

# Best Practices in Bicycle and Pedestrian Wayfinding in the Washington Region – Survey Results



Michael J. Farrell  
COG/TPB

# Background

- At the request of Jay Fisette, COG Chair, Bike/Ped Subcommittee agreed to compile a report on Best Practices in Pedestrian and Bicycle Wayfinding in the Washington Region
- Ten agencies have responded to a questionnaire

# Current Pedestrian Planning Activities

- WMATA Pedestrian and Bicycle Access Plan
  - Calls for signage that meets established standards and best practices
- DC Pedestrian Master Plan
  - Will create design guidelines
  - Draft available Fall 2007
- Alexandria Bicycle and Pedestrian Mobility Plan
  - Draft available Summer 2007

# Wayfinding Signs

- Bicycle
  - Region follows MUTCD
  - Evolving
- Pedestrian
  - No national standard
  - Different signs for different purposes
    - Maps (“you are here”)
    - Directional – similar to bike signs
    - Often have more detail – historic, etc.
- Issues
  - Sign Clutter
  - Size vs. Legibility
  - Persons with Disabilities
  - Public Reactions/Complaints

# Bicycle: International Best Practices\*



The Netherlands



Germany



United Kingdom

\*Grant M. Davis, Chicago DOT

# National Best Practices\*

Sign Type 1



Berkeley, CA



Chicago, IL



San Francisco, CA

\*Grant M. Davis, Chicago DOT

# Chicago Bike Route Signs\*



- **The Three D's**
  - Direction
  - Destination
  - Distance
- **Upgradeable & Expandable**

# Sign Placement\*



- Placed Every ¼ Mile
- Placed After Every Turn
- Placed After Every “Major” Signalized Intersection



- Placed at Intersecting Routes/Decision Points



# Changing MUTCD

- In January 2006 NCUTCD Bicycle Technical Committee Adopted New Recommendations for the MUTCD
- New Recommendations follow the Chicago system
  - Except allows multiple destinations on one sign
  - Gets rid of words “Bike Route” in favor of a bike symbol
  - All pertinent information on one panel
  - Less sign clutter, lower costs than current MUTCD at locations where multiple routes intersect
- Not yet part of MUTCD

# MUTCD System vs. Chicago System\*



\*Photos: Grant M. Davis, Chicago DOT

# Alexandria



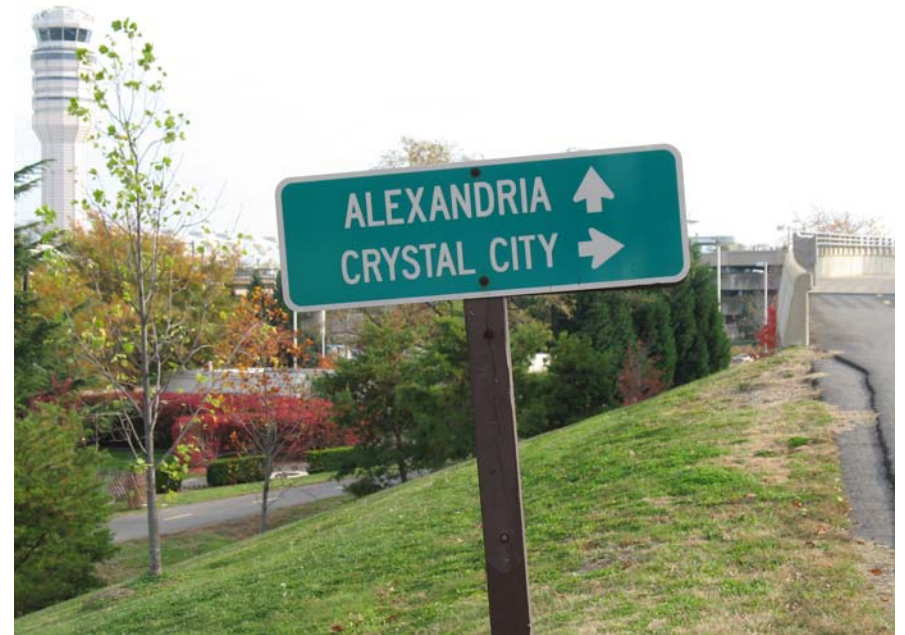
Alexandria is following the NCUTCD Recommendations



# Arlington



# Arlington – Mt Vernon Trail National Park Service



# District of Columbia



# District of Columbia



MUTCD

# Montgomery County



MUTCD



For Persons with Disabilities



# MDOT



Trail & Roadway Street Name Signs

# Alexandria Pedestrian Signs



# Alexandria – Thistle & Blue

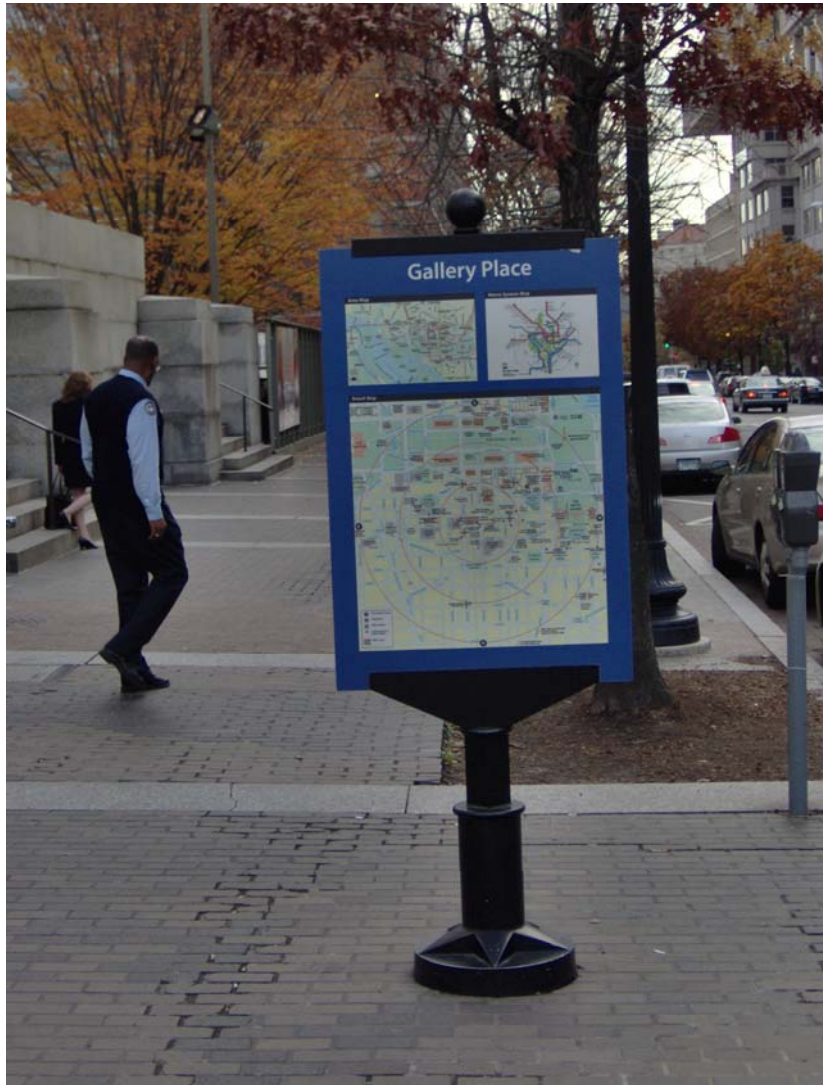


# Alexandria – Wayfinding Map





# District of Columbia Wayfinding Maps



# District of Columbia Directional Signs



# Survey – Bicycle Wayfinding & Signage

- Each Agency Asked:
  - Have a program Y/N?
  - Other agencies involved?
  - ID Guidelines & Examples Used
  - Provide photos & drawings
  - ID changed signs/standards
  - Scope
    - Existing & Planned Mileage of signed routes
  - Needs. How are locations ID'd?
  - Cost of installation
  - Maintenance
  - Staff – Number of FTE's employed to plan signed routes
  - Inter-jurisdictional Coordination
  - Long-distance routes
  - Comments



# Bicycle Results

- Ten Agencies Responded
  - Alexandria, Arlington, College Park, DDOT, Frederick County, Loudoun County, MDOT, Montgomery County, National Park Service, & VDOT
  - All but Loudoun County have some type of program
  - All agencies follow the current MUTCD & AASHTO, except
    - Alexandria, which is using the D1 and D11 which have been recommended by the NCUTCD Bicycle Technical Committee for inclusion in the MUTCD
    - National Park Service, which has its own sign design guide, the Uniguide Standards Manual

# Existing Signed Bicycle Route Mileage

	Alex.	Arlington	College Park	District of Columbia	Fred.	Loudoun	VDOT- NOVA
Existing On-Road	69	53	4	60	1	0	53

# Needs – Sign Location

- MUTCD calls for signs at decision points, and where routes change
- Locations may be identified in a Bicycle Master Plan
- “Wherever a user would benefit”
- Some jurisdictions provide signs with bike lanes automatically, others not

# Costs & Staffing

- Many agencies do not budget separately for bicycle signs
- Sign & Installation costs \$70-\$200
  - VDOT calculates sign cost at \$25/square foot, or \$125 per green directional sign
- No one tracks maintenance costs separately for bicycle signs; perceived maintenance cost is low
- DDOT estimates  $\frac{1}{4}$  FTE to plan its signed bicycle route network

# Interjurisdictional Coordination/Long Distance Routes

- All jurisdictions attempt to align their routes with routes in adjacent jurisdictions
  - Arlington lists destinations outside its boundaries
  - DC has changed on-road routes to line up with routes in adjoining jurisdictions
  - Highest priority is to align off-road routes
- Jurisdictions cooperate with organizations promoting long-distance routes
  - DC has signed the East Coast Greenway (ECG)
  - Alexandria and the National Park Service have agreements pending with ECG
  - MDOT has allowed its roads to be signed for the ECG
  - MDSHA also sits on a national committee to develop interstate bike routes
- MDSHA is developing a statewide signed bicycle route network

# Pedestrian Results

- Five of Ten Responding Agencies have a Pedestrian Wayfinding Program – Alexandria, Arlington, College Park, District of Columbia, and Montgomery County
- No uniform standards or guidelines for pedestrian signs
  - Alexandria has numerous signs, but nothing coordinated for off-street routes
  - Arlington does not have pedestrian wayfinding standards or guidelines
- No signed pedestrian routes except for multi-use paths such as the Mount Vernon Trail, and walking tour routes

# Changes in Signs/Standards

- Alexandria is planning a comprehensive wayfinding signage system
  - To replace existing “menagerie” of signs
  - To include Maps and Directional Signs
  - To match city identity & historic character
- Arlington will change the way its signs are constructed
  - Make it easier to add new information without replacing the whole sign
  - More durable
  - More current design aesthetic
- New DC Guideline
  - No more than three destinations per sign

# Needs – Picking Pedestrian Sign Locations

- Alexandria
  - Currently places signs near rail stations, and in tourist areas
  - A more systematic way of picking locations is under consideration
  - Sign type used (map/directional) will vary depending on the purpose
- Arlington
  - Near transit stations or major attractors such as shopping centers
  - Will try to become more systematic and comprehensive
  - Will include both maps and directional signage
- District of Columbia
  - Community requests
  - Level of Pedestrian Activity
  - Significance of the Destination
  - Absence of existing pedestrian signs
  - List of priority neighborhoods
  - Numerical scoring criteria for ranking destinations. High rank means:
    - More signs directing pedestrians to it
    - Signs farther away from the destination



# Costs & Staffing

- DC
  - \$3,100 to \$6,500 per sign
  - Heritage Trail signs cost between \$4,000 and \$7,000
  - Contractor must provide spare parts equal to 5% of deliverables
- Arlington estimates staff time needed to plan a more comprehensive set of pedestrian signs at about 1/8 of an FTE

# Interjurisdictional Coordination

- Very limited
  - Only long-distance routes are multi-use paths, which also serve bicyclists.
  - No coordination on types of signage used.
- Arlington and DC will sometimes list a destination outside their borders on a pedestrian sign, if it is close to the border.
  - Example: Signs on the DC side of Southern Avenue direct pedestrians to the East Capitol Metro Station, on the Maryland side of the street.

# Conclusions – Bicycle Signage & Wayfinding

- MUTCD provides the standard for on-road bicycle signage
- TPB member jurisdictions are engaged in the process of informing the MUTCD
  - Michael Jackson, the Maryland Bicycle and Pedestrian Coordinator, participates in the NCUTCD Technical Subcommittee
- Interjurisdictional coordination in the setting of bicycle routes and long-distance routes is good

# Conclusions – Pedestrian Signage & Wayfinding

- Little coordination of pedestrian routes, but little apparent need
- Some of our jurisdictions seem to be facing similar challenges
  - Need to develop more systematic guidelines for designing and placing pedestrian wayfinding signs
  - However, each jurisdiction is different, and has its own reasons and priorities for putting in signs
- Feedback from bike/ped subcommittee so far is that regional guidelines for pedestrian wayfinding are not necessary

# Possible Actions

- Better documentation of current efforts as they develop (WMATA, Alexandria, Arlington, DC)
- Educational/Training Event
  - “Best Practices in Pedestrian Wayfinding”
  - Invite speakers from within & outside the region
  - Discuss advantages/disadvantages of regional guidelines for pedestrian wayfinding