ARLANDRIA STUDY

Intersections of Mount Vernon Avenue
with W. Glebe Road and with W. Reed Avenue

Presented by:
Kimley-Horn and Associates, Inc.
Study Context

• Workgroup convened in 2002
• Arlandria Plan adopted in May 2003
• Activities since Plan adoption
• City added implementation of Plan to Work Program in June 2009
• Advisory Group formation in Fall 2009
Study Purpose

• Improve safety for all transportation modes
• Develop near- and long-term transportation improvements
• Provide Arlandria property owners and developers with a guide for future redevelopment
Study Area

- Focused area within the Arlandria neighborhood
- Intersections of:
  - Mount Vernon Avenue & West Glebe Road
  - Mount Vernon Avenue & West Reed Avenue
Stakeholder Meeting

• March 25, 2009 at the Tenants and Workers United Building

• Input from property owners and neighbors
  – Transportation concerns/issues
  – Redevelopment plans
  – Site circulation and access

• Similar feedback to 2003 plan
Crash History

• 5 years of crash data
• Mount Vernon Avenue and West Glebe Road
  – 5 crashes total
  – 3 involving pedestrians
• Mount Vernon Avenue and West Reed Avenue
  – 24 crashes total
  – 4 involving pedestrians or bikes
Mount Vernon Avenue/West Glebe Road

• Existing Conditions
  – Skewed geometry
  – Pedestrian push button locations
  – 27 driveways within 500 feet of intersection
  – Inconvenient crosswalks
  – No bicycle amenities
  – Limited transit amenities
  – Development pattern
Mount Vernon Avenue/West Reed Avenue

- Existing Conditions
  - No crosswalks across Mount Vernon Avenue
  - Driveways do not align with West Reed Avenue
  - Wide travel lanes on Mount Vernon Avenue
  - Number of crashes
  - No transit amenities
  - No bicycle amenities
  - Development pattern
Concepts – Guiding Principles

• Resolve existing issues
• Build upon recommendations from the Arlandria Neighborhood plan
• Consistent with the vision for long-term improvements
  – Arlandria gateway
  – Multimodal transportation accommodation
• Provide short-term improvements supportive of the long-term vision
Constraints

• Right-of-way
• Existing development access (driveways)
• Circulation on private property
• Ability to implement
• Cost
Mount Vernon Avenue/West Glebe Road

- Concept 1 – Roundabout
- Concept 2 – Intersection Realignment
- Concept 3 – Offset Intersections
- Concept 4 – Preferred Concept
Concept 1: Roundabout

Pros
- Promotes steady traffic flow
- Manages traffic speed
- Shorter crossing distances for pedestrians
- Provides a gateway

Cons
- Considerable right-of-way impact
- Difficult to implement
- Requires realignment of either W. Glebe Rd. or Mt. Vernon Ave.
- Would require driveway closures
- Turning difficulties for truck traffic
- Intersection spacing with W. Reed Avenue
- Cost
- No dedicated pedestrian crossing signals
Concept 2: Intersection Realignment

Pros
- Reduces/removes skewed geometry
- Reduces pedestrian crossing distances
- Maintains signalized condition
- Improves turning conditions for large vehicles

Cons
- Significant right-of-way impacts
- Difficult to implement
- Challenging to phase improvements with redevelopment phases
- Cost
Concept 3: Offset Intersections

Pros
• Creates gateway/destination
• Reduces pedestrian crossing distances
• Creates two, relatively simple T-intersections

Cons
• Difficult to implement
• Significant right-of-way impacts
• Interrupts continuity of Mount Vernon Avenue
• Increases the number of intersections
• Increases traffic on W. Glebe Road
• Redevelopment would have to occur in a coordinated manner
• Adds a new traffic signal
• Cost
Preferred Concept
Mount Vernon Avenue/West Glebe Road

Example of turn treatment in Bethesda
Preferred Concept
Bethesda Example
Preferred Concept
Intersection of Mount Vernon Avenue and West Glebe Road

• Pros
  – Can be implemented without redevelopment
  – No additional right-of-way needed
  – Reduces pedestrian crossing distances
  – No impacts to existing driveways
  – Easier northbound and southbound right-turns
  – “Tightens” intersection geometry
  – Lower construction cost than other concepts
  – Multimodal solution

• Cons
  – Requires traffic signal modifications
  – Retains skewed intersection geometry
Mount Vernon Avenue/West Reed Avenue

- Signalization
- Roundabout
- Driveway closure(s)
- Traffic calming measures
Mount Vernon Avenue/West Reed Avenue

Pros
• Consistent with small area plan
• Creates a traditional four approach intersection
• Provides crosswalk across Mount Vernon Avenue
• Minimizes pedestrian crossing distance
• Driveway consolidation
• Improved transit access
• Opportunity to add bus stop amenities

Cons
• Wachovia site parking lot modifications

Preferred Concept
Next Steps

- Consensus
- Prepare engineering plans
- Construction
Questions?
Thank you!