

7.0 Implementing Phase 4 (2020-2030)

7.1 STRATEGY: GOALS AND OBJECTIVES

The improvements slated for the 10-year timeframe in Phase 4 include projects that are more costly and projects for which the timeframe and opportunity is difficult to predict. Some projects may be able to happen prior to 2020, others may not happen until after 2030.

Phase 4 bicycle improvements include four major infrastructure initiatives:

1. Providing off-road bicycle and pedestrian overpasses across the Beltway and Dulles Toll Road,
2. Constructing dedicated bicycle facilities, in the form of cycletracks along Leesburg Pike, International Drive and portions of VA Route 123,
3. Constructing new and upgraded trails especially in the headwaters of Wolf Trap Creek, and
4. Constructing bicycle lanes or paved shoulders along VDOT roadways that are in constrained rights-of-way or roadside environments. These projects may require roadway widening, major engineering for stormwater drainage, or be in areas with high-value residential properties.

Many Phase 4 projects should be implemented in conjunction with redevelopment projects in the core of Tysons Corner. Phase 4 objectives support achievement of the Plan goals as follows:

GOAL: Fully integrate bicycle transportation improvements into the planning and development process in Tysons Corner.

- Bicycle accommodations are routine components of new streets constructed to create a grid of streets in the downtown core.
- VDOT will begin use of treatments that are considered experimental today, but will likely be standard procedure by 2020.
- In conjunction with developers and the business community establish the first full service bicycle station.

GOAL: Improve bicycle travel safety, access and connectivity to, from, through and within Tysons Corner.

- The safety of bicycling on the Boulevard class of roads and International Drive is increased by using the optimal facilities designed to be compatible with these types of streets.

- Create additional connectivity on the outer fringes of greater Tysons Corner, with improved facilities to Meadowlark Gardens Regional Park, the Dunn Loring area, and northern McLean.

Goal: Foster the development of a “bike culture” in Tysons Corner

- Expand the bicycle-sharing service in greater Tysons Corner, as demand increases with employment and residential population growth, and bicycle facilities expand.
- Continue to grow the Bike-Friendly Employer program by again doubling corporate membership and doubling the quantity of bicycle parking in both public and private space.

GOAL: Increase the numbers of people bicycling for transportation by making it a viable choice for a wide range of cyclists – young and old, novice and experienced, and occasional and regular.

- By 2030, achieve an overall 5 percent mode split for bicycling for all trips, and an 3.5 percent bicycle share for access to rail transit trips.
- Continue to document increased bicycle use for resident and employee circulation within the core of Tysons Corner, access to Silver Line stations, and resident trips out of Tysons Corner to job, school, recreation and other attractions in nearby communities.
- Trail system expansion and upgrades will support Safe Routes to School programs at elementary schools such as Wolf Trap, Westbriar and Spring Hill elementary schools, and Joyce Kilmer Middle School. The proposed Beltway overpass south of Route 7 will allow Marshall High students living west of the Beltway to walk or bicycle to school and Joyce Kilmer Middle School students living east of the Beltway to walk or bicycle to their school.

7.2 PROGRAMS

Advanced Bicycle Parking Systems

Bicycle parking needs are expected to grow steadily throughout all phases of plan implementation. By 2020 it is likely that another generation of new bicycle parking technologies will be available which will increase convenience, weather protection and security. The one-stop bicycle parking program recommended in Phase 3 will continue to be important to ensure that Tysons remains current with changing parking needs and changing equipment trends.

If a full-service bicycle station has not already been created, it will likely be needed by 2020. Bike stations are essentially “retail” outlets for bicycle transportation. They offer high-security bicycle



storage, bicycle rental, sale of equipment and accessories, food and drink sales, bicycle repair, information and advice, an office for bicycle mounted police, and any other services that cyclists may need. Bike stations are typically located at rail stations, where provision of bike parking for egress trips is a major service need.

In Tysons Corner, the first bicycle station is recommended for the Tysons West Silver Line station, and could be located in ground level space in the new development already planned for this station. Bike stations are best if operated by an experienced bicycle retailer, however due to their need for a portion of the most valuable street level retail space, they likely need public subsidy to get started. If additional storage or bicycle repair space is needed it should be provided at a second but nearby location that has less expensive rent.

7.3 PHYSICAL IMPROVEMENTS

The physical improvements recommended in Phase 4 are summarized in Table 7.1 below and shown in Figure 7.1 on the following page. There are no signed bicycle route extensions slated for Phase 4. More detailed information about these recommendations is provided in Appendix H.

On-Street Improvements

Constructing cycletracks along Leesburg Pike, International Drive and portions of VA Route 123 will replace interim facilities (or no facility) along these arterials, making these boulevards *complete streets*. Even less experienced cyclists will feel comfortable using these facilities because of the separation that cycletracks provide from vehicular traffic. The facilities offer safety benefits that include relief from having to mix with pedestrians on sidepaths and more visibility at intersections by being part of the roadway's traffic flow. The interim sidepath facilities can be reclaimed fully as sidewalks, which will be more appropriate fronting the high-rise commercial buildings planned for the corridor. The service roads can provide the right-of-way in which the cycletracks can be built.



Bicycle Transportation Network: Phase 4 Accommodations (2020 - 2030)

Review Draft
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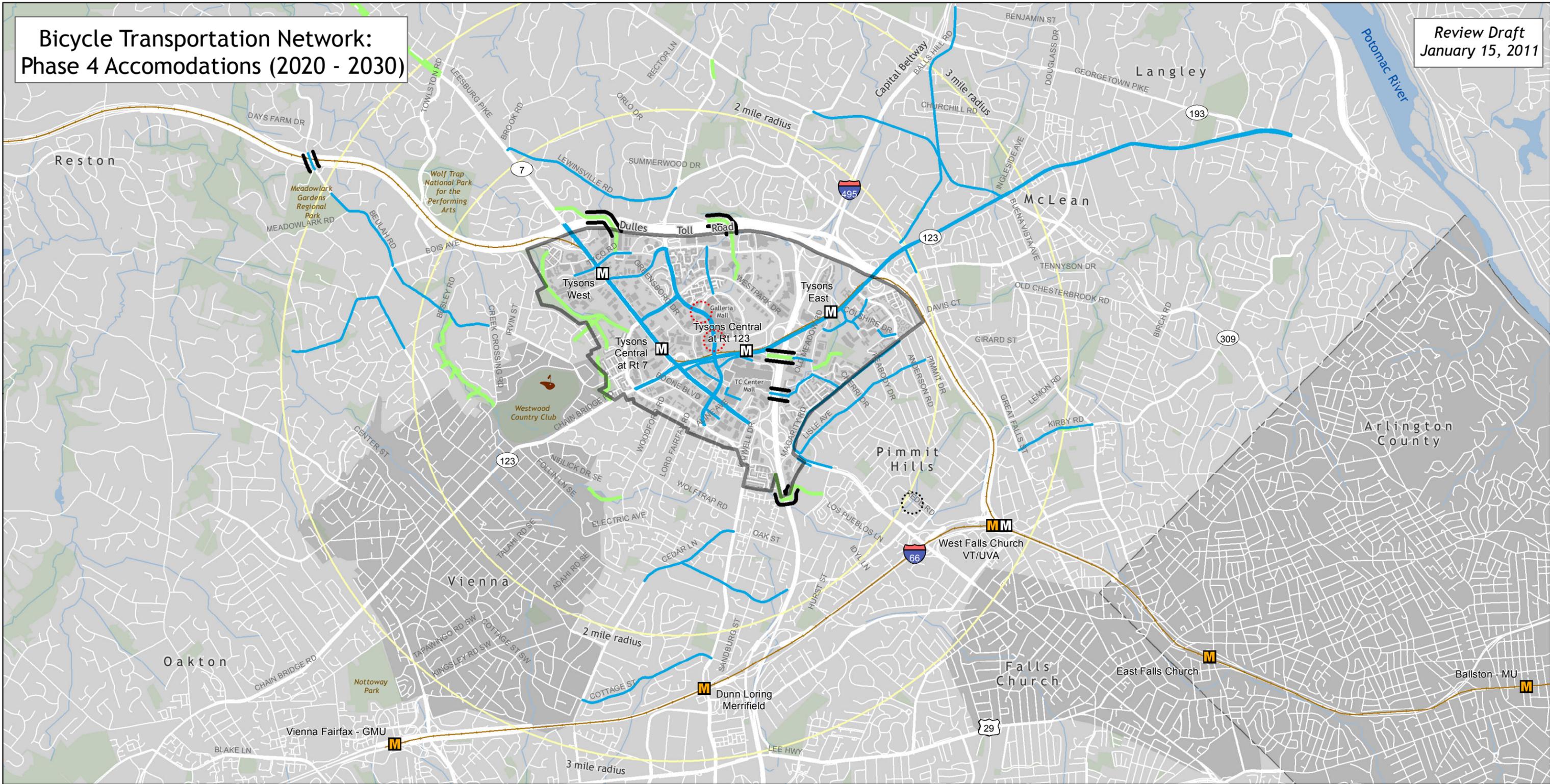


Figure 7.1



Phase 4

- On-Road Bicycle Facility
- Trail Construction or Upgrade
- Intersection Improvement
- Interchange Crossing Improvement
- Spot Access Improvement
- New Bicycle/Pedestrian Overpass



Rational for Scheduling Select Road Improvements for Phase 4

On a variety of roads with a constrained roadside environment, bicycle lanes or paved shoulders must be added to existing two-lane cross sections. Due to their length or complexity, these projects are likely to be more costly and more difficult to implement. A partial list follows:

- Two sections of Beulah Road that will provide bicycle access and safety on the route to Meadowlark Gardens Regional Park.
- The western section of Lewinsville Road
- Cedar Lane near the W&OD trail
- A portion of Idylwood Road
- Balls Hill Road
- Magarity Road

A second set of Phase 4 on-street improvements include those which are the lowest priority improvements because existing bicycling conditions on these roads is very good, even without further improvement. During Phase 4, the need for these facilities can be reevaluated. These streets include the following:

- Lisle Avenue
- Cottage Street
- Watson Street

The third set of Phase 4 on-street improvements are streets that are slated for Shared Lane Markings in earlier phases and Bicycle Lanes as a Phase 4 upgrade. These include:

- Spring Hill Road
- Portions of Balls Hill Road

Intersections and Interchanges

Four intersections along International Drive will deserve special attention: Galleria Drive, Greensboro Drive, Tysons Boulevard, and Westpark Drive. Prior to Phase 4, there are no facility recommendations in the Plan for this section of International Drive. As a result, when cycletracks are installed, corridor reconstruction will be required at free flow entry and exit lanes, and median divided double left turns.

In Phase 4, it is likely that many new streets will be built as a part of the expanded downtown grid of streets. As a result, any number of additional intersections may need further consideration for bicycle and pedestrian safety improvements in Phase 4.

Overpasses

Phase 3 provided a detailed discussion of five potential locations for overpasses of the Capital Beltway or the Dulles Toll Road. These locations are shown on the Phase 4 map, Figure 7.1.

It is recommended that early in Phase 4 at least one of these overpasses is constructed. The three overpasses with the most merit for serving bicyclists and pedestrians and connecting the surrounding community include the following:

- The overpass near Marshall High School
- The overpass between Old Meadow Road and Westpark Drive, near the Hot Lane ramps, and
- An overpass that could be built in conjunction with a new Toll Road entrance ramp just east of the VA Route 7 and Toll Road interchange.

Trail Construction

9.2 miles of new trail construction and trail upgrades are recommended in Phase 4. Primary among these are the following:

- Upgrading the entire Wolf Trap Creek trail system with wider paved surfaces and improved points of access
- Developing a trail along the Old Courthouse Spring Branch that connects Freedom Hill Park with the Ashgrove Lane historic properties. Where an extension of Boone Boulevard is planned, it may be appropriate to locate the paved shared use path away from the stream, but on the west side of the new Boone Boulevard. A hiking path could be developed closer to the stream, thus limiting the negative impacts on this remaining sliver of forest in the Tysons area.
- The Scotts Run trail system should be extended to connect to a new bicycle and pedestrian overpass over the Beltway (described above).
- A trail link from Niblick Drive SE to Woodford Road along the upper Wolf Trap Creek stream valley park land. It may be possible to continue a greenway trail through a combination of public and private land as far up stream as Madrillon Road which will be a link into Tysons Corner.

Spot Access Improvements

One Spot Access Improvement is slated for Phase 4 – a small bridge over the Pimmit Run at Redd Road. This bridge will link Pimmit Drive and the Pimmit Hills neighborhood to Idylwood Road and a future trail link to the West Falls Church Metrorail station. WMATA is beginning an engineering feasibility study of the back entrance to this station in 2011. It is possible that the need for the stream crossing will become relevant in the Phase 3 timeframe.

Signed Bicycle Routes

No Signed Bicycle Routes are slated for Phase 4.

The Grid of Streets Study

Figure 7.2 illustrates a revised Conceptual Bicycle Network for the core of Tysons Corner. This network includes the Phase 4 buildout identified in this plan (see Figure 7.1) as well as on-street bicycle facilities on new streets in a proposed grid. The Comprehensive Plan amendment calls for bicycle lanes on all Avenues and Collectors in the core of Tysons. Figure 7.1 recommends cycletracks for the Boulevards and affirms bicycle lanes on Avenues and Collectors. This Plan also recommends a variety of on-street treatments for select local roads, because of the role that they play in the overall bicycle network.

Coordination

In Phase 4, coordination among stakeholder groups will continue to be important to successful implementation.

Working with the Fairfax County Park Authority on the trail projects and the Fairfax County Public Schools on Safe Routes to School programs will need to continue in Phase 4.

FABB and the McLean Area Bicycle and Pedestrian Committee can continue to play a key role in engaging the local community and maintaining ongoing public support for plan implementation.

7.4 COST AND FUNDING

A summary of the estimated cost of implementing the recommended Phase 4 physical improvements is included in Table 7.2 below. More detailed information on the cost estimates is included in Appendix H.

Table 7.1 Phase 4 Recommendations Implementation Cost Summary

Improvement Category	Recommendations (Miles or Number of Improvements)	(2011 Total Cost)
On-Road Bike Facility	8.9 miles	\$1,695,339
Off-Road Bike Facility	9.2 miles	\$2,502,333
Signed Bike Route	0.0 miles	NA
Intersection Improvement	2 total	\$25,000 - \$500,000 @
Interchange Improvement	0 total	NA
Access Improvement	1 total	\$10,000 - \$50,000 @
Bridge Improvement	3 total of 6 possible	~\$5,000,000 @

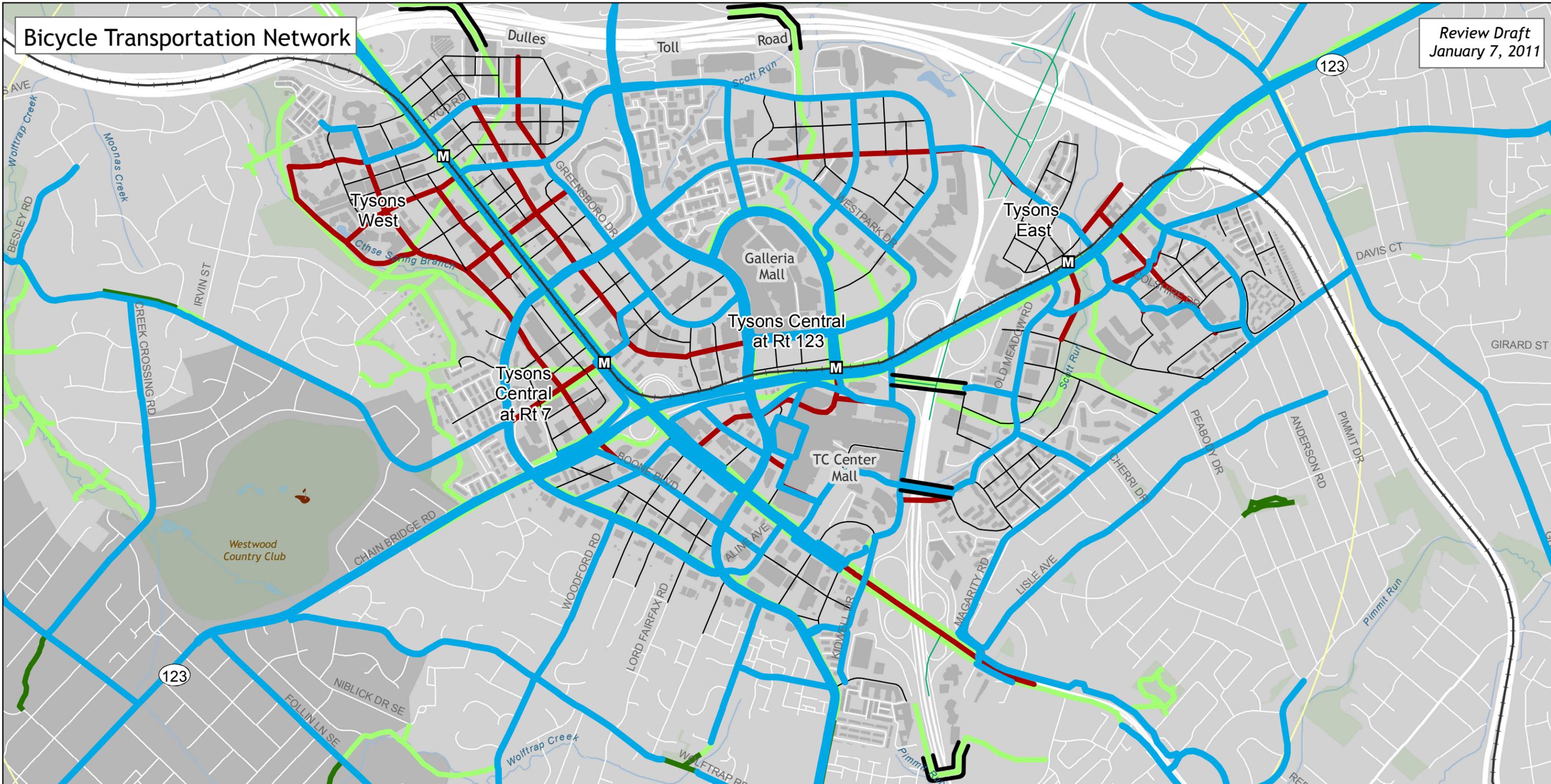


Figure 7.2



Long Term Bicycle Network (Phases 1 - 4)

- On-Road Bicycle Facility (Cycletrack, Bike Lane, Shared Lane Marking, Paved Shoulder)
 - Tysons Bicycle Master Plan (Existing, Planned & Proposed)
 - Proposed Grid of Streets (TC Comp Plan 2010)
 - On-Street Bicycle Facilities (Bike Lanes & Unspecified)
 - Local Street (Shared Roadway)

- Potential Bicycle/Pedestrian Overpass
- Shared Use Paths (Off Road)
 - Existing Trails
 - Trails & Sidepaths (Planned, Proposed & Upgraded)

*Paved Shoulder minimum of 3 feet. Shared Roadway - No special striping or marking









7.5 CONCLUSION

The focus in Phase 4 is to transform even major arterials like VA 7, International Boulevard, and VA 123 by adding bicycle facilities that are separated from the road for priority cycling, shared use paths for lesser skilled cyclists, and signalization that facilitates safe multimodal travel along and across these corridors.