

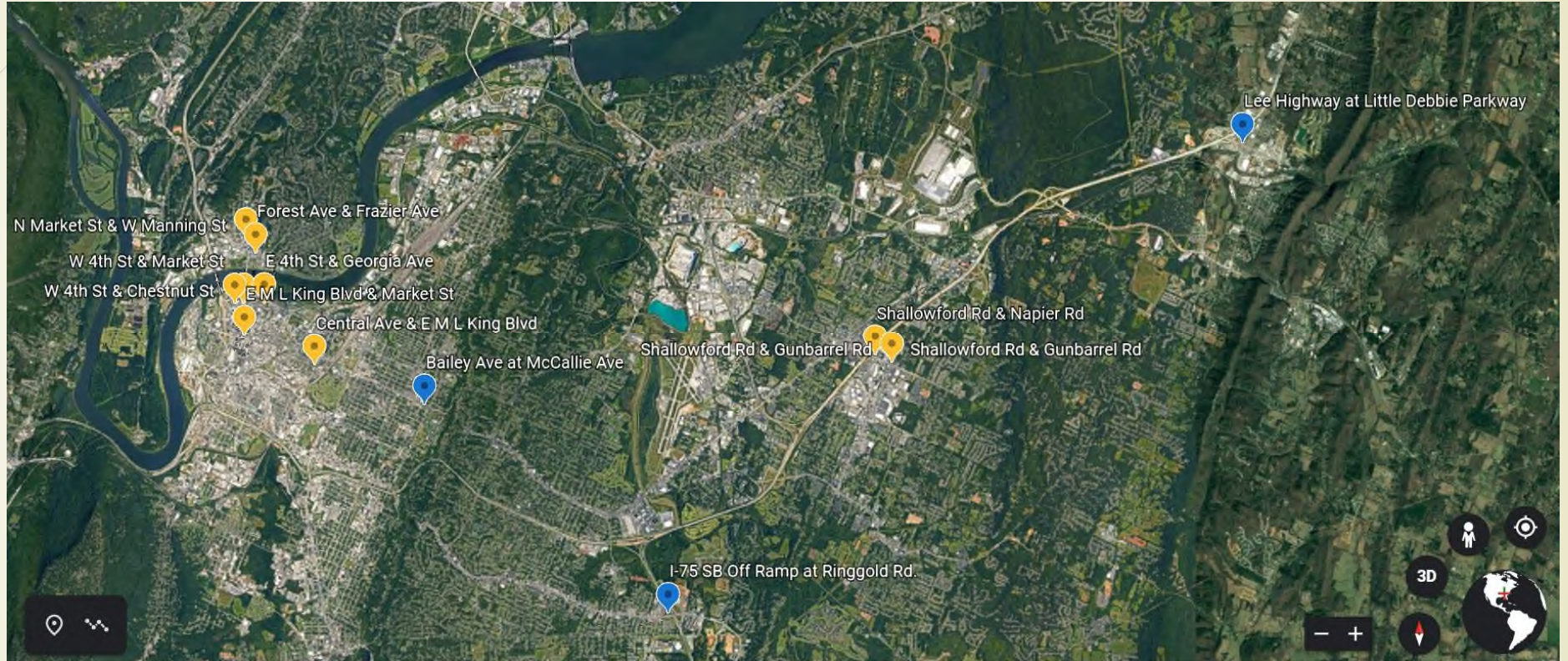


Chattanooga's Data Analytics Work During Disruptive Events



Measuring the effects of COVID-19 and the Easter Tornadoes on the Cities eco-system.

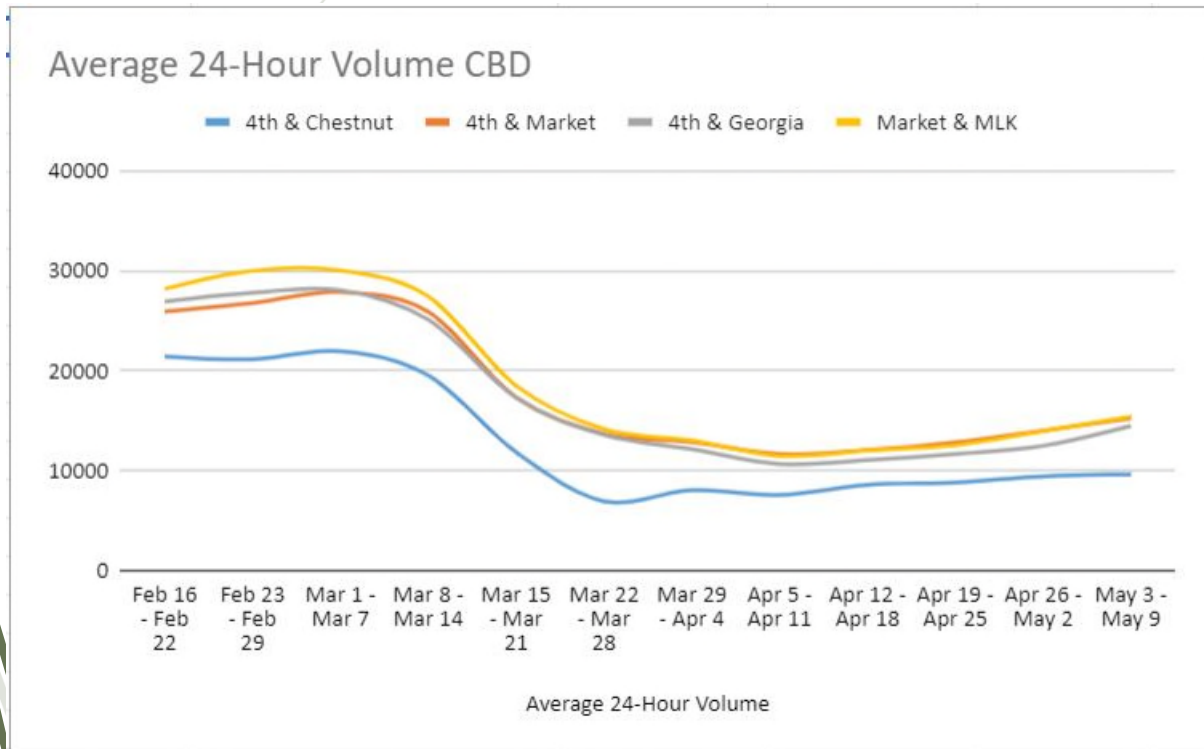
The Monitoring Stations



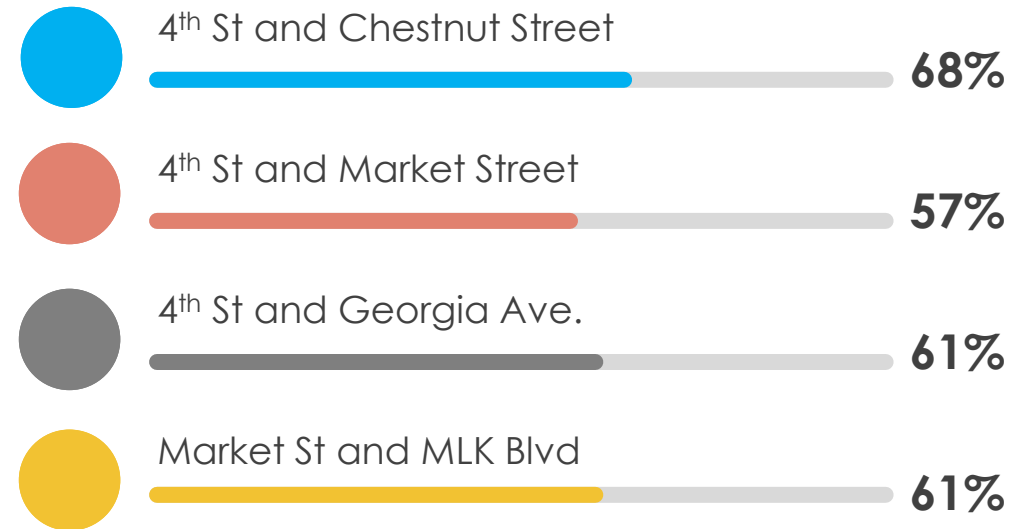
CDOT selected these 12 locations due to their locations across the City. We collected data in 3-day total volumes (Tu-W-Th) and in 7-day total volumes. We used our GridSmart video detection systems for the data collection. We were able to capture data beginning Feb. 16, 2020.

Traffic Volumes

Downtown Core

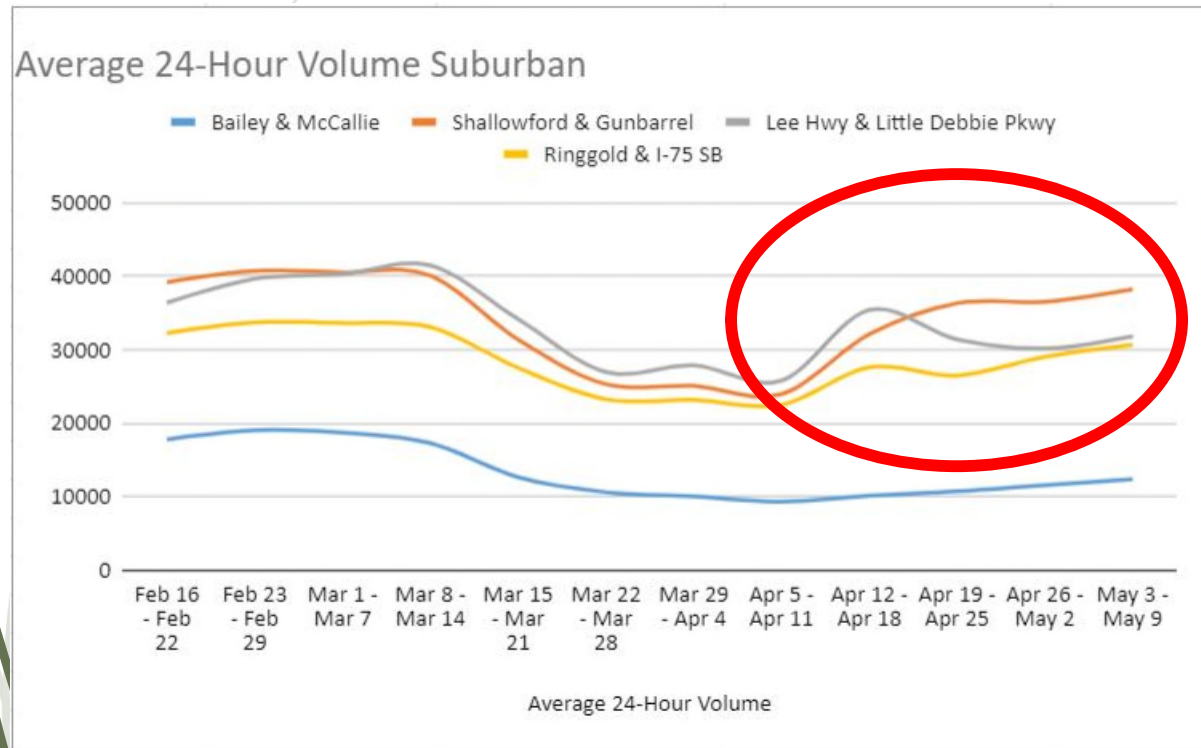


The four intersections indicated in the graph represent the “Core” of the downtown grid. This area is reflective of the Corporate impacts to the community.



Traffic Volumes

Suburban Locations



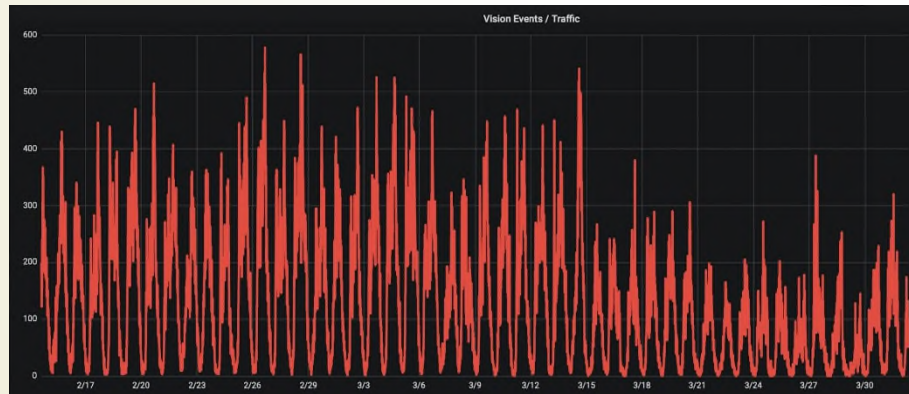
The four intersections indicated in this graph represent the “Suburban” area of Chattanooga. Some are nearby the Regional Mall, others, near freight logistics organizations.

- Bailey at McCallie Ave 50%
- Shallowford Rd at Gunbarrel Rd. 40%
- Lee Hwy. at Little Debbie Parkway 33%
- I-75 SB off ramp at Ringgold Rd. 32%

Effects Seen Across Multiple Platforms.

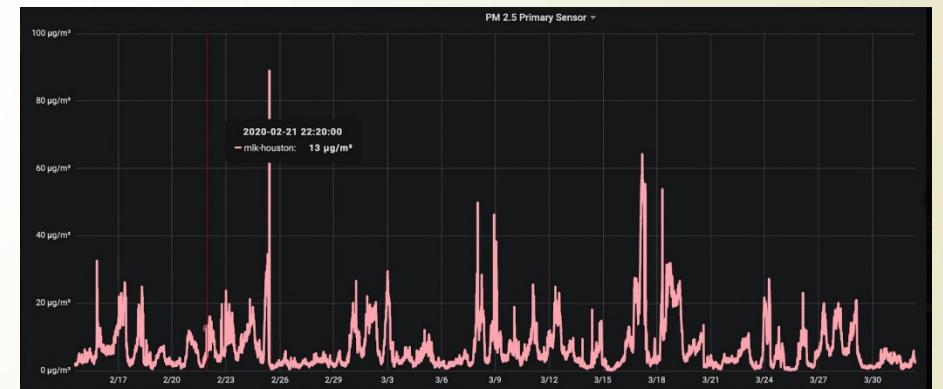
Vision Events 2/17 to 3/30

Less Vehicle, Bike and
Ped activity on MLK



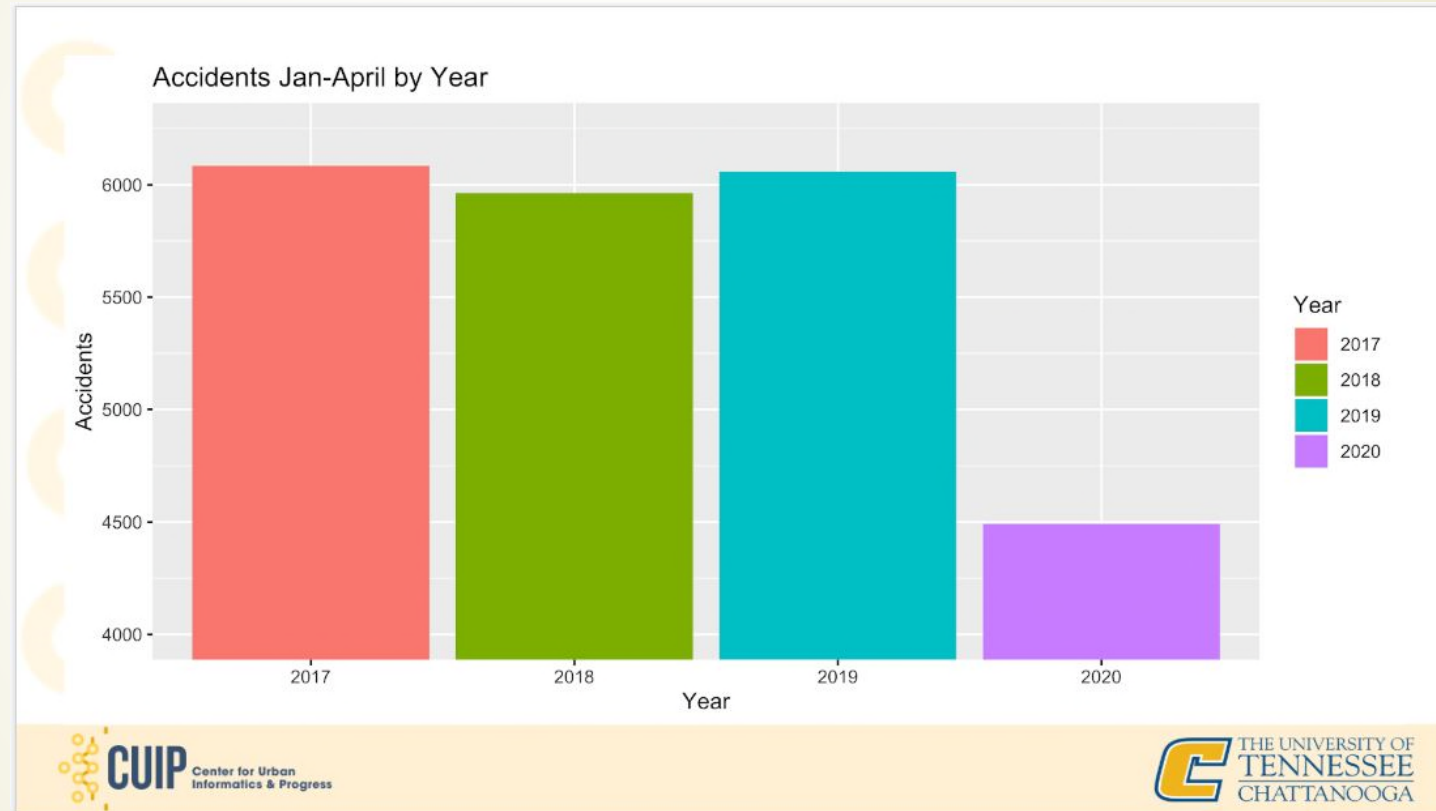
PM 2.5 2/17 to 3/30

Better Air Quality



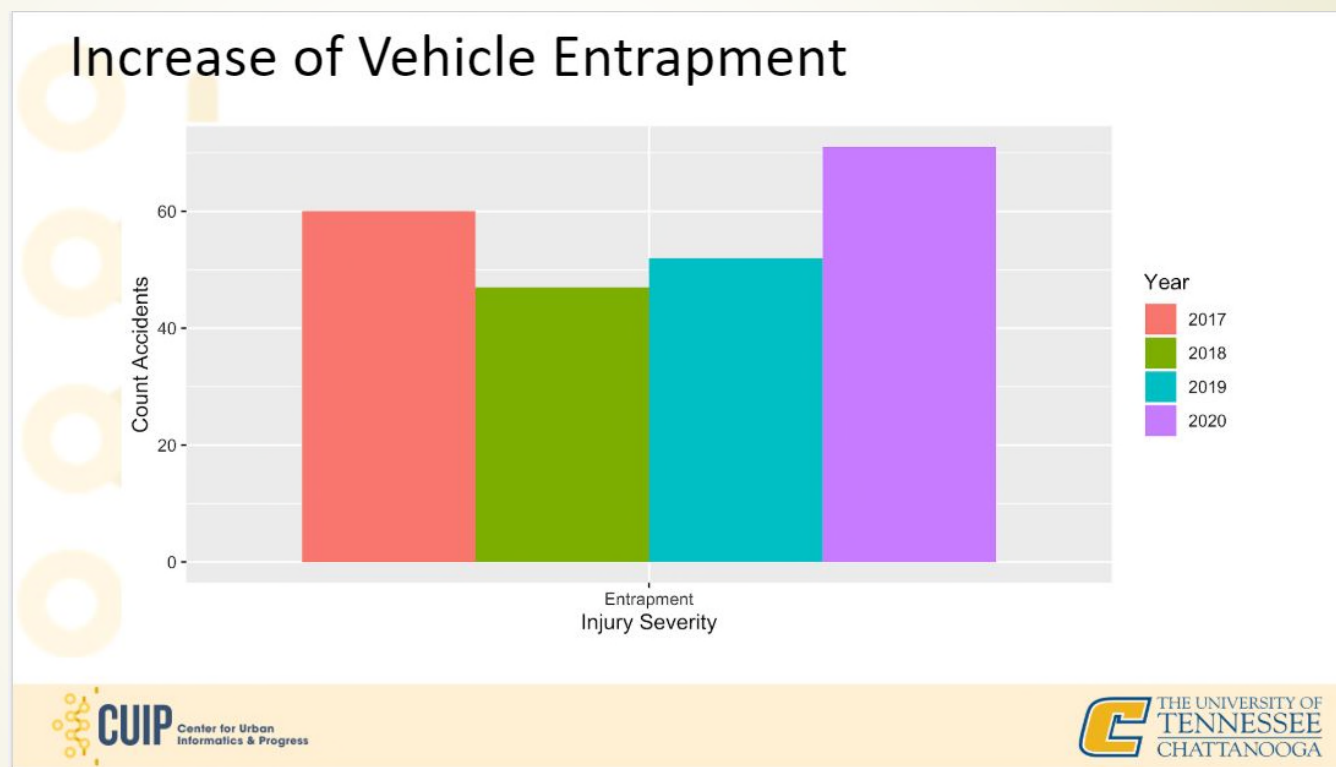
*Both slides courtesy of University of Tennessee Chattanooga Center for Urban Informatics and Progress.
Testbed manager Austin Harris*

Crash Statistics during the first 4 months of 2017 - 2020



Slide courtesy of University of Tennessee Chattanooga Center for Urban Informatics and Progress. Peter Way

Within the Crash Statistics CUIP found an increased Entrapment rate



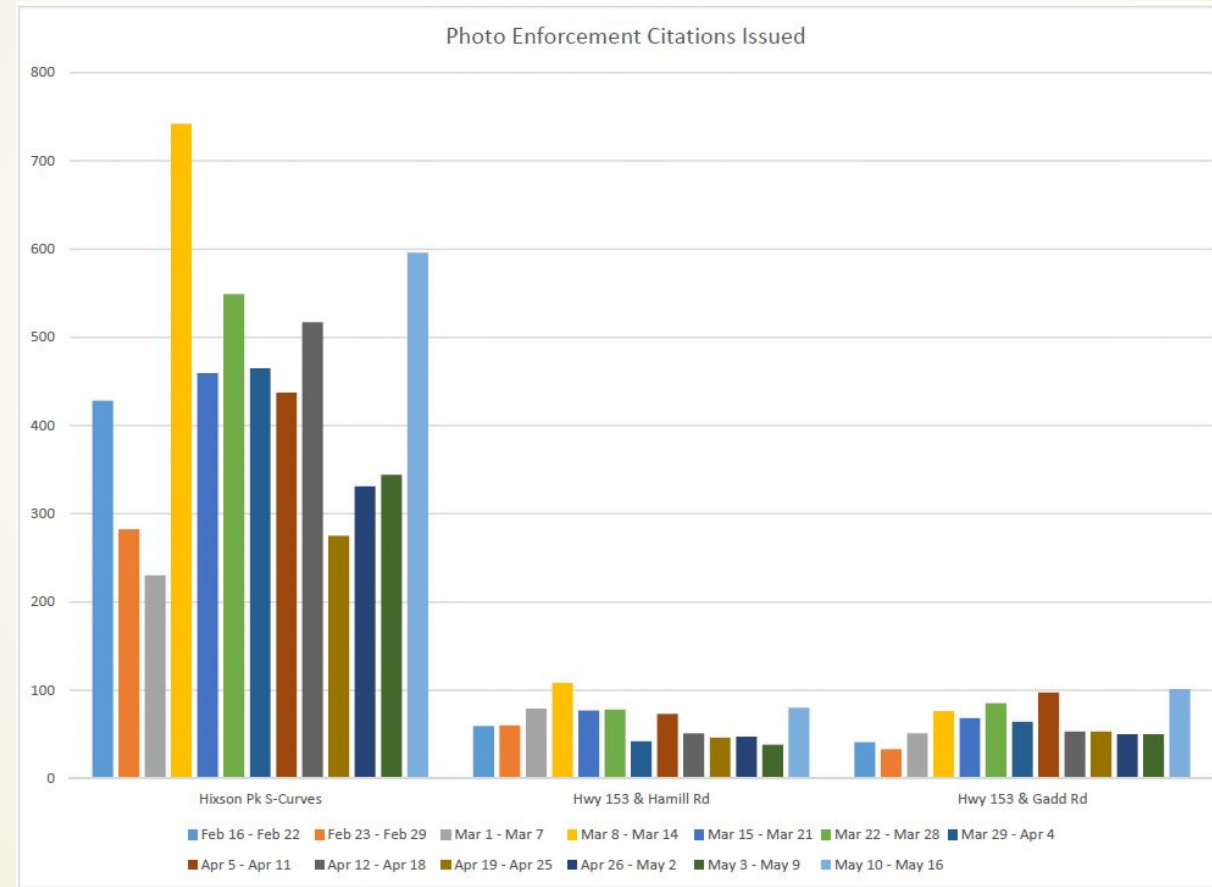
Slide courtesy of University of Tennessee Chattanooga Center for Urban Informatics and Progress. Peter Way

Congestion is down, Speeds and level of serious crashes are up Nationwide.

- ▶ Chicago metro-area highways speeds have increased 20%.
- ▶ By the week of March 13 to March 20, INRIX noted significant increases in traffic speeds in Chicago, Los Angeles and other major cities as more people isolated at home.
- ▶ Los Angeles drivers increased speeds up to 75% on average within a week. And congestion more or less ceased to exist across the country.
- ▶ Austin, TX's major intersections are seeing 50% fewer cars when comparing data from March to January and February. But the overall crash rate has only decreased 20% and serious injuries have jumped to 20%.

<https://www.smartcitiesdive.com/news/the-pandemic-pace-a-look-at-congestion-free-speeding-and-its-risks/576715/>

Speeds and Red-light Running during the COVID event has increased.

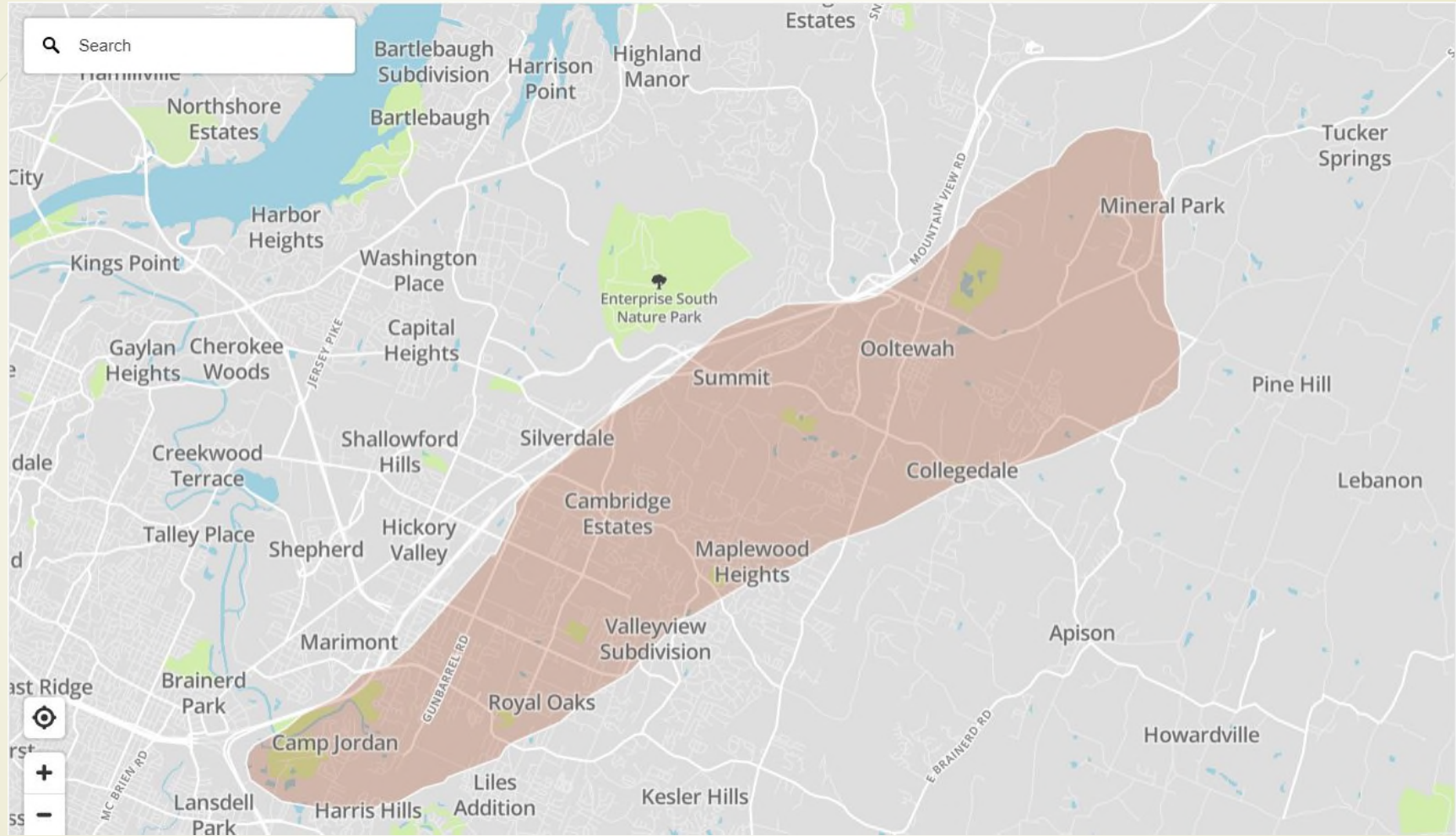


Easter Sunday Tornadoes

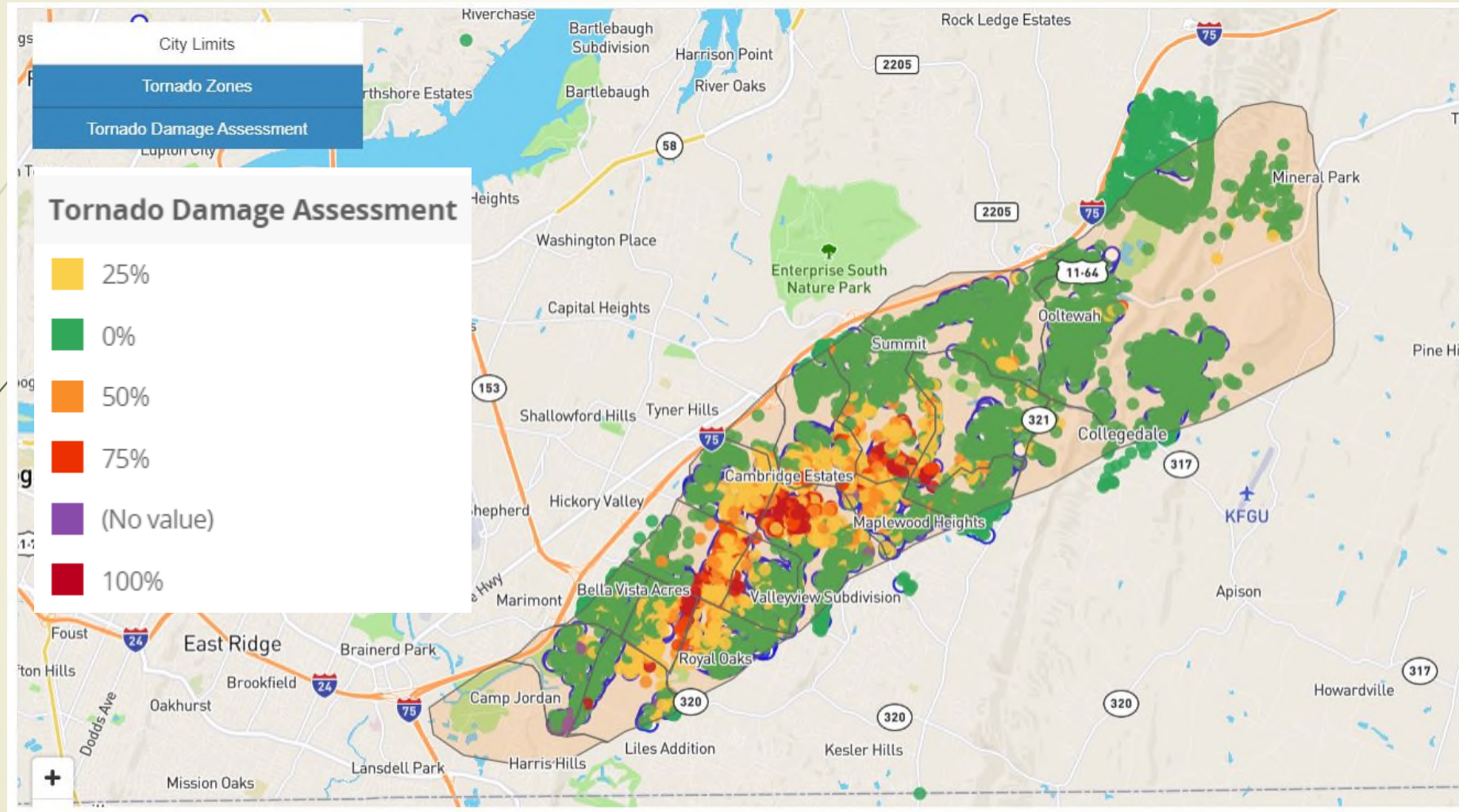


Bones' Smokehouse in East Brainerd destroyed by tornado. (Image: WTVC)

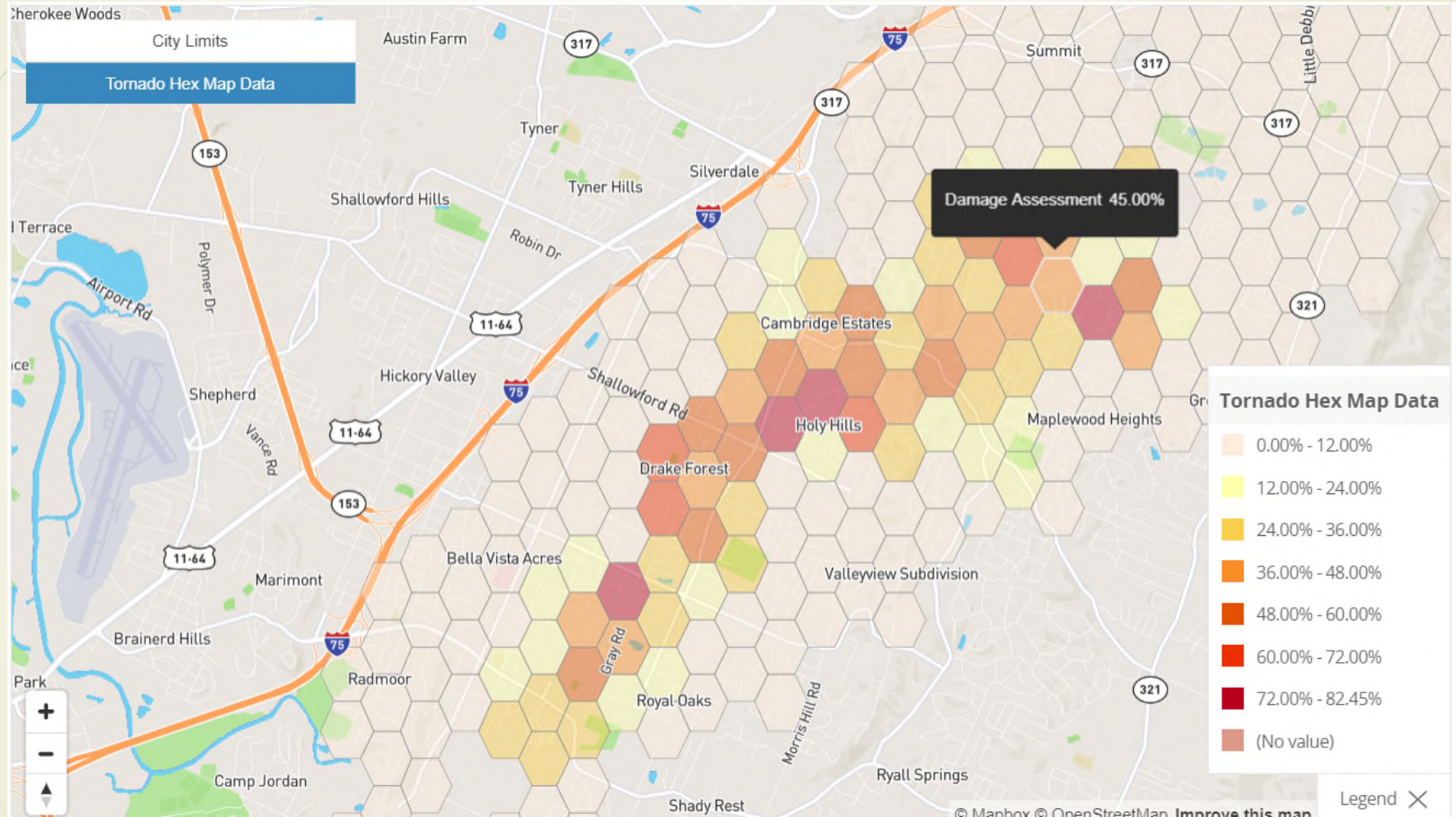
Areas Impacted by the Tornadoes



Damage Assessments by Address

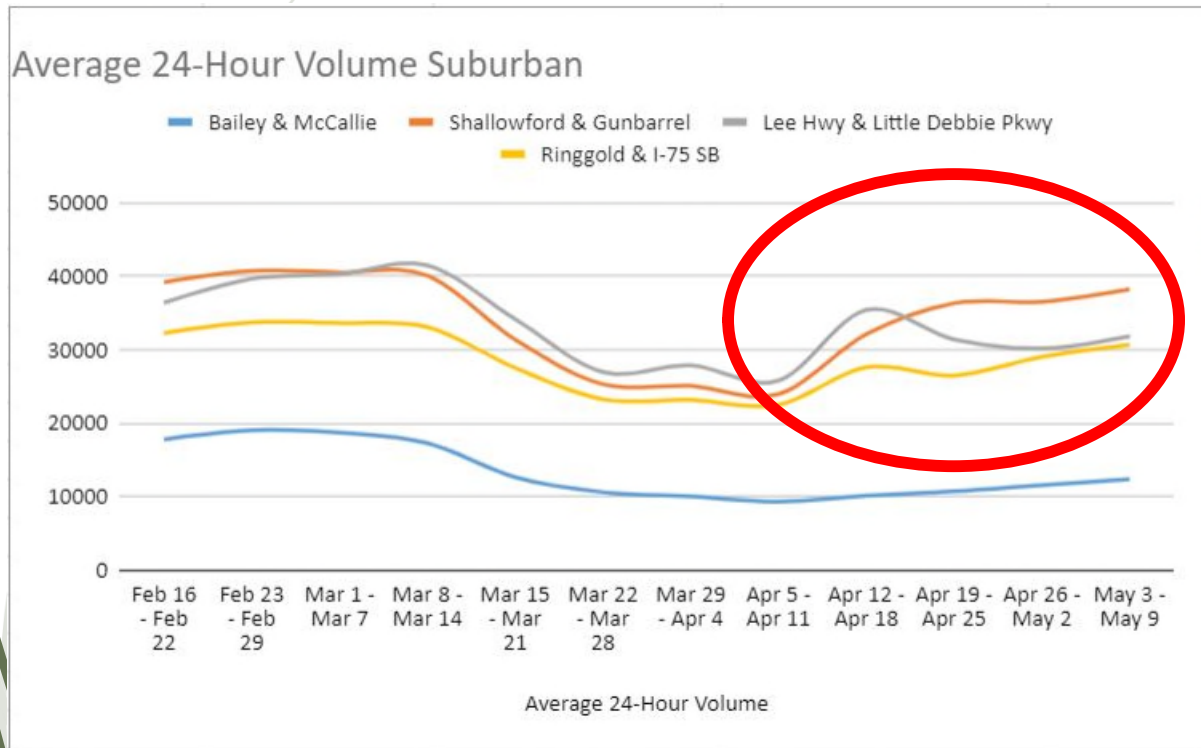


Damage Assessment by Zone



Post Tornado Traffic Volumes

Suburban Locations



Each of the three intersections below were impacted by the Easter Sunday Tornadoes. The impacts were relatively large upticks in traffic volumes we feel are attributed to Emergency Services, Volunteers, and Sightseers.





Thank You

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