



ARLINGTON COUNTY, VIRGINIA

**County Board Agenda Item
Meeting of February 7, 2004**

REVISED REPORT

DATE: February 10, 2004

SUBJECT: Adoption of Proposed Zoning Ordinance, Master Transportation Plan – Part 1 and Bicycle Transportation Plan Amendments to:

- A) Amend Section 20 of the Zoning Ordinance to modify the Form Based Code Regulating Plan for properties located on both sides of Columbia Pike within the "Town Center" and "Village Center"; modify the Form Based Code Streetscape Standards; and to adopt the Columbia Pike Form Based for the Neighborhood Center and Western Gateway areas of Columbia Pike;
- B) Amend the Master Transportation Plan – Part 1 to add an addendum describing the vision for Columbia Pike and replace/modify several sections and references to Columbia Pike.
- C) Amend the Bicycle Transportation Plan to modify the language in Appendix E.

REVISION EXPLANATION: Minor revisions to the staff report text (pages 3, 5, 7, 8, 9, and 11) and corresponding changes to Attachment 3 were needed to accurately describe the street space and to clarify the information being discussed. Also, Attachment 2, which previously contained only the Streetscape Standards section of the Form Based Code, was replaced by the full Form Based Code document. Lastly, the County Board Resolution, found on pages 14 and 15 of the Staff Report, was revised and now includes a summary chart (page 15) that describes the two previous street space proposals and the Joint Task Force/ Staff Recommendation.

C. M. RECOMMENDATION:

- I. Accept the Columbia Pike Street Space Planning Task Force Report (Attachment 7); and

County Manager: _____

County Attorney: _____

Staff: Richard Tucker, DCPHD, Planning Division
Richard Hartman, DPW, Planning Division

PLA-3502 REVISED

- II. Adopt the attached Ordinance to amend, reenact and recodify Section 20 of the Zoning Ordinance to:
 - A. Modify the Form Based Code Regulating Plan for properties located on both sides of Columbia Pike within the "Town Center" and "Village Center" areas to show Required Building Lines at the outside edges of adopted street space widths; and
 - B. Modify the Form Based Code Streetscape Standards to incorporate the recommendations of the Columbia Pike Street Space Planning Task Force Report regarding on-street parking, paving, tree planting, and the placement of furniture and other fixtures along Columbia Pike (Attachment 2); and
 - C. Adopt the Columbia Pike Form Based Code, including the Regulating Plan, Required Building Lines, Streetscape and Architectural Standards for the Neighborhood Center and Western Gateway areas of Columbia Pike; which are located within the "Columbia Pike Special Revitalization District"; and
- III. Amend the Master Transportation Plan – Part 1 to:
 - A. Add an Addendum describing the vision for Columbia Pike street space (Attachment 3),
 - B. Replace the entire text for Columbia Pike on page 84 with "37. Columbia Pike: See Addendum" (Attachment 4),
 - C. Replace the graphic labeled "Figure 15 – Columbia Pike Street Cross Section" on page 85 (Attachment 5) with "See Addendum for discussion of Columbia Pike cross section",
 - D. Modify the language on page 104 to delete the references to Columbia Pike (Attachment 4), and
- IV. Amend the Bicycle Transportation Plan to modify the language in Appendix E, Bike Lanes and On-Street Routes, to include bicycle lanes in Item 3, Columbia Pike Bike Lanes and Routes (Attachment 6).

ISSUES: Incorporating 11-foot wide transit lanes and on-street bike lanes, where necessary, into the Task Force recommendations.

SUMMARY: The Columbia Pike Street Space Planning Task Force (the Task Force) was empanelled by the Arlington County Board to make recommendations about the width of Columbia Pike street space, from building face to building face, and the appropriate allocation of that space for pedestrian, bicycle, auto and transit uses anticipated in the future.

The general theme expressed in the planning of the revitalized Columbia Pike is that the character of the roadway must be changed to de-emphasize the existing high-speed movement by personal motorized vehicles and to develop a pedestrian-oriented, "main street" characterized by wider sidewalks, convenient and comfortable public transit service,

accommodating bicycle facilities, on-street parking opportunities, attractive street trees and streetscape and safe traffic movement. Specific objectives are to widen sidewalks and tree planting areas in part by removing excessive paved roadway, reduce travel speeds by motorized vehicles, enhance transit service and improve waiting areas and minimize crossing distances for pedestrians.

In general, the cross-sections for Columbia Pike are proposed to include wider sidewalks with planting strips along both sides for street trees, utilities such as street lights, a parallel-parking lane and bus stops. For example, a block might have a bus stop on one end that includes landscaping and street furniture, and then an alternative parking-and-tree pattern for the remainder of the block. So that parking and landscaping can be maximized, driveways are discouraged. Between the curbs, Columbia Pike is proposed for two travel lanes in each direction, plus a lane for left-turn storage at all locations where left turns are permitted. In places, a raised landscaped center median is included. A traffic circle or gateway feature is proposed at the west end, in the vicinity of South Jefferson Street.

The proposed amendments to Section 20 of the Zoning Ordinance, the Master Transportation Plan - Part 1, and the Bicycle Transportation Plan implement the changes to the policies for Columbia Pike by establishing the overall street space width (from building face to building face), proposed width of lanes, inclusion of on-street bicycle lanes, placement of street trees and on-street parking, sidewalk specifications, and guidance for placement of street furniture. The proposed amendments will set the vision for Columbia Pike and provide guidance for development of sites located along Columbia Pike.

In evaluating the recommendations of the Task Force, staff identified two areas for modification that are intended to be consistent with the Task Force 's overall vision for the Pike. The two modifications are for (a) 11-foot shared transit lanes, and (b) on-street bicycle lanes from Frederick Street to Quincy Street. These modifications can be achieved by expanding the overall street space by two feet on each side and by increasing sidewalks from generally 6 feet to 13 feet, rather than approximately 15 feet. By engineering the drainage at intersections to accept a one-foot rather than two-foot gutters, crossing distances would be limited to a maximum of 60 feet. These recommendations are summarized below.

1. Shared Transit Lanes

Existing Conditions	11-18 feet
Task Force Recommendation	10 feet
Staff Recommendation	11 feet

Currently, the shared transit lane (the outside lane in either direction) varies in width from 11 to 18 feet. According to American Association of State Highway Transportation Organizations (AASHTO) standards a travel lane which includes transit vehicles should be at least 12 feet in width and 14 feet is desirable. The Washington Metropolitan Area Transit Authority (WMATA) staff also recommends a minimum width of 12 feet. Given that buses or other large vehicles will need to pass each other along the Pike, the potential for accidents and congestion could

increase with 10-foot transit lanes. Staff recommends an 11-foot lane, to maintain a margin of operational safety while minimizing the overall vehicular road width.

2. Bicycle Lanes

Existing Conditions	No on-street lanes
Task Force Recommendation	Jefferson to Frederick, Courthouse to Joyce
Staff Recommendation	Jefferson to Quincy Wayne to Joyce
Joint Proposal (see below)	Jefferson to Highland* Wayne to Joyce

*** Except for Activity Centers**

Today, there are no on-street bike lanes on Columbia Pike and bicycle riders find it difficult to share the roadway with automobile traffic, which typically moves at a much higher rate of speed. The Task Force recommendations include bicycle lanes east of Courthouse Road and west of Frederick Street. However, an approximately 1-mile stretch of Columbia Pike between Frederick Street and the Town Center would not have on-street bicycle lanes. Parallel bicycle routes, along 9th and 12th Streets, although generally viable between Quincy and Barton Streets, are nonexistent through the Village and Neighborhood Center areas. Due to this lack of connectivity, staff recommends additional on-street bicycle lanes between Quincy and Frederick Streets. Extending the bicycle lanes in this area would provide access for bicyclists to the two activity nodes, the Arlington Mill Center, and the W. O. & D. and Four Mile Run Trails. At Quincy Street, bicyclists can choose to divert to parallel routes along 9th and 12th Streets or continue on in mixed traffic through the Town Center. It is anticipated that vehicle speed will be the lowest through this area in the future due to the close spacing of traffic signals, other street modifications, and the potential for significant private redevelopment.

Joint Proposal

In order to try to resolve these remaining issues, a meeting between staff and members of the Columbia Pike Street Space Planning Task Force (the Task Force) was held on January 4, 2004. As a result of the discussions held at that time, staff and the Task Force have jointly developed an alternate proposal that includes 11-foot shared transit lanes and incorporates on-street bicycle lanes, where needed, throughout Columbia Pike. The aim of the meeting was to include these important elements within the street space while minimizing the overall cross section and pedestrian crossing distances.

Under the joint proposal, on-street bicycle lanes will generally run the entire length of the Pike, except within three of the four activity centers. Within these three activity centers (Town Center, Village Center, Neighborhood Center), where substantial commercial redevelopment is anticipated, a “pedestrian zone” treatment will be implemented whereby paving and other design elements will be enhanced to signal to drivers that they are entering a high pedestrian activity area. The goal of implementing the pedestrian zones is to reinforce the goal of lower vehicle speeds. With lower vehicle speeds (less than 25 miles per hour) bicycle lanes become unnecessary.

The pedestrian zones within the activity centers are proposed as follows:

Town Center - Highland to Wayne Streets

Treatment: no bike lanes; special pavement treatment at Barton Street square

Village Center- Taylor to Quincy Street

Treatment: transit islands, bike lanes on uphill side only

Neighborhood Center - Dinwiddie to Wakefield Streets

Treatment: no bike lanes; special pavement treatment at Arlington Mill Community Center, and W.&O.D. and Four Mile Run Trails

Western Gateway at Greenbrier Street

Treatment: transit islands

As part of an implementation plan for the overall vision to be developed by staff, specific detail about paving materials and design elements will be spelled out. Staff will review and incorporate information from other known cases where enhanced pedestrian amenities have been constructed.

Between the three activity centers mentioned above and within the Western Gateway area (the fourth center), the joint proposal calls for on-street bicycle lanes except for certain downhill segments of the Pike, where topography makes it possible for bicycles move at a speed consistent with automobile traffic. The attached map, labeled February 4 Proposal, shows how the overall concept will be implemented with respect to bicycle access to the Pike. In addition to eliminating on-street bicycle lanes, where possible, staff will implement a “transit island” station design (shown on Drawing 9 of the Task Force Report) that pulls the transit station out toward the shared transit lane, putting the bicycle lane between the transit station and the sidewalk. This configuration reduces the pedestrian crossing distance and reduces conflict between transit vehicle operations and bicycles at stops.

Under the joint proposal, cartway widths will be as follows:

At Intersections

54' = No bike lanes either side (52' of lanes, 2' of gutter)

54' = No bike lane on one side opposing a transit island (52' of lane, 2' of gutter)

57' = Bike lane on one side opposing a transit island (52' of lane, 2' of gutter, 3' of bike lane)

60' = Bike lanes on opposing sides (52' of lane, 2' of gutter, 6' of bike lane)

Mid Block

56' = No bike lanes (52' of lane, 4' of gutter)

62' = Bike lanes on opposing sides (52' of lane, 4' of gutter, 6' of bike lane)

59' = Bike lanes on one side (52' of lane, 4' of gutter, 6' of bike lane)

BACKGROUND: In February 2003, the County adopted the Form Based Code for the Town Center and Village Center development nodes. However, the Form Based Code was not adopted for the Neighborhood Center and Western Gateway due to community concerns about the width of the Columbia Pike street space as defined by the Required Building Lines (RBLs) in the Form Based Code and the provision of amenities within that space, such as bicycle and transit facilities. A citizen task force was established by the County Board in April 2003 to formulate a vision that would balance pedestrian, bicycle, transit and auto needs and complement the ongoing commercial revitalization efforts. The Columbia Pike Street Space Planning Task Force held sixteen (16) meetings over the course of eight (8) months and solicited input from consultants and nationally known experts in the fields of pedestrian-oriented design, traffic engineering, and transit planning. The Task Force recommendations that accompany this report (Attachment 7) incorporate several key concepts that form the basis of their recommendations. The key concepts are:

1. Traffic speeds must be slower,
2. Pedestrian crossing distances must be kept to a minimum, and
3. Certain sidewalk design elements can contribute to a pedestrian-friendly environment.

DISCUSSION: Although there is broad agreement on the street space vision among the Task Force and staff, divergent opinions on certain elements within the cross sections, such as the width of shared transit lanes and placement of bike lanes, have ~~been~~ developed. The cross sections proposed by the Task Force include on-street bicycle lanes only in the far-east and far-west ends of the Pike. Additionally, the Task Force proposes shared transit lanes (the outside lane in either direction) that are 10 feet in width. The Task Force, in developing their street space recommendations, tried to minimize pedestrian crossing distances and reduce automobile speeds. Staff shares the vision for a more pedestrian friendly Columbia Pike, but recommend an 11-foot wide shared transit lane and including more extensive on-street bike lanes along the Pike. Inclusion of these elements does not negatively impact the vision, but does better promote multi-modal use of the street space; particularly for transit and bicycle users.

The 1997 Arlington County Pedestrian Transportation Plan recommends a maximum pedestrian crossing distance of 60 feet, without a pedestrian refuge. The cross sections recommended by the Task Force have a cartway (the area between the curbs) width between 54 and 60 feet depending on the location. In the view of the Task Force, minimizing lane width and excluding bike lanes through 3 of the 4 activity nodes along the Pike would adhere to this standard while reducing automobile speeds. Speed reduction would result from the perception of a narrow cartway width. The reduction of lane width to 10 feet will not, in and of itself, produce the level of speed reduction that is desired; however, the changes to the overall Columbia Pike environment, including the new private development that is envisioned, and the tree plantings, on-street parking, and the wide sidewalks will have a positive cumulative effect on reducing travel speeds. Working from the objectives established by the Task Force, staff proposes the 11-foot shared transit lanes and additional on-street bicycle lanes to ensure a safe, multi-modal street.

The following particular sections, reflecting the discussion held on February 4, 2004, are specified for each segment of Columbia Pike (the corresponding cross section, as developed by the Task Force, is shown in parenthesis):

Segment between the Fairfax County line and South Frederick Street: The street section recommended for the western end of Columbia Pike (Drawing 1 and 2 in Task Force Report), between the Fairfax County line and South Frederick Street, is proposed to be between 114' 8" and 121' 4" in width. The travelway width will be 62 feet (reduced to 60 feet at the crossings) incorporating one 10-foot wide and one 11-foot wide travel lane in each direction, a ten foot space for a median or left turn lanes at selected intersections, and two five-foot wide bicycle lanes that include gutter pans, consistent with AASHTO guidelines. The north side sidewalk will be eight feet wide adjacent to a 14' wide tree planting area adjacent to the curb that includes a double row of street trees between Greenbrier and Frederick Streets (Drawing 2). Between Jefferson Street and Greenbrier Street, the north side sidewalk will be 14' 8" wide adjacent to a 14' wide tree planting area that includes 7' wide parking nub-ins (Drawing 1). The south side sidewalk is planned to be 14' 8" wide with a 14' wide tree planting area that includes parking nub-ins from Jefferson Street to Frederick Street.

A traffic circle, possibly an un-signalized roundabout or gateway feature, is proposed for the Columbia Pike intersection with South Jefferson Street after further study. The traffic circle or roundabout would serve as a prominent gateway into Arlington County, help to control travel speed on Columbia Pike and could improve the safety of the large number of left turns that occur at the intersection.

Segment between South Frederick Street and South Highland Street: The recommended street design (Drawing A) calls for a distance of 102' between the required building lines (RBLs) through much of this portion of Columbia Pike, except for sections between South Columbus Street and South Wakefield Street and between South Taylor Street and South Quincy Street as described below. The street design has a 62-foot wide cartway (60 feet at the intersections) that includes one 10-foot wide and one 11-foot wide travel lane in each direction, a ten-foot wide area for a center median or left turn lane plus (2) 5-foot wide bike lanes (including 2-foot wide gutter pans that are reduced to one foot at the corner nubs). On-street parking would be provided where feasible, in seven-foot wide parking bays that are cut out of the street tree planting area. In addition to a seven-foot wide area for planting street trees (or locating parking) each side of the street includes a sidewalk of 13 feet in width.

Segment between South Taylor Street and South Quincy Street. The recommended street design calls for a distance of 99 feet between the required building lines. Bike lanes are provided on only one side of the street, on the north side between South Taylor and South George Mason and on the south side between South George Mason and Quincy. The street design has a 59-foot wide cartway that includes one 10-foot and one 11-foot travel lane in each direction, a 10-foot wide area for a center median or left turn lane, a five-foot bike lane including a two-foot gutter pan on one side, and a two-foot gutter pan on the other side. At intersections, the gutter pans would be reduced to one foot to provide a 57-foot crossing distance. On-street parking would be provided where feasible, in seven-foot wide parking bays that are cut out of the street tree planting area. In addition to a seven-foot wide area for

planting street trees (or locating parking), each side of the street includes a sidewalk of 13 feet in width. This cross section can be modified in the one-block area between South Quincy and South Randolph streets to reflect the parking and sidewalk elements preferred by the Task Force (shown in Drawing 4 of the Task Force report).

Segments between South Columbus Street and South Wakefield Street, between South Quincy Street and South Walter Reed Drive and between South Cleveland Street and South Wayne Street: The recommended street design that calls for a distance of 98'4" between the required building lines (RBLs). The street design has a 56-foot wide cartway that includes one 10-foot and one 11-foot wide travel lane in each direction, a ten-foot wide area for a center median or left turn lane plus two 2-foot wide gutter pans. At intersections, the gutter pans would be reduced to one (1) foot, to promote a 54-foot crossing distance. On-street parking would be provided where feasible, in seven-foot wide parking bays that are cut out of the street tree planting area. In addition to a seven-foot wide area for planting street trees (or locating parking) each side of the street includes a sidewalk of 13' 8" in width. Drawing 4 shows an alternate approach for a one 2-block segment of Columbia Pike between ~~Randolph~~ South Quincy Street and Oakland Street. For this segment, street trees are placed behind a continuous parking lane, sidewalks are reduced to 6 feet in width, and additional green space is specified for the area between the back of the sidewalk and the RBL.

Segment between Walter Reed Drive and South Cleveland Street: Within the heart of Town Center area, (Walter Reed Drive to South Cleveland Street) the desire to preserve the existing historic buildings places additional constraints upon the street space area. Within that section the recommended street cross section (Drawing 3) is 92 feet in width (measured between the RBLs). The cartway is planned to be 56 feet in width and is to include one 10-foot and one 11-foot wide travel lane in each direction, a 10-foot wide area for a median or left turn lane at selected intersections and four feet for gutters. At intersections, the gutter will be reduced to one foot to provide a 54-foot crossing distance. The sidewalks are planned to be 11 feet in width with a seven-foot wide tree planting / parking area between the sidewalk and the curb, where space allows.

Segment between South Wayne Street and South Joyce Street: The street section recommended for the eastern end of Columbia Pike (Drawing 5-10), between South Wayne Street and South Joyce Street, is generally between 92 and 115 feet in width. The variance in the street space is an acknowledgement that there are space limitations for certain stretches of Columbia Pike within this segment. The Task Force recommends and staff support a potential separate bike route between South Scott Street and South Orme Street that includes on-street, trail, and bridge segments that provide a bicycle/pedestrian alternative to the Columbia Pike / Washington Boulevard intersection. On-street bicycle lanes are also shown between South Wayne Street and South Joyce Street to provide a space in addition to the off-street trail.

The cartway width is recommended to incorporate one 10-foot and one 11-foot wide travel lane in each direction, a 17-foot wide landscaped median with a left turn lane pocket at specified intersections, four foot bicycle lanes and one foot gutters. The bicycle lanes conform to AASHTO recommendations. The north side sidewalk section is to be 23 feet

wide and includes a shared use trail and sidewalk that is 16-feet wide plus a seven foot wide tree planting section. The south side sidewalk section is 21-feet wide and includes a sidewalk of up to nine-feet in width plus two tree planting areas of seven-feet (adjacent to curb) and five-feet (at back of sidewalk) in dimension.

At the County Board work session January 13, 2004, County Board members requested that staff respond to the following questions and issues:

- **Are 10-foot transit lanes actually dangerous?** Traffic safety is relative. Conditions can be more or less safe, but there is not an exact point when a situation becomes “dangerous.” AASHTO recommends transit lanes be a minimum of 12 feet in width. Narrow lanes are likely to cause more fender-bender accidents when buses are forced to crowd the adjacent lane. While not necessarily life-threatening, these accidents cause disruptions and block traffic. When even a minor accident involves a transit bus, it will require an extensive response and investigation and will result in a major delay in transit service.
- **Are there other bus routes in Arlington with lanes 10 feet or less? Compare traffic with Columbia Pike.** Bus routes operate on a number of residential streets with narrow lanes, such as 32nd Street in Fairlington and 26th Street in Avalon Bay. Because traffic is low on these streets, buses operate in a yield situation with opposing traffic. This slows down bus operations, but is an acceptable compromise for providing service to the neighborhoods.

Examples of multi-lane arterial streets with bus routes and lanes 10 feet or less include sections of Wilson Boulevard between Clarendon and Ballston, Washington Boulevard near Lincoln Street, and George Mason Drive between Pershing Drive and Henderson Road. These street sections are only a few blocks long and have far fewer buses than Columbia Pike (three or four peak-hour buses in each direction for each of these streets, compared to as many as 26 buses per hour along Columbia Pike). These bus routes also have no express service or need for buses to pass one another. There is also a section of Columbia Pike east of Washington Boulevard with lanes less than 10 feet wide, but here the traffic volumes are less than to the west of Washington Boulevard (about 15,000 per day, compared to 30,000 to 40,000 per day). In this section of Columbia Pike, buses do not pass one another, and when a bus is in the curb lane the other lane is not usable by vehicles wider than about seven feet.

- **Get information from other “progressive” jurisdictions about their lane widths.** Staff has contacted some jurisdictions and also asked the consultant for the Arterial Transportation Management study for insight into lane widths accepted by other locations. While most state standards call for 12-foot lanes, several cities use 11-foot lanes. Seattle’s arterial standard is 11 feet for through lanes and 12 feet for the curb lane. Boulder’s standard is 11 feet, while the state standard is 12 feet. San Francisco does not have any standard but for new design tries to use the AASHTO guidelines, though on many older streets buses travel on narrower lanes. In Dallas, the state standard is 12 feet, but the city uses 11 feet as the standard for arterials. West Palm Beach has allowed 11 foot lanes on arterials and has worked with Florida DOT to build 11 foot lanes on U.S. Route 1.

- **How limiting would the 10-foot width be for future transit options?** The 10-foot width would severely limit the options that would be available for future rail or tram-type operation. WMATA staff has recommended a minimum lane width of 12 feet. The narrowest new light rail vehicle operating in the United States is the streetcar operating in Portland and Tacoma that has a body eight feet (96 inches) wide. It requires a minimum lane width of 10 ½ feet. Most new light-rail vehicles are eight to 10 inches wider than this, requiring a transitway width of nearly 12 feet. Also, the Portland streetcar was not built in the United States. It was installed without the aid of federal funding, thus avoiding federal purchase restrictions.
- **What would a 10 ½ foot transit lane do/not do?** Like the 10 foot width, it would restrict existing transit operations, limit future transit options, restrict through traffic and cause congestion on Columbia Pike. The 11-foot lane recommended by staff is already a compromise from the 12-foot lane width that is the AASHTO-recommended minimum for bus operations in mixed traffic and the 14-foot lane width that the AASHTO guidelines say is desirable.
- **What is the state of the art for transit vehicles? Where is the industry heading?** Most new transit buses (including Metrobuses) are 102 inches wide. With mirrors, the buses are about 10 ½ feet wide. The new light rail vehicles in most cities are 104 to 106 inches wide. With their “dynamic envelop” (because they twist and sway while in motion), these vehicles need a transitway of about 12 feet. Even the narrower Portland streetcar, which is 96 inches wide, requires a minimum lane width of 10 ½ feet.

While the future of vehicle design is unknown, the trend has been to larger vehicles, which provide more capacity and greater passenger comfort.

- **Evaluate the third option for on-street bike lanes (adding from Frederick to Quincy instead of Frederick to Highland).** While this option does not meet the goals of the Master Transportation Plan, which call for providing multimodal transportation options whenever possible on Arlington streets, it is an acceptable compromise and has been presented as the staff recommendation.
- **Investigate two-way bike lanes on the one-way block of 9th Street between Irving and Ivy.** This option will be investigated by staff. The neighborhood does not want two-way automobile traffic in this block. Two-way bicycle operation presents a number of issues that must be studied, including the existing street width and geometry through the curve, the operation of the bike lane with parking on both sides, the implications of removing parking, and any legal issues of allowing two-way bike traffic on a one-way street.
- **Study putting bike lanes on the side streets, not just designating bike “routes.”** Staff will also look into this suggestion. It will require surveying street widths, gathering traffic data, and determining possible lane segments of reasonable length. There is also the issue of whether bike lanes should be placed on residential streets in other areas of the County.

- **There should be continuity of bike lanes on the side streets as they leave Columbia Pike.** This is a good suggestion. It could be accomplished in a number of ways, including signage, pavement marking, and painting the bike lanes a different color.
- **Can the turn lanes on Columbia Pike be narrower than 10'? What would a nine-foot lane do/not do?** Ten-foot turn lanes are required to keep traffic moving satisfactorily. Delivery trucks, buses and other wide vehicles use the turn lanes at all intersections. When a large vehicle entered the turn lane, if the lane were too narrow, the back end would stick out into the adjacent lane, blocking traffic. In the turn lane, vehicles face opposing traffic with no shy zone. Lanes that are too narrow would compromise safety, resulting in more head-on collisions, which have a higher injury rate.
- **How do you get cars to go 20-25 MPH?** The Task Force has recommended a variety of measures that can be expected to slow traffic. However, achieving a reduction to below 25 mph in uncongested conditions may be difficult without rigorous enforcement. Some of the measures that can contribute to slower traffic include on-street parking, large trees near the travel lanes, and interesting building faces enclosing the street space. The presence of heavy pedestrian activity would also influence drivers to go more slowly. Reducing the width of travel lanes would seem to have more effect on occasionally bringing traffic to a halt (as large vehicles are unable to pass) than it would on routinely slowing traffic. A paper prepared for the Task Force by the Parsons Transportation Group stated, "There is no consensus in the literature on the relationship between lane width and speed. Some studies have shown speed reductions of as much as 3 mph for every foot of lane narrowing; other studies show a more slight speed reduction of about 1 mph per foot of lane narrowing or no significant effect at all."
- **What is the impact of the sidewalk that would be lost if the Staff recommendation were implemented rather than the Task Force recommendation?** Where the Staff recommendation adds bike lanes to the Task Force recommendation, the sidewalk width would be reduced by about two feet. The rest of the space needed for the bike lane is obtained by moving the Required Building Line back by about two feet. Even with the furniture zone and the shy zone next to the building face, the slightly narrower sidewalk would still meet the County standard of a six-foot clear area for medium density areas.

Proposed changes to the Zoning Ordinance, Master Transportation Plan – Part 1, and Bicycle Transportation Plan: In light of the vision for Columbia Pike, the Form Based Code (Section 20 of the Arlington County Zoning Ordinance) must be modified in several respects. First, the Required Building Lines (RBLs) that were adopted as part of the Form Based Code and shown on the Regulating Plan, need to be shifted to accommodate the width of street space ultimately approved by the County Board. The chart, on page 5-13, describes the proposed changes. Secondly, the Streetscape Standards section of the Form Based Code must be modified to incorporate recommendations regarding paving materials, tree plantings, and the placement of street furniture called for in the Task Force Report and recommended by staff. A reference to the Task Force recommendations, as appended to the Master Transportation Plan, will be included in the Streetscape Standards portion of the Form Based

Code, which will provide better guidance for future development. Attached to this report is the draft revised Streetscape Standards section that will be advertised.

The Task Force recommends that specific guidance be incorporated into the Form Based Code regarding street furniture and sidewalk paving materials. Staff will work on this issue and bring forth additional recommended changes, with specific street furniture and paving style requirements, in the near future. What has been added to the Streetscape Standards at this time is language requiring each developer to use consistent street furniture and paving materials within each project and activity node.

The current Master Transportation Plan provides some typical sections for major streets but does not show lane widths and other details of the street space. To document the work of the Columbia Pike Street Space Planning Task Force, an addendum to the Master Transportation Plan to describe the County's vision for Columbia Pike and show the detailed cross sections proposed for the various segments of the street is proposed.

The Bicycle Transportation Plan has been revised to include the CPI Plan recommendation to develop on-street bicycle routes along streets parallel to Columbia Pike. To further encourage bicycling in Arlington, an amendment to the Bicycle Transportation Plan is proposed that will include bicycle lanes for significant portions of Columbia Pike itself.

COMMUNITY PROCESS:

The Columbia Pike Street Space vision was developed over the course of 8 months by a citizen task force that met on a bi-monthly basis. In December 2003, the Task Force hosted a Community Update Forum for the purpose of informing the Columbia Pike community and to solicit input from them. The Task Force chair, Inta Malis, also attended several Civic Association meetings in neighborhoods adjoining Columbia Pike. In January 2004, informal updates were also given to the Planning and Transportation Commissions, as well as the Bicycle, Pedestrian, and Transit Advisory Committees. A County Board Work session was also held on January 13, 2004.

This matter was formally discussed at the Planning Commission meeting that was held on January 28, 2004. At that meeting, the Planning Commission voted to support the staff recommendations with the following comment as part of the motion:

- The Addendum to the Master Transportation Plan, Part I to be approved by the County Board should include, in addition to a verbal description of the vision, the specific cross sections being discussed and a Street Locator Map to clearly identify the County's intent for future development of the street space.

This matter was also discussed at a meeting of the Transportation Commission on January 29, 2004. The Transportation Commission voted in support of the Task Force recommendations, stating that staff had not provided sufficient evidence that 10-foot wide transit lanes were untenable and that "high speed" transit is incompatible with on-street bicycles lanes. The Transportation Commission, in a separate motion, also requested that an implementation plan be

developed by staff. The Bicycle Advisory Committee, which met on February 2, 2004, voted to support the staff recommendation.

* * *

AN ORDINANCE TO AMEND, REENACT AND RECODIFY THE ZONING ORDINANCE, SECTION 20. "CP-FBC" COLUMBIA PIKE FORM BASED CODE DISTRICT [APPENDIX A.], TO DEFINE DEVELOPMENT OPTIONS, INCLUDING ADOPTION OF THE FORM BASED CODE WITHIN "CP-FBC" DISTRICTS, AND TO INCORPORATE PERTINENT ELEMENTS OF THE COLUMBIA PIKE STREET SPACE PLANNING TASK FORCE RECOMMENDATIONS, WHICH WERE PRESENTED TO THE ARLINGTON COUNTY BOARD ON JANUARY 13, 2004.

BE IT ORDAINED, By the County Board of Arlington County, that Section 20., "CP-FBC" Columbia Pike Form Based Code District [Appendix A.] of the Zoning Ordinance, is amended, reenacted, and re-codified as follows to define permitted use in "CP-FBC" District; to provide an alternate means of by-right development that promotes mixed-use development and other commercial activity within commercial districts; to encourage economic development; by providing greater flexibility than other zoning districts; and for other reasons required by the public necessity, convenience and general welfare and good zoning practice.

* * *

1. Amend the Streetscape Standards as shown on Attachment 2.
2. Amend the Required Building Lines within the Columbia Pike Special Revitalization District to be set at the outside edges of the street widths in the following chart, with widths identified below centered on the center line of Columbia Pike: **(See Summary of Street Space Recommendations chart on following page 15).**
3. Adopt the Form Based Code (Attachment 2) as presented at the County Board's February 25, 2003 meeting, but with the RBLs identified in Summary of Street Space Recommendations, for the Neighborhood Center and Western Gateway activity nodes within the Columbia Pike Special Revitalization District.

Summary of Street Space Recommendations

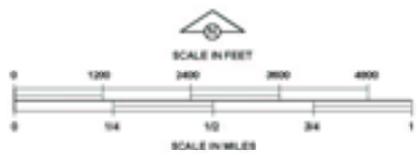
Street Segment	Adopted Street Space (RBLs) ^[2/03]	Task Force Recommendation		Staff Recommendation		Joint Task Force/Staff Recommendation		Existing SW Width
		Total Width (RBL)	SW Width	Total Width (RBL)	SW Width	Total Width (RBL)	SW Width	
Jefferson to Greenbrier	Western Gateway - N/A	119' 4"	14' 8"	119' 4"	14' 8"	121' 4"	14' 8"	6' and 6' 6"
Greenbrier to Frederick	N/A	112' 8"	14' 8" and 8'	114' 8"	14' 8" and 8'	114' 8"	14' 8"	8' and 4'
Frederick to Quincy*	Neigh. Center - NA Village Center - 97'	98' 4"	14' 8"	102'	13'	102' Frederick to Columbus 98' 4" Columbus to Wakefield 102' Wakefield to Taylor 99'** Taylor to Quincy	13' 13' 8" 13' 13'	5' and 11'
Quincy to Walter Reed*	Village Center - 97' Town Center - 97'	98' 4"	14' 8"	98' 4"	14' 2"	102'*** Quincy to Highland 98' 4" Highland to Walter Reed	13' 13' 8"	4' 6" to 5'
Walter Reed to Cleveland	Town Center - 92'	92'	12'	92'	11'	92'	11'	12' and 17'
Cleveland to Wayne	Town Center - 92'	98' 4"	14' 8"	98' 4"	14' 2"	98' 4"	13' 8"	13' and 6'
Wayne to Courthouse	Town Center - 92', 115'	103'	9' 6" and 10'	105'	9' 6" and 10'	105'	9' 6" and 10'	9' 6" and 10' 6"
Courthouse to Scott	N/A	113'	6' plus shared use path	115'	6' plus shared use path	115'	6' plus shared use path	(No data)
Scott to Quinn	N/A	91'	6'	93'	6'	93'	6'	5' and 5' 6"
Quinn to Orme	N/A	90'	4' and 7'	92'	4' and 7'	92'	4' and 7'	5' and 5' 6"
Orme to Joyce	N/A	113'	6' plus shared use path	115'	6' plus shared use path	115'	6' plus shared use path	(No data)

Bold = within Columbia Pike Special Revitalization District

*The Frederick to Quincy to Walter Reed Street segments are divided into sub-segments in the Joint Task Force/Staff Recommendation, based on specific recommendations of that proposal.

**In-Between Concept (Drawing 4 in Task Force Report) to be followed in segment between Oakland and Randolph Streets – additional space allocated to sidewalk/planting stip.

COLUMBIA PIKE General Land Use Plan



DCPND - Planning Research Analysis and Graphics Section

Legend

- Low Res. _____ 5-10 units/acre
- Low Res. _____ 11-15 units/acre
- Low Medium Res. _____ 16-36 units/acre
- Medium Res. _____ 37-72 units/acre
- High Medium Res. _____ 3.24 F.A.R. Residential
- High Res. _____ 4.8 F.A.R. Residential
3.8 F.A.R. Hotel
- High Office Office-Apt.-Hotel
- Service Commercial
- Public
- Semi-Public
- Government & Community Facilities
- General Land Use Plan Proposed Changes
- Special Revitalization District
- Open Space Symbol

Note: B. These areas were designated a "Special Revitalization District": Columbia Pike on 11/15/86 and amended on December 17, 2002; Lee Highway/Cherrydale area on 4/1/95.