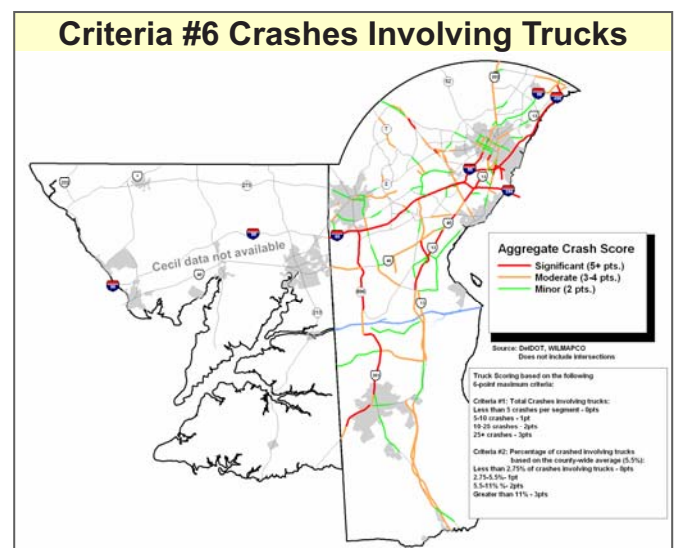
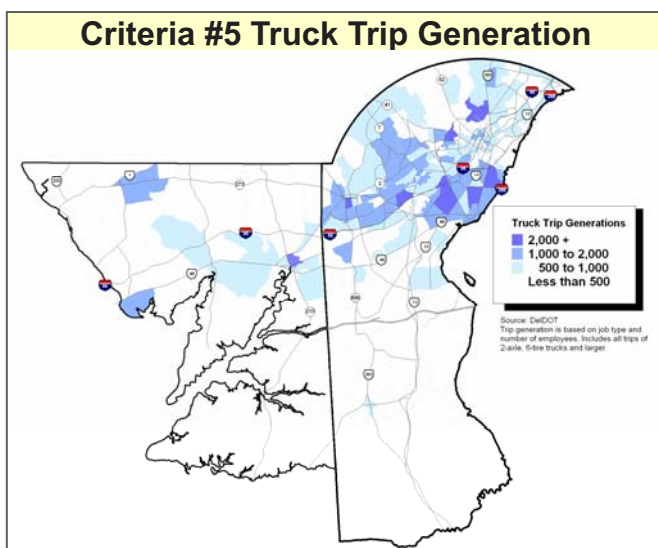
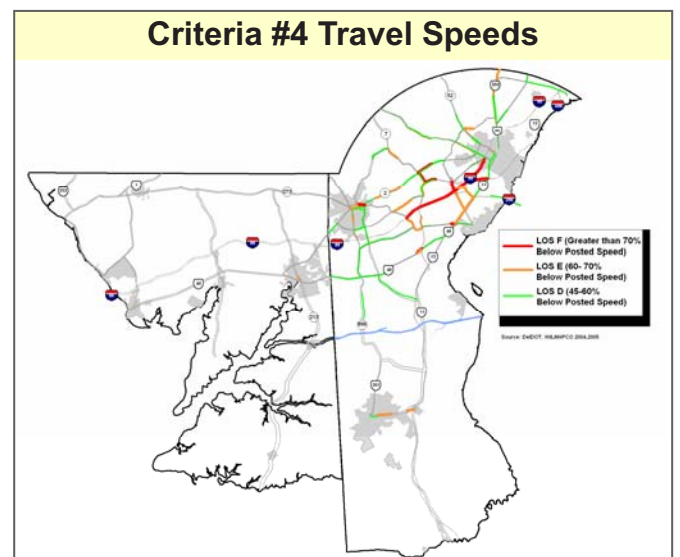
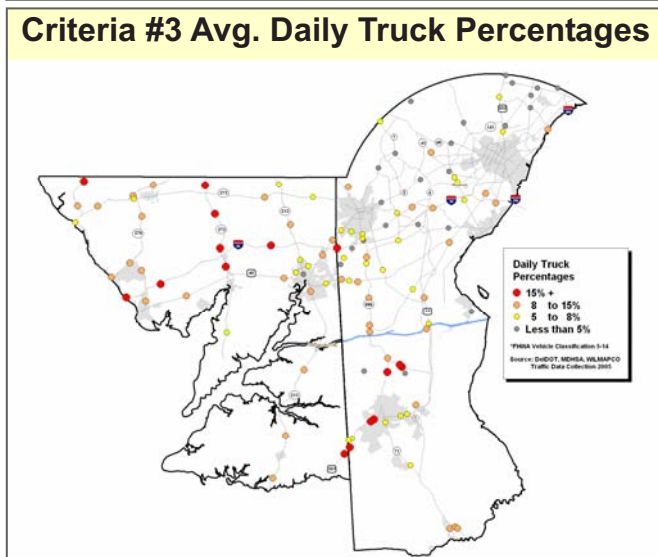
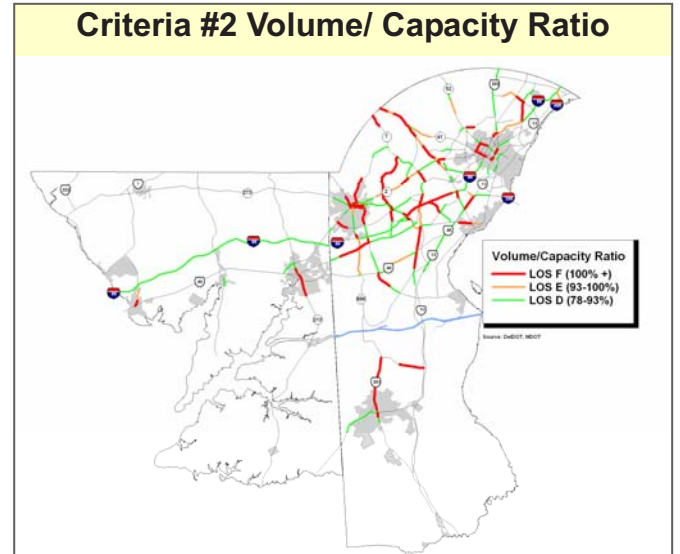
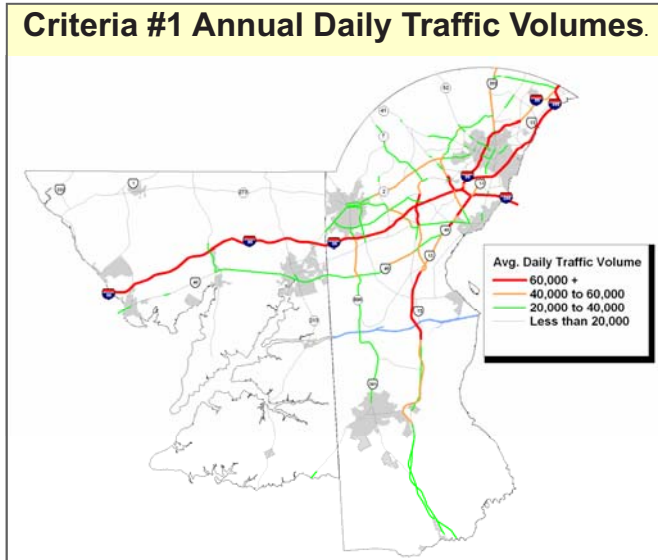


# Identification of Potential Bottlenecks Factors

- 6-Criteria Scoring Methodology; Expansion beyond traditional measures
- Identify recurring and non-recurring problematic roadway segments using 6-criteria scoring system
- Incorporation of safety, land use and car/truck conflicts into identification process



# Identification of Potential Bottlenecks: Scoring Methodology

- Each of the 6 criteria assigned a point value based on the severity of the impact on the road network
- Scoring methodology applied to all roads classified as a minor arterial or greater

Annual Daily Traffic Vols.	
AADT	Pts. Assigned
60,000 +	3
40,000-60,000	2
20,000-40,000	1

Volume/ Capacity Ratio	
Volume/ Capacity	Pts. Assigned
LOS F	3
LOS E	2
LOS D	1

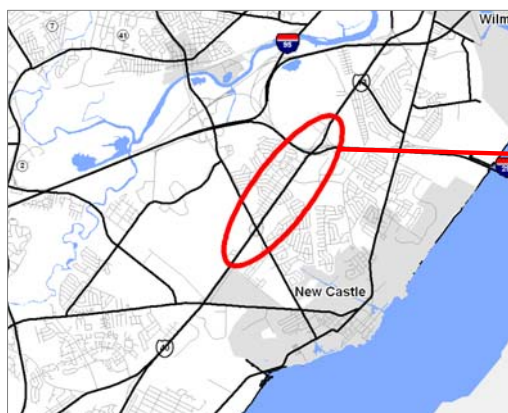
Travel Speeds	
Travel Speeds	Pts. Assigned
LOS F	3
LOS E	2
LOS D	1

Avg. Daily Truck Percentages	
Avg. Daily Truck %	Pts. Assigned
15%+	3
8-15%	2
5-8%	1

Truck Trip Generation	
Daily Truck Generation (TAZ)	Pts. Assigned
2000+	3
1,000-2,000	2
500-1,000	1

Truck Crashes	
Aggregate Truck Crash Scoring	Pts. Assigned
Significant	3
Moderate	2
Minor	1

## Sample Scoring Application: US 13 from SR 141 to I-295



Criteria	Measure	Points
AADT	70,022	3
V/C	1.02	3
Travel Speed	LOS E	2
Truck %	9.7%	2
Truck Trip Generation	1,000-2,000 Trips	2
Crashes	Significant Area	3
<b>Segment Score</b>		<b>2.50</b>

NOTE: Some criteria are not applicable to all roads. Segment score is determined by dividing the point total by all applicable criteria.

## Potential Bottleneck Scoring

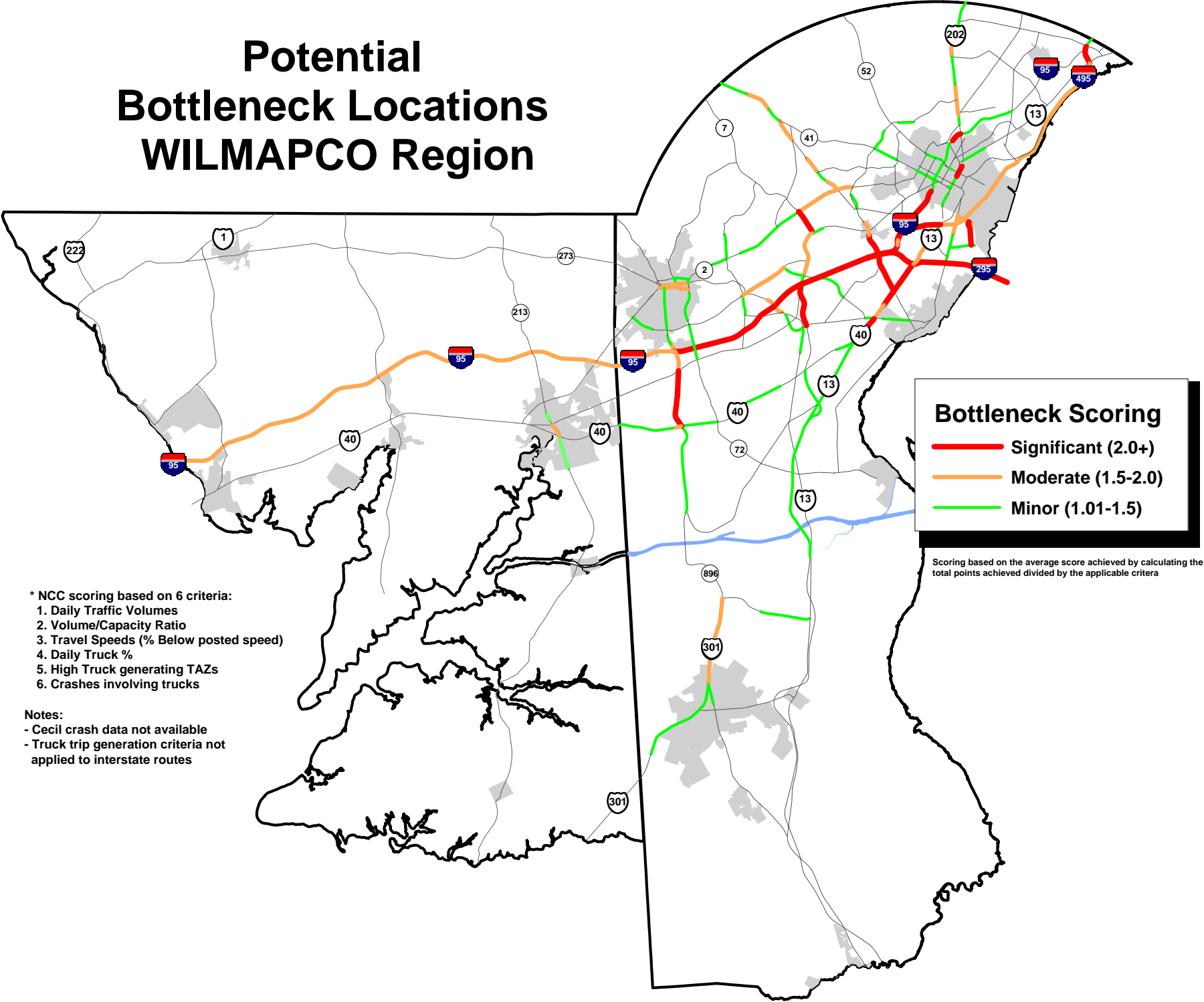
The potential bottlenecks scoring method is to help produce an ordered list of problem segments. To achieve this, the average score was used by calculating the total points divided by the applicable number of scoring factors. The highest potential average score for a segment in either county was a "3.0". Below is a breakdown of how the scoring system was used. The map to the right shows the resulting scoring of all major roads in the WILMAPCO region:

**Avg. Score greater than 2.0- "Significant"** Segments with multiple failing criteria. Includes majority of roadways which carry the highest traffic volumes and under heavy congestion pressure.

**Avg. Score between 1.5 and 2.0- "Moderate"** Segments that are experiencing some failing (or near failing) criteria. Criteria varies more widely with some showing failure and some at more modest levels.

**Avg. score between 1.01 and 1.5 - "Minor"** Segments experiencing one or more criteria that are near failing. Most have only a few criteria near failure while others are at acceptable levels.

# Potential Bottleneck Locations WILMAPCO Region



**Bottleneck Scoring**

- Significant (2.0+)
- Moderate (1.5-2.0)
- Minor (1.01-1.5)

Scoring based on the average score achieved by calculating the total points achieved divided by the applicable criteria

- \* NCC scoring based on 6 criteria:
1. Daily Traffic Volumes
  2. Volume/Capacity Ratio
  3. Travel Speeds (% Below posted speed)
  4. Daily Truck %
  5. High Truck generating TAZs
  6. Crashes involving trucks

Notes:  
 - Cecil crash data not available  
 - Truck trip generation criteria not applied to interstate routes