

GREENWAY AND OPEN SPACE MASTER PLAN

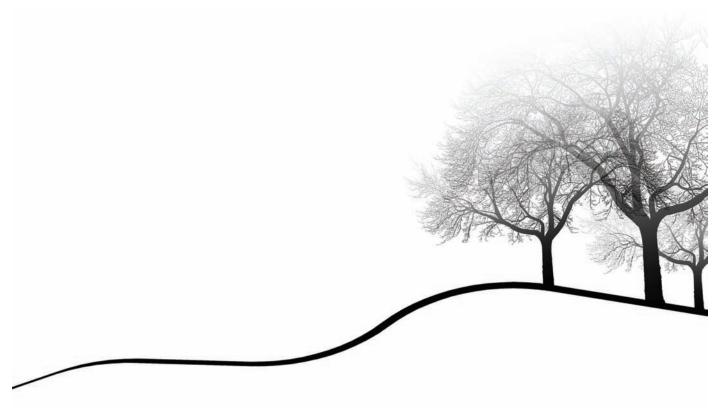
Abridged



FRANKLIN GREENWAY AND OPEN SPACE MASTER PLAN Abridged

Adopted January 2010





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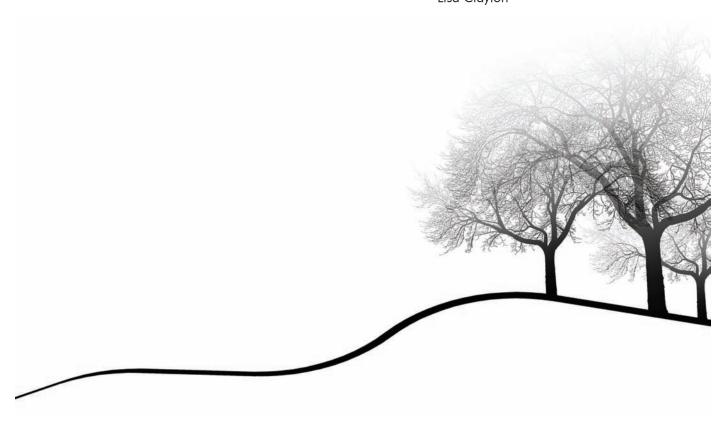
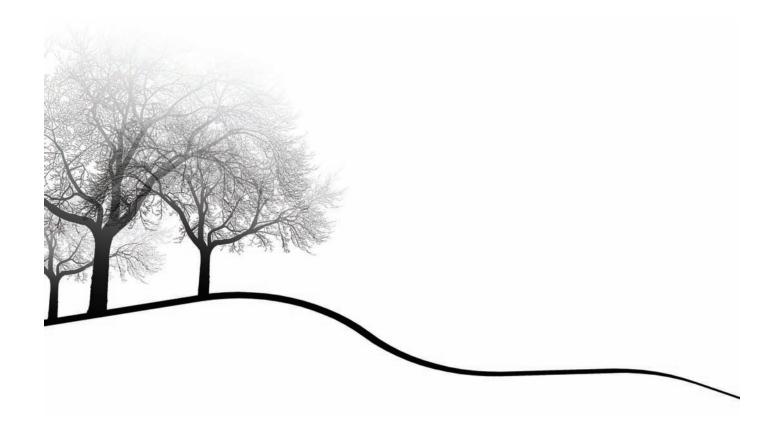


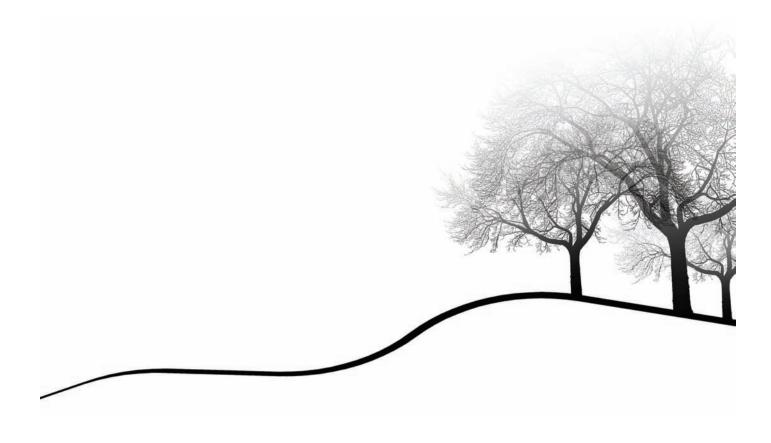
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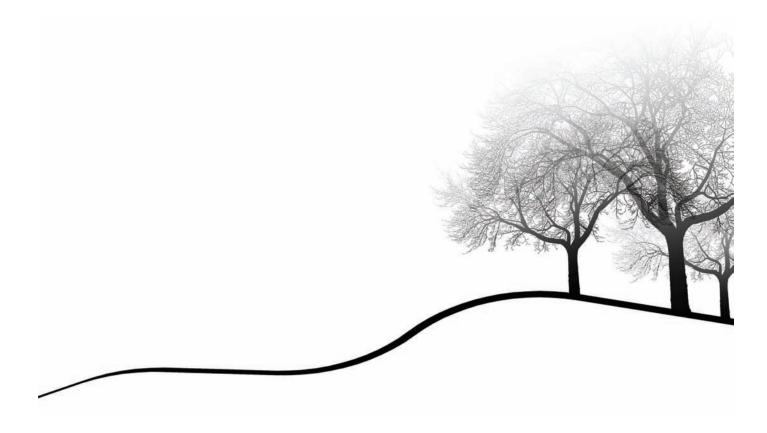
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What is a Greenway?

"A greenway is a linear open space established along either a natural corridor, right of way or landscaped course for pedestrian or bicycle passage".



Introduction CTION

In keeping with their goal to become one of the top 25 sustainable cities in the country, the City of Franklin, Tennessee identified the need to expand the Land Use Plan's guiding principles relating to environmental sustainability by recognizing the need to utilize and expand their existing open space and greenways, other trails and public right-of-ways within their Urban Growth Boundary. These principals include:

- Open-space preservation in concert with environmental protection through the identification of key environmentally sensitive sites
- Connection between an open-space network, neighborhoods, mixed use, office and commercial developments, business districts, parks, schools, historic sites and other neighborhoods.
- Provisions for people and wildlife by linking greenways, also referred to as linear parks or corridors of open space

The city embarked on a 10-month planning process to prepare a greenway and open space plan applying these principals.



Purpose S E

The purpose of the Greenway and Open Space Plan is to serve as a guide for incorporation of new and existing pedestrian facilities as vacant property is developed and current plans are implemented. A primary goal of the community, as identified in Franklin's Sustainable Community Action Plan and City of Franklin Parks Department's outline of 5-year Performance Measures for Green Initiatives, states the need to "establish a local Greenway / Open Space Master Plan for the City and entire Urban Growth Boundary to identify natural characteristics to preserve, protect, and shape future development patterns and environmentally sustainable practices as a priority". The City of Franklin's Municipal Service Alternative Fuel and Energy Task Force identified the need to "Incorporate funding within the capital improvement projects for alternative transportation avenues set forth by the Bike/Pedestrian Plan and Greenway and Open Space Plan."





The secondary goal of the study was the preparation of a phased implementation plan for development of a contiguous, functional, sustainable, recreational, educational open space and greenway network as an alternative mode of transportation and to provide pedestrian connectivity within Franklin's Urban Growth Boundary.

Master Plan Development LOPMENT

1. Routing Classifications

Eight classifications of bicycle/ pedestrian facilities were identified within the UGB and included:

- Existing Multi-Use Paths
- Proposed Multi-Use Paths
- Existing Bike Lanes
- Proposed Bike Lanes
- Existing Bike Routes
- Proposed Bike Routes
- Existing Sidewalks
- Proposed Sidewalks

Blueways

See page 12A, Greenways Master Plan and page 12B, Central Franklin Primary Routes.

Classification of proposed greenways and trails was based on the following criteria:

- Location of existing and planned greenway facilities
- Availability of public right-of-way
- Potential for connectivity between parks, commercial and retail facilities, cultural and historic destinations, transit and park and ride stops, residential neighborhoods and schools
- Location and availability of future open space

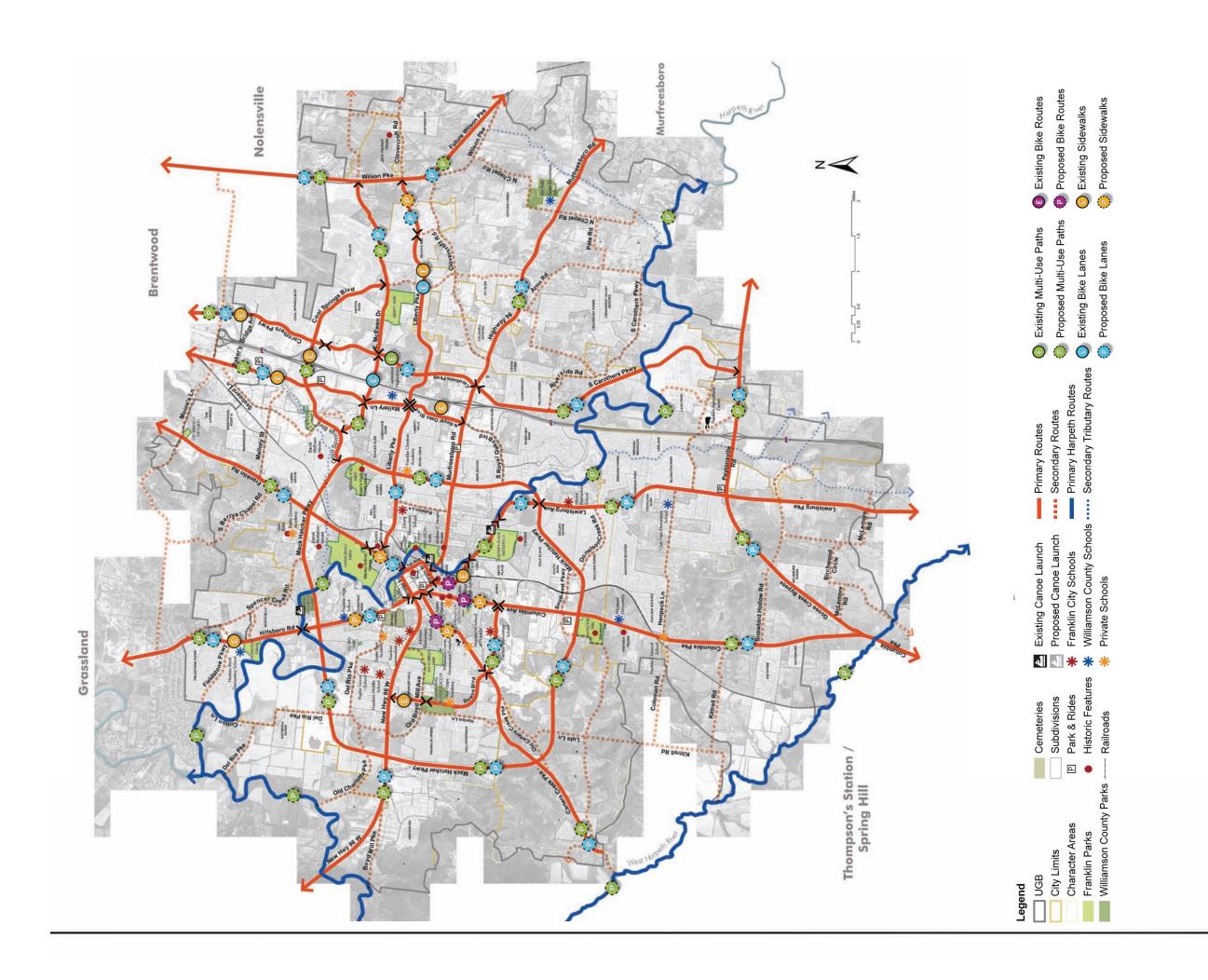


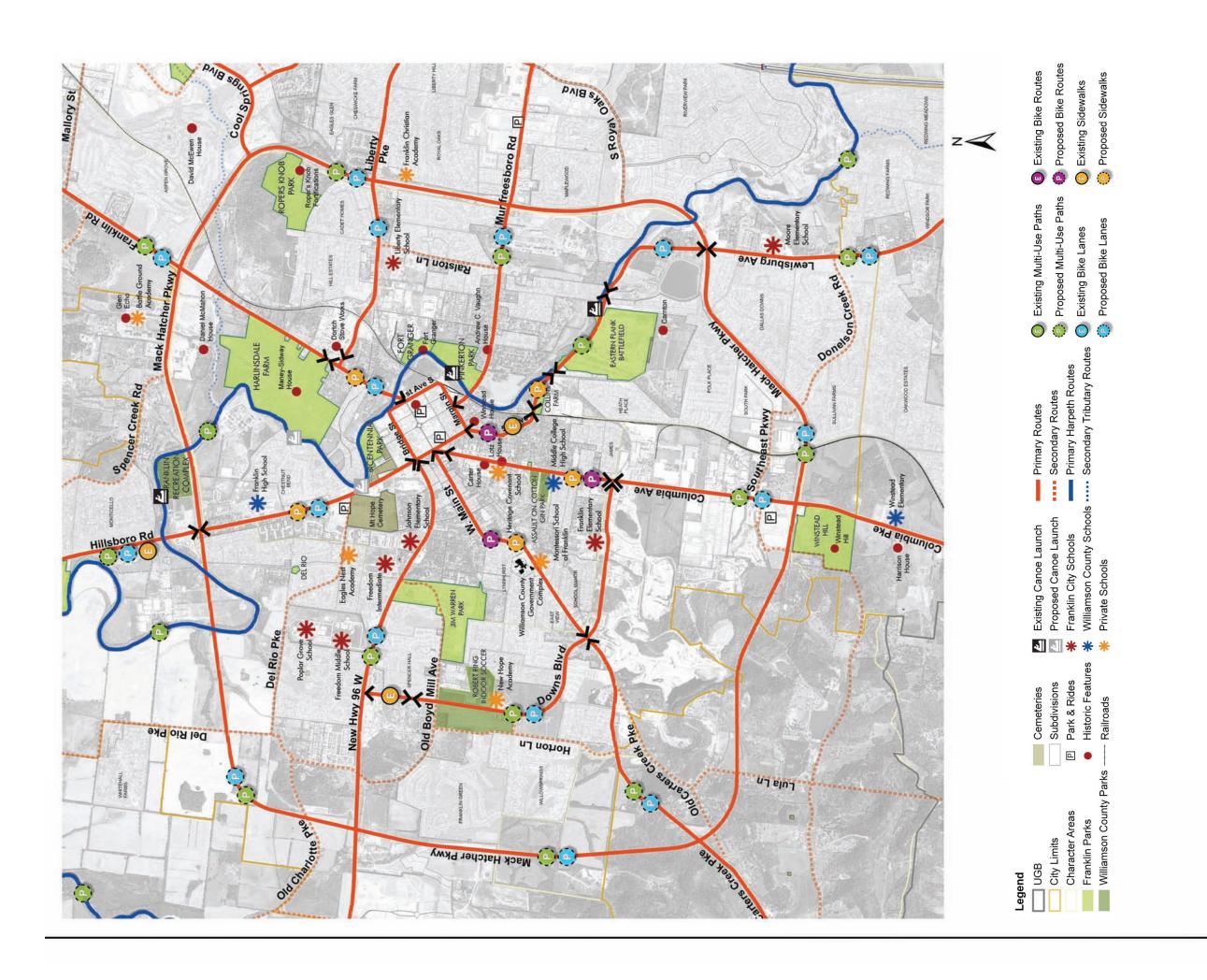
Matrix

The following matrix was designed to identify the recommended trail and greenway classifications. This will serve as a quick reference guide to assist the City of Franklin with recommended implementation standards for each trail, greenway, blueway, bicycle lane and bicycle route. Designations of each trail and greenway type and associated standards are indicated on the matrix. Each trail and greenway type are described and graphically illustrated on the following pages.

	Greenways and Open Space Matrix	Section I (Page 14)	Section 2 (Page 14)	Section 3 (Page 15)	Section 4 (Page 16)	Section 5 (Page 18)	Rest Areas (Page 20)	Trail Heads (Page 20)	Access Areas (Page 21)	Amenities (Page 21)	Sustainability Standards (Page 22)	Accessibility Standards (Page 23)	Safety and Security (Page 24)
А.	Multi-Use Paths	0	0			0	0		0	0	0	0	
В.	Bicycle Lanes		0	0	0		0			0	0		
C.	Bicycle Routes				•						•		
D.	Sidewalks									0	0	0	0
E.	Blueways												







Routes Primary **Central Franklin**

A. Proposed Multi-Use Paths [🏲



The standard design for separated paths allows for a multitude of uses for bicyclists, walkers, runners, roller bladers and casual strollers. The multi-use path is often parallel with a vehicular roadway but separated with a minimum of a 6' buffer from either the edge of the road pavement or from the face of a curb, space permitting. The buffer area can be lawn, landscaped or an open drainage ditch. Vertical grade differences between the surface of the trail and the areas on either side may warrant installation a safety guardrail.

Standard width for multi-use paths is 12' with 2' granular/stone shoulders. Shoulders serve to reduce lawn or other plant material from invading the pavement and impacting its structural integrity. Width of the separated multi-use paths could vary based on location and frequency of use. Separation between the roadway and path could range between 3' and 6'. Curbing or other measures are recommended as part of the separation area. If trees and planting are incorporated, a minimum of 6' is recommended.

Multi-use paths 11' wide have proven to function adequately in suburban and rural areas where the frequency of use is less. See Sections 1 and 2 on page 14.

With consederation given to space and budget, multi-use paths could consist of a bicycle path separated from a walking path along a roadway with a buffer and/or clear zone between each. Clear zones between should be 3' minimum. If trees or plantings are planned in the clear zones, 6' is recommended.

B. Bicycle Lanes



Bike lanes are proposed, using either existing pavement, existing paved roadway shoulders or widening the pavement to accommodate the bike lanes as illustrated in Section 1 and Section 2 on page 14.

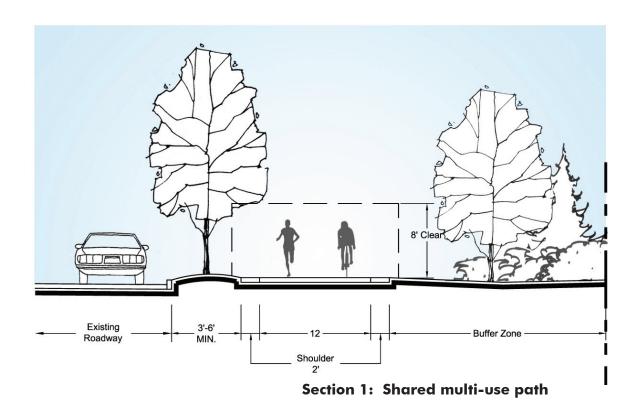


Example of a multi-use path



Example of a multi-use path near roadway





12' Bicycle Lane Existing Roadway Pedestrian _ Facilities 3' - 6' MIN. Clear Zone Section 2: Separated bicycle lane 14





Example of a sharrow lane

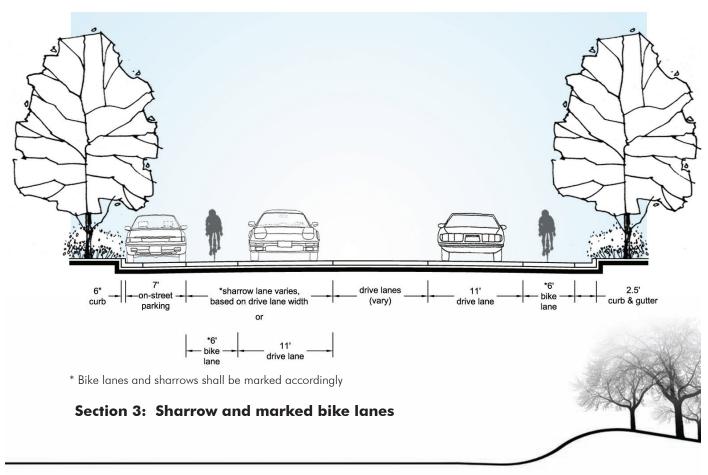
C. Bicycle Routes

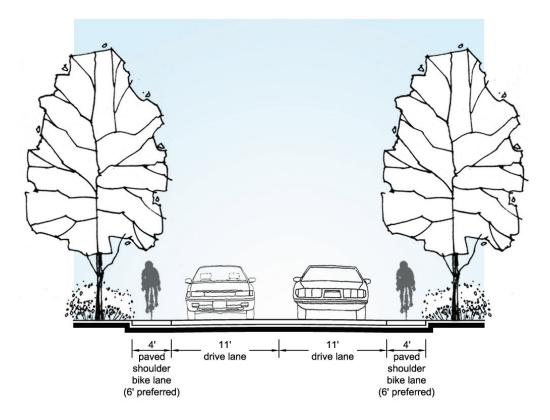


Bicycle routes are a combination of designated and non-designated bicycle lanes. A route will be identified with signage and will allow for a contiguous network. In some instances the route will use a combination of path types including designated lanes, roads and multi-use paths. The bicycle routes will maximize opportunities for connectivity within the UGB and connectivity to current routes outside the UGB.

Sharrow Lanes

Sharrow is a term used for "shared lane pavement markings" for motorists and cyclists to share the same travel lane and are appropriate for use on bike lanes and bike routes. New York, Los Angeles, Portland, Vancouver, and San Francisco have adopted sharrow lanes as accepted practices for higher volume streets where dedicated bike lanes cannot be used because of demands for on-street parking or the number of travel lanes. Caltans (California Department of Transportation) has adopted sharrows as an official marking. In January of 2008 the National Committee on Uniform Traffic Control Devices voted 35-0-3 to endorse the shared lane marking. Federal Highway Administration (FHWA) is considering inclusion of sharrows in the next edition of the federal Manual on Uniform Traffic Control Devices (MUTCD).





Section 4: Shoulder Bike Lane









D. Sidewalks

Existing sidewalks in Franklin vary in width, alignment and location throughout the UGB. As future areas are developed, walks should be constructed 6' wide and as separated walkways, if right-of-way width permits. The 6' minimum width is based on national recommended standards to provide for two wheelchairs to clear in opposite directions. Extensive walks exist within the UGB and primarily in the central Franklin area within the central business district. Walks also exist in neighboring residential and commercial areas. Placement and alignment of future walks should be separated from roadways, if space permits, with a minimum 4' buffer between the pavement or face of curb and a 6' buffer if trees or vegetation are planned. As new 6' walks are developed care should also be taken to provide appropriate transition between existing walks less than 6'. Walk materials, color, surface finish, joint spacing and patterns should also be established to provide visual continuity.



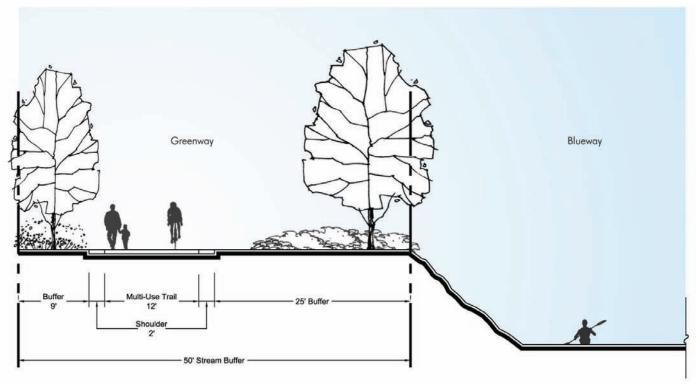


Example of a blueway corridor

E. Blueways

Blueways utilize existing navigable waterways primarily for row boats, canoes and kayaks. The Harpeth River and its tributaries are proposed to be used for this purpose. The key elements of a blueway network plan include provisions for accessible boat launches, parking and signage. The Harpeth River Watershed Association has identified locations for proposed access points along the river. Provisions at the access areas should include accessible launches, ramps, parking, signage, information kiosks and educational/interpretive signage as appropriate.





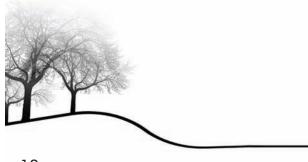
Section 5: Shared multi-use path adjacent to blueway



Multi-use path adjacent to a blueway



Multi-use path adjacent to a blueway





Pedestrian bridge at Pinkerton Park



Harlinsdale Farm



Jim Warren Park entry sign

2. Open Space Plan

As part of the development of the framework plan, the planning team worked with appropriate city agency representatives to identify opportunities for future green/open space areas to preserve for environmental purposes and secure for future recreational use. Proposed open spaces were identified as part of the framework and contiguous to proposed greenway routes to provide continuous greenway corridors and maximize connectivity.

Initial Findings included:

- Approximate park setaside in Franklin (12.52 AC / 1000) is twice the national NRPA standard of 6 acre per 1000 population
- Projected doubling of population in 2020 to 88,000 with no additional parkland will still find Franklin with overall park/open space inventory of 8 AC / 1000; exceeding the current NRPA standard
- To maintain the current park setaside ratio, approximately 400 AC of additional park/open space inventory will be required by 2020 (based on population projections)
- Connectivity elements such as trails, greenways, and blueways can all count toward park/open space inventory and also aid in accessibility to park and recreation facilities
- Overall projected acreage of separate trails can be included as part of overall open/green space inventory
- Based on current data, the City of Franklin favors larger community and regional parks
- City of Franklin is not interested in expanding local pocket and mini-parks due to high cost and logistics associated with safety, security and maintenance

Recommendations:

- Utilize greenway and blueway corridors as part of overall park and open space inventory
- Where feasible expand functionality of greenway trailheads and nodes as neighborhood open space
- Maximize use of greenway and blueway corridors as linking elements to parks and open space
- Multi-functional trailheads of approximately 5-15 AC with amenities such as shelters and playgrounds will be useful in providing needed neighborhood park facilities



The Open Space Plan (see exhibit on page 20A) identifies a combination of current parks and green space within the UGB including Franklin Parks, Williamson County Parks, Cemeteries, Historic Sites and the proposed framework plan. Nine areas are proposed as Open Spaces to be set aside and preserved for parks, trails, and wetlands, combining active and passive forms of recreation. With input from the Franklin Parks Department, the proposed open space areas are general in configuration but encompass tracts of public land. The total acreage identified for future open space corresponds with the goals established by the City of Franklin to meet future recreation and parks acreage needs, per capita, within the UGB.



Rest area

3. Special Greenway/Trail Features

A. Rest Areas

Rest areas are typically small spaces strategically placed along a trail or greenway to provide sitting, viewing, picnicking, interpretive education information or restroom use. Often located contiguous but out of the way of user traffic, rest areas either have a compacted aggregate surface or concrete surface to avoid damage caused by bicycle kickstands. Rest areas are often places to find litter receptacles, mile markers, maps and emergency call boxes.

B. Trailheads

Trailheads need to be strategically located as part of the trail network. Existing public facilities including parks, schools, libraries, recreational centers, Park & Ride locations can be used for this purpose as parking areas and other program elements may be in place. If not incorporated into an existing public facility, a separate trailhead facility could include but not be limited to the following components:

- Parking
- Entry signage
- Information kiosks outlining trail rules and regulations, maps, volunteer opportunities, special events
- Litter receptacles
- Disabled/accessibility provisions
- Benches and miscellaneous site furnishings
- Landscaping

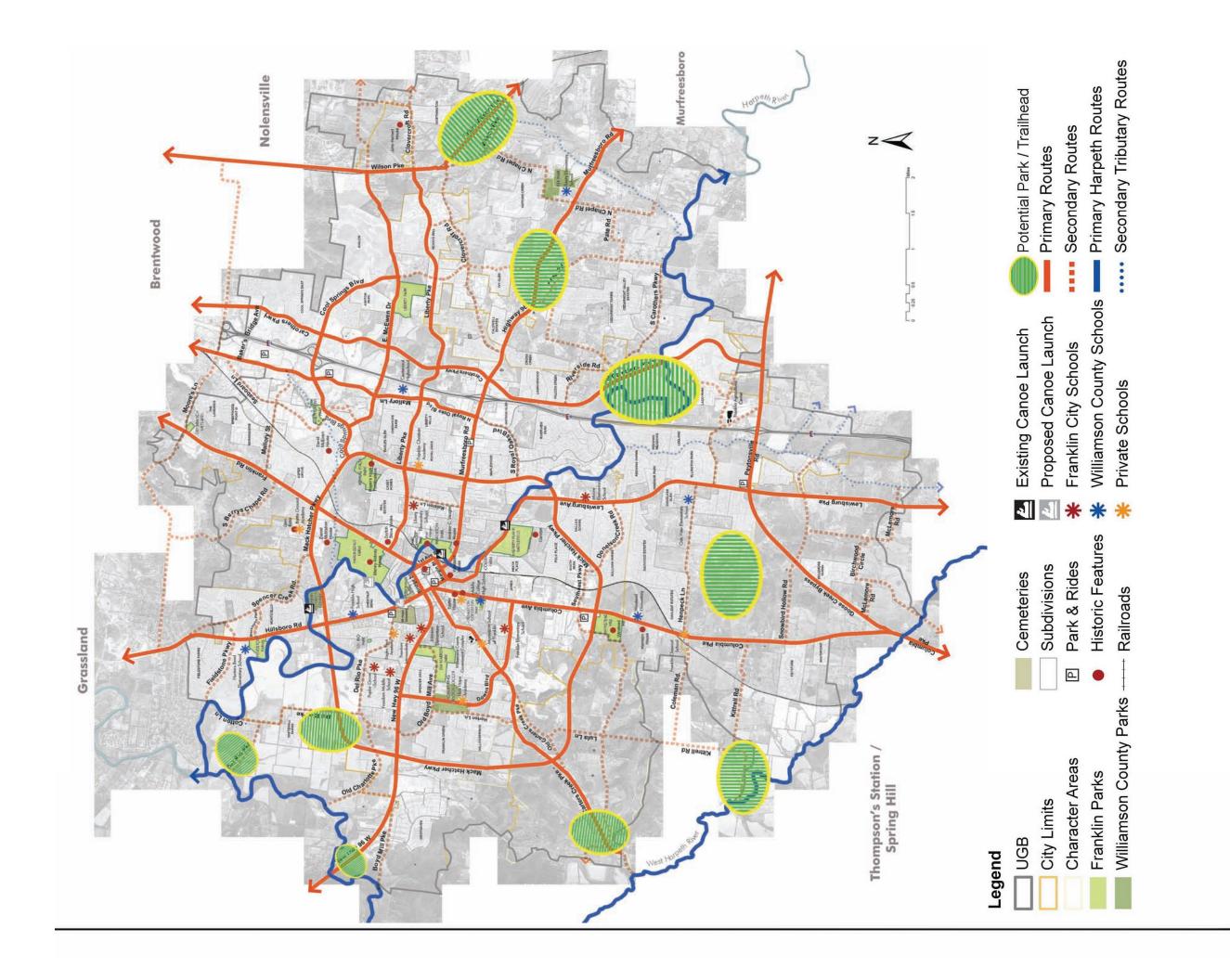


Shelter at a trailhead



Example of a restroom facility





Future Open Space Plan



Trail signage



Interpretive signage at trail rest area



Example of public art

Additional elements for Trailheads may include:

- Restrooms
- Interpretive/education signage
- Lighting
- Drinking fountains
- Emergency telephone call boxes

C. Access Areas

Access areas are typically areas of connection using trail spurs to connect a new trail with either another trail or adjacent facility. Often, adjacent retail and commercial business owners will provide spur connections from their businesses to promote trail use by customers and employees. Often private residents will do the same to encourage neighborhood access. Existing community parks are often used as access for trails, depending upon the length of the connection. Trail connections are often hard surface, either asphalt to match an existing trail or concrete to match existing commercial/retail walks. Stone or granular surfaces for access trails usually require more maintenance and annual replacement and upgrade of the surface, so impervious surfaces including asphalt or concrete are recommended.

D. Amenities

Defining a unique, but contextual visual character for the proposed greenway and trail network in Franklin is recommended. This is achieved through careful selection of design elements to provide visual continuity and other visual cues to highlight and promote the greenways and trails facilities. Incorporation and repetitive use of these elements serves to reinforce the perception of a trail/greenway as a singular facility.

The design vernacular for a trail facility typically includes the following programmed elements and associated design considerations:

- Style (i.e. traditional, contemporary)
- Color Palette
- Site furnishings (benches, bicycle racks, railings, litter receptacles, tables)
- Lighting
- Restroom facilities
- Shelters and/or other enclosed structures
- Landscaping
- Signage (Entry, directional, interpretive, informational)
- Logo



- Hardscape materials & forms (pavements, walls, steps etc.)
- Mile Markers
- Drinking fountains
- Public Art

As part of the selection of the amenities, short and long-term maintenance and operations should be considered. Decisions regarding, the quality of materials, finishes, and installation/construction methods should be factored in to determine long term costs to benefits derived.

4. Equestrian Trails

Equestrian trails should be considered as trail and greenway projects are identified. Due to the emphasis on the equestrian industry in Franklin and the neighboring communities, providing this type of trail could serve to boost trail use if planned appropriately. Loop trails approximately 2.5 feet in width are preferred. Equestrian trails typically consist of pervious surfaces, granular or mulched. Ideally, equestrian trails would be incorporated along the Harpeth River but separate from pedestrian trails. Accommodations for trailer parking at trailhead locations will need to be programmed.

5. Sustainability Standards

Non-motorized transportation alternatives, greenways and trail networks provide sustainability benefits by reduced reliance on motorized vehicles and encouragement of non-motorized transportation modes. A variety of additional sustainability features serving a variety of functions can be incorporated in the development of the greenway and trail system. Sustainability practices can improve water quality and storm water management, decrease potable water requirements, decrease urban heat island effect, interpretive education and provision of sustainability features in greenway buildings and structures.

Sustainability standards should be included in construction activities, use of materials and as part of improvements to quality of life associated with implementation of the greenway and connectivity system.



Equestrian trail adjacent to a pervious multi-use path



Trail designed with pervious pavement



Rain garden in a parking lot median





Native landscaping along a multi-use path



Accessible bridge crossing at wetlands

Sustainable greenway features and their application to trails in the connectivity network could include:

- Provision of raingardens and bioswales along the trail to provide improved 'top of pipe' stormwater management
- Provision of constructed wetlands and bioswales at areas adjacent to stream corridors where space permits to provide 'bottom of pipe' stormwater filtration and separation
- Construction of pervious pavements at trailhead and trail access parking areas to increase infiltration and decrease surface runoff
- Inclusion of design elements such as recycling containers and bicycle racks to encourage sustainable use of the greenway system
- Inclusion of sustainability education opportunities on the trails, such as strategically located interpretive elements and signs
- Implementation of connectivity systems enhance protection of natural areas and systems including the urban tree cover. New, native tree plantings should be an important component of trail heads and shared use right of way facilities
- Native, drought tolerant landscaping and plant materials should be used to reduce dependence on irrigation and potable water
- Continued support of the stormwater ordinace addressing stormwater and water quality management objectives

The most significant positive impact of the trail system is in the type and number of connections made to the variety of destinations and other potential transportation modes. This is key to overall trail use and integration with other essential infrastructure elements in Franklin.

6. Accessibility Standards

All trail and greenways and related facilities in Franklin should strive to accommodate the disabled. Accessibility standards will need to be incorporated by using appropriate gradients (no greater than 8.3% slopes), curb ramps, signage and parking facilities. Restrooms, interpretive and informational signage, railings, drinking fountains, surface pavements and greenway widths will need to be planned and designed to follow requirements of the Americans with Disabilities Act of 2008.



7. Safety and Security Measures

Lighting

Lighting of trails and greenways and support facilities is not a requirement and should be carefully considered. Typically, lighting trails encourages night use which can promote crime. Plus, costs for lighting trails have proven to be prohibitive due to the expense of up-front installation, long term maintenance and replacement. If lighting is desired it should be limited to lighting trail heads and access points for security purposes only.

Emergency Call Boxes

Emergency call boxes are a very effective safety and security measure. Typically the phones are strategically placed and tied into local dispatch units. Quantity and placement are determined based on location and alignment of the greenway.



Example of an emergancy call box

