



Altitude

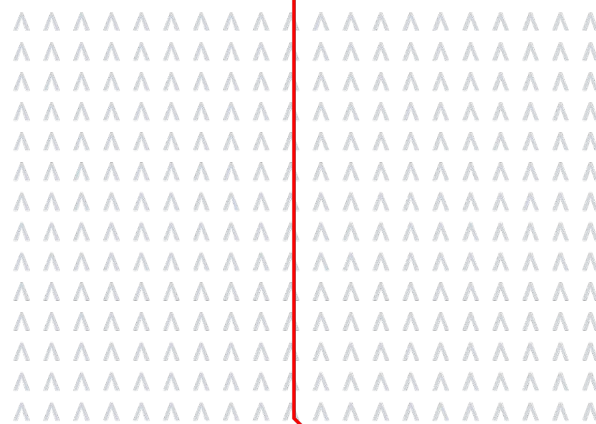
Contextualized Freight and Mobility Data

Community Mobility Collaborative Meeting

August 18, 2026



Dan Katleman
Business Development Manager



Agenda

1. Intro.
2. Altitude background.
3. Short demo.
4. Q&A.



Clean Cities Applications



- **Guiding new ZEV deployments.**
 - Potential for data to guide public charger site selection and fleet suitability to help you get started.
- **Grant Applications and securing funding.**
 - Data on air quality and truck dwelling can enhance differentiate grant applications to state agencies for infrastructure funding.
- **Data-backed decisions.**
 - Back-up decisions for new charging infrastructure to ensure adequate charging capacity for heavy fleets and infrastructure is utilized.

Geotab Corporate Overview



25+ YEARS

driving transformation



700+

Partners globally



6+ MILLION

Connected vehicles



3000+ EMPLOYEES

in 30+ countries



60,000+ CUSTOMERS

in 165 countries



>80B DATA POINTS

processed daily



Geotab ranked

#1 Telematics Provider

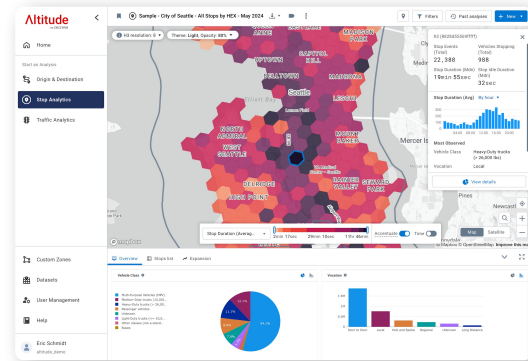
in the world by ABI Research



Geotab Collects A LOT of data: Anonymized Mobility Intelligence

*Altitude is a separate Geotab business line that transforms **anonymized, aggregated data** from millions of connected commercial vehicles into insights available in **a web-based portal (shown in the image)**.*

- **Fully anonymized** — no individual vehicles or drivers identifiable.
- Attributes on **Vocation, Industry, and Fuel Type**
- Covers **99.9% of primary roadways** across North America.
- Used by DOTs, MPOs, cities, and private enterprises.



6M+

**Connected
Vehicles**

190M+

**Miles Driven
Daily**

100%

**Anonymized
& Secure**

Altitude reveals how connected commercial vehicles move across North America.

Insight to Impact

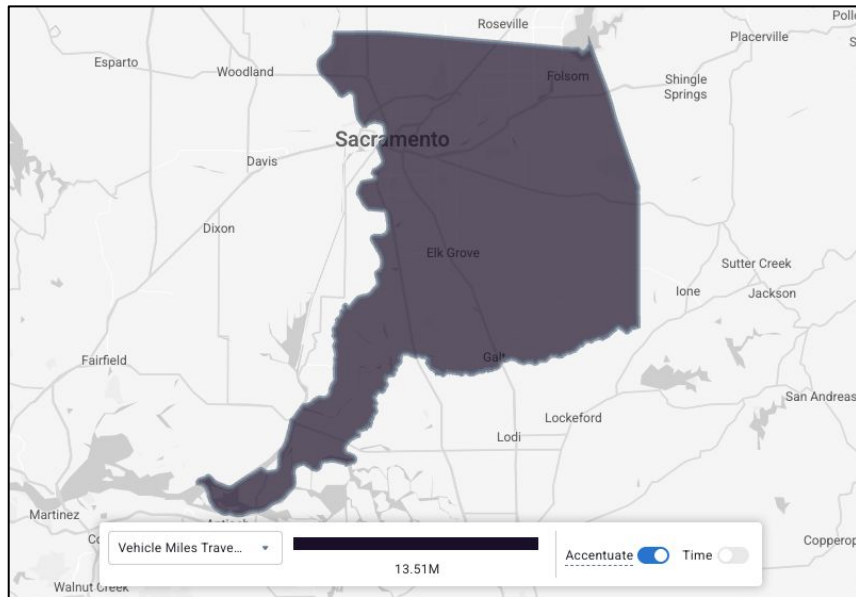
Proven expertise in empowering data-driven decisions for smarter, safer, and more sustainable transportation.

- Trusted by leading agencies like Georgia DOT and California, partnering with The Ray and others on freight electrification.
- Delivered tangible results for NYC DOT and Southern California, improving planning and efficiency.
- Driving positive impact in sustainability, enhancing road safety through better transportation planning.



Example Analyses

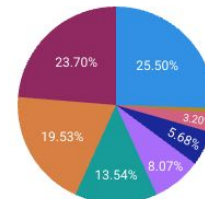
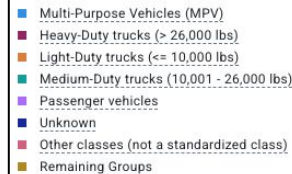
Big Picture: Sacramento County Snapshot



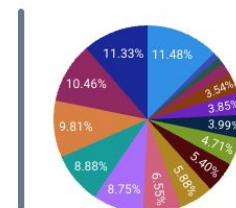
July 2026:

- 13.51 Mil. Vehicle Miles Traveled
- 1.92 Mil. Trips
- 244,855 hrs idling
- 7 min 33 sec Idling Duration Average

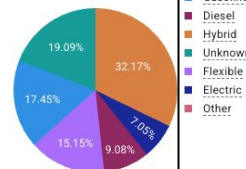
Vehicle Class by Distance Travelled (Total) ⓘ



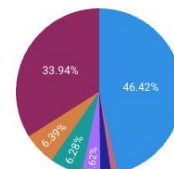
Industry by Distance Travelled (Total) ⓘ



Vocation by Distance Travelled (Total) ⓘ

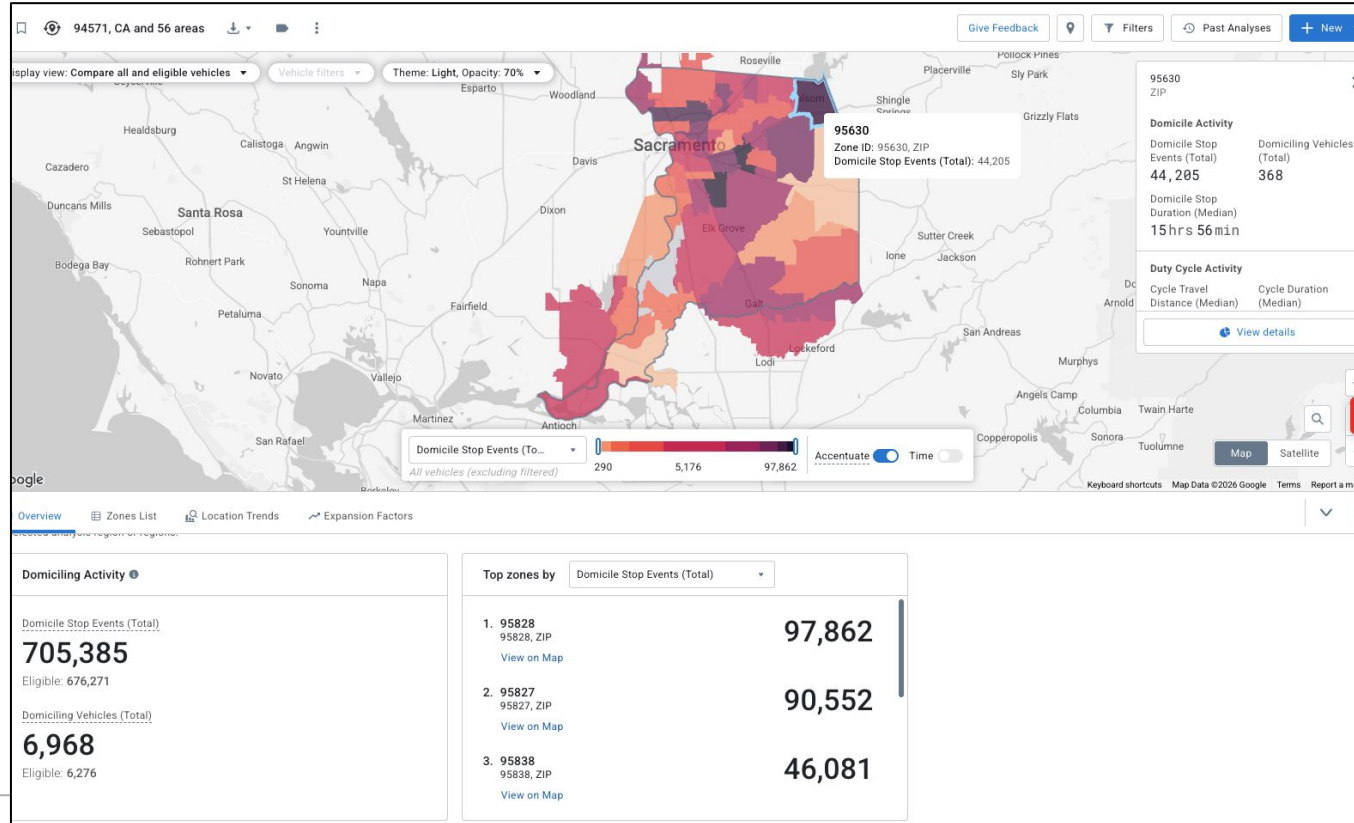


Vehicle Fuel Type by Distance Travelled (Total) ⓘ



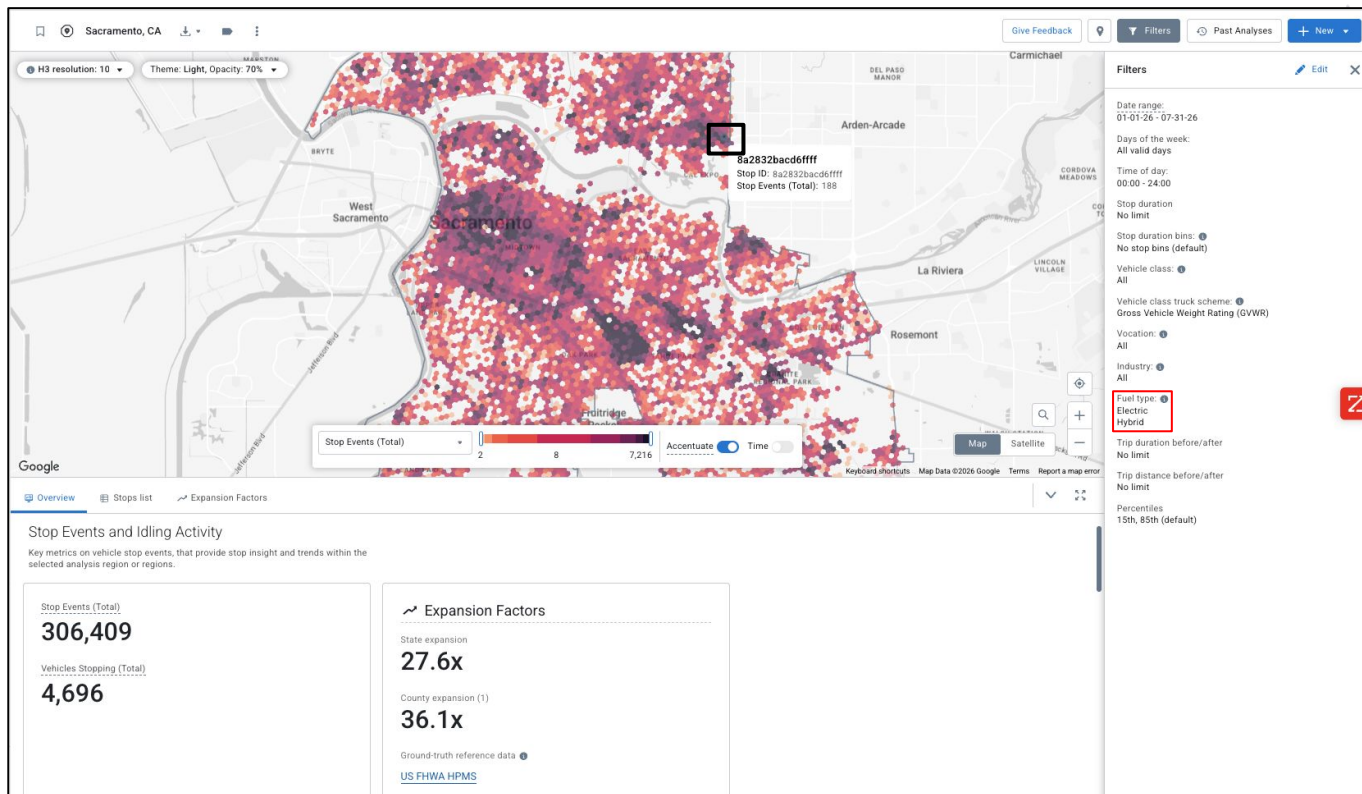
Domicile Vehicle Dwelling Events, Sacramento County

LD, MD, and HD Vehicles, Jan-Jul 2026, Zip Code Breakdowns



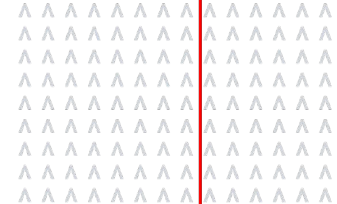
Electric & Hybrid Stop Events, Sacramento, CA

Jan-Jul 2026, Hex Grid Level



Electric & Hybrid Stop Events, Sacramento, CA

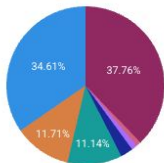
HD Trucks, Jan-Jul 2026, Hex Grid Level - **Vehicle Attributes**



2

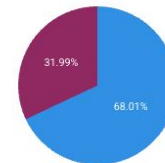
Stop Events by Vehicle Class (Total)

- Passenger vehicles
- Multi-Purpose Vehicles (MPV)
- Light-Duty trucks (<= 10,000 lbs)
- Unknown
- Heavy-Duty trucks (> 26,000 lbs)
- Buses
- Remaining Groups



Stop Events by Vehicle Fuel Type (Total)

- Hybrid
- Electric

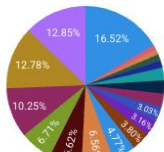


Vehicle Operational Characteristics

Industry and vocation data reveals how vehicles in your analysis are engaged across commercial sectors, helping you understand stop purpose and patterns so you're able to tailor your services to the drivers most likely to visit your site.

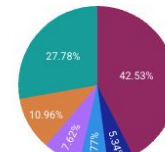
Stop Events by Industry (Total)

- Public administration
- Retail trade
- Unclassified
- Finance and insurance
- Utilities
- Real estate and rental and leasing
- Arts, entertainment and recreation
- Agriculture, forestry, fishing and hunting
- Manufacturing
- Other services (except public administration)
- Construction
- Health care and social assistance
- Wholesale trade



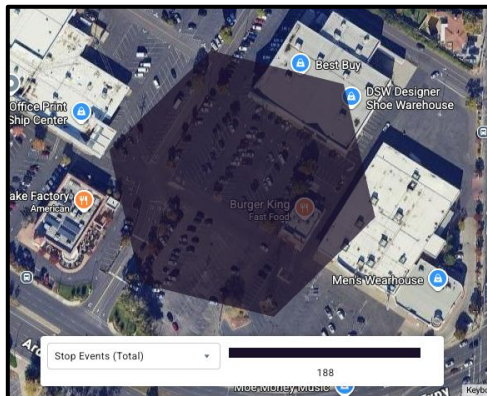
Stop Events by Vocation (Total)

- Unknown
- Door to Door
- Hub and Spoke
- Local
- Regional
- Long Distance



Electric & Hybrid Stop Events, Sacramento, CA

Hotspot Stop Area

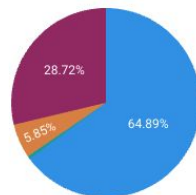


Stopping Activity		Parking Activity	Most Observed	
Stop Events (Total)	Vehicles Stopping (Total)	Hourly Parking Events (Max Avg)	Vehicle Class	Vocation
188	73	--	Passenger vehicles	Door to Door
Stop Duration (Median)	Stop Idle Duration (Median)	Hourly Parking Events (Min Avg)	Industry	Fuel Type
7 min 12 sec	3 min 59 sec	--	Finance and insurance	Hybrid

Metric	Median	Average	Standard Deviation	15th Percentile	85th Percentile	
Stop Duration	7 min 12 sec	11 min 7 sec	14 min 32 sec	3 min 33 sec	16 min 52 sec	
Stop Idle Duration	3 min 59 sec	5 min 32 sec	7 min 56 sec	0 min 7 sec	10 min 1 sec	
Trip Distance Before Stop	1.43 mi	4.21 mi	7.61 mi	0.14 mi	6.75 mi	
Trip Distance After Stop	2.5 mi	4.61 mi	7.51 mi	0.15 mi	8.44 mi	
Trip Duration Before Stop	6 min 33 sec	10 min 40 sec	12 min 27 sec	0 min 49 sec	21 min 11 sec	
Trip Duration After Stop	9 min 1 sec	12 min 35 sec	13 min 10 sec	2 min 11 sec	23 min 32 sec	

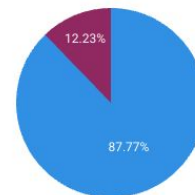
Stop Events by Vehicle Class (Total) 1

- Passenger vehicles
- Multi-Purpose Vehicles (MPV)
- Light-Duty trucks (<= 10,000 lbs)
- Remaining Groups



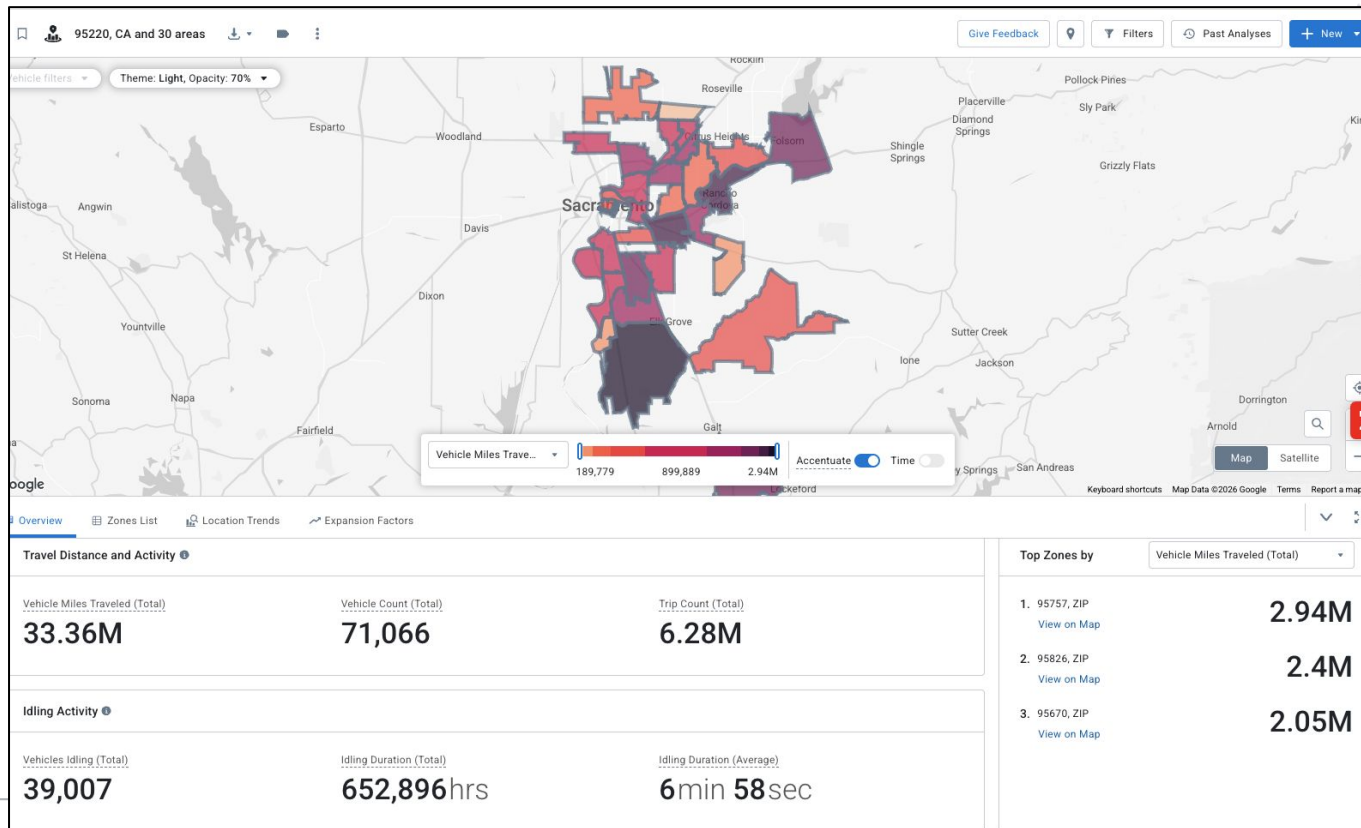
Stop Events by Vehicle Fuel Type (Total) 1

- Hybrid
- Electric



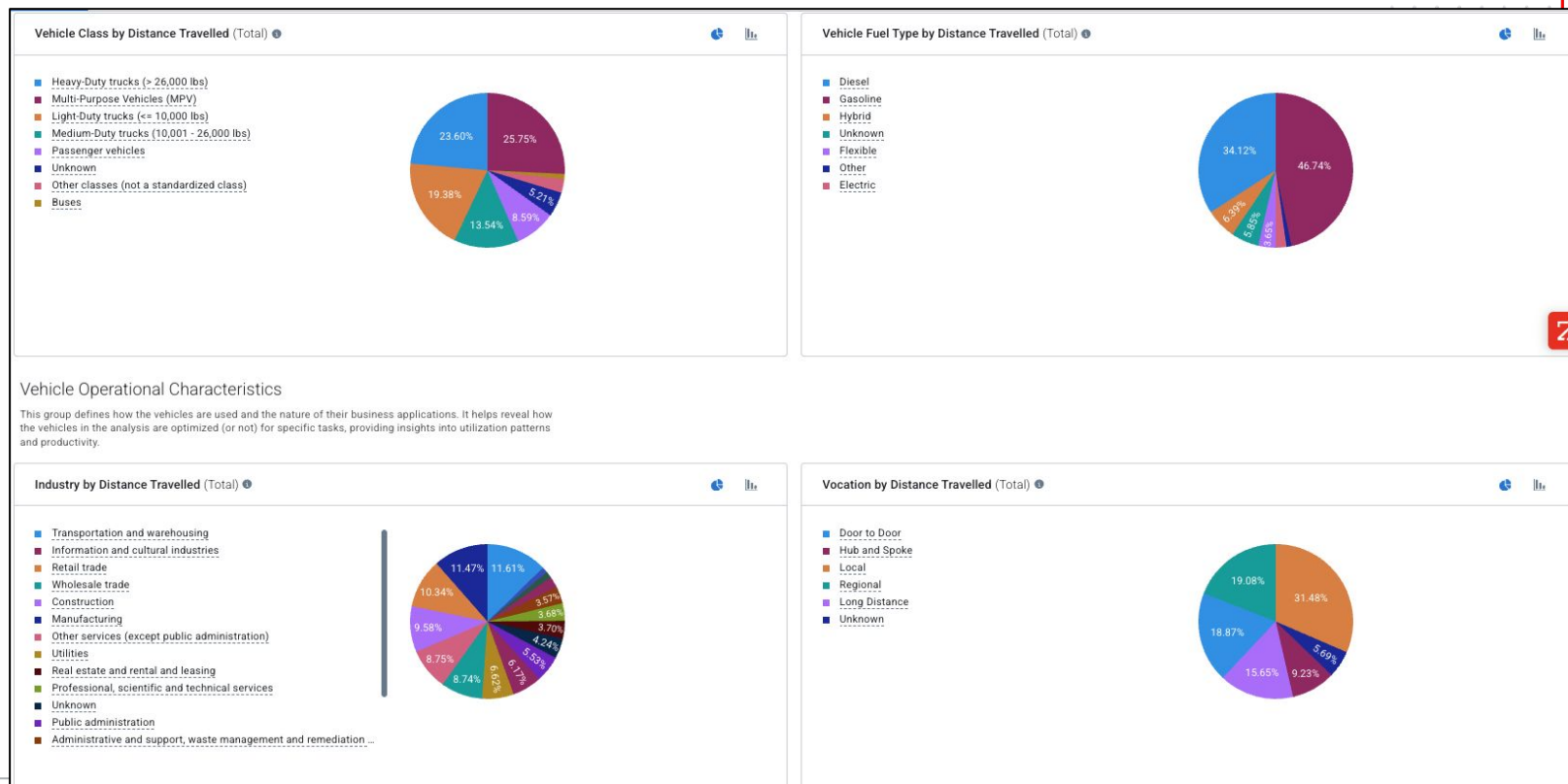
VMT & Idling, Sacramento County

All Commercial Vehicles, Apr-Jul 2026, Zip Code Level

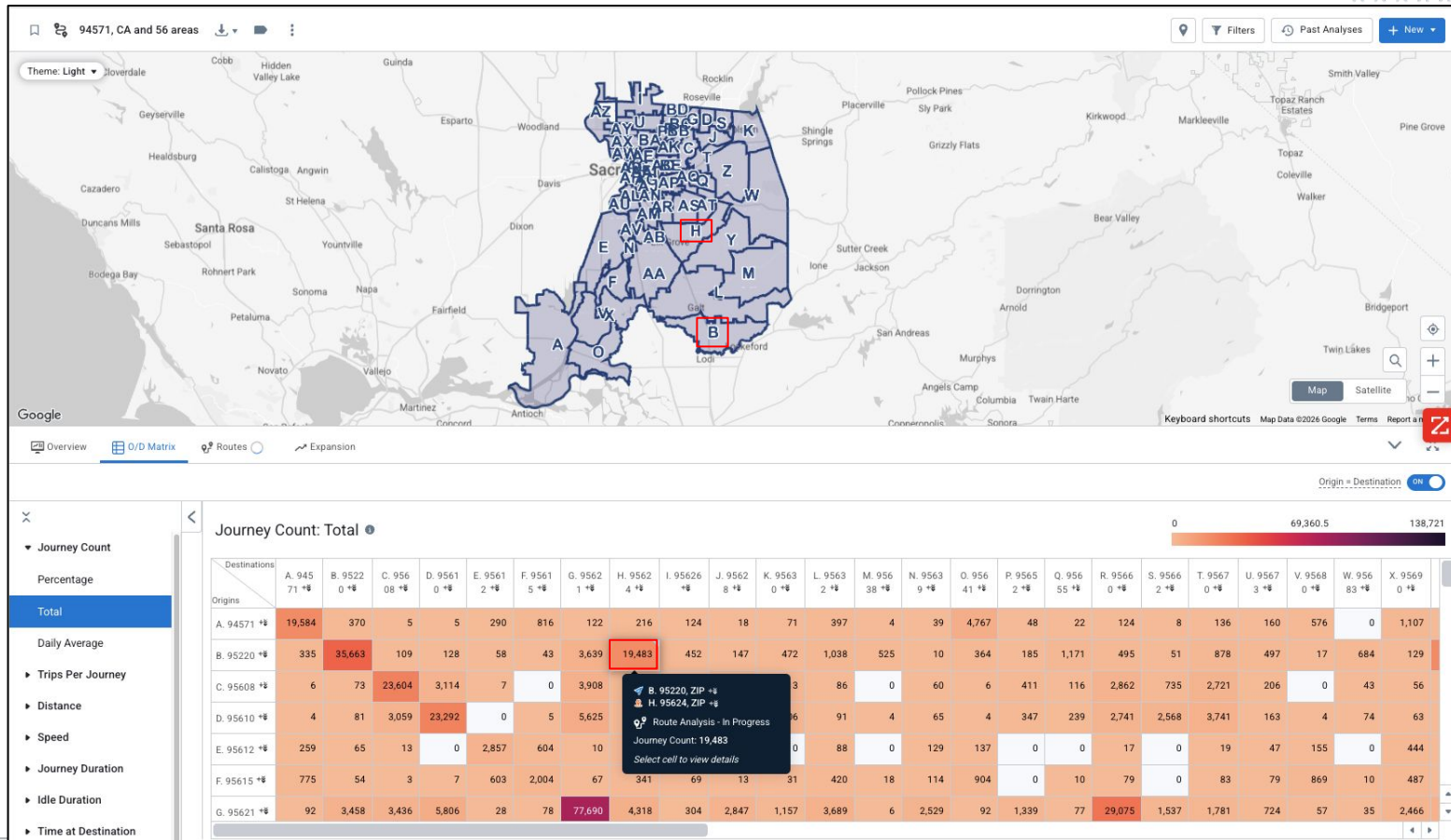


VMT & Idling, Sacramento County

All Commercial Vehicles, Apr-Jul 2026, Zip-Code Level: **Vehicle Attributes**

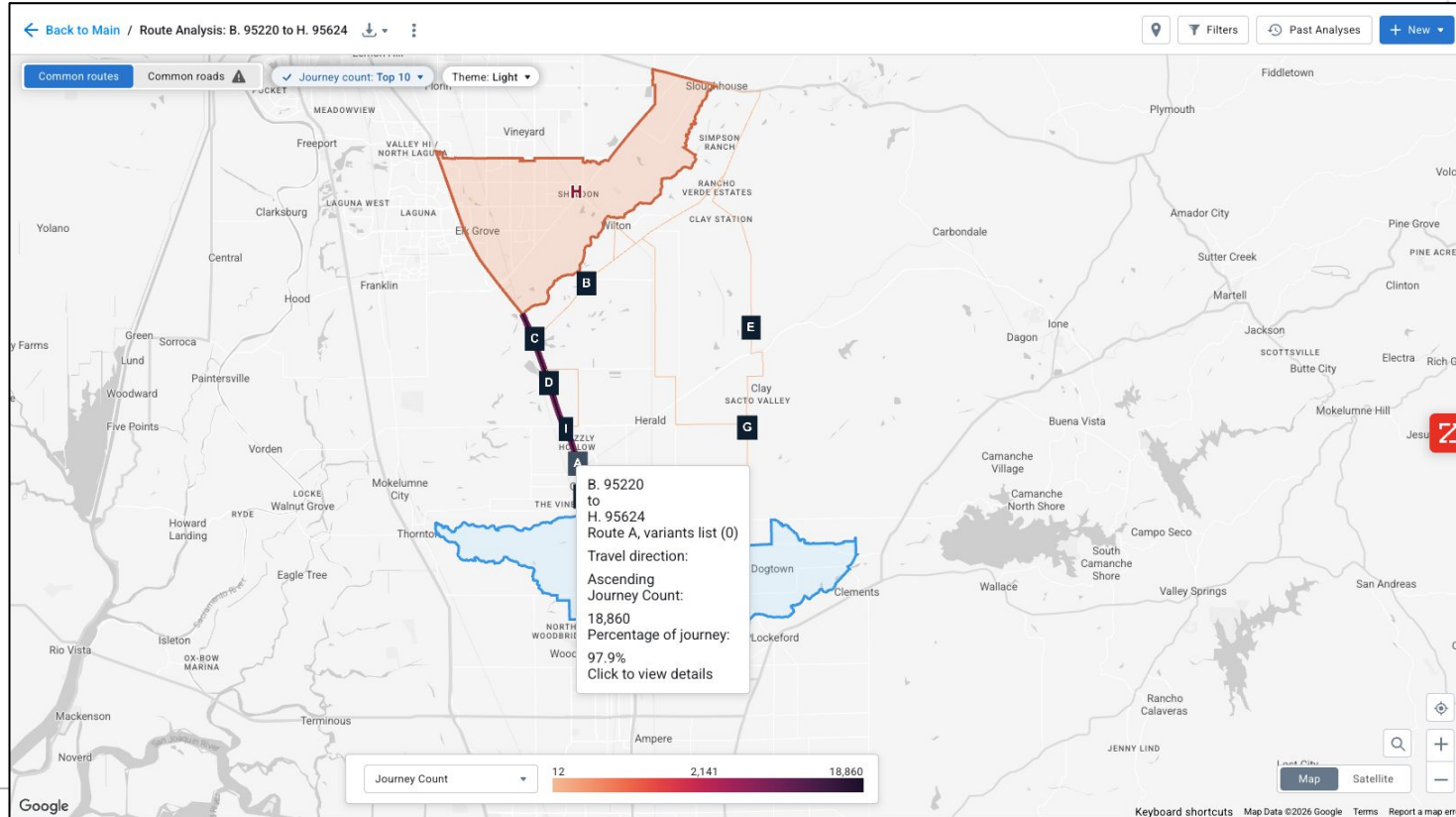


LD, MD, and HD Origin-Destination, Sacramento, CA July 2026



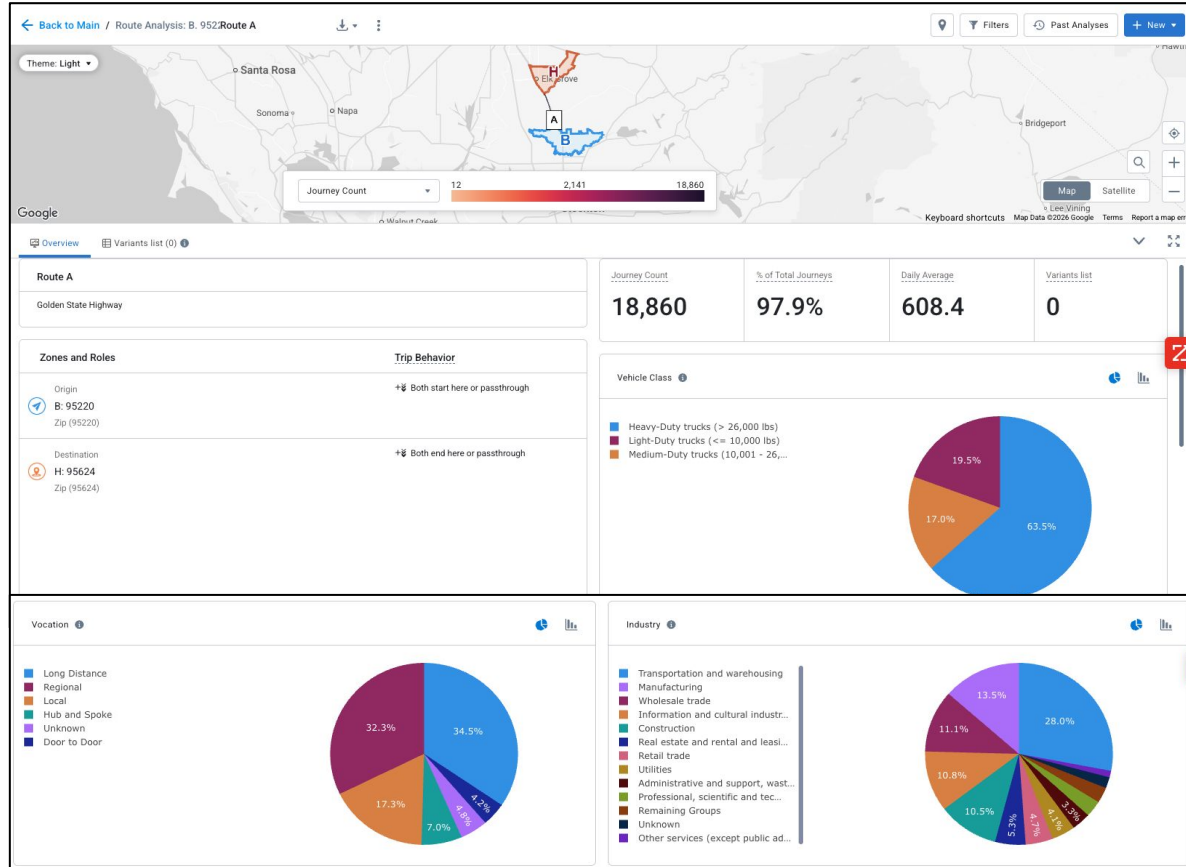
LD, MD, and HD Origin-Destination, Sacramento, CA

Key Route Taken and OD Traffic



LD, MD, and HD Origin-Destination, Sacramento, CA

Primary Route Vehicle Characteristics - July 2026



Measurement Averages:

Distance (miles): 8.5

Running Speed (mph): 59.4

Travel Speed (mph): 57.1

Journey Duration (minutes): 9.4

Journey Idle Duration (minutes): 0.4

February 2026

3 Key Takeaways with Altitude



1. Identify optimal businesses to target for fleet electrification, prioritize sites for private charging.
2. Prioritize corridors for public charging and justify available capacity for charging.
3. Secure grants to begin deployment and monitor progress of air quality and changes following deployment.

Elevate your transportation plans.

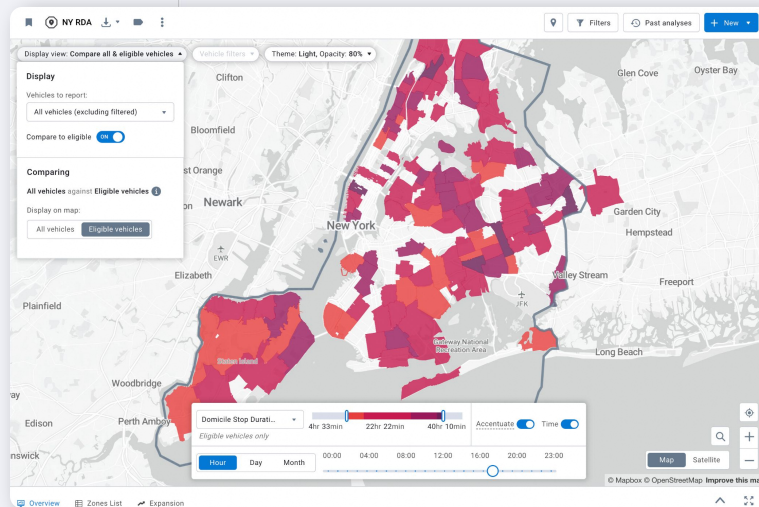


Dan Katleman

Business Development
Manager

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- Pricing varies by contract vehicle and population.
- **Special options available to communities on the California Statewide Contract.**
- Reach out to us for more information.



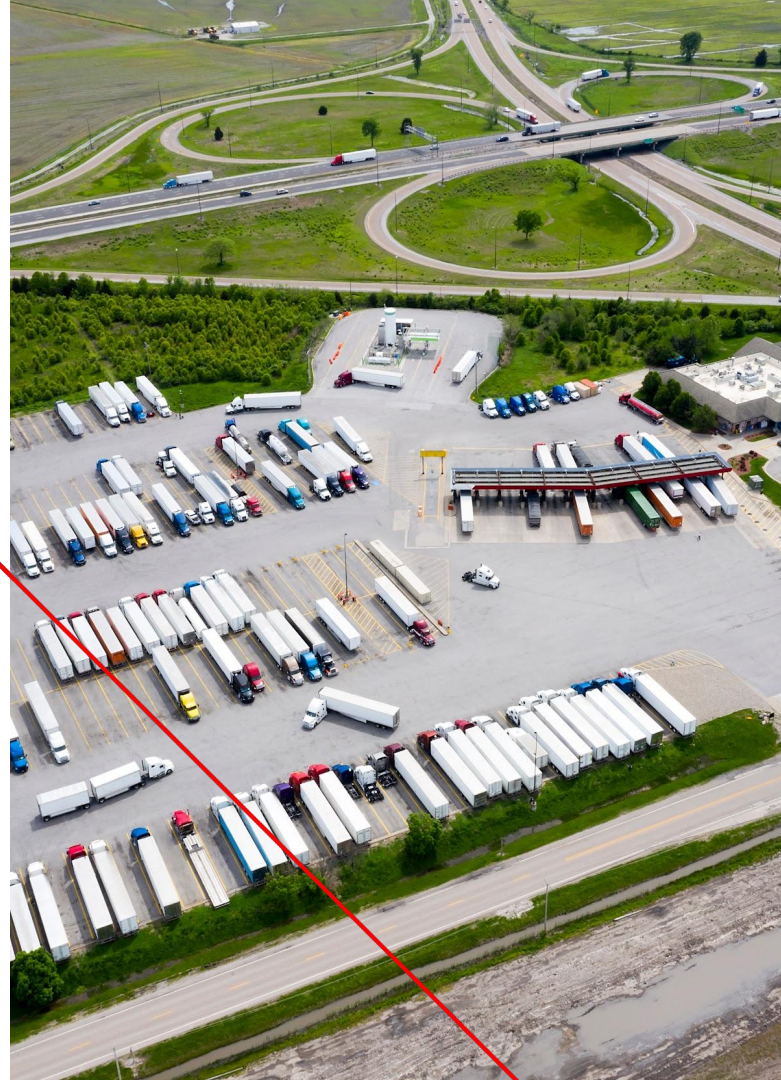
Appendix

Effective Freight Parking

Build a better freight parking plan with comprehensive truck stop and movement data.

Analyze truck movements and stops at approved and unapproved locations to ensure safe rest areas, helping operators comply with Hours of Service (HOS) regulations.

- Develop a comprehensive truck parking plan
- Allocate resources for safe rest areas
- Enhance freight efficiency with access to stops
- Provide better resting options for drivers
- Identify needs for upgrading rest areas
- Understand truck movements and stopping reasons



Alternative Fuels & Charging

Choose better sites for charging and refueling depots with insight into truck dwell times and range.

Analyze regional demand for commercial vehicle charging and alternative fuel stations to identify the best locations for long-term, resilient infrastructure.

- Analyze scenarios to forecast alt. fuel demand
- Explore changes in vehicle range and charging times
- Determine EV market share for electrification planning
- Forecast fuel demand by day and hour
- Select optimal sites for refueling stations
- Estimate energy needs for charging sites



Improve Road Safety

Implement preventative measures with insights into harsh driving risks before collisions occur.

Drive toward safer streets by leveraging data on speeding and harsh events like braking, acceleration and cornering to inform targeted safety interventions and avoid accidents before they occur.

- Lead efforts to eliminate road fatalities
- Support planning with reliable road data
- Identify highest-risk road segments proactively
- Build a business case for safety improvements
- Map project areas for impact insights
- Analyze performance to promote equitable planning

