Texas Transportation Forum

Putting Connected Vehicle Data to Work

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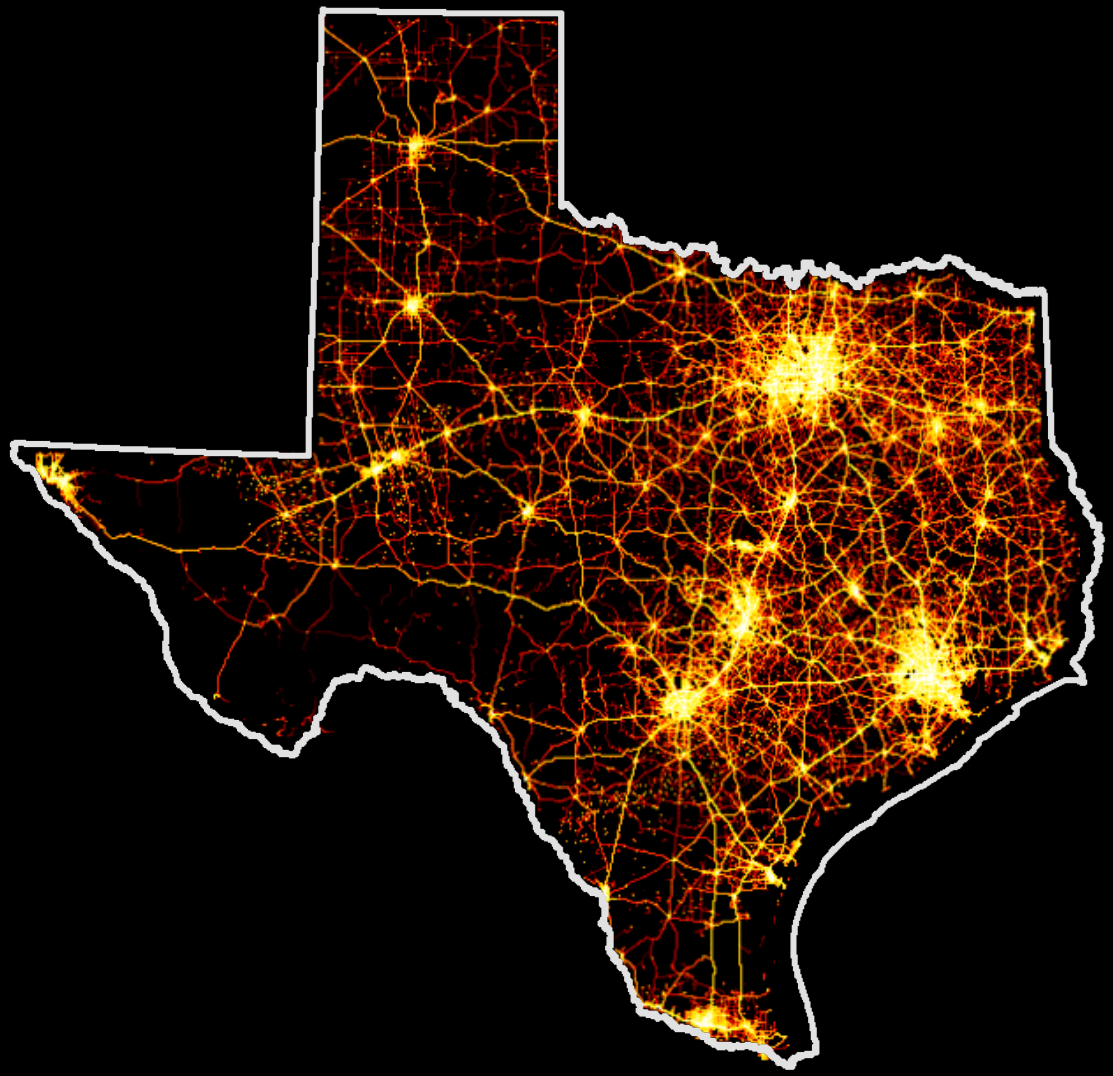

Texas-size Data:

Urban & Rural

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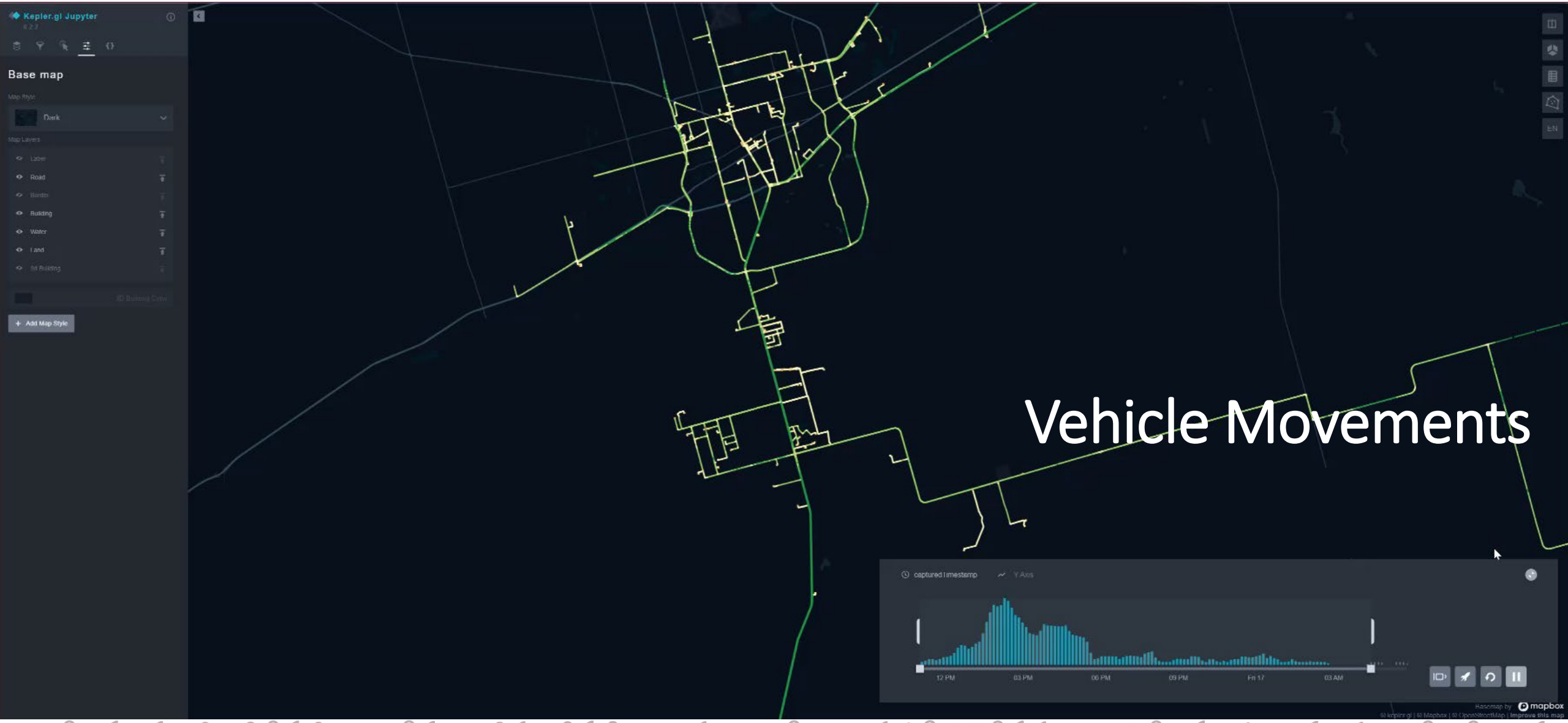
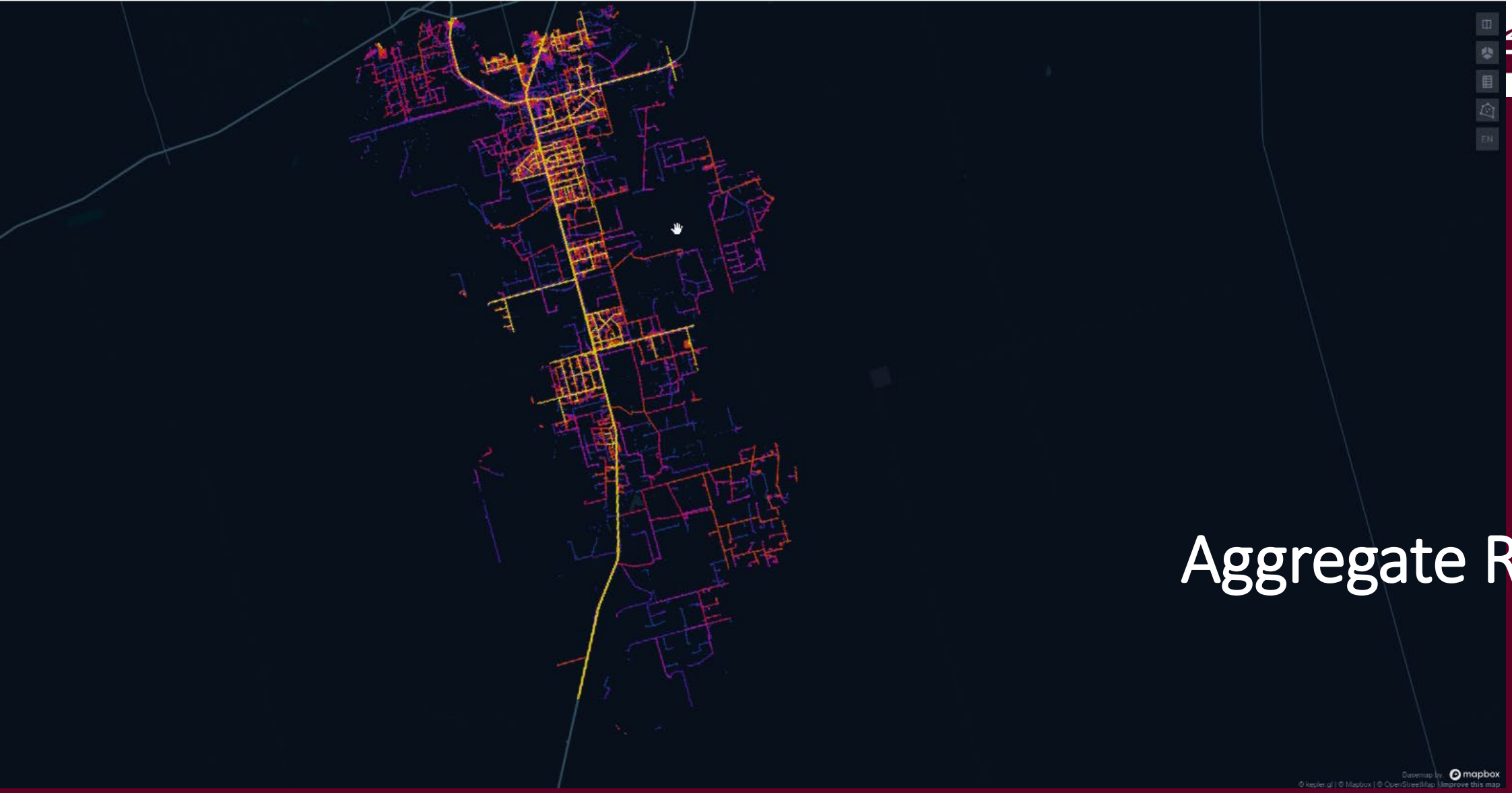
Vehicle Movements



Vehicle Movements



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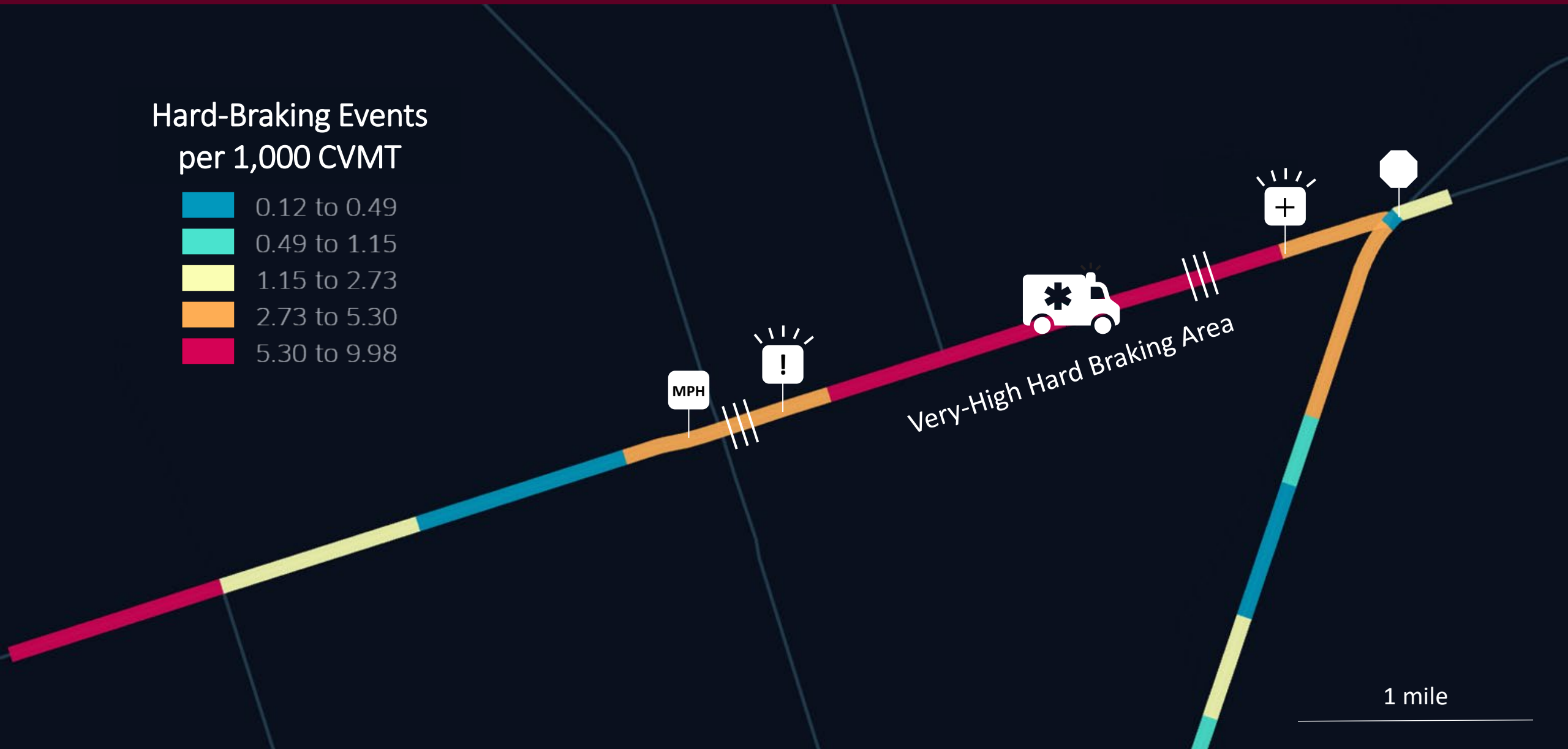
Aggregate Results

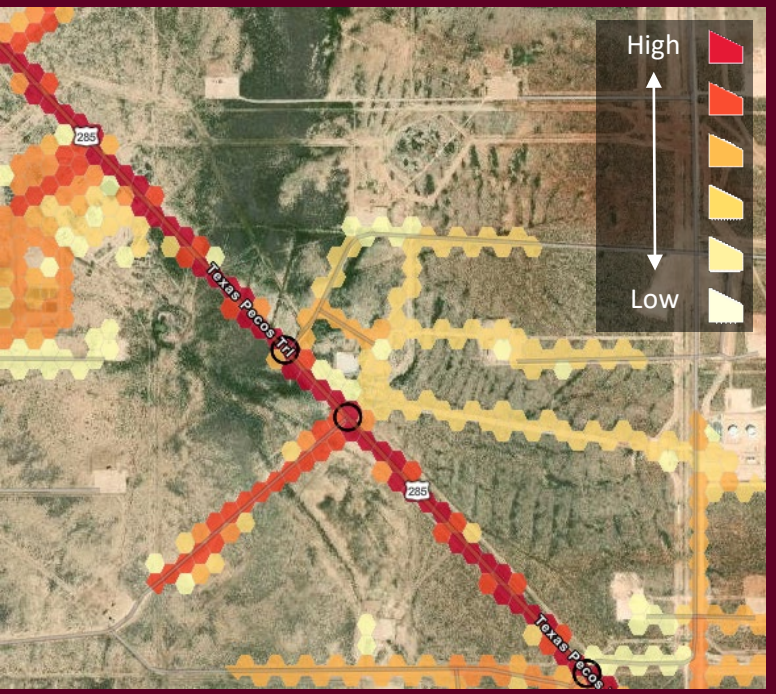
Seat belt latching
04/29/21
12:46:19pm
04/30/21
14:07:27pm
timestamp
Y Axis
Sat 03
Mon 05
Wed 07
Fri 09
Apr 11
Tue 13
Thu 15
Sat 17
Mon 19
Wed 21
Fri 23
Apr 25
Tue 27
Thu 29
mapbox

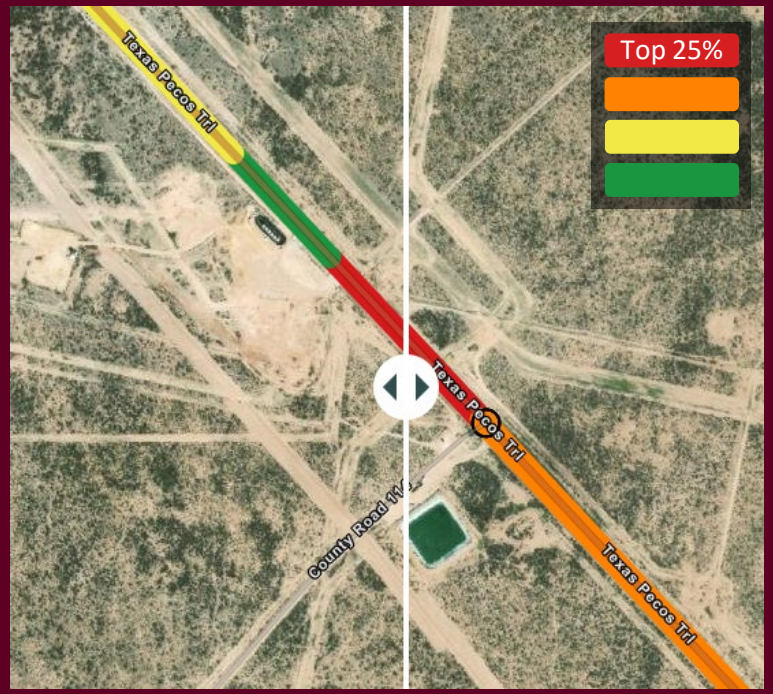
Hard braking

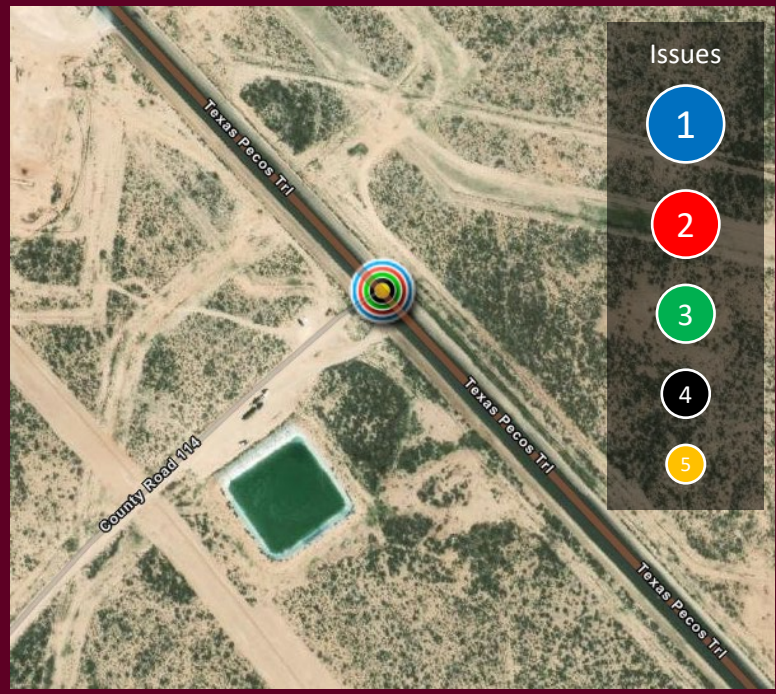

Hard-Braking Events per 1,000 CVMT
0.12 to 0.49
0.49 to 1.15
1.15 to 2.73
2.73 to 5.30
5.30 to 9.98
MPH
!
Very-High Hard Braking Area
1 mile

Informing Engineering Decisions

Where & How People Travel → Safety Assessments → Targeting Opportunities







Our work thus far with connected vehicle data

“Conquering the iceberg”

- Develop & maintain public-private partnerships on data
- Collaborate across skill sets
  - Practitioners + subject matter experts + data scientists/engineers
- Build professional capacity
  - State-of-the-art big data tools
  - Spirit of innovation and discovery

“Avoid another Titanic”

- Follow best practices for data privacy
  - TX SB 475 (Opt-in passive data collection)
  - Institutional controls
- Be proactive and transparent with the public
  - Explain the tradeoff – your data for a safer & smoother trip
- Avoid using “their data against them”
  - Tread very carefully with anything related to enforcement