-style-type: none"> — Avenue 4-Lane, Parallel Parking — Avenue 4-Lane, Parallel Parking Proposed — Avenue 4-Lane, Divided — Avenue 4-Lane, Divided Proposed | <ul style="list-style-type: none"> — Avenue 6-Lane, Divided — Avenue 6-Lane, Divided Proposed — Multi-Way Boulevard — Multi-Way Boulevard Proposed <p>Industrial and Service Streets</p> <ul style="list-style-type: none"> — Industrial Street — Industrial Street Proposed <p>Other Streets</p> <ul style="list-style-type: none"> — Limited Access Highway — Limited Access Highway Proposed |
|---|--|---|

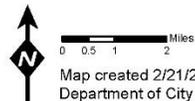
Map created 3/13/2018 by the Raleigh Department of City Planning

Transit Facilities Map: 2009 Version



MAP T-2

- Multi-Modal Transit Center
- Moore Square Station
- Secondary Bus Hubs
- Rail Transit Stations
- CORE Loop
- Regional Rail
- Proposed Commuter Rail
- Fixed Bus Routes
- Enhanced Regional Bus Service
- Priority Transit Corridors
- Raleigh Jurisdictional Limit

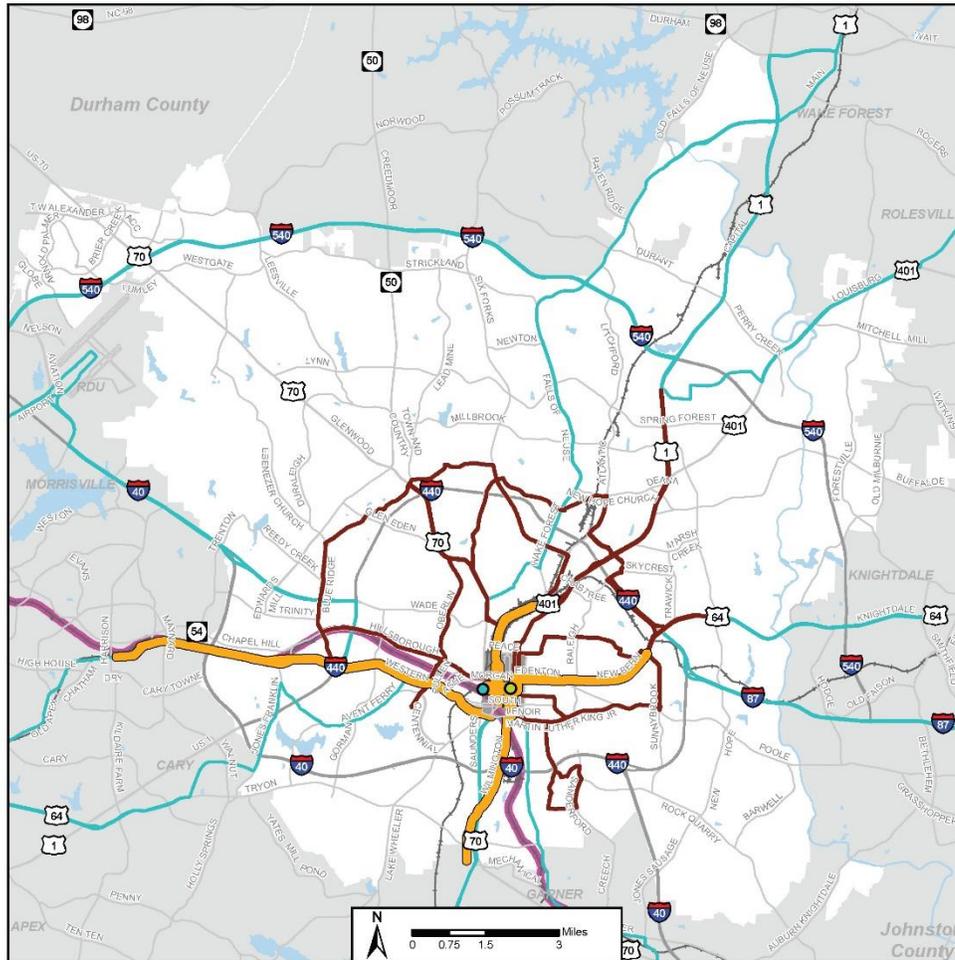


Map created 2/21/2014 by the City of Raleigh Department of City Planning

Transit Facilities Map: 2019 Version

Transportation

T-2: Planned Transit Facilities

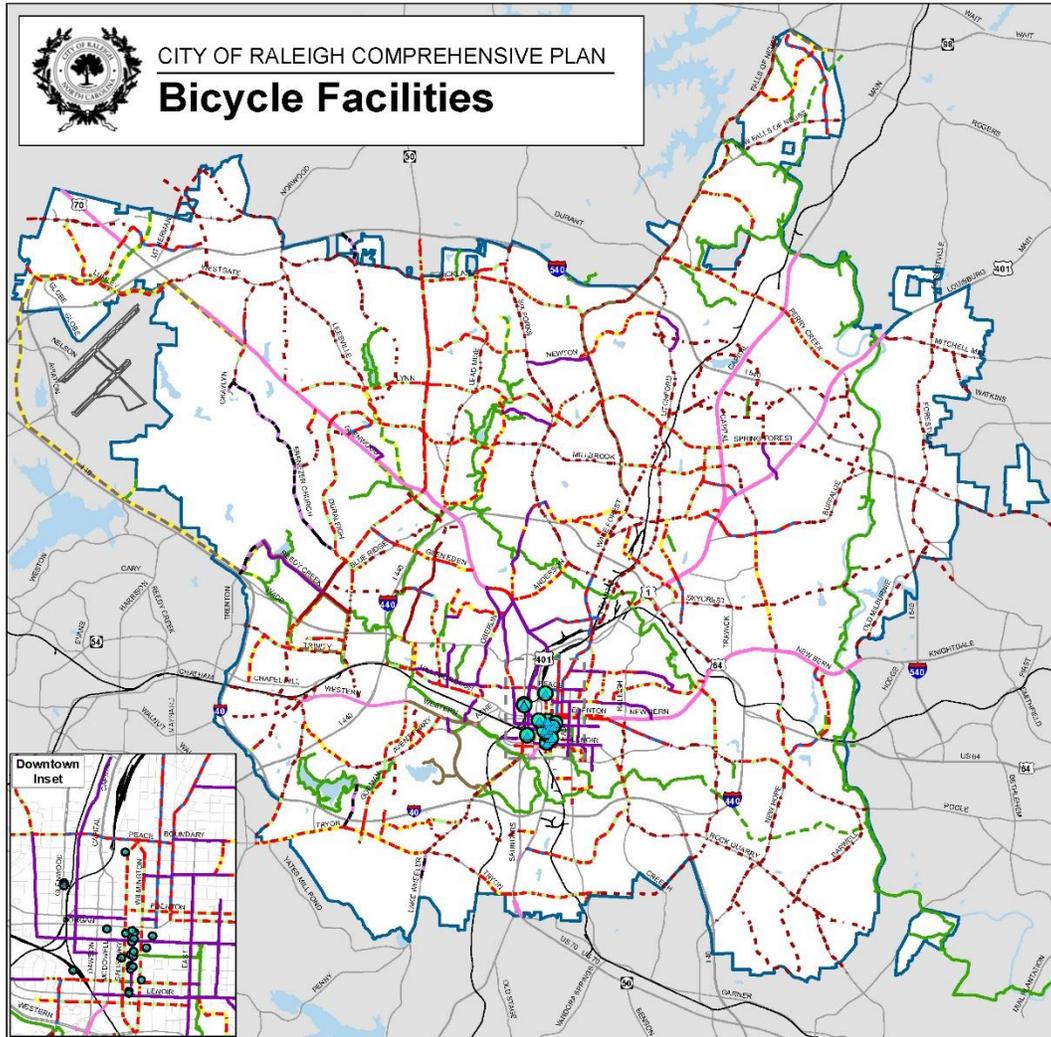


- Frequent Bus Network*
- Regional Bus Connections*
- Downtown*
- Commuter Rail Corridor
- Bus Rapid Transit Corridor
- Raleigh Union Station
- GoRaleigh Station

*Routes shown are representational and may not reflect final alignments as further planning is undertaken to implement the recommendations of the Wake Transit Plan. Alignments in Downtown will be further refined in a separate study.

Map created 3/13/2018 by the Raleigh Department of City Planning

Bicycle Facilities Map: 2009 Version



MAP T-3

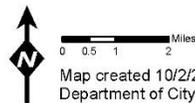
Bicycle Network

- Sharrow, Stripe
- Wide Lane, Restripe
- Bicycle Lane, Road Diet
- Bicycle Lane, Stripe
- Bicycle Lane, Restripe
- Bicycle Lane, New Construction
- Paved Shoulder, New Construction
- Bicycle Lane, Existing

Greenways & Sidepaths

- Sidepath, Existing
- Sidepath, Proposed
- Greenway, Existing
- Greenway, Proposed

- ▲ Existing Bicycle Racks
- Rec. Bicycle Stations (Transit Hubs)
- Raleigh Jurisdictional Limit

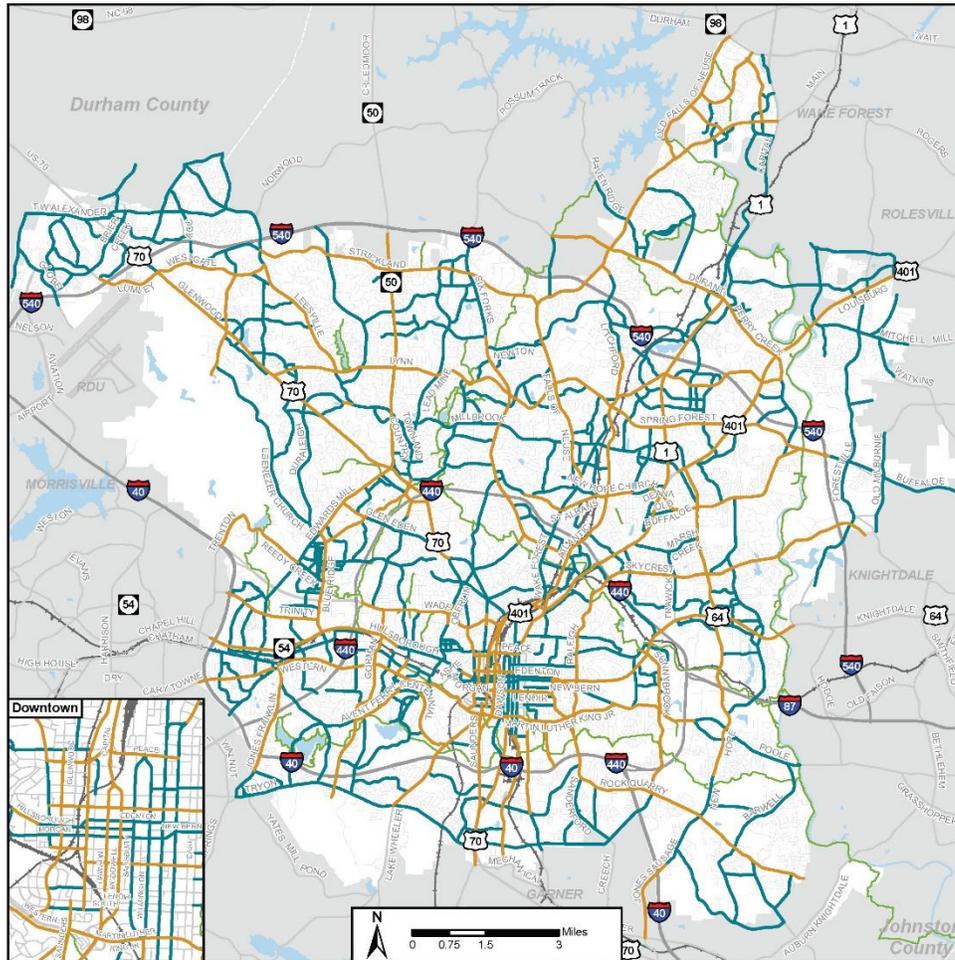


Map created 10/2/2013 by the City of Raleigh Department of City Planning

Bicycle Facilities Map: 2019 Version

Transportation

T-3: Planned Bicycle Facilities



- Long Term Planned Facility
- Existing Greenway Trail
- Bicycle Lane
- Separated Bikeway

Map created 3/13/2018 by the Raleigh Department of City Planning

4-32

HISTORY OF REVISIONS

Relevant Policies or Plans Adopted Since 2009

Wake County Transit Plan

The Wake County Transit Plan, funded for implementation in 2016, envisions the most significant new transit investment in the city's history. It will create several bus rapid transit corridors, a large expansion of areas served by buses running every 15 minutes or less, and commuter rail service reaching to Durham and Garner. Section 4: Transportation adds significant new content that describes the goals and provisions of the transit plan. That section also includes updates to policies relevant to transit-oriented development, as do Section 3: Land Use and Section 11: Urban Design.

Strategic Plan

The City of Raleigh Strategic Plan was adopted in 2015 and is guiding many efforts that implement or align with key Comprehensive Plan goals and actions. The *Land Use* section revisions include many items that advance the Strategic Plan's objectives, including the transit plan-related additions above and height transition policies that serve to allow growth while respecting the form of adjacent areas.

BikeRaleigh Plan

The BikeRaleigh Plan, adopted in 2016, contains extensive recommendations for bicycle facilities and includes a much greater emphasis on the need for separated bike lanes. Its recommendations are reflected in the Planned Bicycle Facilities map and other section policies.

Relevant Topics from the White Paper

The White Paper forecasted and informed the changes included in this Update. It noted that the section's general themes and goals remained relevant, but that specific planning efforts since 2009, particularly the Wake County Transit Plan, merited attention. Specific issues called out in the White Paper included:

- The Wake County Transit Plan will particularly influence this element, specifically the Public Transportation section. Revisions will be made to the introductory text, policies, and action items, as well as Map T-2 Planned Transit Facilities. A more comprehensive update to the plan based on the Wake County Transit Plan will be undertaken following the outcome on the referendum vote anticipated in the fall. ***The Public Transportation section has been substantially revised to reflect the Wake County Transit Plan and the decision of voters in 2016 to fund the plan through a sales tax increase. A new introduction conveys the transit plan's importance to the city and its emphasis on increasing ridership as a central goal.***

Map T-2, which shows planned transit facilities, was completely redrawn to show the new bus rapid transit (BRT) and commuter rail corridors and to

include the planned frequent (15 minute or less) bus network. Finally, the subsection includes four new policies: T 4.19 Service Targets and Evaluation, T 4.20 Transit Efficiency, T 4.21 System Appeal, and T 4.22 Regional Transit, all of which are aimed at supporting the robust transit system that the Wake County Transit Plan will provide. Several actions implement these and other goals, and two actions linked to prior transit plans were removed.

- The Office of Transportation Planning is finalizing an update to the city's Bicycle Plan. Once adopted, revisions may be needed, particularly for Section B.5 Pedestrian and Bicycle Circulation, which also include Map T-3 Bicycle Facilities. ***This subsection was revised to incorporate by reference the updated BikeRaleigh plan and to explicitly include the plan's recommendations in a revised Map T-3 Bicycle Facilities.***
- The creation of a three-year pilot bikeshare program. Additional policies or action items related to bikeshare should be considered. ***A new Policy T 10.4 Bikeshare, which envisions city support of a public system and regulation of private systems, was added. Action T 5.15 Bikeshare, which calls for implementing bikeshare in the city, was added.***
- The information in Section B.9 Future Street Improvements, including Table T-2 New Location Projects and Map T-5 Future Interchange Locations, should be reviewed and updated as needed based on projects that are underway, completed, or other new information. ***Map T-5 was updated accordingly. Table T-2 has been updated on an ongoing basis as projects have been completed.***
- The completion of I-540 is a major project on the horizon; discussion of current issues and potential impacts is needed. ***The section of 540 within the city's current and future jurisdiction is shown on maps T-1 Street Plan and T-5 Planned Interchanges and Grade Separations. Issues and impacts in the area are being explored by the forthcoming Southeast Special Study Area planning project. Completion of that study will prompt a targeted Plan amendment.***
- Autonomous vehicles were explored as an emerging trend in the 2014 Comprehensive Plan Annual Progress Report. Staff may wish to address the potential impacts and perhaps formulate policies and actions related to this new form of transportation. ***A new subsection, Emerging Technologies, addresses ride-hailing services such as Uber and Lyft, vehicle sharing services, and automated vehicles. It includes four new policies. T 10.1 Automated Vehicles and T 10.2 Ride-hailing and Vehicle Sharing support the inclusion of these new services and technologies, but emphasize that they should serve broader goals, such as reducing vehicle miles traveled, supporting transit, improving safety, and other goals. T 10.3 Curbside Space calls for rethinking parking provision and use of curbside space in light of higher demand for pickup/dropoff use with the growth of ride-hailing. T 10.4 Bikeshare supports both public and private***

bikeshare systems. Related actions implement these policies in the form of focused studies. None of the policies specifically mention scooters, but they were intended to be broad enough to cover that and similar topics.

- Although several amendments to the element have been made since the adoption of the UDO, all sections of the Transportation element should be updated as needed based on full implementation of the UDO and the Street Design Manual. ***The revised section reflects the updated terms and language of the UDO and Street Design Manual.***
- The Wake County Greenway System Plan focuses on a regional connected multi-modal greenway trail system. ***The Parks, Recreation, and Cultural Resources section of the Comprehensive Plan includes a number of new and revised policies and maps that include up-to-date greenway planning.***

Other Changes

In addition to those listed above, four other new policies were added and one policy significantly revised. Some stemmed from the transit improvements. Others, such as T 7.6 Low Speed Streets (new) and T 7.2 Traffic Calming (revised) stemmed from input received during 2017 public engagement efforts. A new action, T 7.3 Traffic Calming, supports the related policy.

New policies added:

- **T 4.23 Bike, Ride and Car Share as Public Transportation.** Consider bike, ride and car share to be a component of the city's public transportation network. Plan how to accommodate these forms of transportation and to coordinate them with existing and future transit services. ***The future of transportation involves more options and a more seamless blend of multiple modes. While many new transportation options have the potential to erode transit usage and increase vehicle miles traveled, they also have the potential to complement traditional transit by providing last mile options and better enabling households to live with fewer or no vehicles.***
- **T 4.24 Innovation.** The city's transit and transportation demand management (TDM) efforts should reach out to innovators in the city to leverage grassroots resources and develop creative technology solutions that benefit public transportation users. ***Technology has radically transformed transportation and will continue to do so. Real-time information about when the next bus is arriving is now expected; the ability to summon transportation in a few gestures on a mobile phone is now commonplace. Working to make a range of options increasingly easy to use and to communicate their benefits to residents and workers is key to a more sustainable transportation future for Raleigh.***

- **T 6.10 Parking Technology.** Use technological advances to make curbside and other parking easier to locate and pay for, and to potentially incorporate a dynamic pricing system aimed at ensuring that some spaces are always available in high-demand areas. *Significant portions of traffic in downtown and other areas involves circling to find an on-street parking spot. Providing real-time availability information and using pricing that reflects heavy demand and creates additional open spaces will reduce cruising and make finding on-street spaces easier.*
- **T 7.6 Low-speed Streets.** The design speed for all Local Streets should not exceed 20 mph. The design speed for Mixed-Use Streets should not exceed 30 mph. *This new policy recognizes that speed equates directly with transportation safety. The proportion of crashes involving motor vehicles and pedestrians that involve fatalities increases steeply as speeds exceed 20 mph and approach 40 mph. As streets are improved or redesigned, design speeds should reflect these lower, safer speeds.*

Revised policies:

- **T 7.2 Traffic Calming.** Incorporate traffic calming techniques and treatments into the design of new or retrofitted local and neighborhood streets, as well as within school, park, and pedestrian-oriented business areas, to emphasize lower auto speeds, encourage bicycling and walking, and provide pedestrians with a convenient, well-marked, and safe means to cross streets. Particular consideration should be given to traffic calming measures on streets where additional connectivity is planned. *This existing policy would be modified by the addition of the underlined sentence. The intent is to reflect the reality that while additional connectivity provides broad benefits, particularly in making walking trips more viable, it is often perceived negatively by those closest to the proposed connection. Concerns about traffic volume and speed often arise. Linking connectivity with additional traffic calming measure on affected streets increases the likelihood that a “win-win” outcome is the result.*

New actions added:

- **T 7.3 Traffic Calming.** Develop a process to evaluate, and when appropriate, include, traffic calming through new development when it adds street connectivity. *This new action would serve to implement the revision to the above policy.*

Other Changes

Most of the maps in this section were heavily revised, as previously noted. Primary changes took place in Map T-2 Planned Transit Facilities (incorporating the Wake County Transit Plan) and Map T-3 Bicycle Facilities (incorporating the BikeRaleigh Plan).

Several policies and actions have revised language, generally minor or technical wording changes that do not change the intent or meaning of the policy. Examples including adding references to bus rapid transit or replacing “thoroughfares” with “major streets.”

Consistency with Vision Themes

Transportation policy is inseparable from land use policy, and the first two sections of the Plan – *Land Use* and *Transportation* – together make up much of the core of the Comprehensive Plan. Accordingly, many of the Plan’s vision themes shape the *Transportation* section’s policies and narrative.

In particular, the themes of ***Coordinating Land Use and Transportation*** and ***Managing Our Growth***, both of which envision denser, more mixed-use development tied to improved alternatives to the automobile, are advanced by a heavily revised public transportation subsection. That portion of Section 4: Transportation reflects the Wake County Transit Plan through a revised Planned Transit Facilities map and several new and rewritten policies and actions. Similarly, a new subsection addressing emerging technologies – ride-hailing, automated vehicles, and shared vehicles – seeks to ensure that changes work to support these vision themes rather than potentially undermine them.

The changes described above also strongly support the theme of ***Greenprint Raleigh – Sustainable Development***. The *Transportation* section recognizes that most trips are made by motor vehicle and includes numerous policies aimed at improving car mobility, but it also recognizes that improving the quality of and access to alternatives to driving are crucial to improving air quality and health, as well as combating climate change.

Lastly, the section addresses the theme of ***Growing Successful Neighborhoods and Communities*** and its goal of “diverse, walkable neighborhoods providing convenient access to open space, community services, retail, and employment.” Numerous policies aim to improve safety and comfort for pedestrians and to overcome existing obstacles to walkability.

Departments Consulted

The City Planning and Transportation departments collaborated closely on the revisions to this section, with substantial input from Engineering Services at key points. Other departments, including Development Services, and Parks, Recreation, and Cultural Resources, played important roles as well.

Additional Notes

The draft document and accompanying map were finalized in summer of 2018 and do not reflect changes to the Street Plan and Table T-2 New Location Projects since then. For instance, the Brier Creek Parkway extension to Andrews Chapel Road has since been completed. In order to avoid modifying the draft at multiple points during the approval process, this Update is assumed to have incorporated all such amendments, which will be incorporated into the final draft at the time of adoption.

Comments received during Planning Commission review

Comment 1:

Revise language on page 4-17 that addresses policy for a Complete Streets Network. Current language describes a balance between safety, vehicular level of service, and multimodal quality of service. The suggested revision is to prioritize the safety of all users, followed by multimodal level of service and then vehicular level of service.

Response: Staff supports the proposed change. Safety is a critical concern, and numerous existing policies support prioritizing safety, particular for vulnerable street users.

Comment 2:

Add language to Action T 4.16 Downtown Services, as shown below.

Action T 4.16 Downtown and BRT Transit Services

Investigate opportunities to improve the utility of public transportation services in downtown Raleigh, such as evaluating a potential fare-free downtown transit district that promotes the use of transit for short trips downtown as well as reduced or waived fares for low-income residents living along defined TOD corridors.

Evaluate the potential to consolidate fixed-route services into select transit corridors to create a downtown frequent network of services.

Response: Staff suggests adding a new action that addresses fares for low-income residents separately from a downtown fare-free district. The action would call for studying reduced or waived fares for low-income residents regardless of address.

Comment 3:

Add an action that would prioritize transportation projects in areas where streets and intersections are at level of service E or F. (E is a facility that is acting at capacity and is considered to be a reasonable standard for urban areas, F is a facility that is over capacity, resulting in significant delays)

Response: Existing policy prioritizes LOS F, as described in Policy T 2.10:

Policy T 2.10 Level of Service - Maintain level of service (LOS) "E" or better on all roadways and for overall intersection operation at all times, including peak travel times, unless maintaining this LOS would be infeasible and/or conflict with the achievement of other goals.

Existing policy, as noted above, does prioritize LOS F. Level of service E is considered reasonable in urban areas, and interventions designed to prioritize a freer flow of vehicular traffic can have significant negative impacts on adjacent properties and on other goals. No policy change is recommended.

Comment 4:

There appears to be a missing word on page 4-8 in the section on Multifamily Streets.

Response: The word is missing in the blackline, but is contained in the draft document.

Comment 5:

A sentence fragment exists in the section about Wake County Transit Plan on page 4-22.

Response: The blackline version includes a long jump in the middle of the sentence, with a long section of deleted/replaced text. The sentence concludes on the next page of the blackline. The sentence is complete in the final draft.

Comment 6:

Use more understandable language than “fixed-guideway” transit.

Response: Recommend change to “Bus Rapid Transit or rail” transit.

Comment 7:

Add multimodal level of service, as defined in policy T 3.3 Redefining LOS, to policy 2.10 Level of Service.

Policy T 2.10 Level of Service - Maintain level of service (LOS) "E" or better on all roadways and for overall intersection operation at all times, including peak travel times, unless maintaining this LOS would be infeasible and/or conflict with the achievement of other goals.

Policy T 3.3 Redefining LOS - Expand the city's use of level of service standards to include Bicycle (BLOS), and pedestrian (PLOS), and transit (TLOS) levels of service.
(3, 5)

Response: Policy T 2.10 uses a standard method of measurement for vehicle service. The city does not currently have similar standards for other modes. The goal of Policy T 3.3 is to develop a standardized set of standards that can ultimately then be applied through a policy such as T 2.10.

Comment 8:

Policy T 2.3 Eliminating Gaps should apply to bicycle lanes and sidewalks as well as motor vehicle travel.

Policy 2.3 Eliminating Gaps - Eliminate “gaps” in the roadway system and provide a higher roadway grid density that will increase mobility options and promote the accessibility of nearby land uses.

Response: Eliminating the roadway gaps will also address gaps in the sidewalk and bicycle lane network. Sidewalks are included as part of all new streets, and bicycle lanes are part of the standard design for Mixed Use Streets and Major Streets. A slight wording change to clarify is suggested.

Policy T 2.3 Eliminating Gaps - Eliminate “gaps” in the roadway transportation system and provide a higher roadway grid density that will increase mobility options and promote the accessibility of nearby land uses. (3, 4, 5)

Comment 9:

4.3 Complete Streets: Hierarchy and Design – language changes proposed as shown in bold below.

* Multimodal Streets: Transit and nonmotorized modes are anticipated to provide a significant share of the total capacity of these streets, and the street right-of-way should be managed accordingly. Where bus is the transit mode, these streets should be targeted for improvements such as turn-out lanes, shelters and benches at every stop. Queue jump lanes, signal priorities, and exclusive lanes for transit may also be appropriate. Some transit streets may eventually convert to streetcar service, and for all such streets, a high level of pedestrian facilities and amenities should be provided. Land uses are expected to directly connect to and address the street. *Bicycles should be accommodated.* Alternative cross-sections may be employed to meet these goals.

Clarify “bicycles should be accommodated”. Bicycle lanes should be separated from motor vehicle traffic unless an exception is granted

- Urban Streets: These are like multimodal streets but are not anticipated to have the same level of transit service. Urban streets can be narrower than other streets in the same classification, and should include on-street parking (where appropriate) and enhanced pedestrian facilities.

Bicycle traffic should be expected on Urban Streets and bicycles should be separated from motor vehicle traffic unless an exception is granted. Some Urban Streets may be

determined to prioritize motor vehicle traffic with no bicycle lanes; some may be designated as Bicycle Transportation Corridors with separated bicycle lanes and bicycle parking. Sight lines at intersections are especially important on these streets to ensure the safety of pedestrians, cyclists and turning motorists.

Response: Policy regarding when bicycle lanes or facilities should be physically separated from vehicle lanes is an important determination. Practices have changed rapidly over recent decades, beginning at a time when no specific lanes or facilities were deemed necessary for people riding bicycles and evolving to a phase when sharrows and striped lanes adjacent to travel lanes were common.

The most recent thinking, as reflected in the BikeRaleigh plan, understands that increased separation is necessary for most people to feel comfortable riding a bicycle. That plan envisions an extensive network of bicycle facilities that are physically separated from vehicular traffic. Generally speaking, the plan recognizes that busier streets, such as Edwards Mill Road, New Bern Avenue, and Rock Quarry Road, are inappropriate for standard bike lanes. This policy is embedded in the plan update in the form of map T-3: Planned Bicycle Facilities, Policy T 5.2 Incorporating Bicycle and Pedestrian Improvements, and Policy T 5.3 Bicycle and Pedestrian Mobility. While additional language could be added to the sections above, staff believes that those policies adequately convey those goals.

Staff does suggest that the word “integrated” replaces “accommodated” throughout the section with respect to bicycles, pedestrians, and transit. This reflects current terminology elsewhere in city policies.

Similarly, staff suggests replacing the reference to streetcars with transitways and removing the reference to bus turn out lanes.

Comment 10:

Proposed language changes to Policy T 5.6 as shown in bold below.

Policy T 5.6 Bridges, Underpasses, and Interchanges - Pedestrians and bicyclists shall be accommodated on roadway bridges, underpasses, and interchanges (except on roadways where they are prohibited by law). Bicycle lanes and wide sidewalks should be included on all new bridges and underpasses **[and Interchanges]** (requires NCDOT coordination on state-maintained roads). (1, 3)

This policy reflects the attitude that bicycle lanes can just end at interchanges and suddenly mix bicycles with motor vehicle traffic - a dangerous design flaw. It is possible to design continuous bicycle lanes through interchanges.

Response: The policy, which notes that bicycles “shall be accommodated” does not envision that bicycle lanes should end at interchanges. It is less specific about how, as the exact approach may vary depending on the type of interchange and the characteristics of the roads at the interchange. A possible revision could read as follows:

Policy T 5.6 Bridges, Underpasses, and Interchanges

Pedestrians and bicyclists shall be accommodated on roadway bridges, underpasses, and interchanges (except on roadways where they are prohibited by law). Bicycle and pedestrian facilities, including wide sidewalks lanes and wide sidewalks should be included on all new bridges and underpasses (requires NCDOT coordination on state-maintained roads).

Comment 11:

Comment on Policy T 5.7. No change recommended to policy language.

Policy T 5.7 Capital Area Greenway - Treat the Capital Area Greenway Trail system as part of the city’s transportation network for bicycles and pedestrians and plan connections to the system accordingly. (4, 5, 6)

Excellent - this leverages investments made and updates the design and intention of the Greenways to future realities. Greenways will be part of the Bicycle Transportation Network for Bike/Transit/Bike commuting. Greenways will need to consider changes in Hours of Operation, Lighting, and Procedures to prevent frequent and/or long-term closures.

Response: A forthcoming plan for the city’s greenway system will focus on greenways as transportation. This will include, in addition to the issues noted above, an examination of how greenways can better connect to major destinations and neighborhoods and how the system, which includes many facilities within floodplains, can be made more resilient.

Comment 12:

Proposed language change to Policy T 6.3 as shown below in bold.

Policy T 6.3 Parking as a Buffer - Encourage the location of on-street parking and drop-off areas adjacent to sidewalks as a buffer to vehicular traffic, and for customer convenience, and maximizing on-street parking turnover. Parking between **Bicycle Lanes**, sidewalk areas and building fronts should be minimized. (4, 6)

Response: In addition to encouraging on-street parking generally, this policy is intended to serve an urban design function, that of minimizing areas where buildings are fronted by large amounts of parking. On-street parking also can play a role in establishing separation between vehicular travel lanes and bicycle lanes, something envisioned in some instances in the BikeRaleigh plan. This policy could be modified to more clearly reflect the guidance of that plan as follows:

Policy T 6.3 Parking as a Buffer

Encourage the location of on-street parking and drop-off areas adjacent to sidewalks as a buffer to vehicular traffic, ~~and~~ for customer convenience, ~~and~~ for maximizing on-street parking turnover, and, in locations where significant physical separation is desired, between vehicle travel lanes and bicycle lanes. Parking between sidewalk areas and building fronts should be minimized.

Comment 13:

Comment on section 4.7 - Transportation Safety Improvements as shown below in bold.

Somewhere in this section of Policies about Bicycle Circulation, we should declare that wherever Bicycle traffic shares space with Motor Vehicles going faster than 20mph, Bicycles should be provided physical separation - Separated Bike Lanes - unless an Exception is granted.

Response: As noted above, the BikeRaleigh plan includes guidance for when separated lanes are desirable. This proposal would go beyond what that plan proposes. No change is recommended. However, it could be brought to the city's Bicycle and Pedestrian Advisory Committee for additional discussion.

Staff does suggest, in response to this and other comments, that a policy could be included that addresses bicycle and pedestrian comfort more broadly. The policy could read:

Policy T 5.15 Facilities for All Ages - Bicycling and pedestrian infrastructure should be designed in a manner that is safe, accommodating, and functional for people of all ages and physical abilities.



2030 COMPREHENSIVE PLAN UPDATE

STAFF REPORT

Section 11: Urban Design

OVERVIEW

The *Urban Design* section of the Comprehensive Plan addresses the city’s physical form, which includes architectural design, building placement, height, scale, open space, transportation right-of-way and infrastructure. Raleigh has a number of components that make it a vibrant and successful city, but it continues to strive for enhanced walkability, bikeability and identity. The *Urban Design* section addresses ways in which the large planned public investment in the transit network can be a catalyst for change in the city’s urban form and function to address these issues.

This section includes a new subsection on the topic of transit-supportive design, which seeks “to enhance mobility options, reduce vehicle miles traveled, and support dense, mixed-use development around planned transit stations, all of which require and provide for unique urban design standards.” The Transit-Supportive Design subsection was added in response to the adoption of the Wake County Transit Plan, funded in 2016; a significant investment in bus and rail transit that will offer additional choices to navigate the region. To support this substantial planning effort, a new suite of policies and actions supporting transit investments were added to this section.

The Urban Form Map also received substantial updates to reflect the Wake County Transit Plan, including the addition of core transit areas and commuter rail corridors which replaced the previous future fixed guideway transit stops. The City Growth Centers were modified to manager development and growth patterns, by focusing transit around areas anticipated for projected population growth and where additional trips may be generated. Transit emphasis corridors were revised to show the frequent transit network.

New policies were added to emphasize Raleigh’s unique identity through the use of urban design practices and creating inviting public spaces.

In summary, the major revisions reflect the adoption of the Wake County Transit Plan in 2016 and recommendations from the White Paper. The revisions to the Urban Design section heavily support the goals of the *Land Use* and *Transportation* chapters.

Update for May 23, 2019 PC Committee of the Whole Meeting

An inventory of comments received from Planning Commissioners during the review process and responses from staff is included at the conclusion of this staff report.

Policies to be Amended by the Update:

New Policies (19)

- UD 1.13 Ecological Identity
- UD 1.14 Community Identity
- UD 2.8 Open Space in Large Mixed-use Developments
- UD 4.11 Large Park Edges
- UD 4.12 Parklets
- UD 4.13 Urban Soundscape
- UD 5.7 Neighborhood Commerce
- UD 5.8 Neighborhood Community Centers
- UD 8.1 Transit-oriented Development
- UD 8.2 Transit Area Transitions
- UD 8.3 Transit Area Infill
- UD 8.4 Transit-supportive Pedestrian Networks
- UD 8.5 Transit-supportive Bicycle Networks
- UD 8.6 Auto-oriented Uses in Transit Area
- UD 8.7 Connections to Transit Stops
- UD 8.8 Station Area Public Realm
- UD 8.9 Transit Wayfinding
- UD 8.10 Transit Area Parking
- UD 8.11 Transit Area CPTED

Removed Policies (2)

- Policy UD 1.12 US-401 Corridor
- Policy UD 2.6 Design of Mixed Use Developments

Revised Policies (9)

- UD 1.4 Maintaining Façade Lines
- UD 1.7 Scenic Corridors
- UD 2.3 Activating the Street
- UD 2.4 Transitions in Building Identity
- UD 3.3 Strip Shopping Centers
- UD 3.4 Enhanced Sidewalks
- UD 3.7 Parking Lot Placement
- UD 6.2 Ensuring Pedestrian Comfort and Convenience
- UD 7.3 Design Guidelines

Actions to be Amended by the Update:

New Actions (4)

- Action UD 8.1 Station Area Plans
- Action UD 8.2 Transit-Supportive Pedestrian Networks
- Action UD 8.3 Transit-Supportive Bicycle Networks
- Action UD 8.4 Station Area Parking Facilities

Removed Actions (0)

- None

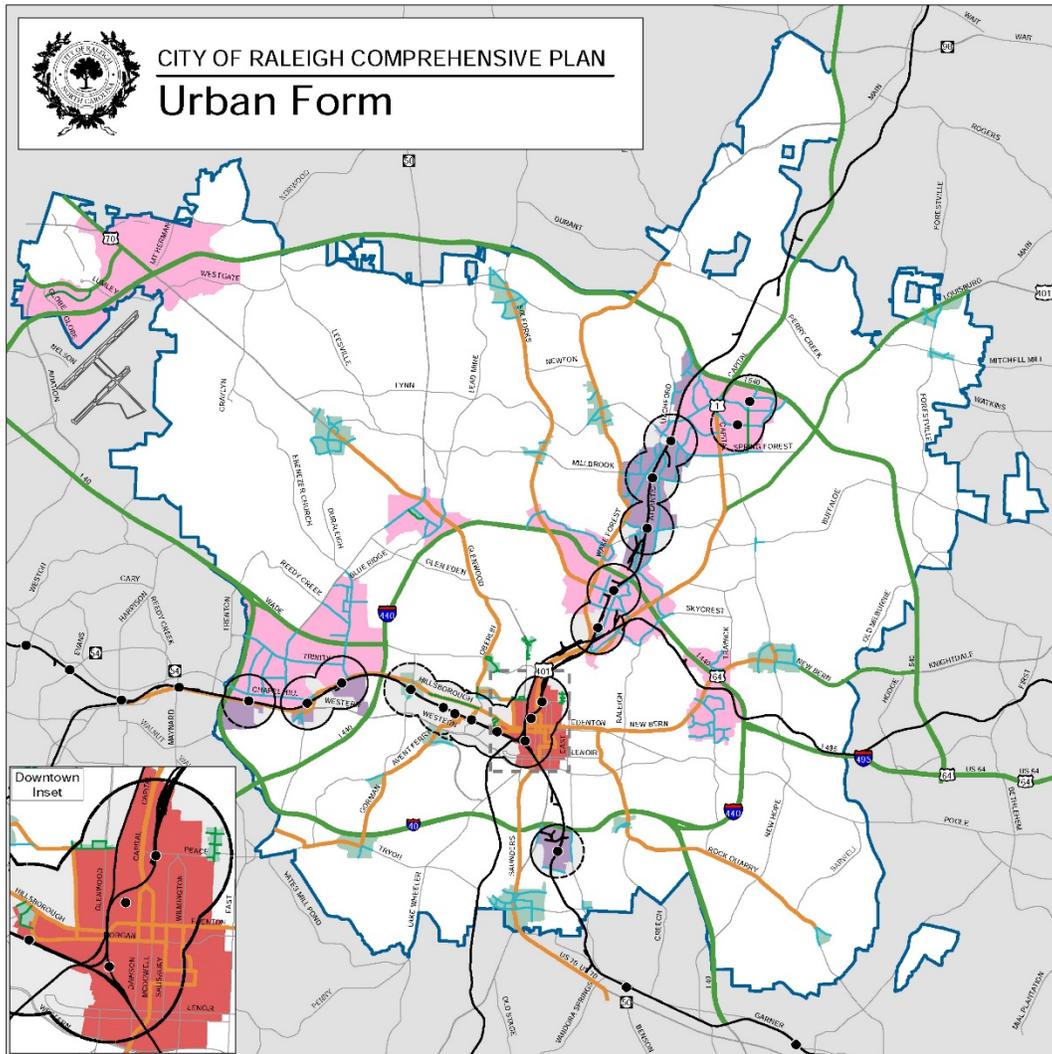
Revised Actions (1)

- Action UD 1.5 New Bern Avenue Planting Guidelines

Other Chapter Revisions:

- The title of 1.6 Pedestrian Friendly Design was changed to 1.6 Active Mobility.
- Subsection 11.8 Transit Supportive Design was added.
- Text in the narrative introduction of 11.7 Design Guidelines was updated to reflect the current documents that provide additional guidance on urban form elements.
- A new guideline was added to Table UD-1 Design Guidelines for Mixed-Use Developments, under the heading Site Design: Environmental Protection. This new guideline (#20) encourages the inclusion of high quality landscaping into new development.
- Throughout the multiyear update process, several departments had the opportunity to review and provide input to the Comprehensive Plan. As with many planning processes, policies and programs within the City will continue to change and some updates have been made to reflect changes since the initial draft was developed.

Urban Form Map: 2009 Version



MAP UD-1

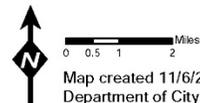
Centers

- Downtown
- City Growth Centers
- Transit Oriented Districts (TODs)
- Mixed-Use Centers

Corridors

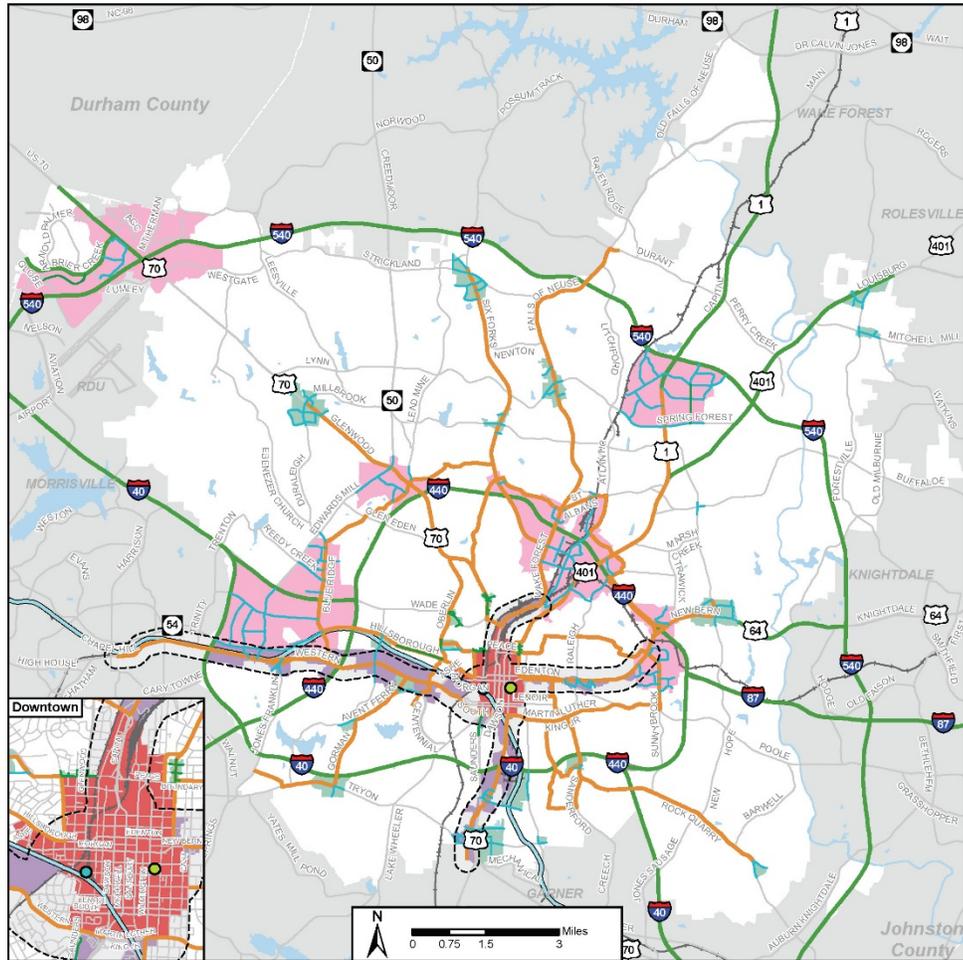
- Main Streets
- Transit Emphasis Corridors
- Urban Thoroughfares
- Parkway Corridors

- Future Fixed-Guideway Transit
- Transit Stop Half-Mile Buffers
- Raleigh Jurisdictional Limit



Map created 11/6/2015 by the City of Raleigh
Department of City Planning

UD-1: Urban Form



Map created 3/2/2018 by the Raleigh Department of City Planning

HISTORY OF REVISIONS

Relevant Policies or Plans Adopted Since 2009

A number of major efforts were completed since the adoption of the 2009 version of the 2030 Comprehensive Plan that helped inform the update of the *Urban Design* section.

Unified Development Ordinance

The adoption of the Unified Development Ordinance (UDO) in 2013 introduced frontages, which brought the need for the Urban Form map to provide location specific guidance for their application.

2040 GoRaleigh Bus Development Plan

The 2040 GoRaleigh Bus Development Plan was adopted in 2011 in response to the anticipated increase in the population and the region's growing need for alternative transportation options. This plan included transit emphasis corridors for bus rapid transit service that were subsequently updated in the Wake County Transit Plan. Revisions were made to the Urban Form map to reflect the adoption of these two plans.

Strategic Plan

The City of Raleigh adopted its first ever strategic plan in 2015, which includes six key focus areas that are tied to citywide objectives and initiatives aimed at helping the city use its resources more effectively. The new *Urban Design* section contains multiple narrative sections, policies and actions that tie directly back to the objectives and goals of the Strategic Plan, with an emphasis on the Transportation and Transit Initiatives.

Wake County Transit Plan

The Wake County Transit Plan, funded in 2016, envisions the most significant new transit investment in the city's history. Its funding will allow the creation of several bus rapid transit corridors which would provide bus service in 15-minute intervals on several major corridors. In response to the funding of the Transit Plan, a new subsection devoted entirely to transit-supportive design was added.

BikeRaleigh Plan

The BikeRaleigh Plan was adopted in 2016 and provides a framework for expanding Raleigh's bicycle network and improving safety and access for cyclists of all ages. The plan includes a bikeway network map that outlines a variety of bike routes that provide additional transportation options to citizens. The Urban Design section includes multiple actions and policies aimed at supporting the goals of this plan, including the addition of the Transit-supportive Design subsection.

Southern Gateway Corridor Plan

The Southern Gateway Plan was adopted in 2017; it encompasses a three-mile corridor that extends south from Downtown Raleigh. The study effort primarily focused on improving connectivity and accessibility along the S. Saunders and S. Wilmington Street corridor. The study identified that while the corridor provides direct access to and from downtown, the

street network is disconnected and challenging for pedestrians and bicycles to use. The plan generated a number of goals, some of which were converted to policies and reflected in the 2018 version of the Growth Framework Map.

Relevant Topics from the White Paper

The White Paper informed a number of changes made to this Update and sought to address gaps in the Comprehensive Plan's design policy guidance. Recommendations from the White Paper include: the expansion of narrative sections relating to Raleigh's identity, the revision of the Urban Form map, and addition of the Transit Supportive Design subsection to reflect and support the funding of the Wake County Transit Plan.

The following issues and recommendations were called out:

- The addition of a new Transit-Supportive Design chapter that would provide urban design policies specific to areas planned for high-frequency transit service in the new Wake County Transit Plan. This revision should be made subsequent to the fall referendum on transit funding. ***A Transit-Supportive Design subsection was added, which includes a new suite of policies related to the transit routes identified in the Wake County Transit Plan.***
- New policies promoting sensitivity to Raleigh's ecological and social identity should be included in Section 11.1. ***This section includes two new policies (UD 1.13 Ecological Identity and UD 1.14 Community Identity) that promote sensitivity to the environment and character. Policy UD 1.13 recommends public and private development incorporate climate and water sensitive design features. Policy UD 1.14 recommends public and private development incorporate tools such as wayfinding and neighborhood branding to reflect the city's design traditions and styles.***
- The Urban Form Map will need revising based on the new Wake County Transit Plan as well as recent development trends. ***The Urban Form map received substantial revisions that reflect the new transit routes identified in the Wake County Transit Plan. These revisions include the addition of core transit areas, planned and existing GoRaleigh Bus Stations, and the planned commuter rail corridor. Transit Oriented District (TOD) designations were added to reflect where the Future Land Use Map (FLUM) was designated for areas with high intensity uses, or where the zoning was designated for high intensity uses.***
- In order to update the plan's narrative on Raleigh's identity, Section 11.1 should include expanded description of Raleigh's defining characteristics as well as presenting the challenges inherent to a city transitioning toward a denser, more mixed-use profile. ***A narrative was added to subsection 11.1 Raleigh's Identity that calls out the impact dense, mixed-use development is having on the character of areas such as Downtown, Hillsborough Street, North Hills and***

Glenwood, and how strong urban design policies can help the city form a cohesive identity.

- In order to guarantee that large mixed-use developments contain sufficient open space to support on-site and surrounding communities, new policies are recommended that promote public open space provisions in keeping with the Parks, Recreation, and Cultural Resources System Plan and beyond what is required in the UDO. ***A new policy, UD 2.8 Open Space in Large Mixed-Use Developments, was added that envisions a variety of outdoor recreation spaces be made available not only to the development that contains it, but to the surrounding areas as well.***
- To improve Section I.3, a corridor study work plan and map are recommended. ***Maintaining a work plan within an adopted policy document provides little utility: the detail of a work plan is out of step with the broad perspective of a comprehensive plan. Collaboration among city departments, including City Planning and Transportation is ongoing to ensure coordinated planning for commercial corridors. Raleigh's commercial corridors are highlighted on Map UD-1: Urban Form.***
- “Temporary and Tactical Urbanism” is a recent urban design development with potential for improving urban public space. Section 11.4 should include new policies that guide these interventions. ***Three new policies were added: UD 4.11 Large Park Edges, UD 4.12 Parklets and UD 4.13 Urban Soundscape. The goal of these policies is to integrate active, open spaces within the existing and developing urban fabric to provide open space to all residents.***
- Raleigh’s residential neighborhoods lack community and retail services within walking distance of residences. Section 11.5 should expand policy guidance related to siting such facilities in high profile locations. ***Two new policies were added; UD 5.7 Neighborhood Commerce and UD 5.8 Neighborhood Community Centers. The addition of these policies supports the expansion of neighborhood scale retail and community centers near new and established neighborhoods to discourage unnecessary automobile trips and ensure community facilities are widely available.***
- Section 11.6 Pedestrian-Friendly Design should be renamed “Active Mobility” in order to reflect Raleigh’s vision for a multi-modal, sustainable transportation network. This section should include policies that address accessibility design in Raleigh’s historic districts and new public spaces. ***This narrative portion of this chapter was revised to reflect the recommended name change.***
- New design guidelines are recommended in order to promote higher-quality, productive landscapes in mixed-use and urban developments. ***Three new policies were added: UD 4.11 Large Park Edges, UD 4.12 Parklets and UD 4.13 Urban***

Soundscape. These policies encourage landscaping along major thoroughfares, establishing open space within the heavily built urban environment and along the edges of areas anticipated for dense mixed-use development.

Other Changes

19 new polices were added:

- UD 1.13 Ecological Identity. Promote and enhance ecological function in the design of private and public developments. Incorporate climate- and water-sensitive design features that support ecological health for plants, animals, and soils, as well as the city's residents. ***The 2009 version and draft Update of the 2030 Comprehensive Plan have a commitment to sustainability, which includes creating and following policies that protect the natural environment. The addition of this policy supports the Plan's overarching goals to accommodate growth, while protecting sensitive natural features that contribute to the verdant character of the city.***
- UD 1.14 Community Identity. Raleigh's diversity is reflected in a range of architectural and landscape design traditions and styles. Public and private development should be consistent with and incorporate the aesthetic identities of the surrounding populations, including, but not limited to, neighborhood branding and wayfinding. ***One of Raleigh's greatest assets is the distinct character of the local historic districts and older neighborhoods, balanced by the new development and growth that reflects our current character. By encouraging neighborhood branding and wayfinding, these assets can be highlighted and help to codify Raleigh's unique identity.***
- UD 2.8 Open Space in Large Mixed-use Developments. Large mixed-use developments should include a range of open spaces, from small parklets, to pocket parks, squares, and larger active and passive recreation areas. These spaces should serve the immediate and surrounding communities. ***Encouraging denser, mixed-use development is one of many tools to accommodate the rapid population growth the City of Raleigh is and will continue to experience. This policy seeks to ensure that denser developments will have the same access to open space and recreation areas that a development in an area with more land capacity may have.***
- UD 4.11 Large Park Edges. Activate the edges of large city parks, such as Dorothea Dix Park, with active, mixed-use urban form. Such mixed-use developments should be permeable and provide visual and pedestrian access into and out of the adjacent open space. ***Providing an activated edge along city parks can encourage multi-modal trips where the preferred access route may have been by automobile. Utilizing pedestrian-oriented design tools can encourage alternative forms of a travel, opening up different options for all users.***

- UD 4.12 Parklets. Public space opportunities in established mixed-use centers like Downtown are limited. Encourage the reclamation and repurposing of underutilized, on-street parking spaces for use as small open spaces with amenities such as seating, plantings, and green infrastructure. ***Through the reuse of underutilized on-street parking, an inexpensive public realm can be created that is useful for more than just vehicle storage.***
- UD 4.13 Urban Soundscape. Encourage the use of trees, vertical landscapes such as trellises and green walls, and water features to absorb noise and to create comfortable and inviting environments in active-use areas and urban areas adjacent to major thoroughfares. ***Using natural features to enhance the built environment supports a number of the 2030 Comprehensive Plan's goals to create inviting public spaces that are environmentally friendly, and accessible to not just the automobile, but the pedestrian as well.***
- UD 5.7 Neighborhood Commerce. Promote small-scale commercial services in new and established neighborhoods to promote walking and cycling and to discourage unnecessary automobile trips. ***Urban design and land use are heavily connected through their policies and implementation. The land use section of the White Paper recommends small commercial hubs to promote commercial services accessible by alternative modes of transportation. This policy supports the Update's goal of a more walkable, accessible city for all.***
- UD 5.8 Neighborhood Community Centers. Ensure that each of Raleigh's neighborhoods has well-programmed community facilities, including recreation centers and libraries, within walking distance. ***Past growth in the city can be characterized by low-density, segregated land uses that make access to public amenities such as libraries and community centers challenging for residents without automobile access. The addition of this policy expands accessibility of city services to all citizens.***
- UD 8.1 Transit-oriented Development. Promote dense, mixed-use development within the core area around transit stations. Development intensity should be greatest within walking distance of existing and proposed rail stations and bus rapid transit stations. ***By concentrating dense development within walking distance of planned transit and rail stops, development can support the Wake County Transit Plan investment by placing large numbers of citizens in close proximity to transit where they are more likely to utilize it.***

- UD 8.2 Transit Area Transitions. There should be a transition of use, intensity and scale from higher-density transit corridors to adjacent neighborhoods. Developments of greater bulk and height in areas should be located immediately surrounding transit stations. As distance from such stations increases, development should taper down in bulk and height in order to balance the needs of transit-supportive density with established neighborhood character. ***The intent of this policy is to protect and conserve the scale of existing neighborhoods located adjacent to transit corridors that are anticipated for higher density in response to the Wake County Transit Plan. By transitioning the height and bulk of buildings downward as proximity from transit corridors increases, existing neighborhood character can be respected and buffered by tiered building heights.***
- UD 8.3 Transit Area Infill. Encourage sensitive densification in areas surrounding transit routes by promoting “missing middle” housing and accessory dwelling units in nearby residential areas, and the retrofit or redevelopment of existing underutilized properties. ***Encouraging densification near transit can take shape in different ways, and at different levels of intensity. Encouraging “missing middle” housing can support the Wake County Transit Plan by permitting density in a way that respects the character and scale of existing neighborhoods.***
- UD 8.4 Transit-supportive Pedestrian Networks. Sidewalks in areas within walking distance of rail transit stations and bus rapid transit stops should be no less than eight feet wide and should be accompanied by complementary streetscape elements such as plantings, bike racks, and furniture, including places to sit. Sidewalks in these areas should be prioritized over sidewalks in non-transit areas. ***The provision of sidewalks can provide safe routes for pedestrians to transit routes identified in the Wake County Transit Plan. Providing safe routes with streetscaping elements provides a pedestrian orientation that is inviting and safe for multimodal users, a change from the auto-oriented streetscapes that dominate much of the city.***
- UD 8.5 Transit-supportive Bicycle Networks. Areas within two miles of fixed-rail and bus rapid transit stations should include on-street bike lanes and off-street bicycle paths, where feasible. Where such improvements cannot be made, traffic calming devices and other streetscape design interventions should be used to encourage bicycling to and from transit stations. ***Encouraging bikability supports a number of the 2030 Comprehensive Plan goals to make Raleigh a more accessible and environmentally friendly city. By focusing bicycle routes near transit, citizens are provided with a set of choices for traversing throughout the city and region that go beyond the car.***

- UD 8.6 Auto-oriented Uses in Transit Area. Automobile-oriented uses such as drive-thrus, which detract from the character and function of transit corridors and negatively affect the pedestrian environment, should be located away from transit stations. ***By discouraging drive-thrus in transit-oriented areas, the number of vehicle entry and exit points that disrupt the sidewalk and road may be minimized, which can contribute to a safer street for all users.***
- UD 8.7 Connections to Transit Stops. Encourage additional street and pedestrian connections to help minimize travel distances to transit stops. When new street connections cannot be made, mid-block pedestrian connections can minimize walking distance for transit users. ***As large blocks see redevelopment, street connections are not always feasible, but pedestrian connections can serve as an alternative. The addition of a pedestrian connection in the middle of a block that would otherwise be impassible can potentially minimize travel distances by creating a more compact street network.***
- UD 8.8 Station Area Public Realm. Private and public development within one-quarter of a mile of fixed-rail and bus rapid transit stations should include streetscapes and public spaces that allow transit users places to sit and rest when waiting for or alighting from transit. ***Raleigh has continued to grapple with auto-oriented street design that makes the public realm less safe and inviting to pedestrians. By providing streetscaping and seating options, pedestrians may be better buffered from the street and the elements, making transit a more comfortable and appealing travel option.***
- UD 8.9 Transit Wayfinding. Within two miles of fixed rail and bus rapid transit stations, provide simple and easily identifiable signage and other wayfinding devices to promote ease of transit use. ***This policy seeks to encourage transit ridership through design. Simple and easy to use signage can encourage transit riders to feel more comfortable navigating the transit system. If a transfer between bus or rail is required, wayfinding signs may take the guesswork out of locating the next stop.***
- UD 8.10 Transit Area Parking. Areas within close proximity of fixed rail and bus rapid transit stations are ideally suited for park-and-ride locations. Such parking facilities should be structured, rather than large lots, to limit visual and roadway clutter. ***By discouraging large street level parking facilities, private and public development can create a visually stimulating frontage that is inviting to the pedestrian. Structured parking may also have the effect of minimizing traffic congestion, by metering out the number of cars that can enter the roadway at one time by funneling them through the deck and queuing them in an exit before letting them onto the road.***

- UD 8.11 Transit Area CPTED. Promote the use of Crime Prevention Through Environmental Design techniques within one mile of fixed rail and bus rapid transit stations to ensure that transit users are safe and comfortable while accessing and alighting from transit. ***Policies identified in this Plan may be applied broadly throughout the city, as Crime Prevention Through Environmental Design is a desirable outcome everywhere.***

One policy was removed:

- UD 1.12 US-401 Corridor. Preserve and protect the visual resources associated with the historic, residential, and rural atmosphere of the U.S. 401 corridor through the use of tools such as frontage standards. ***This policy goal was achieved through the application of the Parkway Corridor Urban Frontage that is recommended in the Urban Form Map along the length of the US-401 within Raleigh City Limits. The Parkway Corridor is “a corridor where multi-modal access is not emphasized, and a heavily landscaped approach to the street frontage is either called for in adopted plans or represents the prevailing character of the area.”***

Four new actions were added:

- UD 8.1 Station Area Plans. Study and implement land use, transportation and urban design recommendations for areas within one-half mile of fixed rail stations and one-quarter mile of bus rapid transit stations. Recommendations should include guidance on density, use and bulk transitions from station areas to surrounding neighborhoods. ***The adoption of the Wake County Transit Plan provided locations for proposed fixed-rail transit stations providing guidance on density, use and bulk transitions by concentrating larger numbers of homes and businesses in a small footprint accessible to transit. Guidance on bulk transitions may also help preserve the character of neighborhoods with predominately detached homes by mitigating the impact of denser structures through design guidance.***
- UD 8.2 Transit-supportive Pedestrian Networks. Create and implement pedestrian infrastructure plans in all areas within a one-mile radius of fixed-rail and bus rapid transit stations. ***This action directly supports the Wake County Transit Plan by providing safe routes for alternative modes of transportation to and from transit stations.***

- UD 8.3 Transit-supportive Bicycle Networks. Create and implement bicycle infrastructure plans in all areas within a two-mile radius of fixed-rail and bus rapid transit stations. ***The adoption of the Wake County Transit Plan envisions faster, more efficient transit service on Bus Rapid Transit and rail corridors throughout the city. By encouraging bicycle networks that connect citizens to transit stops, this action supports a multimodal transportation system.***
- UD 8.4 Station Area Parking Facilities. Pursue acquisition and/or development of public parking facilities immediately surrounding transit stations through public funds and incentives to private developers. ***Adequate public parking adjacent to transit stations can encourage the use of transit by providing easy access to citizens who work or reside in areas of the city where transit is not within walking distance. This can allow citizens the option to drive to a transit stop located in more suburban parts of the city and take transit into the denser, more urban core.***

Urban Form Map

The Urban Form Map provides area specific guidance to support the policies in the 2030 Comprehensive Plan, specifically within the *Transportation* and *Land Use* sections, and to provide area specific guidance for frontages and areas with planned transit routes identified in the Wake County Transit Plan. Since the adoption of the 2009 Comprehensive Plan development patterns throughout the City have changed, and those changes are now reflected in the current proposed version.

The most substantial change to the Urban Form Map was in response to the adoption of the Wake County Transit Plan, which defined numerous bus rapid transit routes, fixed rail routes and bus stops.

A complete list of revisions to the Urban Form Map are included below:

Urban Growth Centers

- The Fixed-Guideway Transit Stations and Half-Mile Station Buffers were replaced with the new Transit Oriented Development (TOD) designation; which recommend an urban frontage or hybrid approach to ensure a pedestrian friendly urban form. These changes were based on the Wake County Transit Plan’s proposed bus rapid transit (BRT) corridors.
- Existing Transit Oriented District (TOD) designations that no longer reflected transit stops in the Wake County Transit Plan were removed, except in the case of:
 - The TOD bounded by New Hope Church Road, St Albans Drive, Wolfpack Lane & Atlantic Avenue, which was merged into the “Midtown” City Growth Center. The City Growth Center designation exists in areas that anticipate significant infill and redevelopment in the future.

- The TOD around the former Hammond Road Rail Station was removed in the Wake County Transit Plan, as the station is no longer slated to be built. This update was reflected in the Urban Form Map, and the area is now designated for a Mixed-Use Center; an area recommended for small to large retail nodes where a more walkable, mixed use development pattern is desired.
- New Transit Oriented District (TOD) designations were added where parcels were within approximately a quarter mile of proposed Bus Rapid Transit (BRT) Corridors and where parcels had a high-density zoning or Future Land Use Map (FLUM) designation. This update is in support of the multiple policies from the *Transportation* section's Public Transportation subsection, and the *Land Use* section's Land Use and Transportation Coordination subsection. By concentrating density around fixed route transit stops, the substantial investments in the Wake County Transit Plan may be better supported.
- The Mixed-Use Center designation was removed from the Crabtree Valley Growth Center and dissolved into the City Growth Center designation. This change was due to the UDO remapping, which replaced the Pedestrian Business Overlay District (PBOD) zoning designation with the frontages used in the code today.
- The "Main Street" corridor designation was removed from the Crabtree Valley Urban Growth Center because it was replaced by the Urban Thoroughfare designation, intended to encourage bike lanes, pedestrian oriented streetscapes and infrastructure that encourages multimodal trips.
- Section 15 of the 2030 Comprehensive Plan Update provides specific guidance for Downtown which includes a number of streets that previous had Mixed-Use Center and Main Street Corridor designations applied. A change to the urban form map modified these designations in the area around Park Drive, Ashe Avenue, Wakefield Avenue and Tryon Hill and dissolved them into the downtown Urban Growth Center. This growth center provides similar guidance to the Plan's recommendations in Mixed-Use Centers and Main Street Corridors; the application of urban frontage, with a walkable, mixed use pedestrian-oriented development pattern, but provides an additional level of specificity.
- A new "Core Transit Area" Center was added; a designation referring specifically to the area with a quarter mile of corridors proposed for Bus Rapid Transit, or within a half a mile of planned commuter rail stations. This addition was in response to the Wake County Transit Plan, and was applied around:
 - ¼ mile buffer of Bus Rapid Transit Corridors; and
 - ½ mile buffer of known Rail Stations (i.e. Raleigh Union Station)

Corridors

- The Transit Emphasis Corridors were updated to reflect the Wake Transit Plan Frequent Network Corridors, roads on which bus service runs at 15 minute or greater intervals.
- Urban Thoroughfares (UTs), areas planned for public investment that would encourage multi-modal trips, such as bike lanes and pedestrian oriented streetscapes, were added or extended in the following locations to better align with new Urban Growth Center designations:
 - The UT on Faircloth Street was extended south along Gorman Street through the new Transit Oriented District (TOD).
 - The UT on Edwards Mill Road & Nowell Road Hillsborough Street was extended through the proposed TOD.
 - The UT along Macaw Street and Arco Corporate Drive in the Brier Creek Growth Center was extended, in response to decisions made during the Citywide Remapping to apply Parking Limited frontage along those streets.
 - The UT on Rush Street was extended west to South Saunders Street with the new TOD, in response to recommendations from the Southern Gateway Corridor Plan.
 - Renfrow Road, from Ileagnes Drive to Parkland Road; and Parkland Road, from Renfrow Road across Wilmington Street; and a new street proposed from Renfrow Road across Wilmington Street between Ileagnes Road and Parkland Road, as recommended by the Southern Gateway Plan.
 - Along Raleigh Boulevard, Poole Road, Hawkins Street, Russ Street, Kennedy Street, and King Charles Road in the new TOD area along New Bern Avenue.
 - Along Dartmouth Road, from Six Forks Road to St Albans Drive, as suggested by built context from the north hills east planned development that created a more urban form.
- The Main Street designation was added along South Saunders Street, from Lake Wheeler Road to Prospect Avenue, as recommended by the Southern Gateway Corridor Plan.
- A Commuter Rail Corridor was added from the City of Garner to the City of Durham, to reflect the recommendations of the Wake Transit Plan.

Consistency with Vision Themes

The themes of ***Coordinating Land Use and Transportation*** and ***Growing Successful Neighborhoods and Communities*** are addressed through the addition of the Transit Supportive Design Chapter, which encourages mixed-use and compact land uses near fixed route and bus rapid transit stops.

The vision theme of ***Expanding Housing Choices*** is addressed by encouraging compact land uses that may promote additional types of housing near transit routes and addressing the “missing middle” housing issue.

Economic Prosperity and Equity is advanced through the theme encouraging new, mixed-use development that is centered around transit which provides easy access for all, regardless of automobile access.

Managing Our Growth is advanced by encouraging more sustainable patterns of development that can place a larger number of citizens on smaller land footprints, making more efficient use of infrastructure and public services.

The addition of the Transit Supportive Design subsection and suite of policies support the ***Greenprint Raleigh – Sustainable Development*** vision theme, by encouraging multimodal transportation through density, improved bike and bus networks.

Departments Consulted

Urban design and its influence on the built environment is a core part of the work the Department of City Planning does throughout its day to day functions. However, collaboration with other departments was a part of the process, and all city departments were consulted for input on the Urban Design section of the Update.

Update for May 23, 2019 PC Committee of the Whole Meeting

- Pg. 11-3 Includes a reference to pedestrian business districts, which no longer exist. This reference will be removed.
- Pg. 11-8 – Includes a reference to data on Historic Districts that requires an update from the presently listed five to a current 7 local districts (which will include Prince hall and Glenwood Brooklyn).
- Pg. 11-11 – *Action UD 1.6 Using Zoning to Achieve Design Goals Explore zoning ~~and other regulatory techniques~~ to promote excellence in the design of new buildings and public spaces.* Will receive modification in accordance with NCGS 160A-381(h) which stipulates that except for properties in designated local historic districts and within National Register Historic Districts, the City cannot impose zoning regulations related to building design elements for residential dwellings. However, conditions may be offered as part of a conditional use rezoning case.
- At the recommendation of the Planning Commission the Introduction Section will receive an amendment to encourage wrap-around retail. *The policies listed in this Chapter will be applied through evaluation of rezoning cases, conditional use zoning requests, Planned Developments, Streetscape plans, and other design focused reviews by city staff and the Raleigh Appearance Commission. The urban design policies will provide the framework to encourage and shape the larger urban design goals introduced in this chapter.*
- At the recommendation of the Planning Commission, staff will amend the Urban Design Section to include additional policy and action items to include the application of the new Sustainable SITES Initiative.