

# Preliminary Transportation Recommendations for the Wheaton Sector Plan

Presentation to Sector Plan Work Group/WRAC

October 5, 2009



## **Wheaton Presentation Topics**

- Where we are: Opportunities for improvement, What We Have Heard
- Where do we want to be: Vision
- How do we get there: Network, Model, Policies, Street Design

# Wheaton Transportation Cues

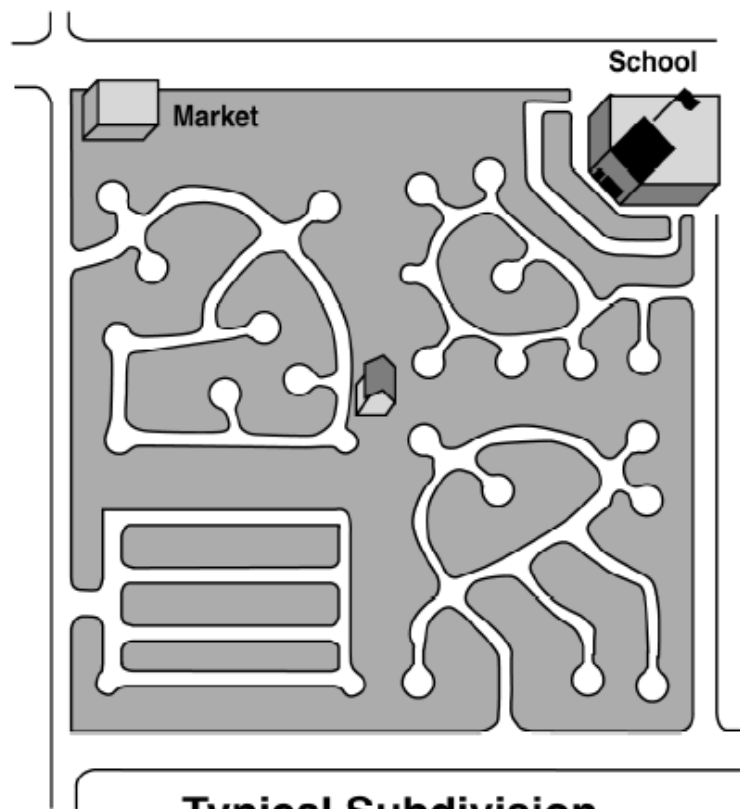




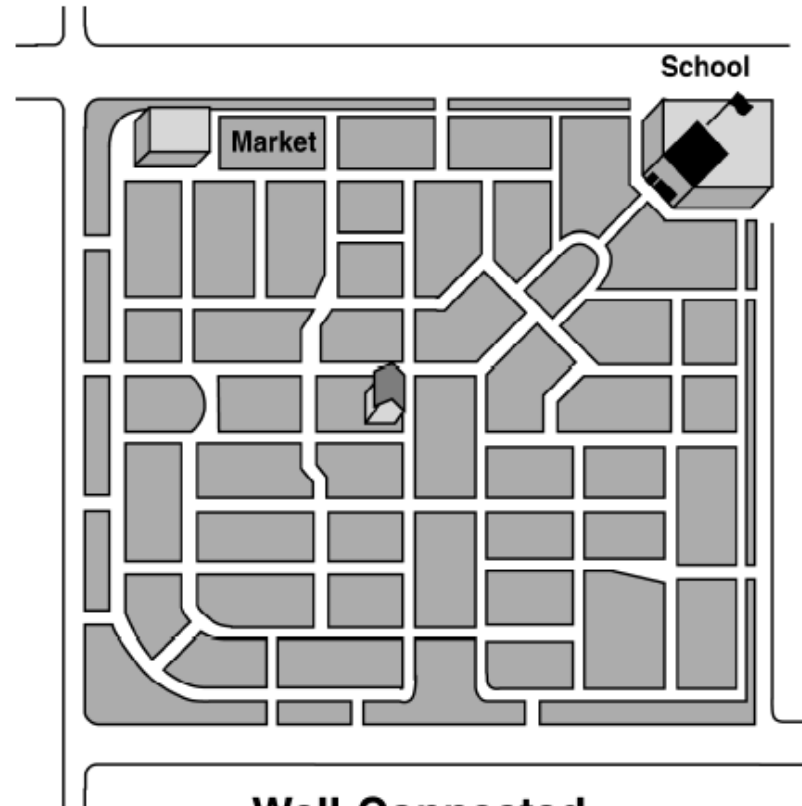
# Wheaton Transportation Vision



## Wheaton Connectivity



**Typical Subdivision  
Cul-de-Sacs**



**Well-Connected  
Street Network**



## Wheaton Connectivity



163 Intersections  
214 Street Segments

Connectivity Index =  $214/163 = 1.3$



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214 Street Segments

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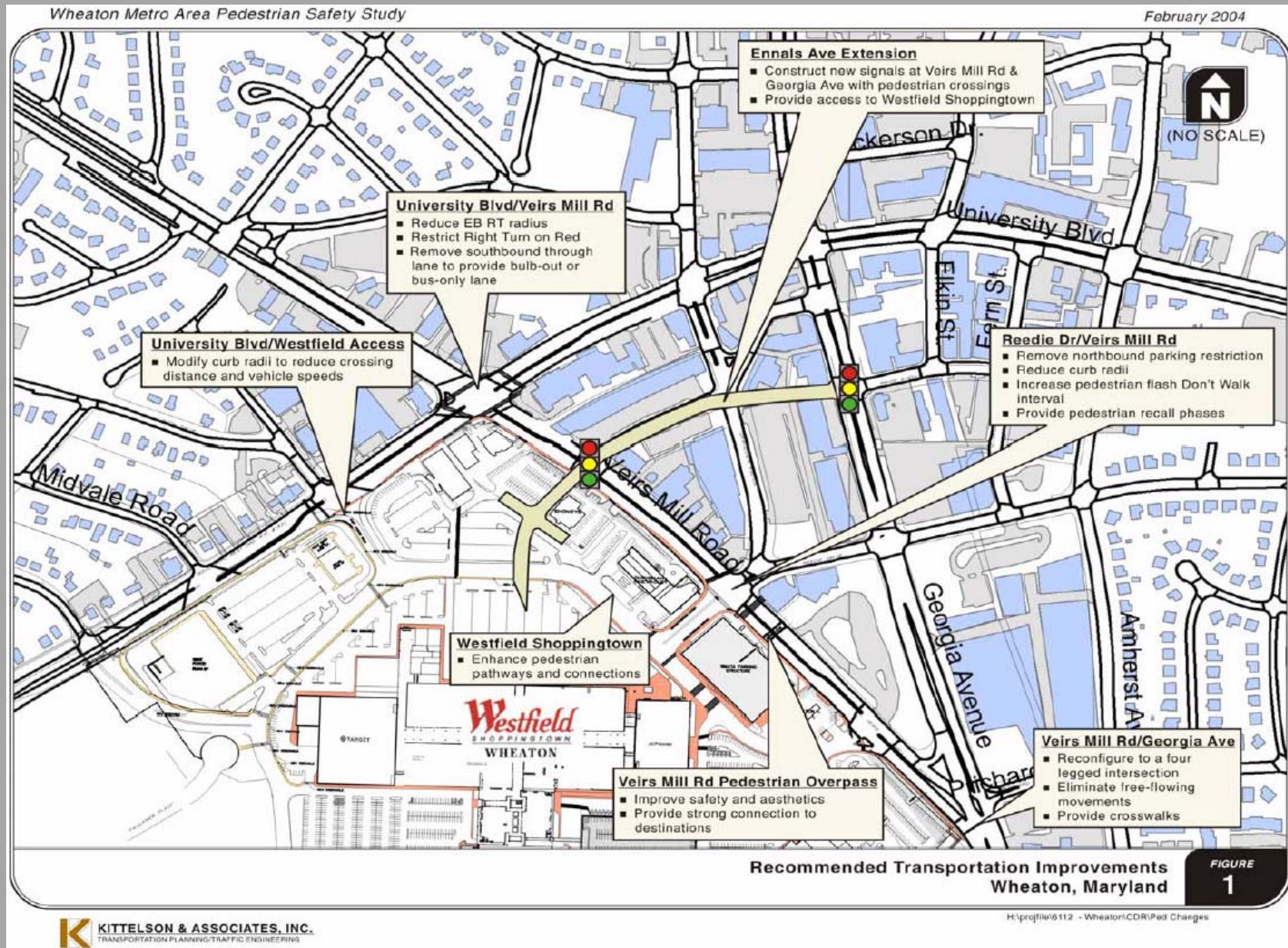


102 Intersections  
143 Street Segments

Connectivity Index =  $143/102 = 1.4$

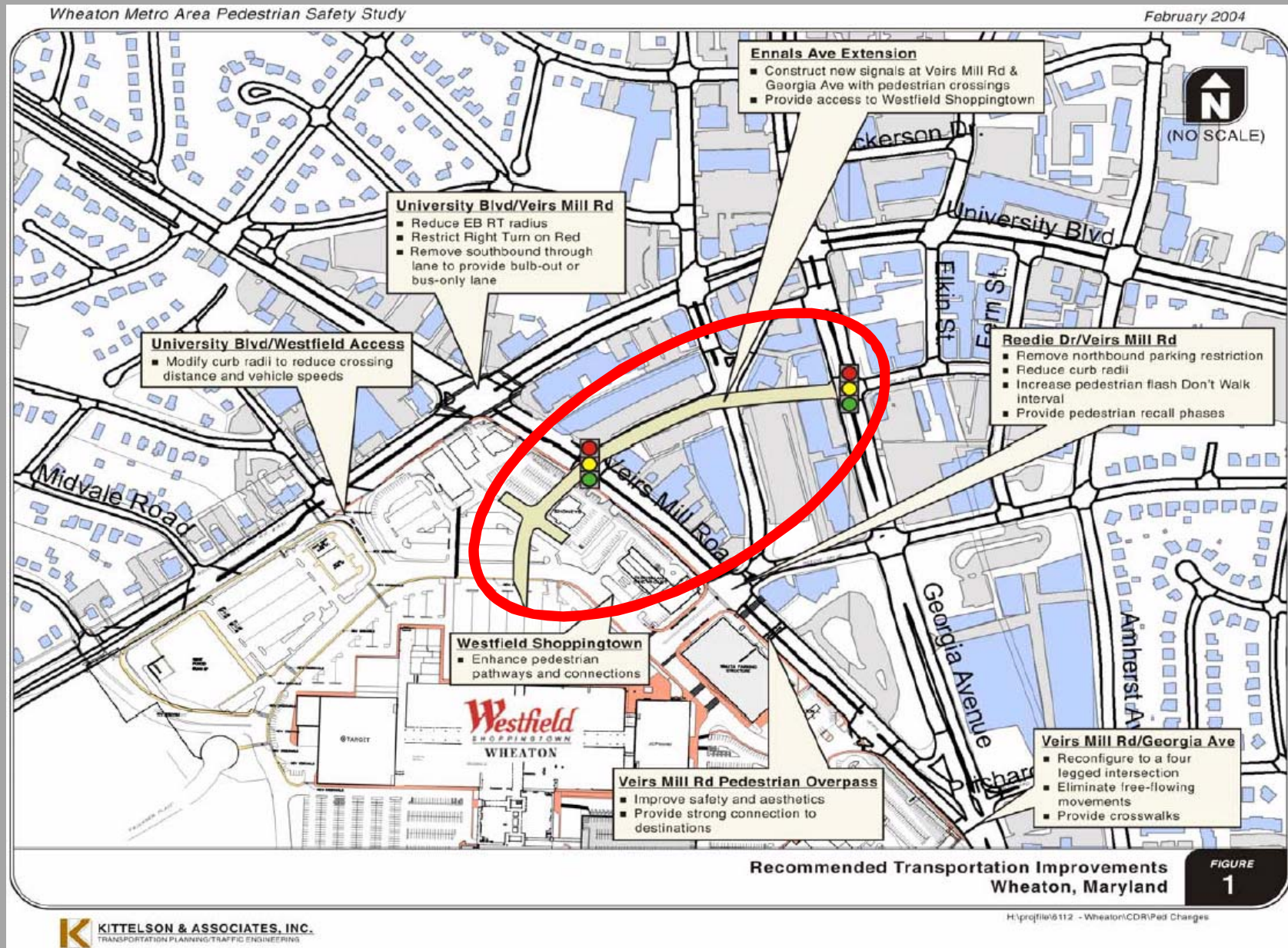


# Wheaton Kittelson Connectivity Concepts





# Wheaton Kittelson Connectivity Concepts





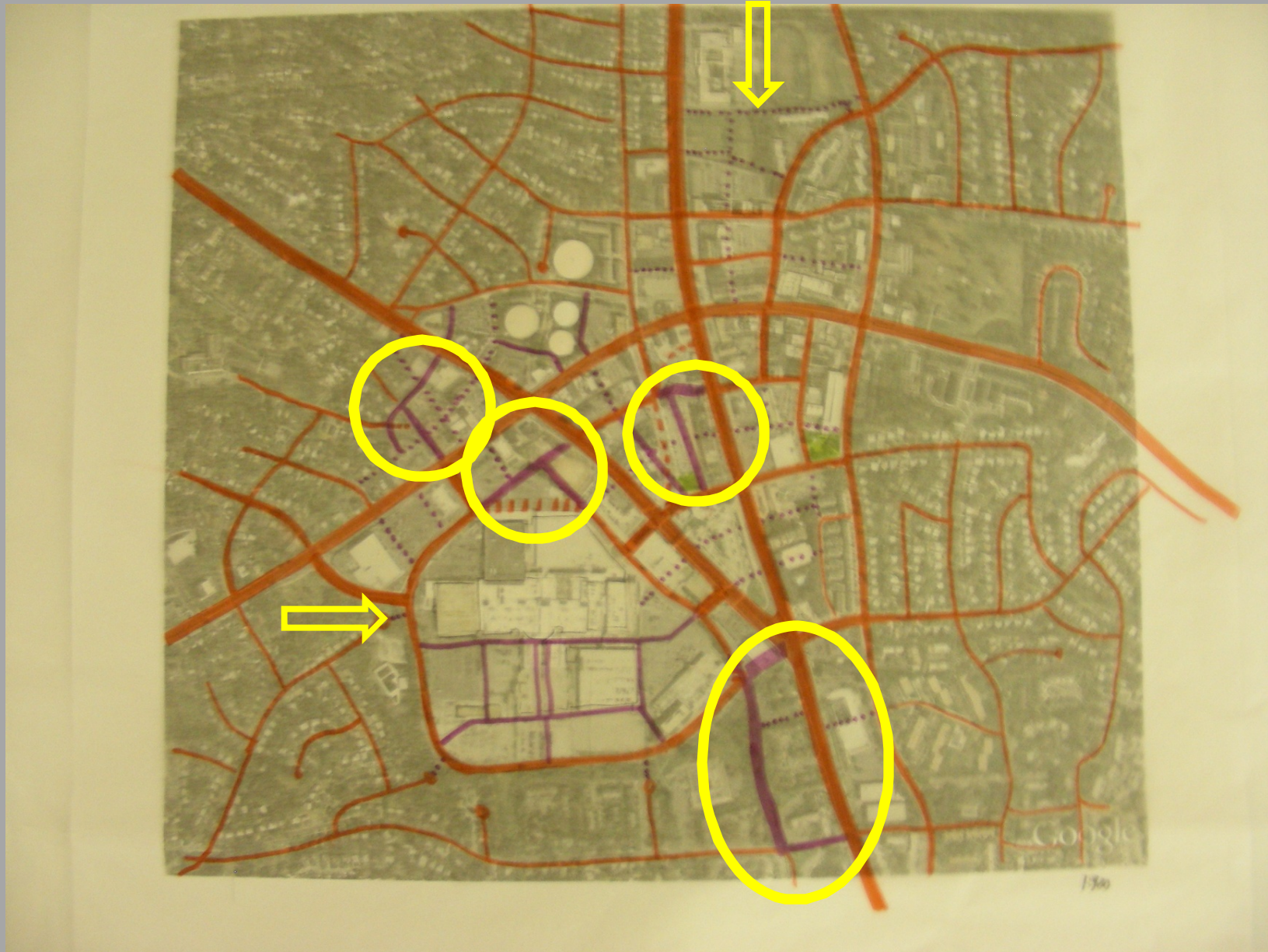
## Wheaton ULI TAP Connectivity Concepts



Source: Wheaton ULI TAP, Preliminary Findings, September 2009

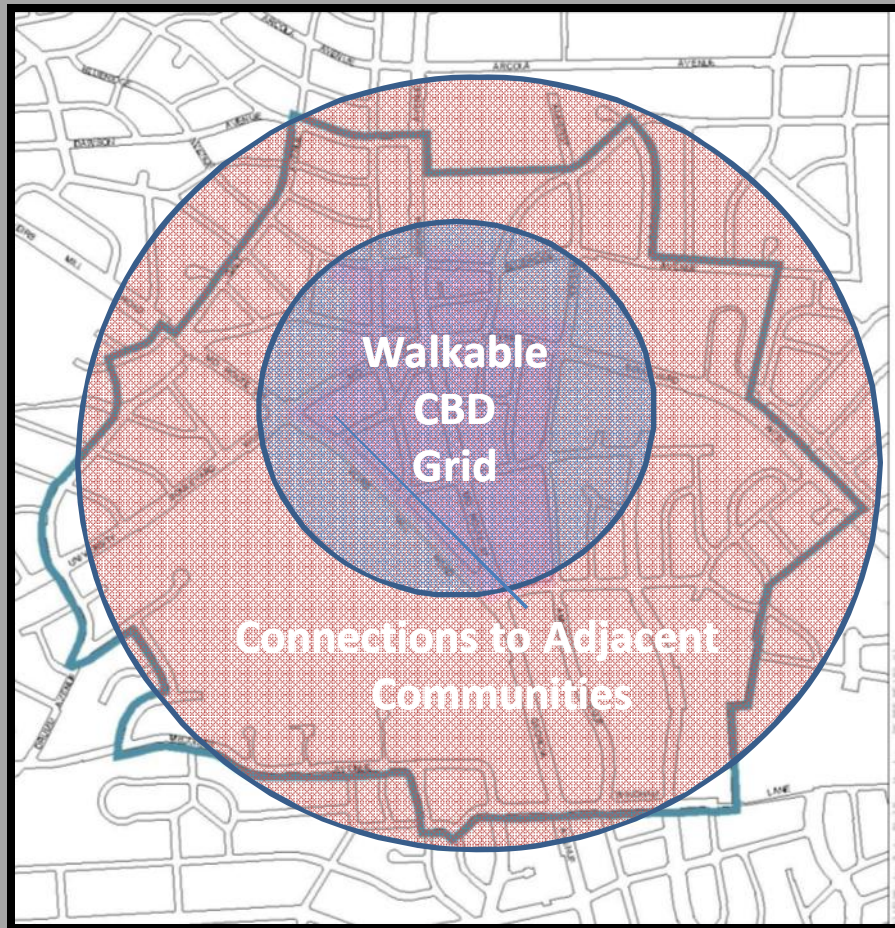


## Wheaton ULI TAP Connectivity Concepts



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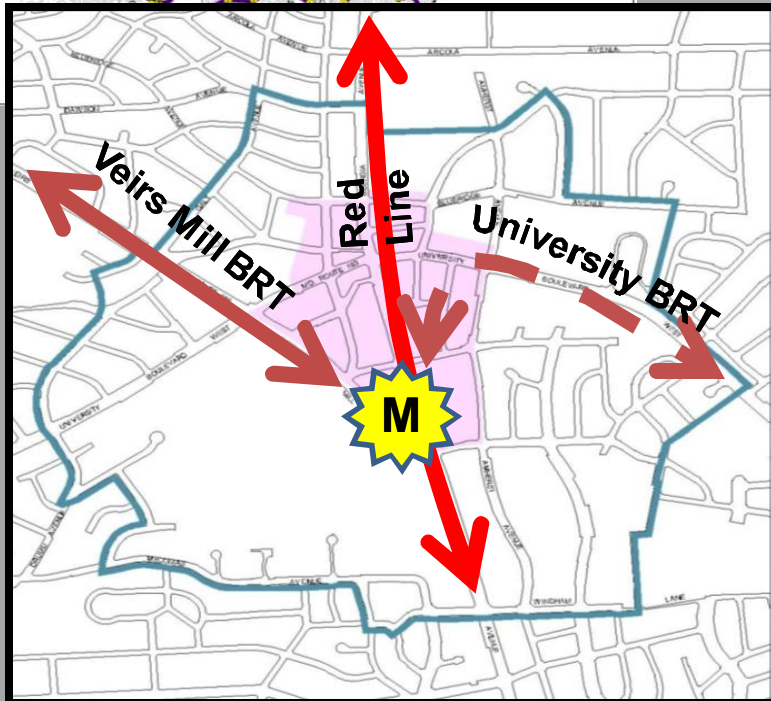
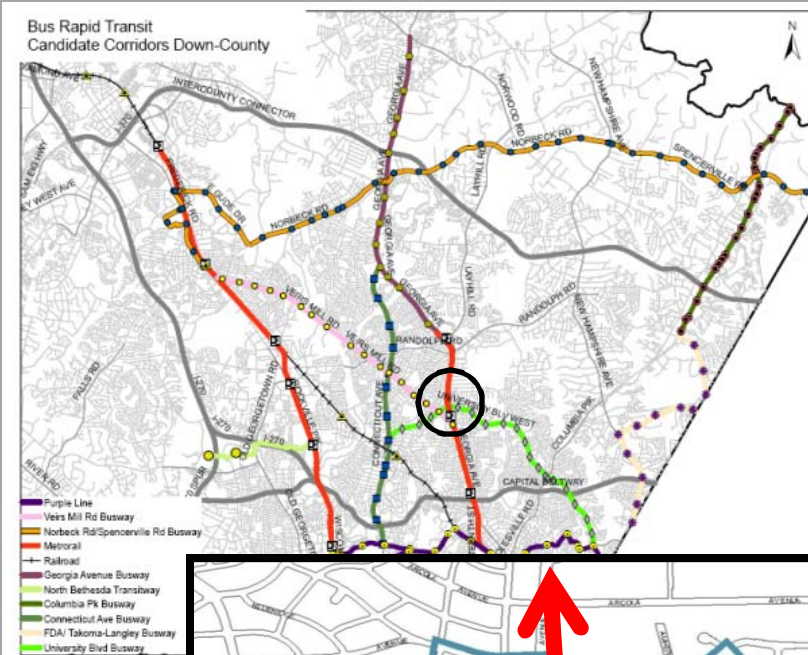
## Wheaton Increase Connectivity



- Enhance Walkability
  - Shorter Block Lengths
  - Enhanced Pedestrian Experience
- Connect Adjacent Communities to CBD and Mall Site
- Apply Context Sensitive Tools
  - Business District Streets
  - Private Streets/Alleys
  - Bus/Bike/Ped Connections
    - Pedestrian Priority

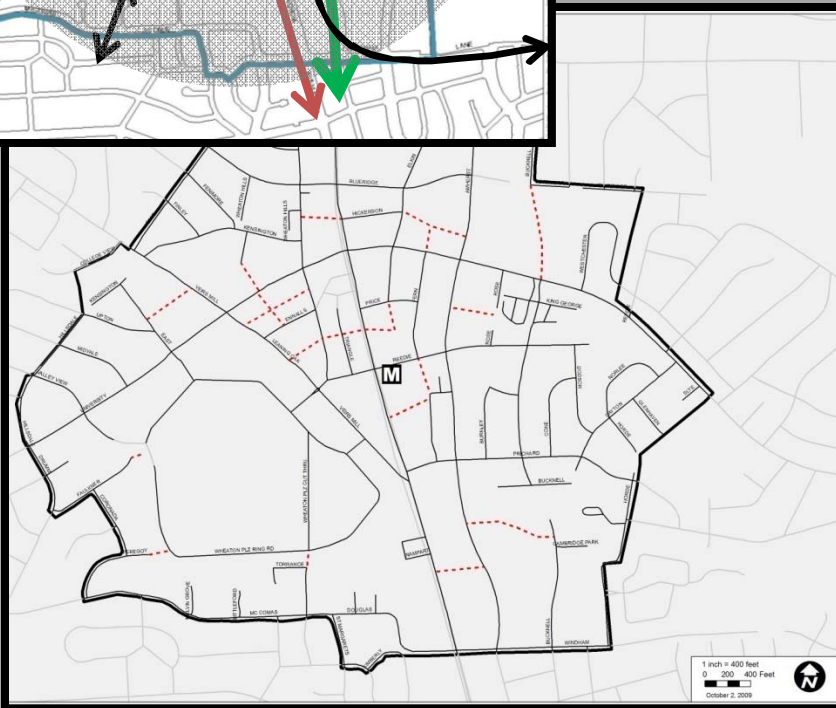
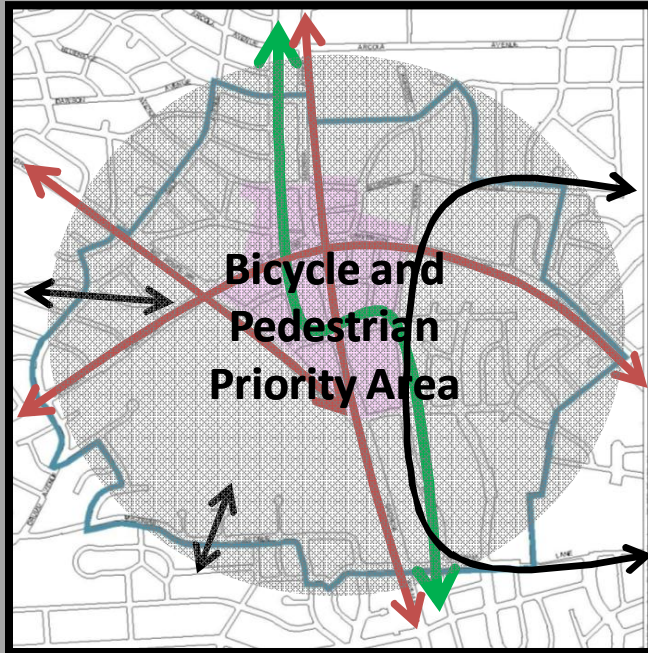


# Wheaton Plan for Transit



- Plan for VM and University BRT Service
- Enhance Connections to Metrorail station
- Coordinate with Ongoing WMATA and MCDOT Studies
  - Wheaton Station Study
  - County BRT Study
- Include Local and Feeder Bus Networks

# Wheaton Improve Bicycle and Pedestrian Facilities



- Designate Sector Plan Area as Bicycle/Ped. Priority Area
- Reinforce Connections to Park Trails
  - Striping
  - Wayfinding
- Include Appropriate Accommodations On State Hwys.
- Develop Bike Route Alternatives
- Shorten Block Lengths

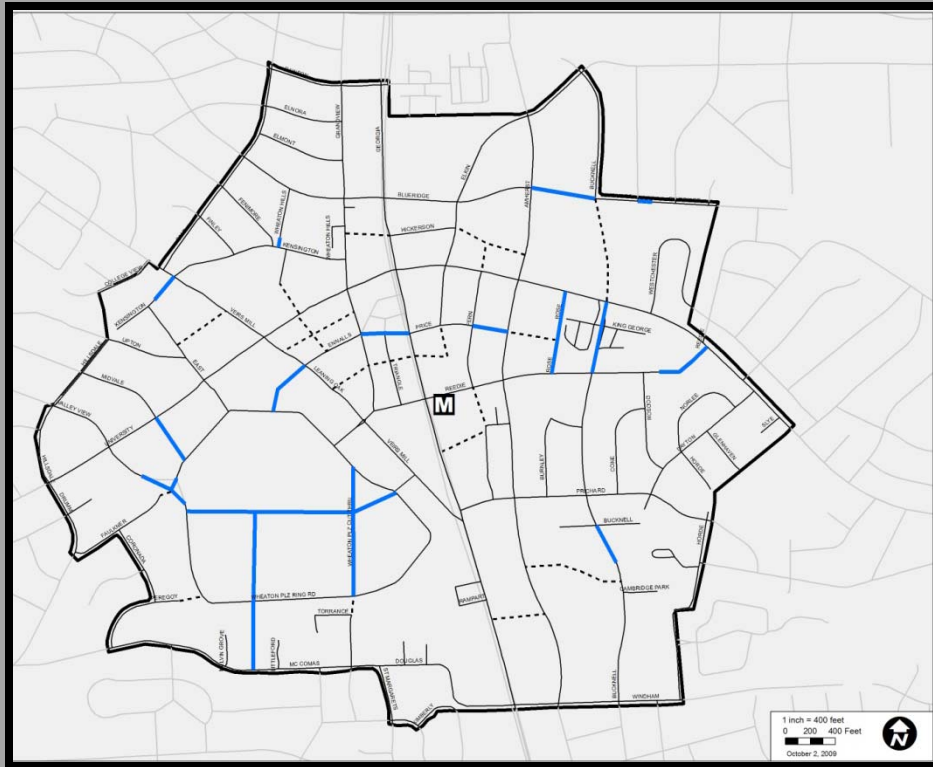


# Wheaton Enhance Mobility



- Use a combination of tools to address:
  - Access to transit/Metro
  - Walkability
  - Safety
- Reduce VMT growth via:
  - appropriate development mix
  - increase non-auto mode share
  - enhanced bicycle and pedestrian facilities
- Where Appropriate - Increase Intersection Capacity
  - Signal Improvements
  - Lane Utilization/Priority
  - Consider One Way Streets

# Wheaton Model Analysis



- Completed Four Model Runs
  - **Existing Network**
    - Existing Density
    - Proposed High Density
  - **Potential Network**
    - Proposed High Density
  - **Potential Network with BRT**
    - Proposed High Density

Demographics (Scenario #)	Network A (Existing)	C (Phase I+ II)	C1 (Phase I + II w/BRT)
Existing (0)	1		
High (2)	2	3	4



## Wheaton Model Analysis

Demographics	Commercial (GSF)	Residential (Units)
Existing	3.7 M	2,400
Round 7.1	3.8 M	5,600
High	7.6 M	9,400

- Assumption
  - 30% Non Auto Mode Share

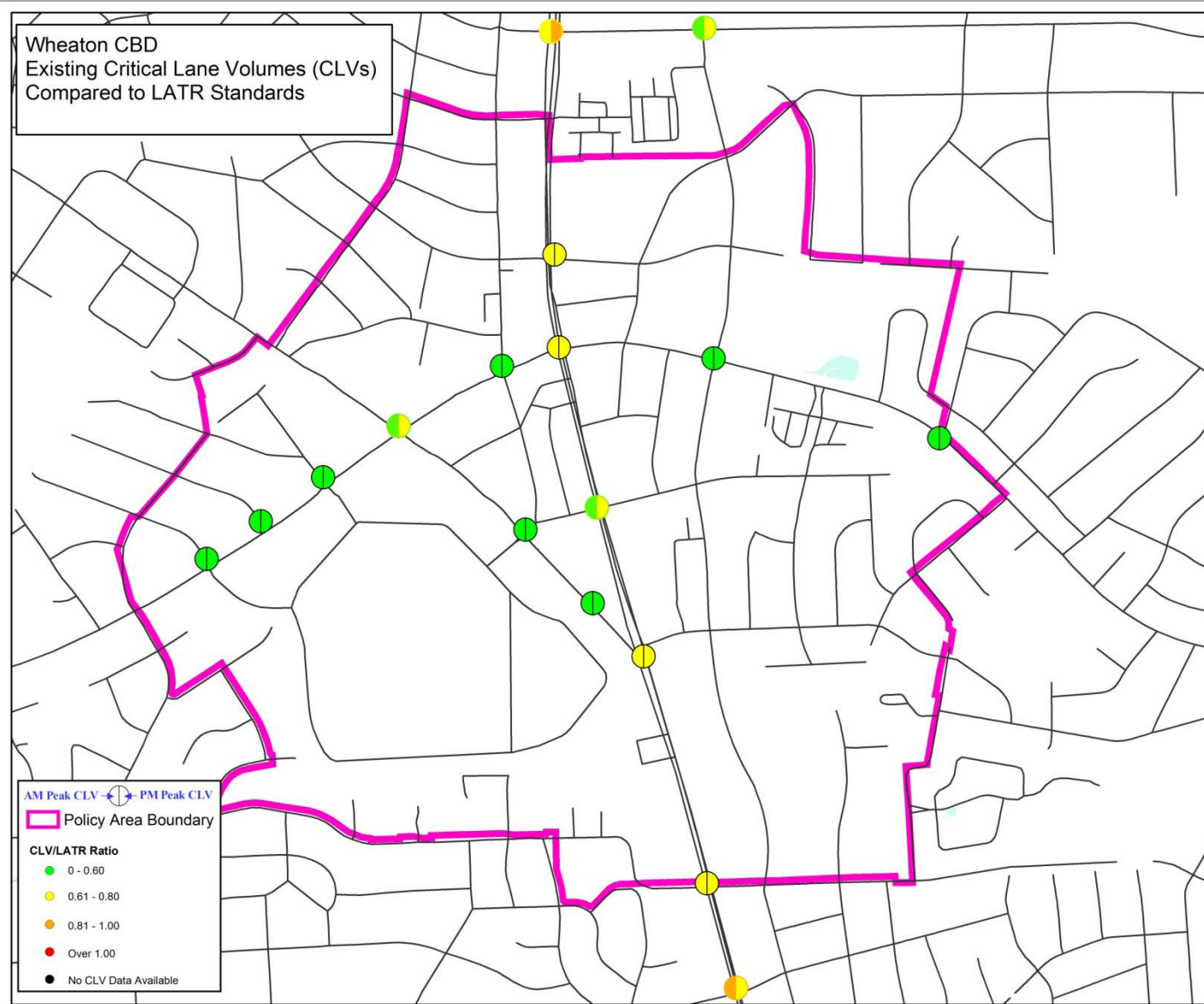
# Wheaton Model Results

Critical Lane Volumes perform well with existing and new network

Model Run (9/24/09)														
Critical Lane Volumes			Existing			Scenario 2 Network A			Scenario 2 Network C			Scenario 2 Network C1		
Intersection	LATR Std.		AM	PM	V/C Ratio	AM	PM	V/C Ratio	AM	PM	V/C Ratio	AM	PM	V/C Ratio
202 Georgia Avenue (MD 97) @ Plyers Mill	1600		1641	1248	1.03	1662	1396	1.04	1593	1311	1.00	1593	1311	1.00
203 Georgia Avenue (MD 97) @ Windham	1800		1211	1247	0.69	1281	1334	0.74	1617	1491	0.90	1617	1491	0.90
204 Georgia Avenue (MD 97) @ Veirs Mill (MD 586)	1800		1112	948	0.62	1536	1043	0.85	1285	992	0.71	1285	992	0.71
205 Georgia Avenue (MD 97) @ Reedie	1800		1032	1184	0.66	1529	1489	0.85	1488	1488	0.83	1488	1488	0.83
206 Georgia Avenue (MD 97) @ University (MD 193)	1800		1269	1171	0.71	1545	1642	0.91	1476	1526	0.85	1476	1526	0.85
207 Georgia Avenue (MD 97) @ Bluebridge	1800		1114	1206	0.67	1494	1599	0.89	1451	1536	0.85	1451	1536	0.85
208 Georgia Avenue (MD 97) @ Arcola	1600		1231	1471	0.92	1454	1703	1.06	1454	1703	1.06	1454	1703	1.06
213 Veirs Mill (MD586) @ University (MD 193)	1800		1431	1451	0.81	1607	1643	0.91	1595	1528	0.89	1595	1765	0.98
215 University (MD193) @ Grandview	1800		799	1000	0.56	843	1399	0.78	868	1272	0.71	868	1272	0.71
217 University (MD193) @ Amherst	1800		846	1060	0.59	1103	1378	0.77	849	1152	0.64	849	1152	0.64
352 Veirs Mill (MD586) @ Wheaton Metro	1800		565	884	0.49	1144	1776	0.99	853	1631	0.91	853	1631	0.91
447 Veirs Mill (MD586) @ Reedie	1800		836	959	0.53	1456	1462	0.81	1133	1382	0.77	1150	1592	0.88
471 University (MD193) @ East	1800		583	707	0.39	682	1239	0.69	799	771	0.44	799	922	0.51
499 University (MD193) @ Valley View	1800		394	705	0.39	456	759	0.42	337	619	0.34	337	619	0.34
727 University (MD193) @ Reedie	1800		531	584	0.32	697	746	0.41	1180	1554	0.86	861	1072	0.60
900 Veirs Mill Road @ Kensington	1800	N/A	N/A			1125	1142	0.63	1163	1201	0.67	1295	1318	0.73
901 Georgia Avenue (MD 97) @ Ennals	1800	N/A	N/A			1030	1112	0.62	1405	1790	0.99	1241	1523	0.85
902 Veirs Mill (MD 586) @ Ennals	1800	N/A	N/A			853	995	0.55	1085	1891	1.05	1206	1522	0.85

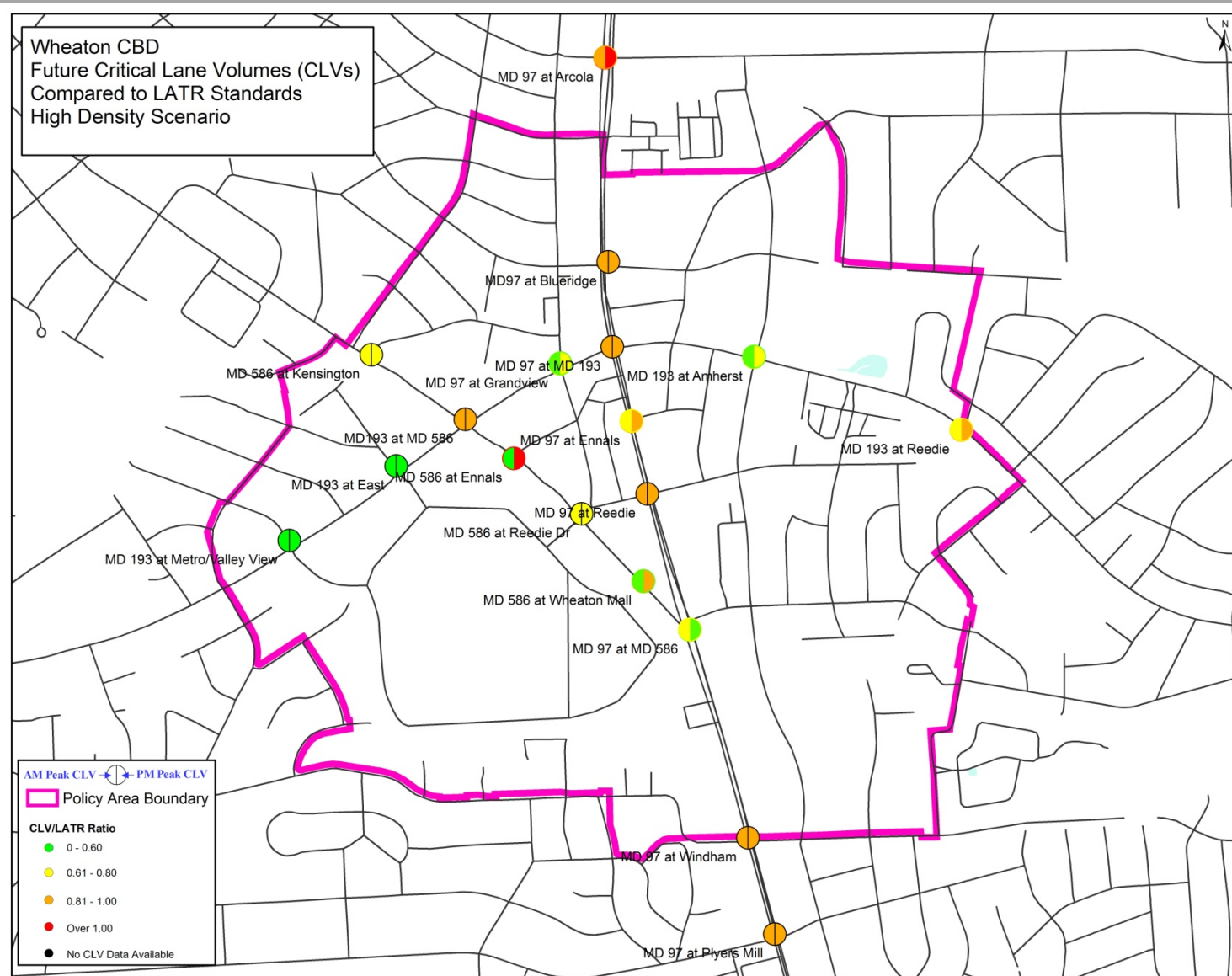


# Wheaton Model Results



Data Source: M-NCPPC Intersection Database

# Wheaton Model Results





## Wheaton BRT Options



# Wheaton BRT Options



## Veirs Mill Route

- Take advantage of BRT facilities for Veirs Mill BRT
- Longest travel through congested intersections and most of CBD

## Amherst Route

- Avoid much of CBD
- Tight turns, streets may require lane changes, Reddie is steep

## Georgia Ave. Route

- Direct Link to CBD using existing arterials
- Requires new access to Metro Station from Georgia



## **Wheaton** Next Steps

- Finalize Network
  - Rank and prioritize proposed connections
  - Address Concerns and Observations
    - Isolation of mall
    - Safety
    - Auto-dominant design of road network
    - Accessibility to METRO – wayfinding
    - Crossing Priorities
- Continue Cross Section Analysis
  - Refine street parking locations
  - Plan for bicycle amenities
  - Accommodate BRT