Theme 5: Community Connections

Individual properties in a community are connected to one another using a series of "infrastructure systems" that provide access to, or provide for movement between, different destinations: home, work, school, shopping, parks, or entertainment. Systems considered for a comprehensive plan include roads, greenways, transit, parks, utilities, natural areas, and floodplains. Chapters 2 and 6 in the document provide system-wide recommendations for these topic areas. Recommendations for the community connections theme in Chapter 3 focus on place-making principles that should guide investments in the different systems, including several value-based statements that should influence the type, location, and connectedness of infrastructure to reinforce a unique community character for Garner. Coordinated investments in the different infrastructure systems should also reinforce the town's commitment to conservation and development principles that instill a specific sense of place for Garner and make locations in the community more desirable for private investment.

Improve street connectivity in new and existing neighborhoods, retail areas, employment areas and mixed-use areas.

Streets should be connected to another street unless there are topographic or ecological constraints, or neighborhood safety concerns (e.g., excessive cut-through traffic or the absence of sidewalks to reduce vehicle-pedestrian conflicts), that would prohibit it. The street network provides a multitude of routing alternatives to and from all destinations in a development, dispersing traffic and limiting congestion. Having a street network with a high degree of connectivity also enables individual streets to become narrower, which slows traffic and increases vehicular and pedestrian safety. High connectivity allows emergency service vehicles many options for site access during an emergency.

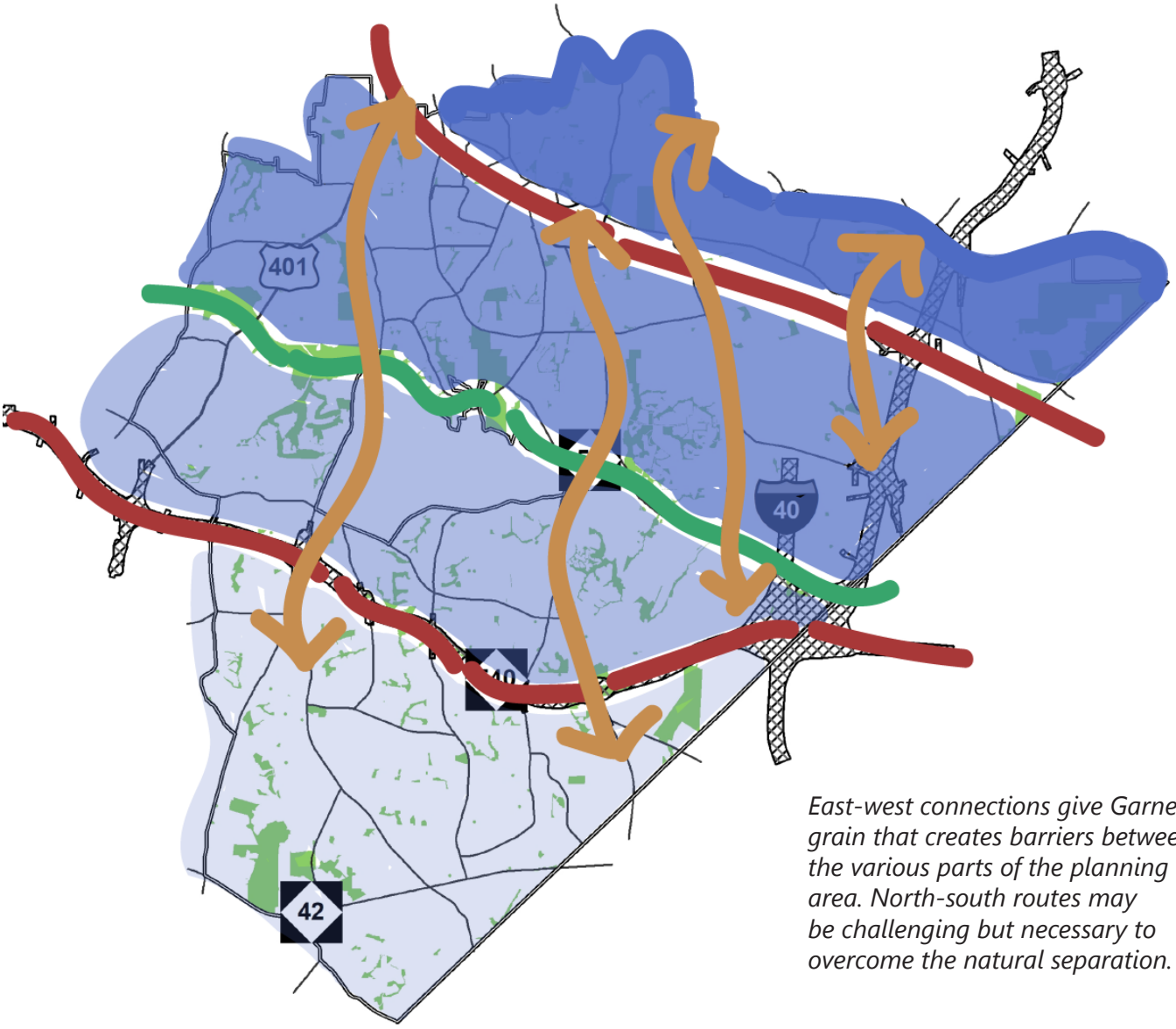
Connectivity standards in Garner should not be limited to streets and automobiles. Encouraging a network of connected sidewalks, side paths, and pedestrian passages makes walking more convenient and enjoyable, and increases pedestrian access throughout the community. Finally, by increasing the number of routes through the community, pedestrians are provided more interesting and direct walking and jogging routes, access to a variety of neighborhoods and destinations, and more opportunity for social interaction.

Protect important mobility corridors in the planning area.

Much of the town's growth — residential, commercial, office, and industrial — occurs along and within proximity to a handful of primary mobility corridors — US 70, US 401, and NC 50 — or along local thoroughfares, including: Timber Drive, White Oak Road, Ten-Ten Road, Creech Road, Garner Road, Aversboro Road, and Vandora Springs Road.

Existing mobility corridors and local thoroughfares are essential to providing access and mobility throughout the community and need to be protected and in some cases enhanced. As growth and development pressure increases, it will be important to protect these corridors through access management and better development design standards (ingress/egress, circulation, stub outs, cross access, connectivity, etc.). Not having enough access to a property may inadvertently limit its use or attractiveness, but too much may cause spillback effects on the surrounding road network.

The development review process should consider development frontage and how it interacts with the corridor. Specific centerline setbacks identified by roadway classification should be identified and referenced during the town's site plan review process.



East-west connections give Garner a grain that creates barriers between the various parts of the planning area. North-south routes may be challenging but necessary to overcome the natural separation.

Increase coordination between transportation, land use, and urban design goals and decision-making processes.

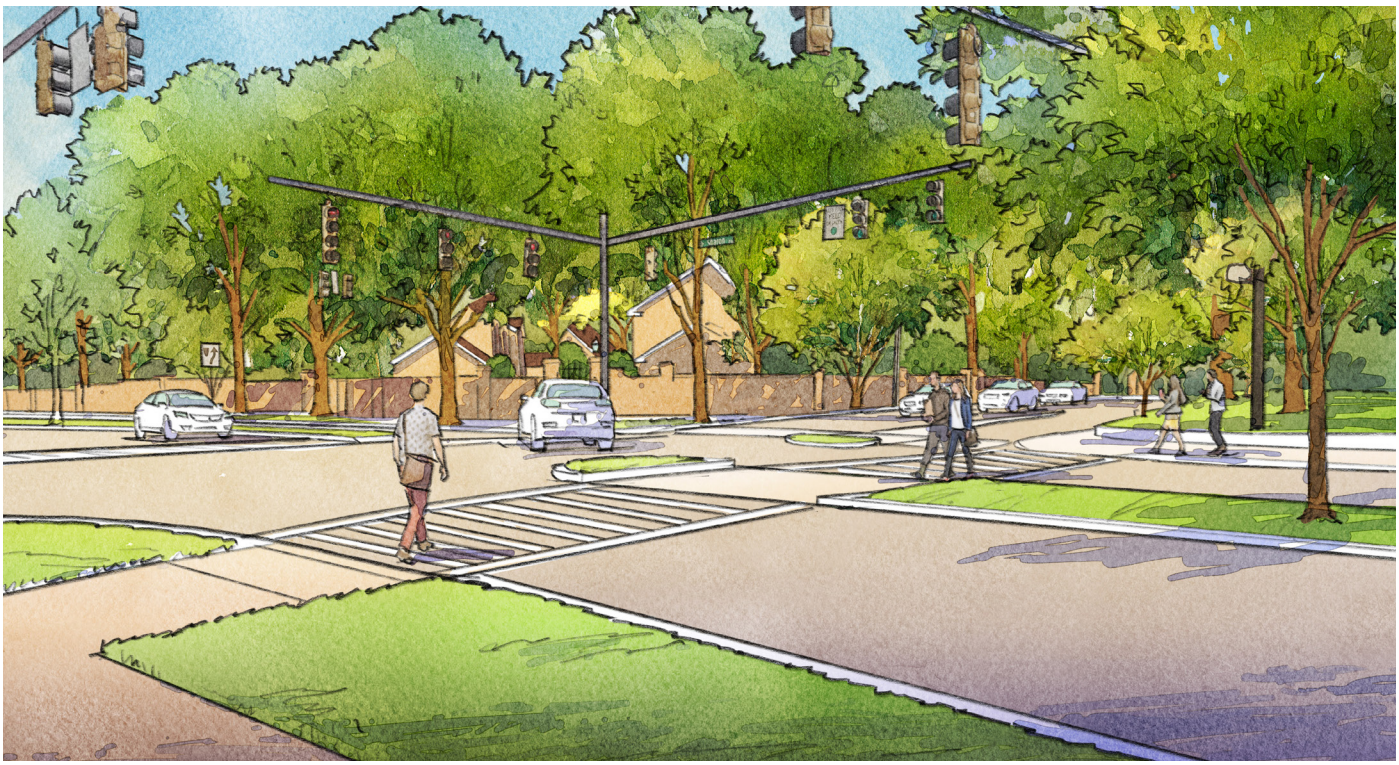
In recent years, there has been a movement to reduce or reverse some of the negative transportation impacts associated with low-density, single-use development patterns in the Triangle region: increasing traffic congestion, costly expansion of infrastructure, and lost time commuting. Future year forecasts in the Triangle Regional Travel Demand Model for 2050 predict these unintended consequences will continue if changes are not made to better integrate transportation, land use, and urban design decision-making processes.

The comprehensive plan advocates for a transportation system that safely and efficiently moves 'people' throughout the study area. Equal emphasis on land use (demand), transportation (supply) and urban design (environment) should improve overall efficiency of the transportation system while promoting livability principles important to several new or expanded activity centers identified on the General Framework Map in Chapter 2.

Supply-side solutions for the transportation should system include: a complete and integrated grid street network for major roads and local streets, complete street principles, access management standards, minimum street spacing guidelines, special intersection treatments, and different street design standards for rural, suburban, and urban development conditions.

Demand-side solutions for improving the transportation system focus on land use, development density and urban design principles that promote lower vehicle trip generation (internal capture), shorter travel distance, and the use of non-vehicular travel modes. Land use mix; development location, pattern and intensity; and important site design considerations presented in the comprehensive plan should help improve overall efficiency of the transportation system by lowering demand for long-distance vehicle trips.

Street design standards for urban conditions serving new walkable, mixed-use areas in the planning area will also bind together land use, transportation, and urban design decisions.



Build complete streets throughout the town's planning area, acknowledging different needs and priorities for streets based on the context of surrounding development.

Traditional suburban street design standards emphasize the function of vehicle movement over the creation of place for a street (National Association of City Transportation Officials, Urban Street Design Guide, 2012). Growing trends toward more urban, walkable, and mixed-use development patterns necessitate a change in conventional street design standards to: 1) balance the needs of vehicle, bus, bicycle and pedestrian within the right-of-way; 2) reduce travel lane width; 3) match design speed to posted speed limit; 4) control the number, location and spacing of driveways; 5) complement adjacent development; and 6) design intersections for multi-modal turning or route conflicts. Together, these changes will help move people (versus vehicles) and create memorable places that are great for the community, great for business, and great for creating safer environments for everyone.

Town officials should review the street standards included in the local Engineering Manual and determine if modifications are needed to better represent conditions for different development context areas: rural, suburban, and urban. Unique needs for sidewalks, greenways, bicycle lanes, planting areas, on-street parking, or the number and width of lanes that serve adjacent development or preferred travel modes in each of the three context areas may warrant different street design treatments or minimum standards.

Consider the feasibility of a local transit circulator service in Garner.

A local transit circulator service (small bus) could connect proposed mixed-use areas using a continuous loop route with short headways. A transit circulator feasibility study should be completed for the area including Gateway Station, downtown, and the Forest Hills shopping center to confirm when demand for such a service would make it feasible, and establish appropriate service parameters — technology, exact route, bus size, and headways — and cost estimates for implementing a preferred system.

Build a comprehensive and connected network of bicycle and pedestrian facilities to connect important destinations in the planning area.

A complete network of bicycle and pedestrian facilities throughout the planning area — bicycle lanes, bicycle routes, greenways and sidewalks — should connect nearby destinations for meeting daily needs while also providing an extensive network for recreation purposes. Most bicycle and pedestrian infrastructure should be included in street construction following complete street design principles.

Town officials should strictly enforce the need for bicycle or pedestrian facilities in new development with preferred facility types, locations, and design treatments influenced by the character of the surrounding area (see the Character Typology Map and Character Area Typology descriptions in Chapter 2 for guidance).

Town officials should also identify an annual fund balance to fill in small gaps in the sidewalk, bicycle, or greenway systems. Specific projects should be programmed in the town's capital improvements plan.

Create a comprehensive and connected green infrastructure network for the town's planning area.

Green infrastructure includes all of the parks, greenways, floodplains, and forested areas now or planned for in the planning area. Together, they form a green infrastructure network (GIN) that helps town officials prioritize land acquisitions, infrastructure projects, and development conditions. Individual decisions about open space in Garner should consider the context and needs of a larger green infrastructure network, which is aimed at maximizing a comprehensive, connected, and continuous open space network that is easily recognizable and accessible to residents.

A parks and open space map, and greenway network map, presented in Chapter 6 support recommendations for the community connections theme in Chapter 3 to create a green infrastructure network. Specific recommendations are also provided in the Parks, Recreation, and Cultural Resources 2020 Comprehensive Master Plan. The areas identified for the GIN should become gathering places for young families, children, retirees, and single professionals, and be viable trade-offs for accepting higher densities and less private open space in residential or mixed-use living environments.

Town officials should partner with state, regional, or other nonprofit groups working in the area to mitigate the impacts of new development on existing natural systems. At a minimum, include new rules and standards in the town's unified development ordinance that incorporate open space as a meaningful component of new development; including parks, tree preservation, floodplains, other stormwater retention, recreation, animal habitat protection, or preserving scenic views.

Incorporate natural stormwater management strategies in new developments or stormwater restoration projects.

Town officials should incorporate low impact or light imprint development strategies to find ways to reduce dependence on complicated infrastructure systems for stormwater management. Explore more sustainable solutions, including natural drainage and infiltration practices. All sustainable stormwater solutions should begin with the least technologically complex actions.

The simplest technique is to preserve the existing hydrological pattern of drainage and percolation. This allows the land to handle the water naturally with minimal, if any, human intervention. By following natural hydrological patterns and using them as the framework, sustainable stormwater practices can alleviate much of the need for expensive conventional engineering approaches and will inform the planning and design of communities as a design element.

Town officials may consider requiring floodplain protection that exceeds the state minimum requirements, protecting vulnerable areas from future storm events.

Consider green streets for stormwater management in areas of the community.

Green streets are thoroughfares that capture, temporarily store, and treat road runoff at its source by incorporating vegetated water catchment and filtration devices in the form of small rain gardens and bioretention systems. Components such as bioswales, infiltration planters, and flow-through planters, and other sustainable stormwater solutions allow plant material to remove impurities before water naturally infiltrates into the soil or into a storage or stormwater system. Water-loving plants as well as plants that are able to remove the impurities while thriving close to traffic and in more urban environments are used in green street design, adding beauty and function. Additional infiltration may be achieved through the use of pervious paving materials for sidewalks and streets.

Town officials should consider the application of green streets during the development application process.

The town should act quickly to secure additional park space in the community as land values are rising in the area.

In November 2021, Garner voters overwhelmingly approved a bond program that programs funds for two new parks and additional amenities at an existing park. Additional parks will be needed in the future to serve residents in new or expanded activity centers or neighborhoods. Some of the parks will be built by the town while others will be built by developers and made accessible to the public.

Town officials should plan for new park expenditures in the future and, if possible, secure land for future parks early before acquisition prices increase significantly.

Spotlight on: Complete Streets

What are Complete Streets?

Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.

Creating Complete Streets means Town governments and their partner transportation agencies must change their approach to building community roads. By adopting a Complete Streets policy, communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicyclists— making your town a better place to live.

What does a Complete Street look like?

What are the benefits of Complete Streets? There is not a singular design solution for Complete Streets; each one is unique and responds to community needs and development context. A complete street may include: sidewalks, bicycle lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transportation stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more. A Complete Street in a rural area may look different from a Complete Street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road.

What are the benefits of Complete Streets?

Complete Streets help create livable communities for various types of users, including children, people with disabilities, and older adults. Complete Streets improve equity, safety, and public health, while reducing transportation costs and traffic congestion. Please see the website www.smartgrowthamerica.org/program/ national-complete-streets-coalition/ for more information on Complete Streets, their design characteristics, and impact on creating more complete, livable communities.

— Source: Smart Growth America Organization Website, July 17, 2018