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MOBILITY INTELLIGENCE

GHSA ANNUAL MEETING

FROM PIXELS TO PAVEMENT: TECHNOLOGY TOOLS FOR PEDESTRIAN SAFETY

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is more than tires

WHAT HAPPENED IS JUST THE BEGINNING

Our data products supplement crash data to help you understand not only what has happened, but what could happen and why.

WITH OUR DATA PRODUCTS YOU CAN:



***IDENTIFY RISK
HOTSPOTS***



***PROTECT VULNERABLE
ROAD USERS***



***MEASURE
IMPACT***

LAS ESTRELLAS DUAL LANGUAGE ELEMENTARY SCHOOL



CREATING SAFER ROUTES FOR A GROWING COMMUNITY OF YOUNG RIDERS

- » 400+ students at a dual-language elementary school in Northeast Minneapolis.
- » Awarded Safe Routes to School funding to expand student bicycling opportunities.
- » Data shows conflict-driven driving behavior, highlighting opportunities to better protect students walking and biking.

VISUALIZING MOBILITY DATA CAN REVEAL WHERE SAFETY CHALLENGES CONVERGE

Telematics data indicates high concentrations of risky driving behavior and high VRU risks at this intersection.



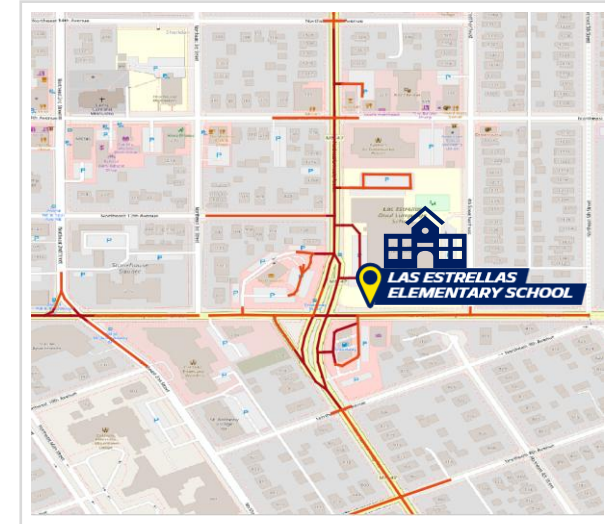
DRIVING EVENTS HEATMAP

High concentration of risky driving behavior on this multi-leg complex intersection.



DRIVING SPEEDS

Driving speeds are within the speed limit at this intersection.



CRASH RISK PROJECTION

MMI's VRU crash risk model indicates high VRU crash risk at this intersection.

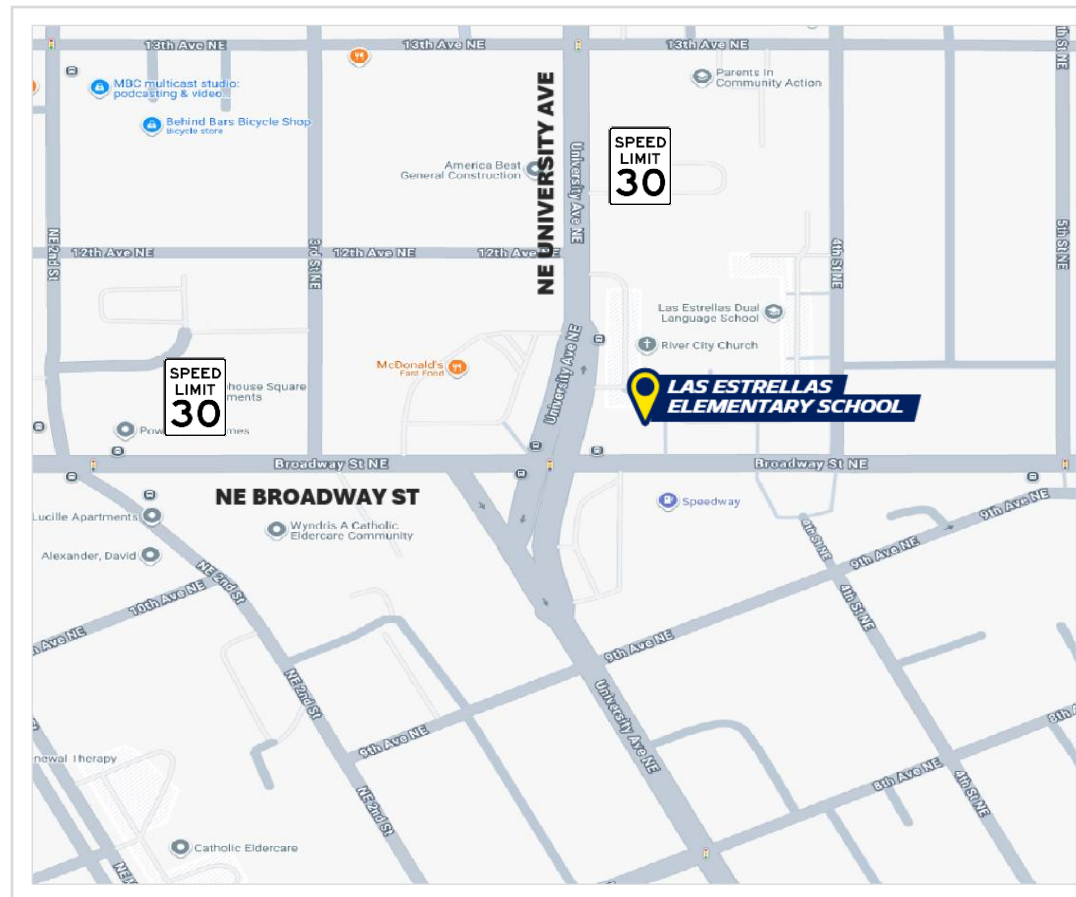
KEY INFO: This school has been receiving funding to provide bikes to kids as part of the safe routes to school program.

SPEEDING WAS NOT A SYSTEMIC PROBLEM: DRIVER BEHAVIOR WAS THE CULPRIT

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KEY TAKEAWAY



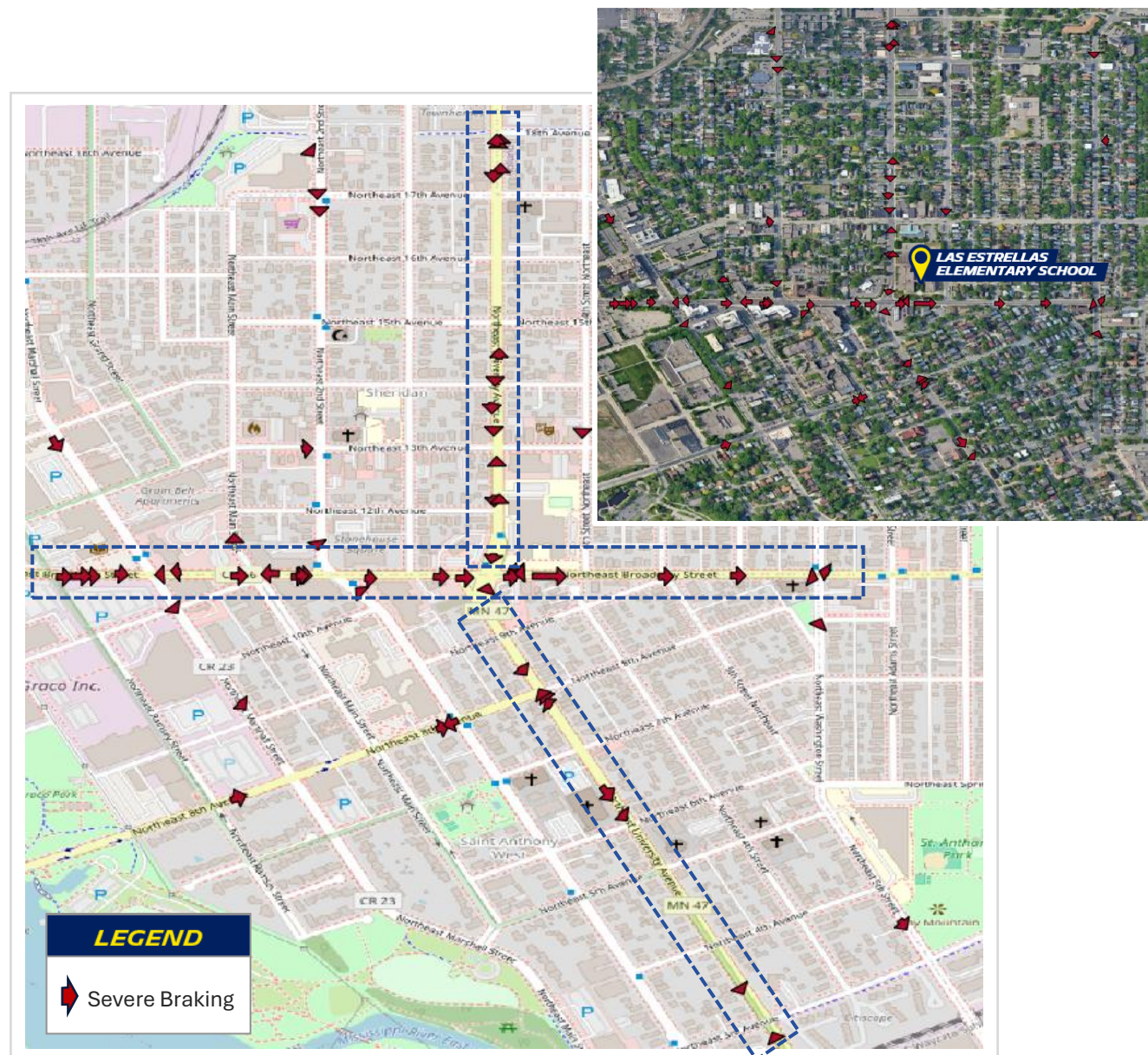
A COMPLEX INTERSECTION CREATES MORE OPPORTUNITIES FOR CONFLICT

- » **Multiple roads converge** at this location, increasing interactions between vehicles.
- » **Nearby businesses, transit stops, and commercial activity** add more pedestrians, cyclists, and turning vehicles to the mix.

SEVERE BRAKING CLUSTERS AROUND THE SCHOOL

- » Severe braking occurs repeatedly at and around the intersection.
- » The pattern follows two busy corridors that converge near the school.

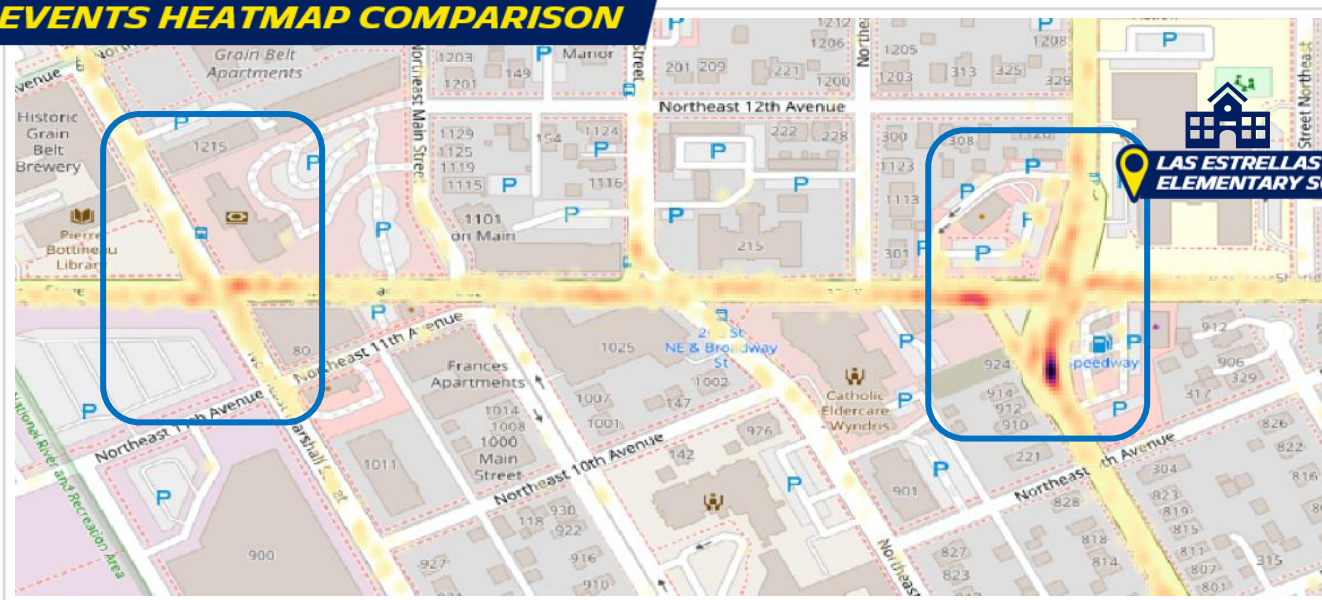
Severe Harsh braking events indicative of near miss of potential crash-like conditions.



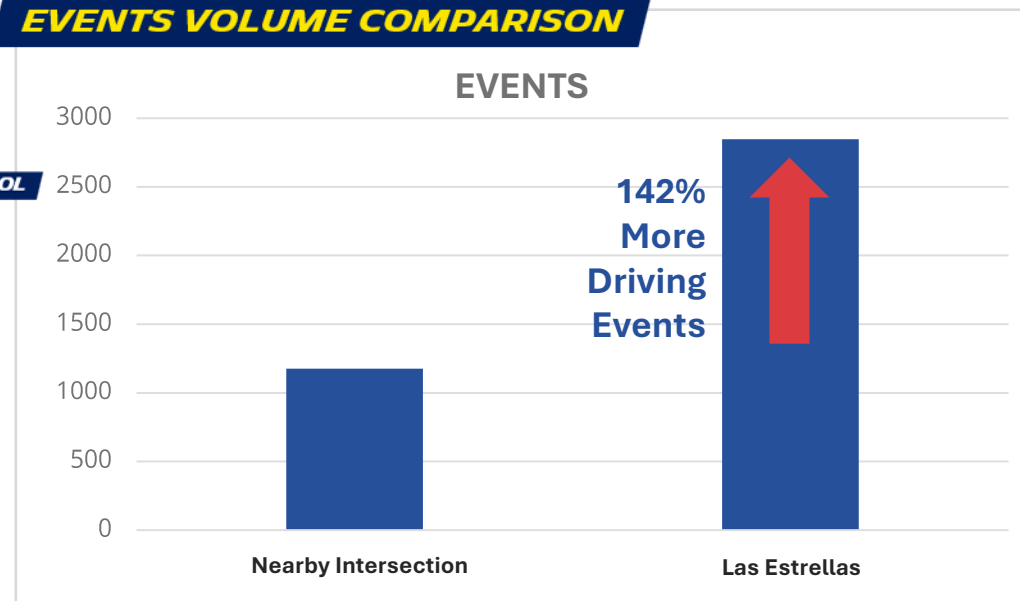
ONE CORRIDOR, TWO VERY DIFFERENT SAFETY PROFILES

The Las Estrellas school experienced 142% more driving events than a nearby intersection, showing how sharply risk can vary for VRUs within the same corridor.

EVENTS HEATMAP COMPARISON



EVENTS VOLUME COMPARISON



THE VALUE IS IN THE PATTERN

Repeated driver reactions can help identify where the transportation environment may warrant a closer look.



TAKEAWAY

START SMALL, USE DATA TO FIND THE REAL RISK.

VALIDATE THE CONCERN:

Confirm where and when safety risks are actually occurring.

START WITH A TARGETED ASSESSMENT:

Focus on a specific location or challenge before making larger investments.

USE DATA TO ALIGN ACTION:

Target enforcement and education while engaging infrastructure partners where roadway conditions contribute to risk.

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THANK YOU

