

# With safer road mandates, how can data assist?

Making cities safer and smarter with  
mobile driving data and insights

# Arity is a mobility data and analytics company.

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## Our mission

We are focused on making transportation smarter, safer, and more useful for everyone.

Arity's expertise comes from analyzing the world's largest driving behavior database tied to insurance claims data to understand how safely people move



# 1 Trillion

miles of driving data

# Nearly 40 Million

active telematics connections



# Arity Driving Event Data

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Hard braking

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Extreme speeding

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Phone handling

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Harsh acceleration

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Crash detection

# Over 65%

of data is on arterial roads





# Arity Real-Time Traffic Data

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Data captured every 15 sec

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Average latency <120 sec

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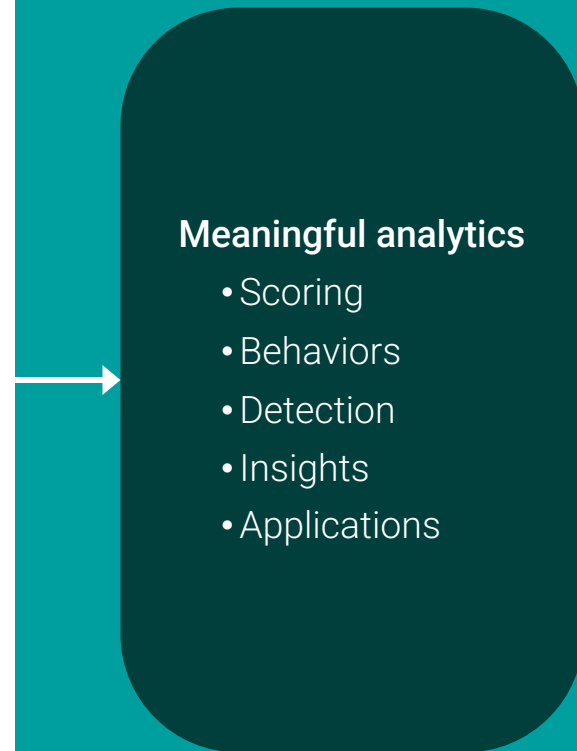
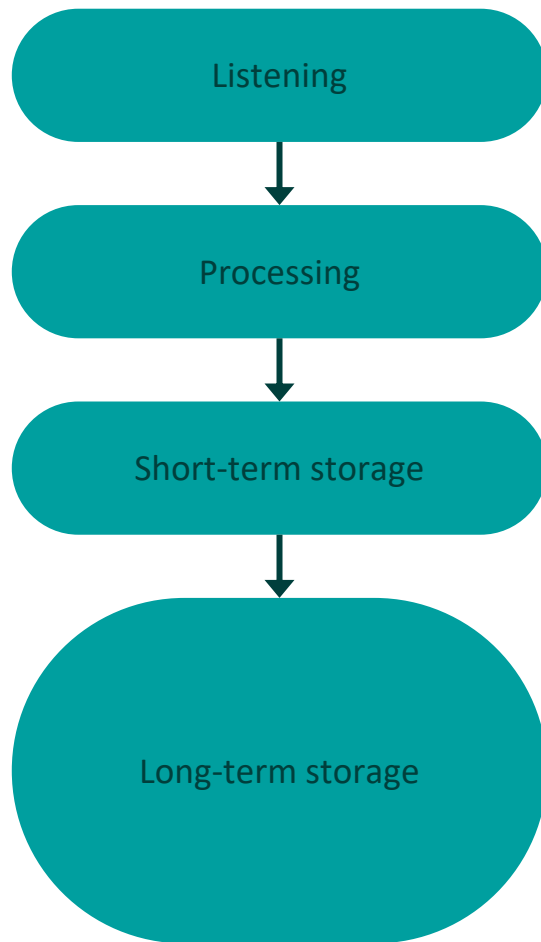
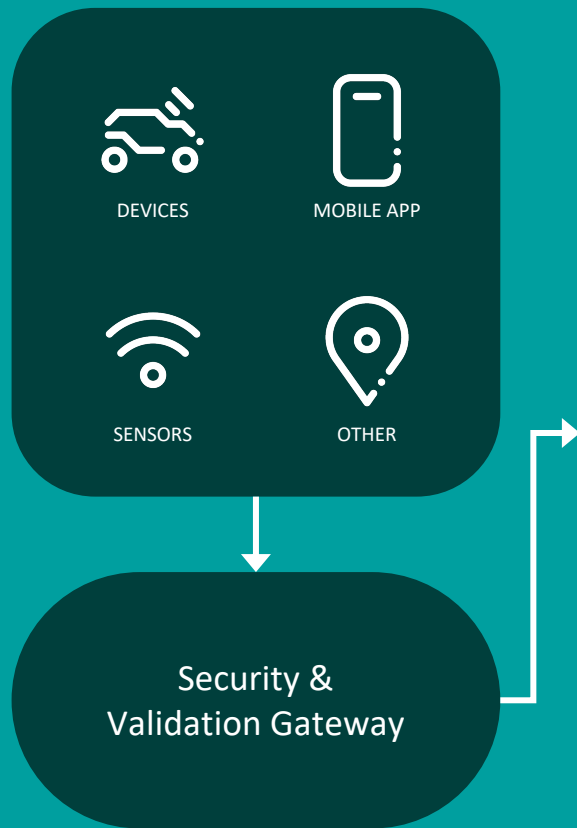
95% of data US consumers

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Representation for all road types

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Continuous flow for real-time decisions





# The intersection between driving events and road risk

# Urgent demand for city transportation planners to identify road safety challenges

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Phone-based distracted driving

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Speeding

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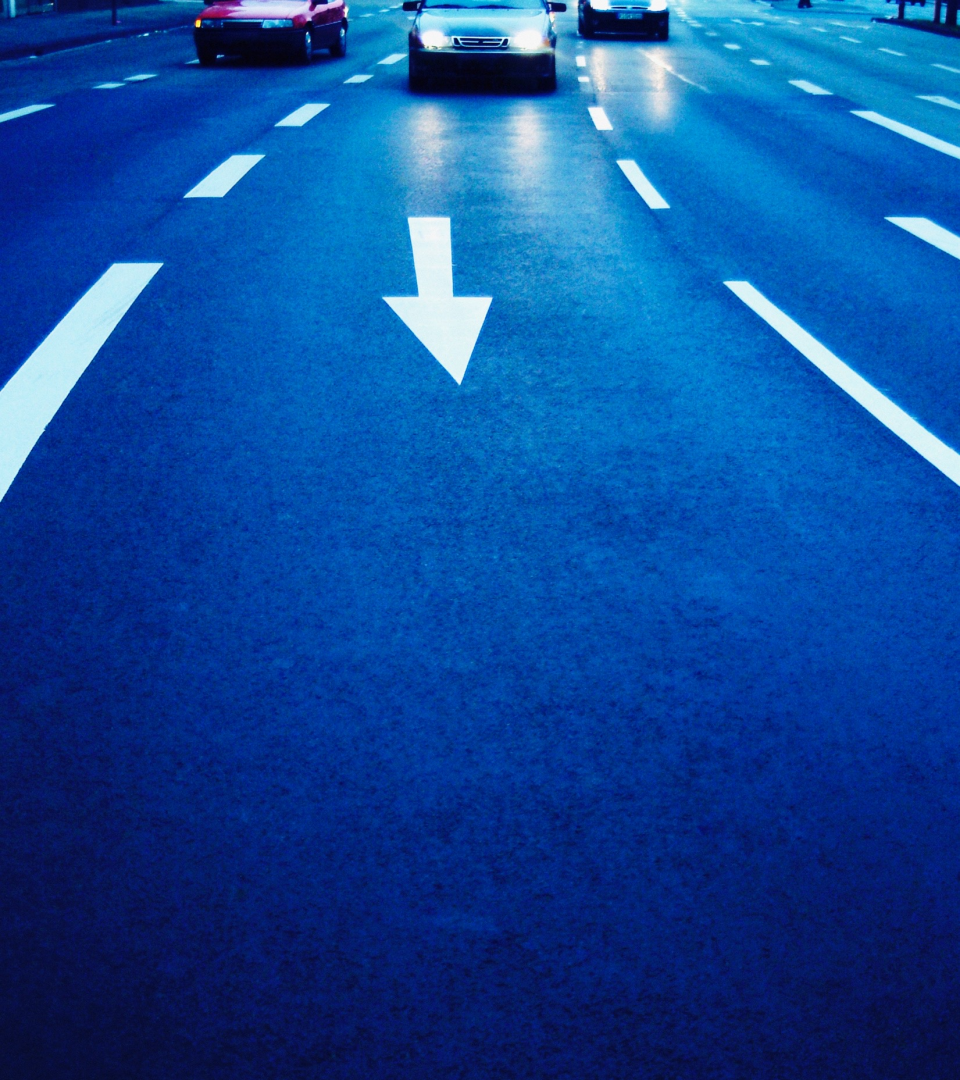
VRUs 20% of 43K road deaths in 2021

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Data sets are siloed







Arity + Michelin Mobility  
Intelligence helps cities  
better understand and  
prioritize countermeasures  
that can save the most lives

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Vulnerable road user studies

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Speeding hot spots

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Ground truth identification

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Pre/post countermeasure impact

# Driving data in action

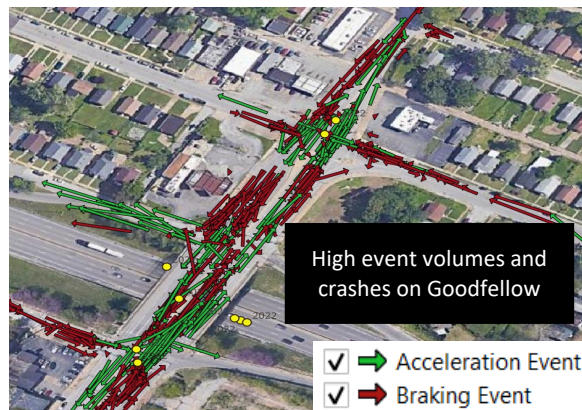
***MICHELIN***  
***MOBILITY INTELLIGENCE***

## Example 1

### RIVERVIEW BLVD – Lilian Ave Harsh Braking



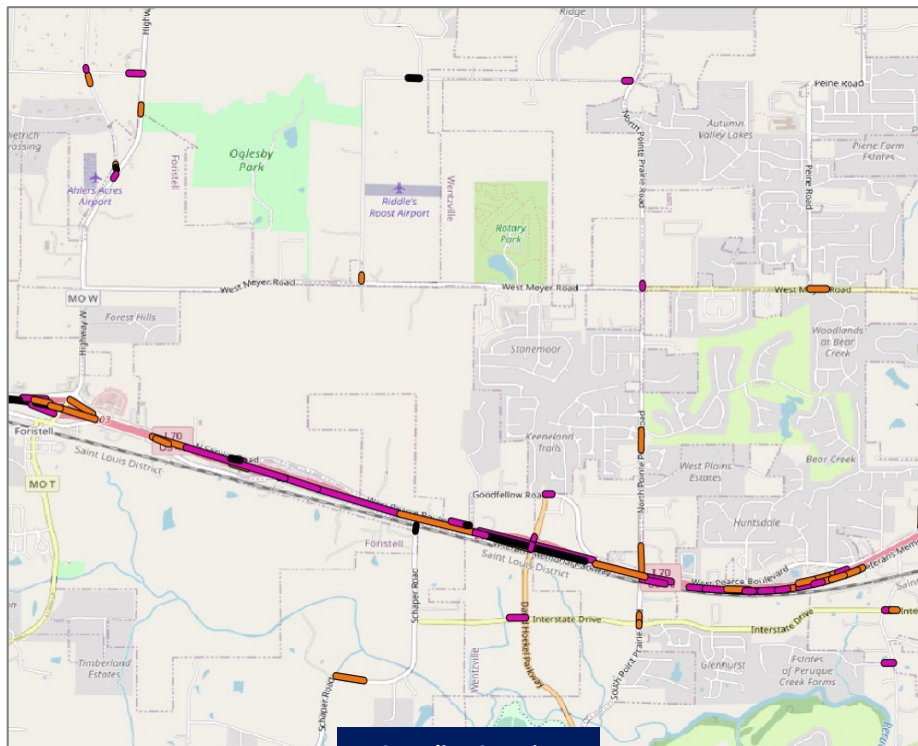




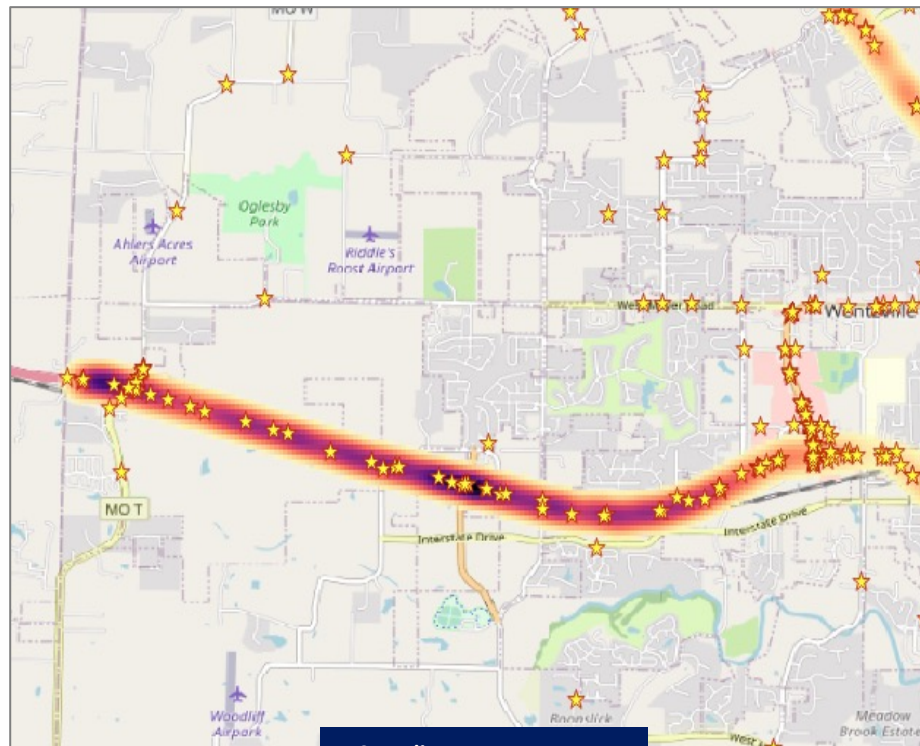


## Example 2

### I-70 SEVERE SPEEDING AND HIGH CRASH RATE



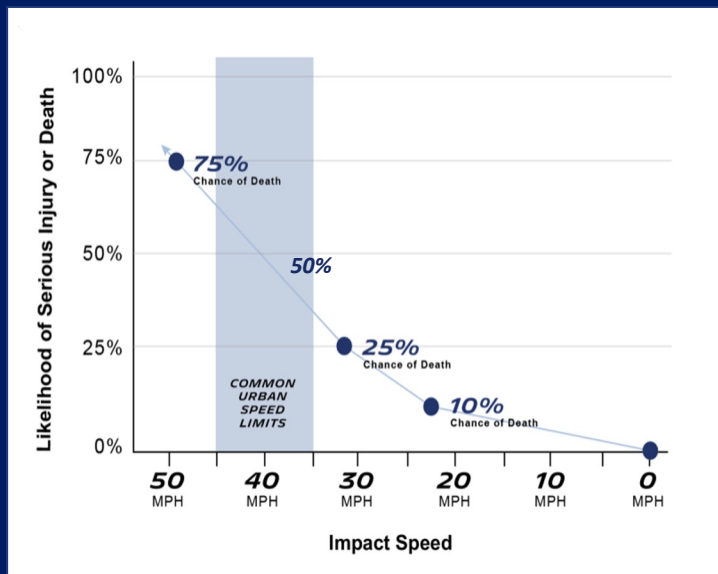
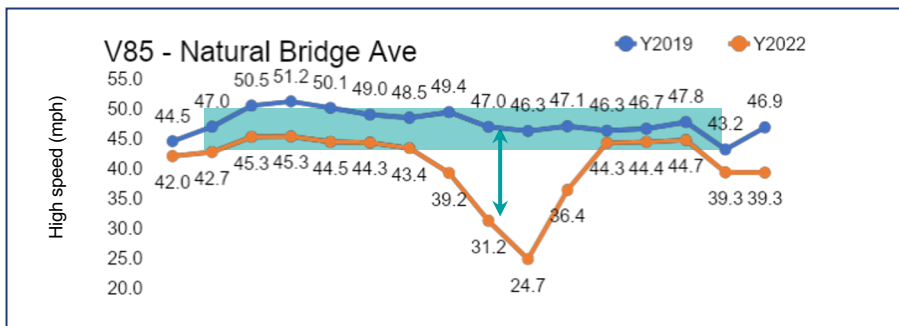
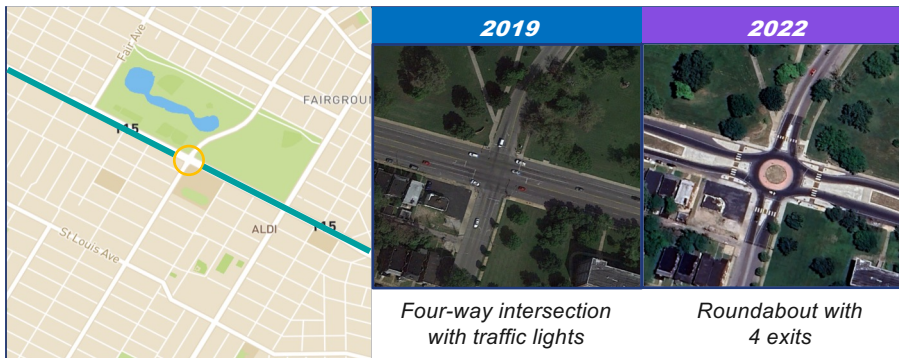
Speeding Severity



Speeding Event Heatmap

## Example 3

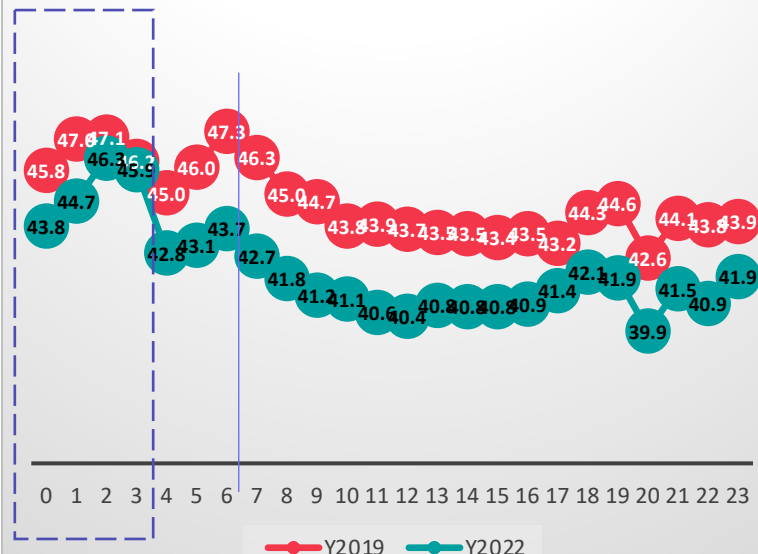
### BEFORE & AFTER ANALYSIS – V85 Speed: Natural Bridge Avenue



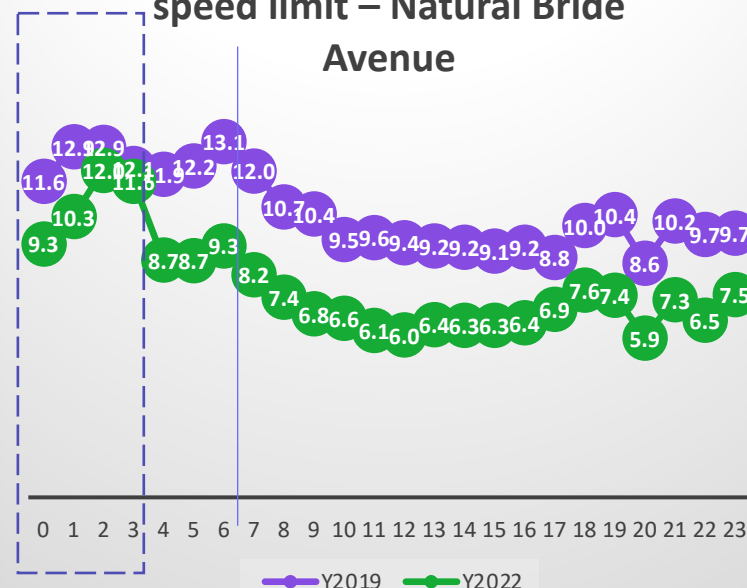
According to NACTO, speed limits in urban areas fall into a zone with high potential risk for injury or death.

## SPEEDING ANALYSIS – Hour Of The Day

### V85 (MPH) - Hour of the day - Natural Bridge Avenue



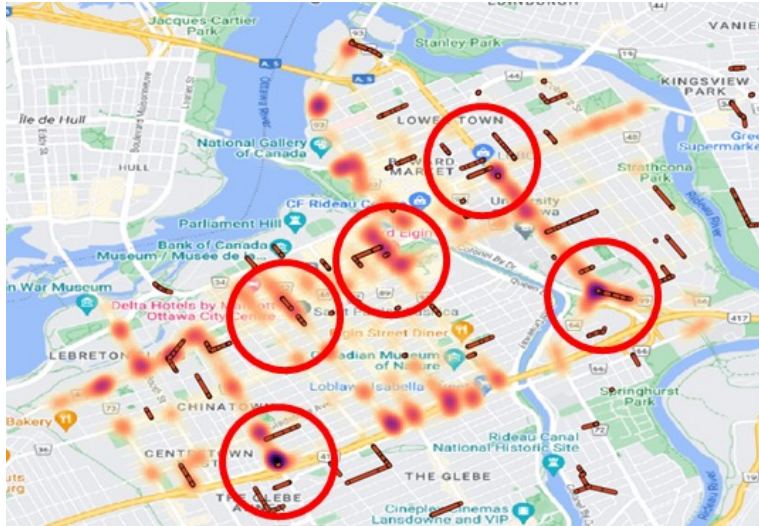
### Avg Excess speed (MPH) above speed limit – Natural Bridge Avenue



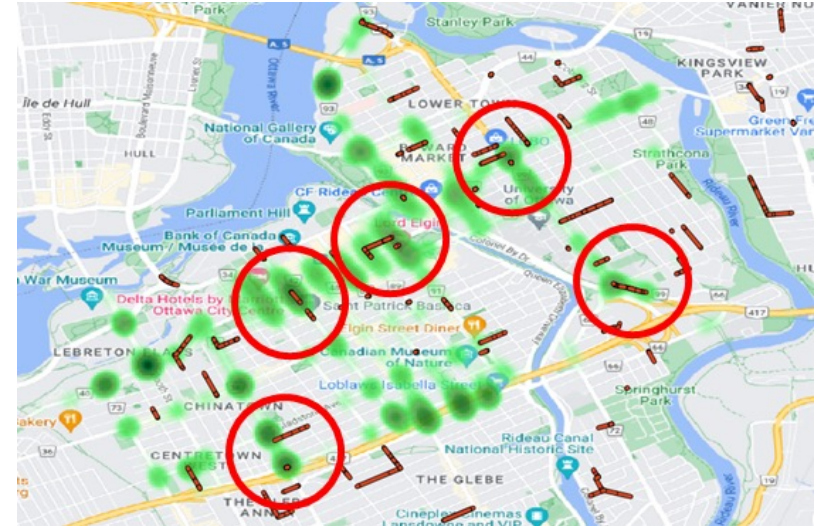
### Observations:

On Natural Bridge Avenue, higher speeding is observed between **12AM & 3AM** (2022)

## Example 4 Identification of risky pedestrian road segments



Heat map of harsh braking events along with Pedestrian road segments. Identified the pedestrian's areas/road segment which have higher harsh braking behavior.



Heat map of harsh acceleration events along with Pedestrian road segments. Identified the pedestrian's areas/road segment which have higher harsh acceleration behavior.

- Highlighted road sections (in red circles), are the sections where there is high likelihood of risks to the pedestrians.



# Opportunity to use data to improve road safety

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Leverage mobile data

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Let's work together

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Be thought leaders



# Thank you.

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