



CITY  
OF **FALLS**  
**CHURCH**

*Bicycle Wayfinding and Sharrows  
Park Avenue and Maple Avenue*

*City of Falls Church, Virginia*

## Project Description

This project includes the installation of industry-standard bicycle wayfinding signs and sharrows along Park Avenue and Maple Avenue. See Figure 4 for sign and sharrow locations.

### *Why Park and Maple*

Park Avenue and Maple Avenue parallel Broad Street and Washington Street. As such, they provide easy access to most commercial areas of the City as well as many City attractions. At the same time, Park Avenue and Maple Avenue are relatively calm streets traffic-wise. Therefore, a bicycle network making use of Park Avenue and Maple Avenue provides bicyclists access to City businesses, restaurants, and attractions, while keeping them in a safer, more comfortable environment. Figure 4 shows how bike routes along Park Avenue and Maple Avenue would work together to provide trail users access to most commercial areas of the City.

### *Why Wayfinding Signs*

Bicycle Wayfinding serves four purposes:

1. provide information about destinations, directions, and distance to help bicyclists determine the best routes to take to major destinations;
2. provide information that helps bicyclists understand and use the on-street and path network without the use of a map;
3. provide additional messages to motorists to expect bicyclists on the roadway; and
4. encourage bicycling on designated corridors. Figures 1 and 2 show how these signs typically look and what destinations could be highlighted in the City of Falls Church.



Figure 1: Example Wayfinding Sign



Figure 2: Wayfinding Sign Template

## **Why Sharrows**

Sharrows are "bicycle use" road markings that are installed where complete bike lanes cannot be installed or are not desired. Common reasons for using sharrows instead of bike lanes include:

- not enough cyclists to justify bike lanes;
- too expensive to install bike lanes;
- use of bike lanes would require unwanted loss of parking; and/or
- use of bike lanes would require road widening.

Sharrows help achieve the following:

- Improve positioning of both cyclists and motorists on streets without bike lanes;
- Reduce aggressive motorist behavior;
- Reduce wrong-way bicycling;
- Reduce bicycling on sidewalks.

For this project, sharrows were selected instead of bicycle lanes to strike a particular balance among different road users. In the cases of Park Avenue and Maple Avenue, the use of sharrows will create a safer environment for cyclists while also maintain on-street parking for motorists.

Figure 3 shows a sharrow encouraging cyclists to operate outside the “door zone”. The door zone is the space next to parallel parked cars. Automobile drivers and passengers sometimes open car doors into the path of oncoming cyclists. Therefore, encouraging cyclists to stay out of this space is important from a safety standpoint.



**Figure 3: Sharrow Indicating Safe Positioning**  
*source cycling Advocates Network (CAN), New Zealand*

## ***Pilot Project***

This project serves as a pilot project for the City. The project will bring marked bicycle facilities into the downtown area of the City for the first time. Doing so allows staff and residents to evaluate how well, or not well, the facilities work and to make more informed decisions about future bicycle projects.

## ***One Year Review***

Because the project is intended to be a pilot project, staff will evaluate the impacts of the project one year after installation. Staff will evaluate impacts to bicycle, pedestrian, and automobile traffic along and near the designated routes.

## **Project Motivation**

The Washington & Old Dominion Trail is one of the great resources within the City of Falls Church. It carries by far the largest daily pedestrian and bicycle volume in the City, approximately 1,2000 trips every day. It is a tremendous asset for the City since it runs throughout the City and connects parks, commerce, transit, and other amenities.

The Washington & Old Dominion Trail (W&OD) is a great 45-mile trail that begins in Shirlington and ends in Purcellville. It should be noted that the first segment of the W&OD Trail was opened in 1974 within the City of Falls Church. This portion was built as the result of a special agreement with the Virginia Electric Power Company under which the Northern Virginia Regional Park Authority (NVRPA) was allowed to judge whether a trail of this sort would prove to be popular. It did, and so after the property was purchased, the Trail was built in sections until its completion in 1988. A December 2004 study, *The W&OD Trail: An Assessment of User Demographics, Preferences, and Economics* illustrates the economic importance of the Trail. The report estimated 1.7 million adult W&OD users spend a total of about \$12 million annually related to their recreational use of the trail.

The CACT has researched the existing conditions of the trail, both inside and outside of the City, to identify deficiencies in the City's portion of the Trail and to understand how the Trail compares to other jurisdictions' portions. A slide show developed by CACT Chair Paul Baldino, illustrating the Trail's existing conditions, was presented to the Economic Development Authority (EDA) on July 3, 2012 and the City Council on January 14, 2013. The Environmental Services Council (ESC), the Village Preservation and Improvement Society (VPIS), NVRPA staff and attendees at a general public meeting also viewed this presentation. The slide show presents examples of how surrounding jurisdictions provide numerous amenities along their respective sections of the trail including dining options, signage to nearby attractions and in some cases, even lighting.

For more than a decade, the National Capitol Region Transportation Planning Board has supported Bike to Work Day in our region. Commuter Connections and the Washington Area Bicycle Association sponsor the event. This year, Bike to Work Day (BTWD) was held on May 17. Over 14,500 registered riders participated, many thousands more than

the few hundred that participated in the region's first Bike to Work Day in 2001. Virginia residents represented the largest share of registered riders with 6,328 participants. During the 2012 Bike to Work Day, City planning staff and members of the CACT distributed a survey to BTWD participants that stopped at the City-sponsored pit stop at the intersection of Grove Avenue and the W&OD. The survey was also distributed at the Pedestrian, Bicycle and Traffic Calming Plan public meeting on April 19, 2012. The survey encompassed issues of city residency, frequency of Trail use, locations visited within the City, and best ways to advertise nearby attractions. W&OD Trail users indicated in survey results that they would like to be directed to City businesses. In fact, a strong majority of the survey respondents indicated an interest for visiting City restaurants and shops while traveling along the Trail. Currently, the City of Falls Church portion of the Trail lacks the necessary signs to direct Trail users to these attractions. Both regular and less-frequent Trail users alike could be attracted to venues within the City by the provision of signs at various Trail crossings.

## **Comprehensive Plan Justification**

The Comprehensive Plan "is the City's official policy guide for shaping the future of Falls Church." The Plan provides ample justification for this project, including the following goals and strategies from the Transportation chapter:

- "Encourage the use of non-automotive modes of transportation within the City and to the region."
- "Improve pedestrian and bicycle safety throughout the City."
- "Establish a network of pedestrian and bicycle trails to link neighborhoods with services, shopping, parks, Metro stations, schools, and the City Center."

## **Implementation and Funding**

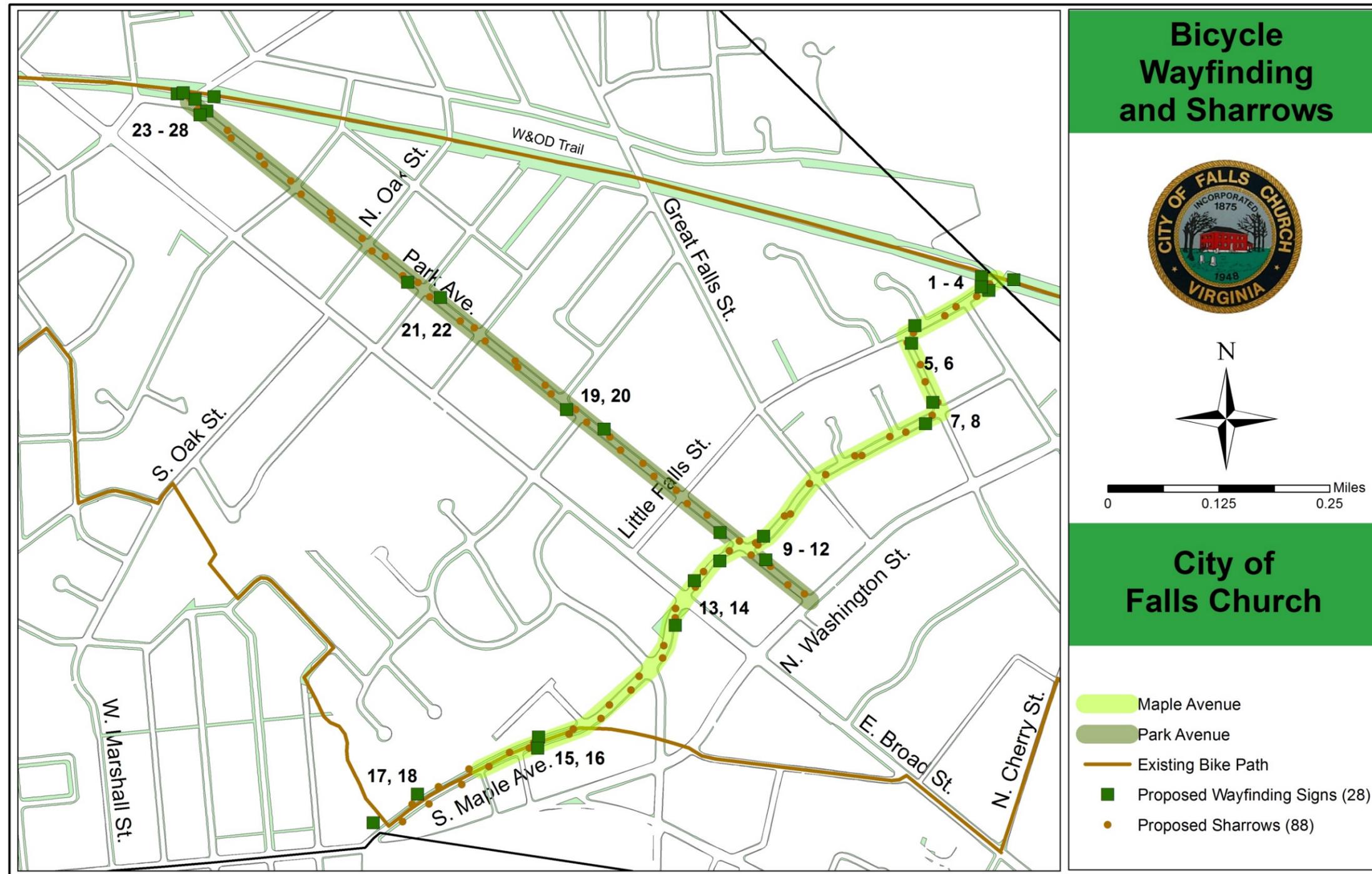
The sharrows and signs will be manufactured and installed by the City's Department of Public Works or its contractors.

The materials and installation are expected to cost \$16,000. The City's Economic Development Authority (EDA) agreed to fund the entire project, up to \$16,000.

The funding from the EDA is sufficient for purchase and installation of materials, but it will not cover maintenance. Roadway markings such as sharrows have a typical lifespan of three years. This means that beginning in 2016, the City will need to consider reapplying these sharrow markings. The time between installation and reapplication can serve as a test phase for the project, after which community support for the project can be reevaluated.

In some instances, the location of wayfinding signs may have to be adjusted from what is shown in Figure 4. Such adjustments will be made as needed to provide adequate pedestrian passage on sidewalks and to avoid conflicts with street traffic.

Figure 4: Bicycle Wayfinding and Sharrow Routes



## Appendix A – Wayfinding Signs

### Maple Avenue

<b>Sign</b>	<b>Destination 1</b>	<b>Destination 2</b>	<b>Destination 3</b>
1	Downtown Falls Church <i>Left 0.6</i>	Fairfax County <i>Forward 1.4</i>	
2	Downtown Falls Church <i>Right 0.6</i>	East Falls Church Metro <i>Forward 0.5</i>	
3	Fairfax County <i>Left 1.4</i>	East Falls Church Metro <i>Right 0.5</i>	
4	Downtown Falls Church <i>Forward 0.6</i>		
5	Downtown Falls Church <i>Left 0.5</i>		
6	W&OD Trail <i>Right 0.1</i>		
7	Downtown Falls Church <i>Right 0.4</i>		
8	W&OD Trail <i>Left 0.2</i>		
9	State Theatre <i>Left 0.1</i>	City Hall Campus <i>Right 0.1</i>	Falls Church Art Space <i>Forward 0.4</i>
10	State Theatre <i>Right 0.1</i>	City Hall Campus <i>Left 0.1</i>	W&OD Trail <i>Forward 0.5</i>
13	Falls Church Art Space <i>Forward 0.3</i>		
14	State Theatre <i>Forward 0.2</i>	City Hall Campus <i>Forward 0.2</i>	W&OD Trail <i>Forward 0.5</i>
15	Falls Church Art Space <i>Forward 0.1</i>	Cavalier Trail <i>Forward 0.2</i>	
16	State Theatre <i>Forward 0.4</i>	City Hall Campus <i>Forward 0.4</i>	W&OD Trail <i>Forward 0.8</i>
17	Cavalier Trail <i>Forward 0.0</i>		
18	Cavalier Trail <i>Right 0.0</i>		
18	Falls Church Art Space <i>Left 0.0</i>	State Theatre <i>Left 0.6</i>	City Hall Campus <i>Left 0.6</i>

## **Park Avenue**

11	City Hall Campus <i>Forward 0.1</i>	Falls Church Art Space <i>Left 0.4</i>	W&OD Trail <i>Right 0.5</i>
12	State Theatre <i>Forward 0.1</i>	Falls Church Art Space <i>Right 0.4</i>	W&OD Trail <i>Left 0.5</i>
19	W&OD Trail <i>Forward 0.6</i>		
20	State Theatre <i>Forward 0.3</i>	Falls Church Art Space <i>Forward 0.6</i>	W&OD Trail <i>Forward 0.7</i>
21	W&OD Trail <i>Forward 0.4</i>		
22	City Hall Campus <i>Forward 0.4</i>	State Theatre <i>Forward 0.6</i>	Falls Church Art Space <i>Forward 0.8</i>
23	W&OD Trail <i>Right 0.0</i>		
24	Downtown Falls Church <i>Forward 0.8</i>		
25	Fairfax County <i>Left 0.5</i>	East Falls Church Metro <i>Right 1.4</i>	
26	Downtown Falls Church <i>Left 0.8</i>		
27	Fairfax County <i>Forward 0.5</i>	Downtown Falls Church <i>Left 0.8</i>	
28	Downtown Falls Church <i>Right 0.8</i>	East Falls Church Metro <i>Forward 1.4</i>	

### Notes

1. The words *Right*, *Left*, and *Forward* in the above tables will be replaced with arrows on the actual signs.
2. Signs to the Tinner Hill Historic Site will be added when the project is completed
3. Signs to the Intermodal Plaza will be added when the project is completed.

## Appendix B – Wayfinding Sign Standards

Each wayfinding sign post will contain three sign types. In order from top of the pole to the bottom, the sign types will be as follows. Note that as many destination signs (D1-1C) will be used as needed. When multiple such signs are used, they will all be the same length. The wayfinding signs are further described in the Manual of Uniform Traffic Control Devices (MUTCD) and included in the Virginia Supplement to the MUTCD. The “The Little City” signs will match existing street signs in terms of color, shape, and size that direct motorists to automobile parking, except that the direction to automobile parking will not be included.



D11-1



D1-1c



## Appendix B – Sharrows Standards

Sharrows will be marked as follows. The sharrow marking is further described in the Manual of Uniform Traffic Control Devices (MUTCD) and included in the Virginia Supplement to the MUTCD

Figure 9C-9. Shared Lane Marking

