

FIXING THE FIRST AND LAST MILE

A NEW LOGIC FOR SAFE ROUTES TO TRANSIT

WESTERN ITE SESSION 6A – JUNE 30, 2026

JOSH PILACHOWSKI, PHD, TE, RSP1

SENIOR PROJECT MANAGER

josh@dksassociates.com

510.295.9741



SHAPING A SMARTER
TRANSPORTATION EXPERIENCE™
DKSASSOCIATES.COM

AN EMPLOYEE-OWNED COMPANY

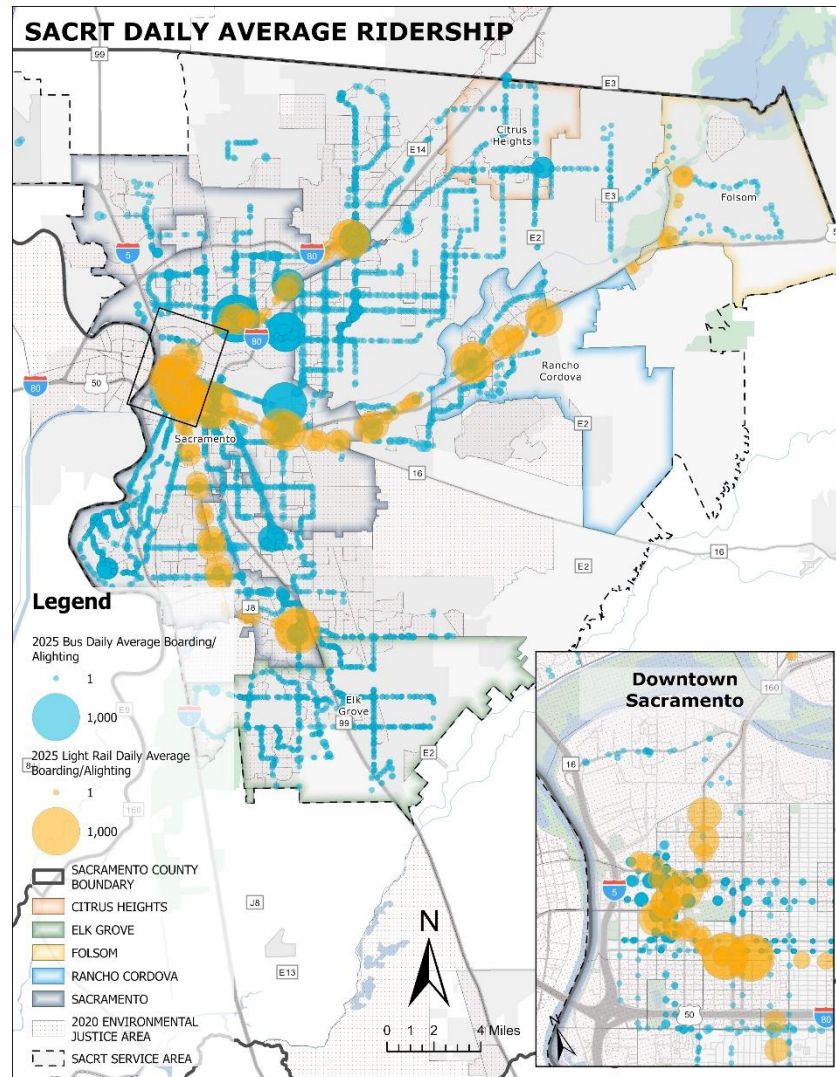


THREE REASONS THE STANDARD PLAYBOOK DOESN'T WORK HERE

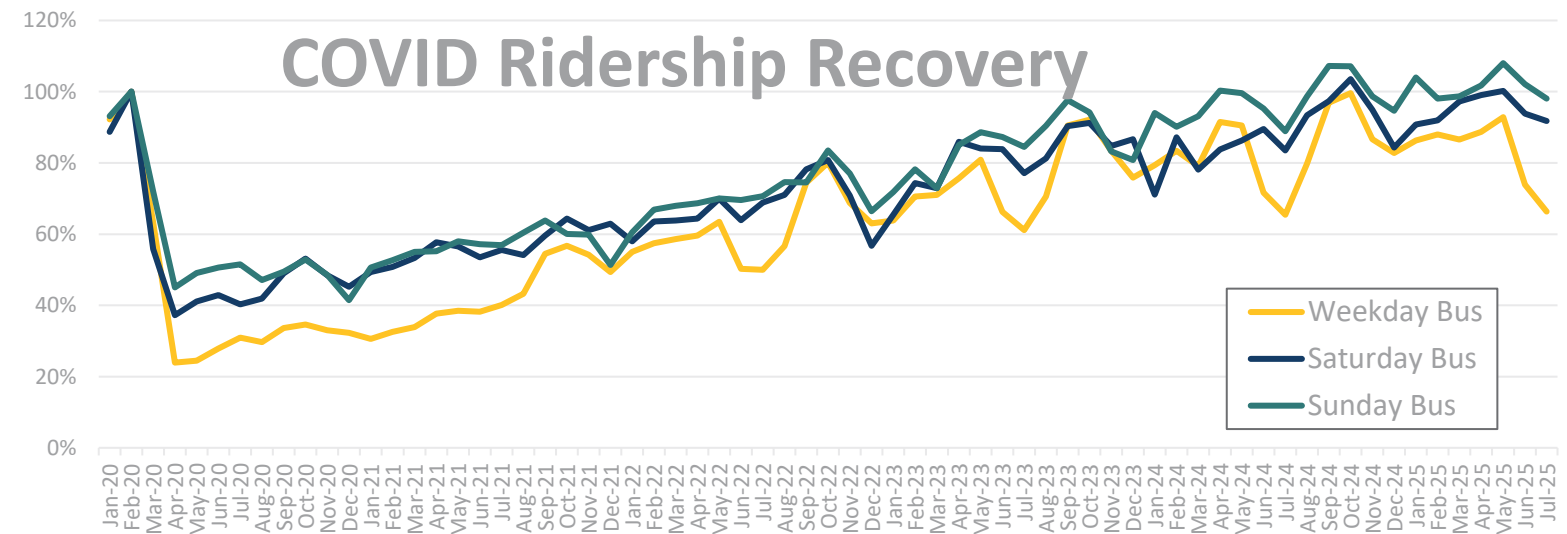
- Safety funding prioritizes frequency and severity of crashes
- Transit Performance depends on multimodal access and ridership demand
- The system-level agency can't apply for funding or implement the fixes



OUR SYSTEM IS LARGE AND DYNAMIC

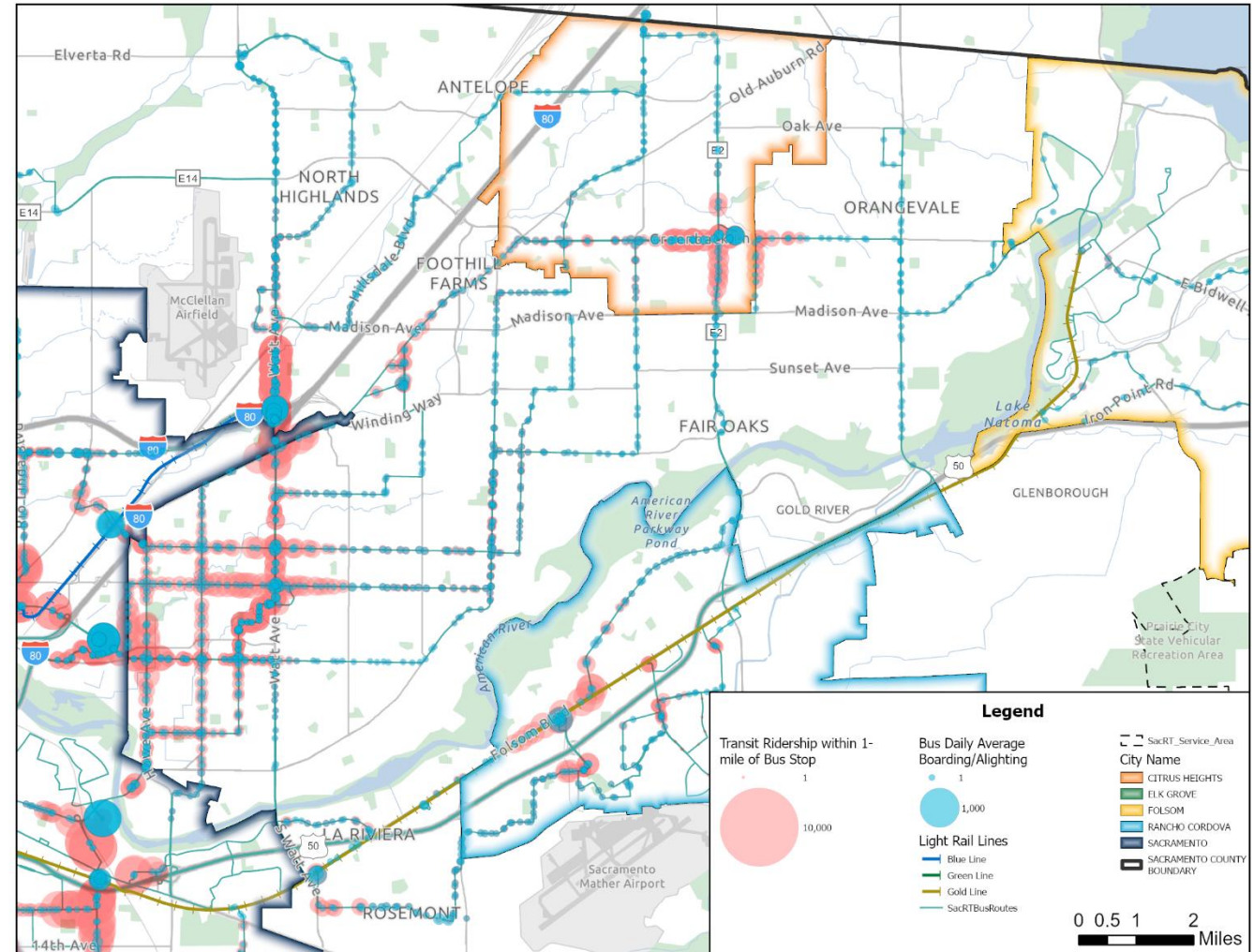


- 3,100 Bus stops
- 54 Light Rail Stations
- 100,000 daily riders



WHO OWNS THE PROBLEM?

- SacRT owns:
 - > Vehicles
 - > Stations
 - > Platforms
- Jurisdictions own:
 - > Streets and sidewalks
 - > Crossings and bike lanes
 - > Signals



FROM CONTINENTS TO ARCHIPELAGO



**USER EXPERIENCE ON THE
ROADWAY/TRAIL NETWORK**



**USER EXPERIENCE ON THE
TRANSIT NETWORK**

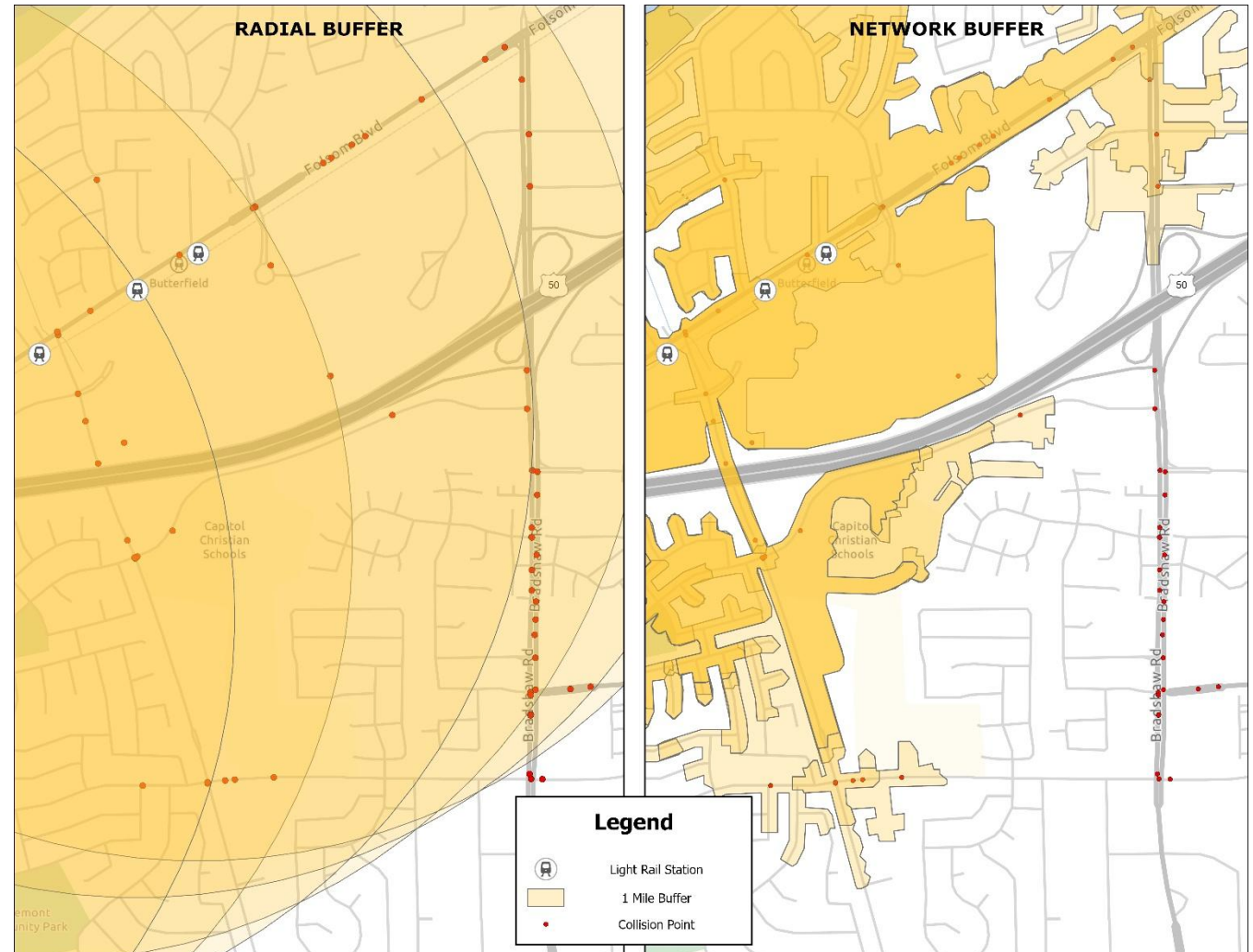
WHAT ARCHIPELAGO THINKING DEMANDS

- No corridor view or local intuition covers the whole system
- The method must work systematically across thousands of independent nodes
- The transit agency must hand off results to six owners who have their own agenda
- Recommendations for each jurisdiction output must be locally relevant and defensible



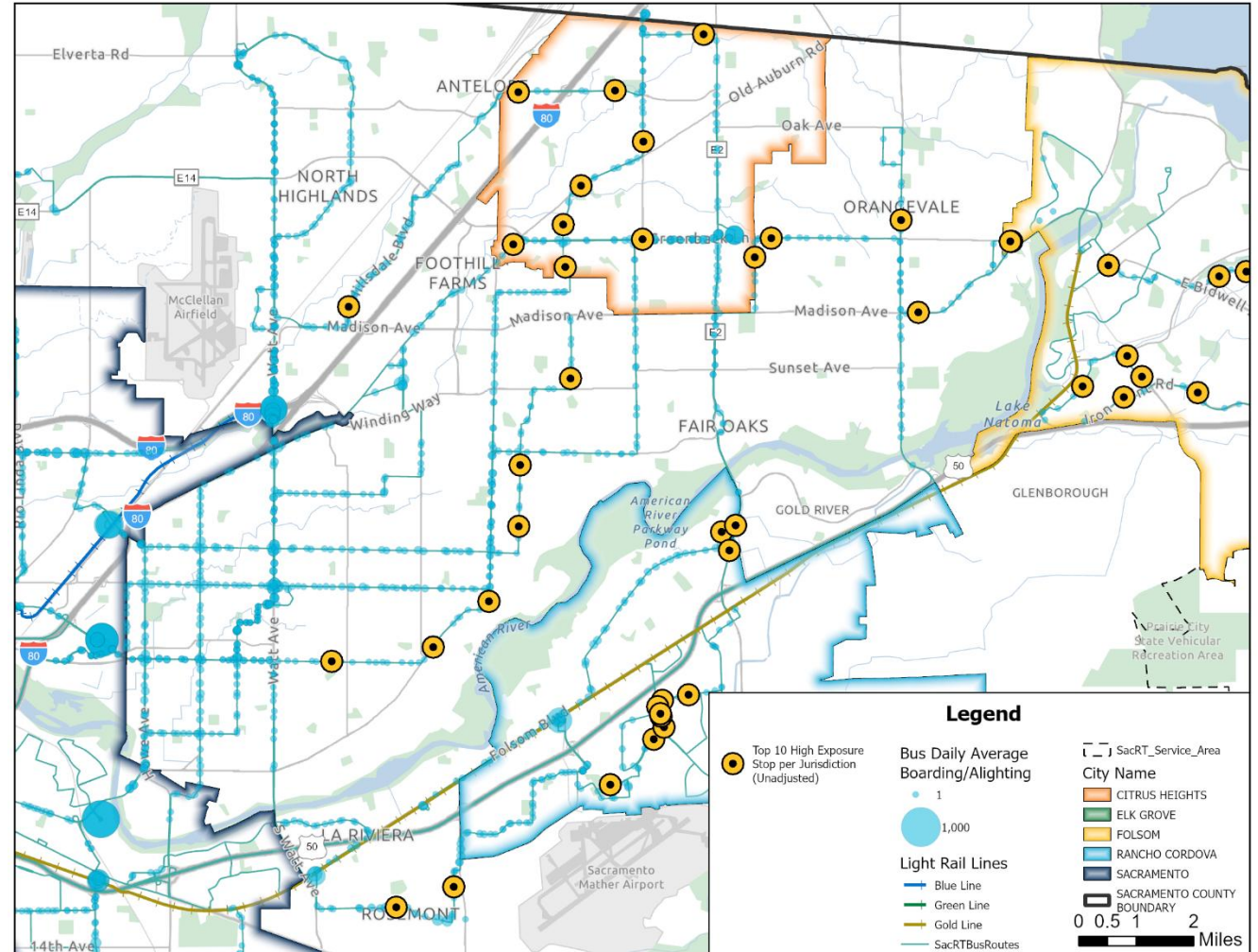
STOPS AS ANCHOR POINTS IN ACCESS-SHEDS

- Defining the scope:
 - > Half-Mile Walksheds
 - > Mile Bikesheds
 - > Distances defined by the network
- Bus stops and light rail stations are not the focus, they are anchor points



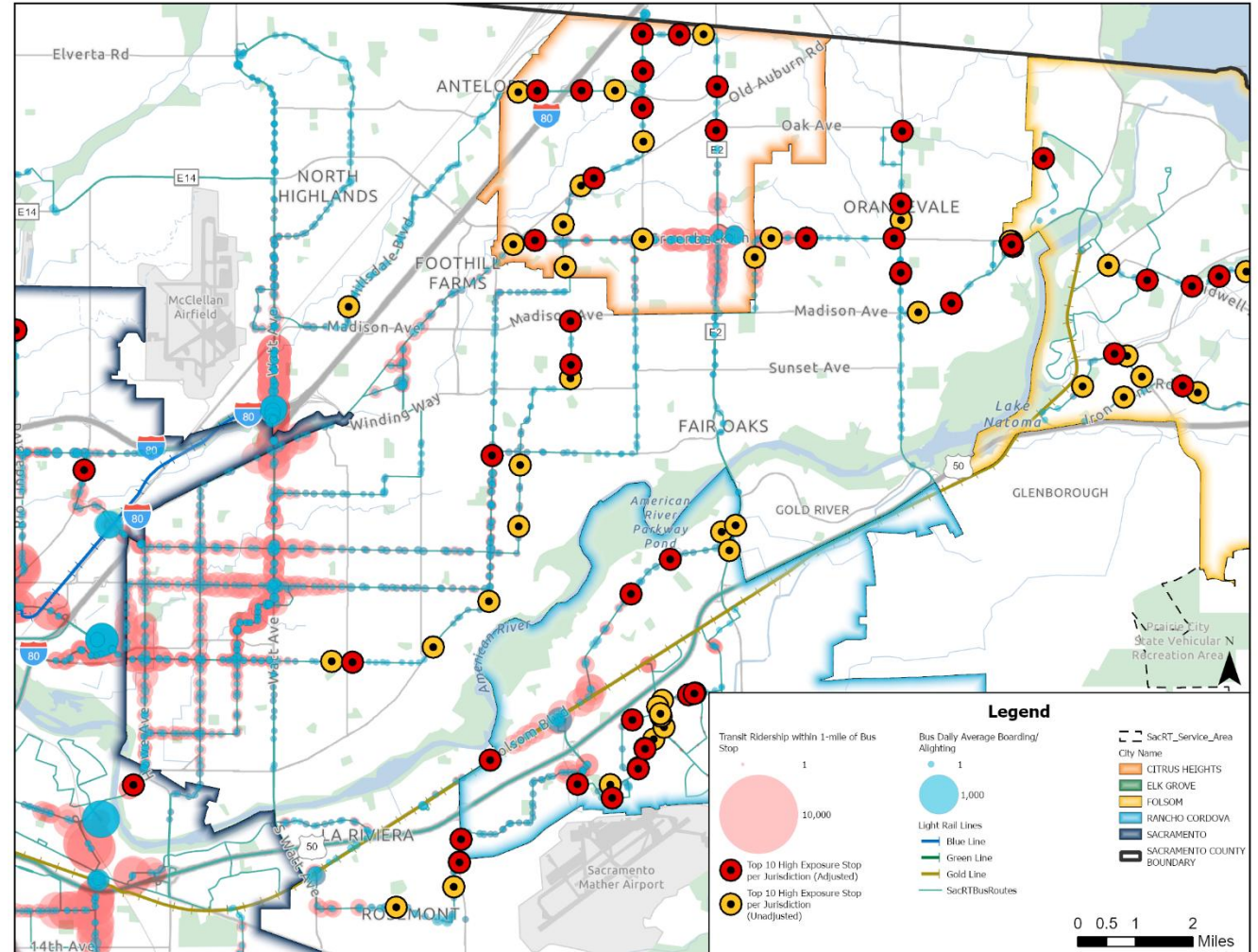
THE OLD APPROACH – ASSIGN AND RANK

- Metrics like ridership and crashes are assigned to stops
- Clumps are manually grouped
- Locations are ranked and prioritized
- Data is noisy and affected by stop density, biasing conclusions



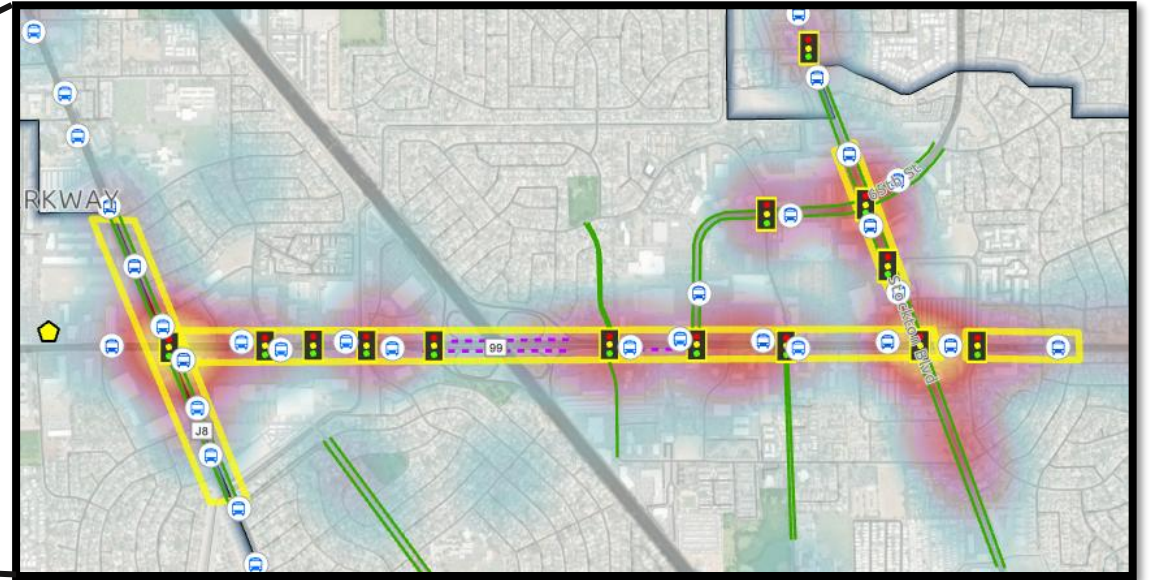
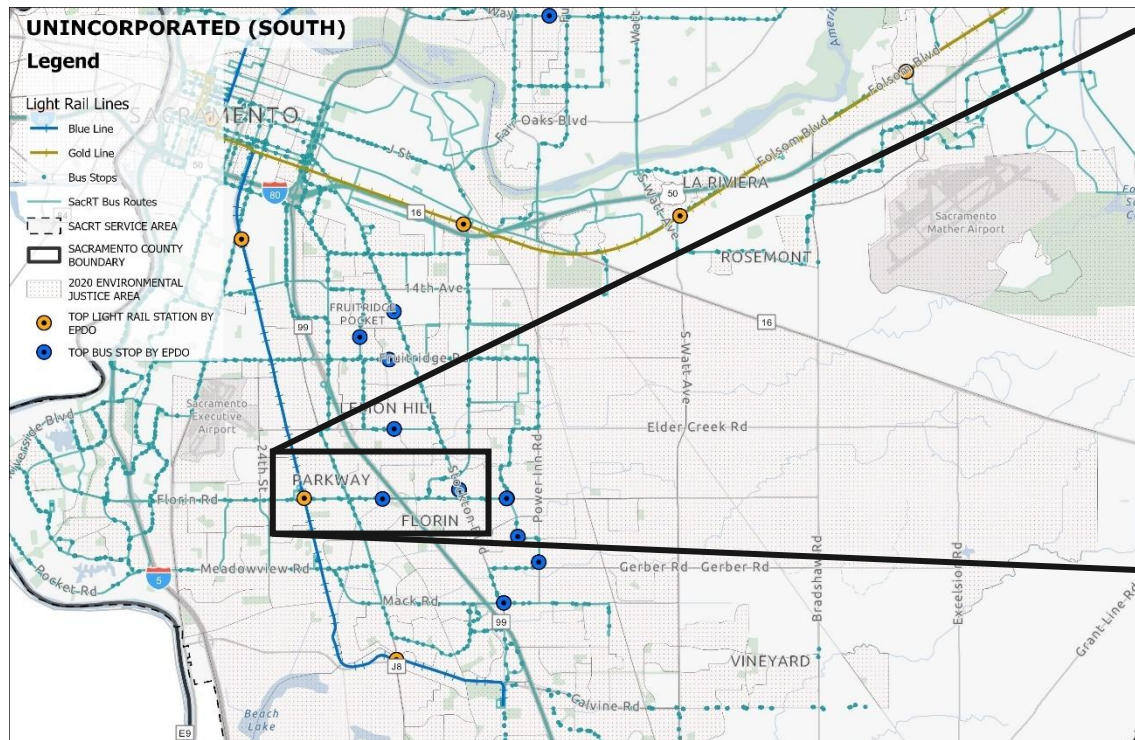
THE NEW APPROACH – ACCUMULATE

- Crashes are assigned to all stops within the access shed
- Every stops' ridership is attributed to nearby stops in the same way
- Focus is shifted away from stops and onto surrounding areas



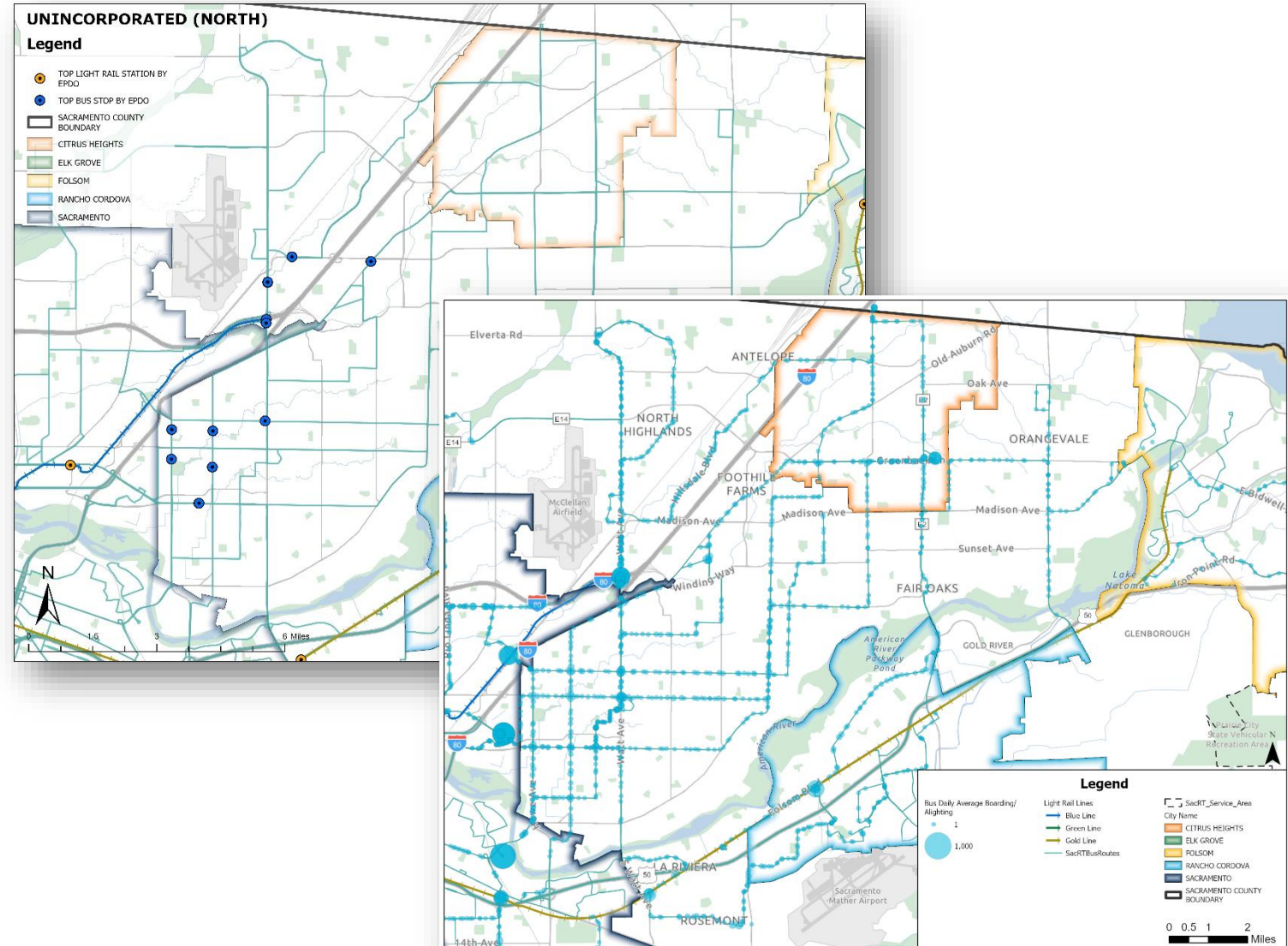
SHIFT FROM STATION TO INFRASTRUCTURE

Smoothing reorients investment toward shared access infrastructure, not individual station rankings



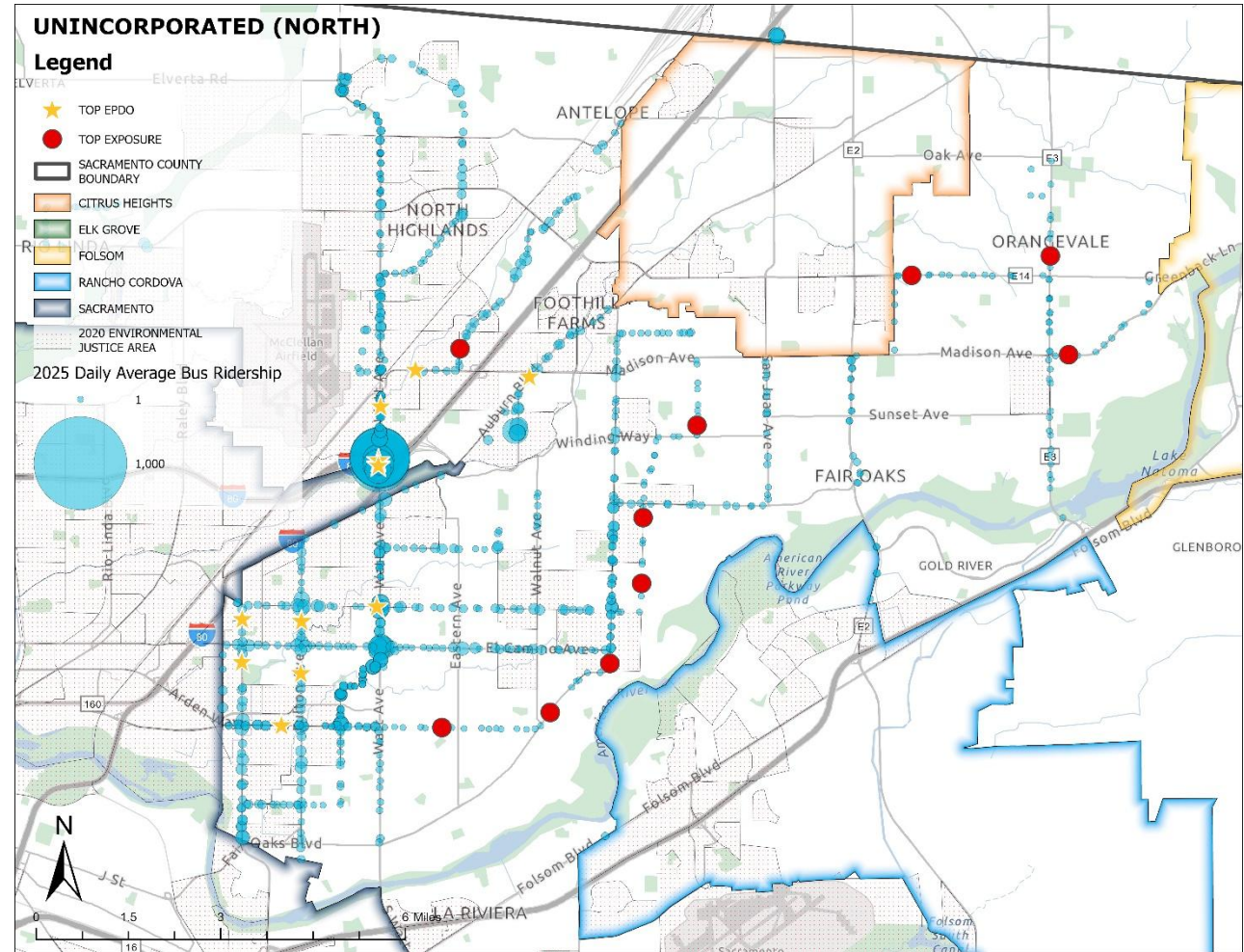
WHY ONE METRIC ISN'T ENOUGH

- Crash history is biased to high-density areas
- Ridership ignores competitive funding
- Equity metrics help separate captive ridership from those who choose to take transit

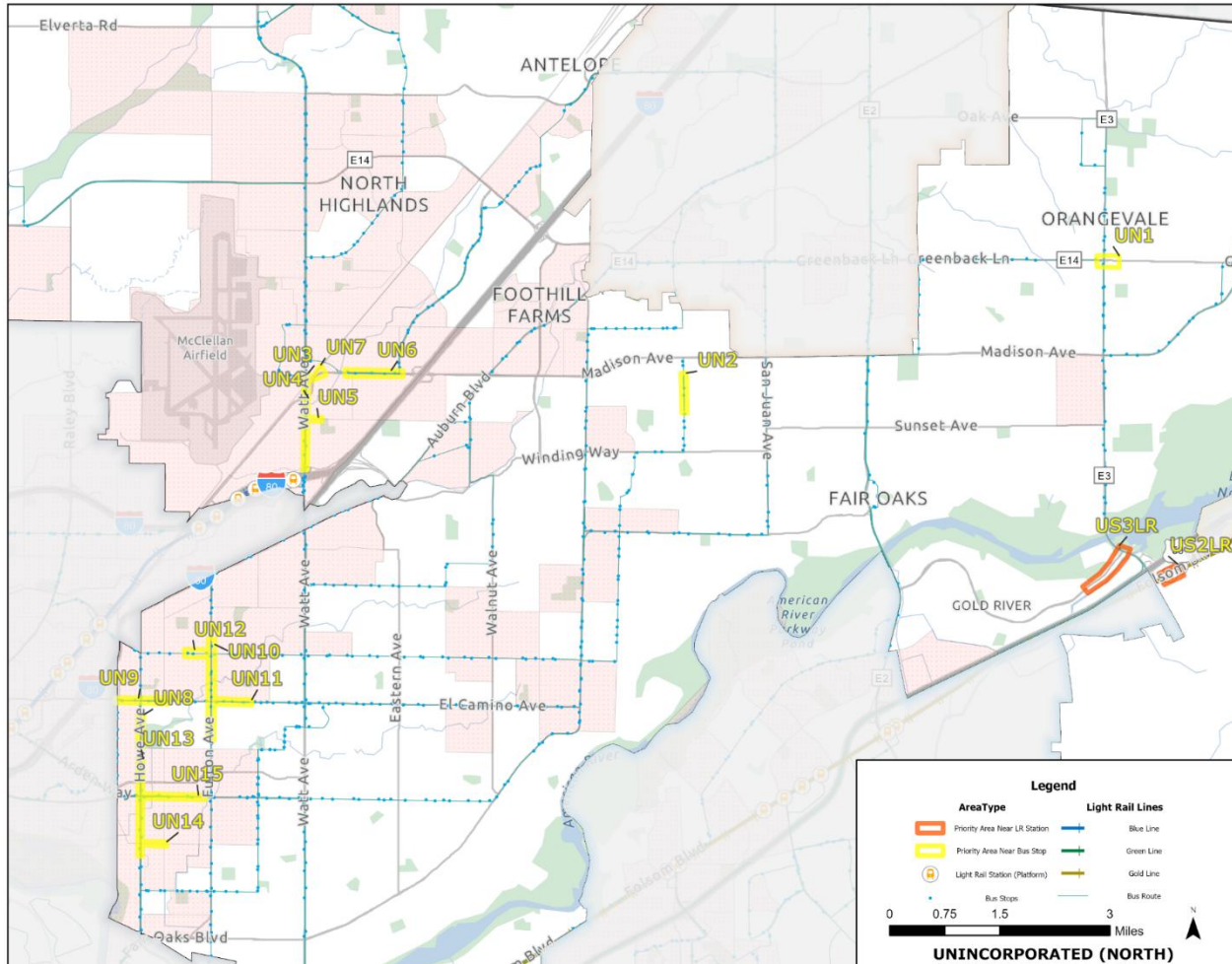


ADDING AN EXPOSURE METRIC

- Exposure:
 - > Crashes weighted by severity
Ridership
 - > Provides a metric of safety risk per person taking transit
- Four lenses taken together allow for nuanced prioritization
 - > Areas that score high on 2-3 metrics are more defensible to jurisdictions
 - > Higher chance of funding and implementation



APPLYING THE LENSES ACROSS SIX JURISDICTIONS



- Avoid system-wide ranking
 - Highest ranked projects all end up in one or two jurisdictions, but they aren't inherently competing with each other
- Each jurisdiction-level list is independently legible to a city council, a grant writer, and an infrastructure owner



FROM DESKTOP TO RESULTS

- **Quantitative:**
10 years of crash and ridership data
- **Qualitative:**
6 community workshops,
2-month online map/survey,
6 station pop-ups
- **Top reported barriers:**
High-speed/aggressive traffic 66%
Unsafe crossings 54%
- **Corridors flagged by community:**
Stockton Blvd, Watt Ave,
Sunrise Blvd, Florin Rd
- **Road Safety Audits:**
Completed at top screened locations



TAKEAWAYS

As a relatively new safety perspective, one of our goals was to build a transferable logic, not just a SacRT result

- 1. Recognize how your users experience the system and shift the approach to match:
*Islands instead of continents***
- 2. Identify when your data is focused differently than your goal:
*Smooth overlapping access-sheds with accumulated data***
- 3. Don't rely on a single prioritization metric
*Don't combine data when you can look through multiple lenses independently***
- 4. Know who must act to implement your results
*Align the approach and results for the decision makers***

THANK YOU

JOSH PILACHOWSKI, PHD, TE, RSP1

SENIOR PROJECT MANAGER

josh@dksassociates.com

510.295.9741

SHAPING A SMARTER
TRANSPORTATION EXPERIENCE™
DKSASSOCIATES.COM

AN EMPLOYEE-OWNED COMPANY

