Union Street Corridor Study
Public Meeting
September 19, 2012
Agenda

• Overview of Project and Planning Process
• Site-Specific Improvement Recommendations
• Corridor Alternatives
• Phasing Considerations and Approach
• Next Steps
Project Goals and Challenges

• Evaluate existing conditions along Union Street for all modes.
• Identify specific strategies to ensure that Union Street fosters connections.
• Balance the needs of all modes and follow Complete Streets design principles.
• Enhance safety for all modes.
Data Driven Process

- Field Assessments
- Traffic Counts (all modes)
- Parking
- Overnight Parking
- Delivery Truck Activity
- Motorcoach Activity
- Crash Data
EXISTING CONDITIONS

DATA COLLECTION & OBSERVATIONS

VOLUMES ALONG CORRIDOR (not to scale)

SATURDAY VOLUMES ON UNION (between Prince & King Streets)

Existing Cross Section

Speeds & Users on Royal vs Union

Union Street Corridor Study
City of Alexandria, Virginia
Stakeholder Engagement

- Waterfront Commission
- Intercept Surveys
- Stakeholder Interviews
  - ACVA
  - Police Department
  - Union Street Public House
  - Bicycle and Pedestrian Advisory Committee
  - Potomac Riverboat Company
  - Old Town Civic Association
- Ongoing City Staff Engagement
# Project Schedule

<table>
<thead>
<tr>
<th>TASK</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUG</th>
<th>SEPT</th>
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Site-specific Improvements

- Mt. Vernon Trail Connection
- King Street & Union Street/Union Block of King Street
- Windmill Hill Park
Site-specific Improvement
Mt. Vernon Trail Connection - Issues

- Mt. Vernon Trail connection to Pendleton Street
- Connecting parks
- Crossing train tracks
- Pedestrian crossing where Union Street and Pendleton intersect
Site-specific Improvement
Mt. Vernon Trail Connection

Short-Term Improvement
Site-specific Improvement
Mt. Vernon Trail Connection

Mid-Term Improvement
Site-specific Improvement
Mt. Vernon Trail Connection

Short-Term Improvement
Site-specific Improvement
Mt. Vernon Trail Connection

Mid-Term Improvement
Site-specific Improvement
Union & King Street - Issues

- Pedestrian crowding on corners and sidewalk
- Pedestrians concerned with being hit by a motorist or bicycle
- Bicyclists compliance with stop sign
- Motorists wait time and frustration
Site-specific Improvement
Unit Block of King Street - Background

Waterfront Plan recommended:

- Making the unit block of Unit Street a “pedestrian hub”.
- Limiting motor access
- Creating more space for pedestrians to congregate.
Site-specific Improvement
King & Union/Unit Block of King Street

- Improved Crosswalks
- Pilot Pedestrian Space: Maintains access for one-way traffic and more seating & gathering space
- Pilot Left-Turn Restrictions
- Bike corral for more bike parking
Site-specific Improvement
King & Union/Unit Block of King Street
Site-specific Improvement
Windmill Hill Park

• Higher speeds between Wolfe Street and Gibbon Street
• Bicycles entering and exiting via Wilkes Street tunnel
• Desire to connect both sides of Windmill Hill Park
• Build on work done in Windmill Hill Park Concept Plan (2003)
SITE-SPECIFIC IMPROVEMENTS: WINDMILL HILL PARK

OPTION 1: RAISED CROSSWALK

OPTION 1A: CENTER MEDIAN

SITE ISSUES
- Cars speeding between Wolfe Street and Gibbon Street
- Bicycles entering and exiting via Wilkes Street Trail
- Desire to connect both sides of Windmill Hill Park
- Desire to build on work done in Windmill Hill Park Concept Plan (2003)
- All improvements to be coordinated with future bulkhead and park design

OPTION 2: CHICANE
Site-specific Improvement
Windmill Hill Park
Framework for Corridor Alternatives Development

- Limited roadway width
- Serve all users
- Unique solutions for different areas
- Respect historic character of Union Street
- Need to define Union Street as a pedestrian and bicycle priority street
Union Street Today
Multi-Modal Volumes

Time of Day on Saturday

# per hour
Union Street Today
Multi-Modal Volumes

PENDLETON to CAMERON

CAMERON to DUKE

DUKE to FRANKLIN

consistent throughout week

busiest on Saturday

consistent throughout week
Union Street Today

From building face to building face....

- 8 feet sidewalk
- 7 feet parking
- 26 feet cars and bikes
- 8 feet sidewalk
Union Street Today

How much space do pedestrians have?

Full sidewalk = 8 feet
Effective sidewalk = 4 ft
How is Union Street distributed today?

By volume...
55% pedestrians
45% cars and bikes

By space...
25% for pedestrians
75% for cars and bikes
CORRIDOR ALTERNATIVES

ALTERNATIVE 1: No Change
ALTERNATIVE 2: Narrow Lanes & Move Tree Boxes
ALTERNATIVE 3: Shared Street
ALTERNATIVE 4: Remove Parking

EXISTING SPACE ALLOCATION FOR USER GROUPS

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Cars</td>
<td>25%</td>
</tr>
<tr>
<td>Bicycles</td>
<td>75%</td>
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<tr>
<td>Pedestrians</td>
<td>45%</td>
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POTENTIAL SPACE ALLOCATION FOR USER GROUPS

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EXISTING USER VOLUMES

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PROS & CONS

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Pros</th>
<th>Cons</th>
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<tbody>
<tr>
<td>No Change</td>
<td>+ No cost</td>
<td>- No improvements for pedestrians or bicycles</td>
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<tr>
<td>Narrow Lanes</td>
<td>+ More pedestrian space</td>
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<tr>
<td></td>
<td>+ Traffic-calming effect</td>
<td></td>
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<td></td>
<td>+ Better tree conditions</td>
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<td></td>
<td>+ Some parking lost</td>
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<tr>
<td></td>
<td>+ Narrower travel lanes</td>
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<tr>
<td>Shared Street</td>
<td>+ Balanced use of street</td>
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<td></td>
<td>+ More civic interaction</td>
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<td></td>
<td>+ Potential confusion with right-of-way</td>
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<tr>
<td></td>
<td>+ Some parking lost</td>
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<tr>
<td></td>
<td>+ Motorists may divert route</td>
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<tr>
<td>Remove Parking</td>
<td>+ Maintains lane widths</td>
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<tr>
<td></td>
<td>+ No parking</td>
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<td></td>
<td>+ Reduced buffer between sidewalk and travel lane</td>
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<td>+ May encourage speeding</td>
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Other?_________________________ Other?_________________________ Other?_________________________
Corridor Alternative #1

Keep Existing Layout

8’ sidewalk
(4’ effective)

7’ parking

26’ cars & bikes

8’ sidewalk
(4’ effective)
Corridor Alternative #2

Narrow Lanes & Move Tree Boxes

- 10’ Sidewalk (8’ effective)
- 7’ Parking & tree boxes
- 22’ Cars & bikes
- 10’ Sidewalk (6’ effective)
Corridor Alternative #2

Narrow Lanes & Move Tree Boxes*

*Trees to be removed and replaced with new trees
Corridor Alternative #2

Narrow Lanes & Move Tree Boxes
Corridor Alternative #3

Shared Street

10’ sidewalk (8’ effective)
7’ parking & tree boxes
22’ shared space*
10’ sidewalk (6’ effective)

*sidewalk and roadway at same level
Corridor Alternative #3
Benefits of a Shared Street

• Reduces travel speeds for cars & bicycles
• More efficient/balanced: functions differently with different user volumes
• More social activities & civic interaction
• Safety improvements
Corridor Alternative #3

Shared Street Example

• Harvard Square in Cambridge, MA

• Historic area, narrow sidewalks & streets, high pedestrian volume
Corridor Alternative #3

Shared Street Example:
Ellsworth Street in Silver Spring, MD
Corridor Alternative #3

Shared Street Example:
• Vordingburg, Denmark 1990-92
• 4,000 veh/day

Union Street, ~4,100 veh/day
Corridor Alternative #4

Remove Parking

11.5’ sidewalk (7.5’ effective)

26’ cars & bikes

11.5’ sidewalk (7.5’ effective)
Corridor Alternative #4

keep existing trees

OR

move tree boxes out
Flexible Parking

- Reclaims pavement for public space and more active uses
- Possible to pilot alternate uses of parking spaces
- Potential for keeping parking part-time

San Francisco Examples
Flexible Parking

Mountain View, CA Example
LONG-TERM CORRIDOR OPTIONS

OPTION 1
1. Keep Existing
2. Narrow Lanes
   Widen Sidewalks
   Move Tree Boxes into Parking Lane

OPTION 2
1. Keep Existing
2. Remove Parking
   Widen Sidewalk
   Move Tree Boxes

OPTION 3
1. Keep Existing
2. Shared Street

CONSISTENT ELEMENTS
- Enhance pedestrian accommodations
- Implement traffic calming
- Allow delivery truck loading/unloading
- Allow car, trolley, & motorcoach access
- Replace & relocate trees
- Implement a change in the core
- Facilitate changes at the intersection of King & Union
- Facilitate spot improvements
- Do not provide dedicated bike facilities
- Accommodate bike parking
- Accommodate turn restrictions

Tree boxes in parking lane
Wider sidewalks on King Street
Delivery trucks loading & unloading on Union Street

Union Street Corridor Study
City of Alexandria, Virginia
SHORT-TERM IMPROVEMENTS

Mount Vernon Trail connection (see board)
- Improve walking on east-side of Union
- Improve trail connection

Transition between Bike Lane & Shared-Lane Marking

Intersection of King & Union Streets (see board)
- Improve pedestrian priority

Pilot Part-Time Parking
- Test part-time parking restrictions that allow pedestrians to walk in parking lane or provide space for dining or gathering

Windmill Hill Park (see board)
- Improve Wilkes Street Trail crossing
- Improve intersection of Gibbon & Union Streets

@ Various Locations:
- Increase Traffic Enforcement
- Add Bike Parking
Next Steps

• Final Waterfront Commission Meeting (September 27, 2012)
  • Selection of preferred alternatives
• Planning Commission
• Transportation Commission
• City Council
• Final Plan Development