

# Crash Analysis Studio

Session 22: New Haven, Connecticut

Held on April 2, 2025

## Session Participants

- **Rishabh Mittal**, Transport Planner and Consultant; Local Conversation leader; Strong Towns member; Multimodal transit advocate
- **Caroline Tanbee Smith**, Alder of Ward 9; Co-founder of Collab; Strong Towns reader and supporter; concerned community member and resident
- **Anna Festa**, Alder of Ward 10; Finance Committee Member; former Medical Sales and Services professional; lifelong New Haven resident
- **Peter Clarke**; Software Engineer; Math tutor; New Haven resident and concerned community member
- **Tony Harris** (moderator), Community Engagement Coordinator at Strong Towns

## Summary of Crash Event

- The crash occurred at 7:57 am on November 7, 2024, when motorist Zabriena Vega—traveling northbound on Nicoll Street—collided with motorist Christina Brown as she was driving westbound on Willow Street.
- Vega reported that she stopped her Honda Accord at the stop sign and that Brown collided with her as she was driving her Hyundai through the intersection.
  - Brown said that Vega approached from her left and cut across her path; she was unable to avoid colliding with the Accord.
- Though there were no fatalities, the automobiles sustained substantial damage and Vega's passenger suffered from a bruise under her left eye.
  - The passenger was transported to Yale New Haven Hospital for routine care.
  - The Honda Accord that Vega was driving sustained right-side rear section damage.
  - The Hyundai that Brown was driving had functional damage to its front section.
- The Connecticut Uniform Police Crash Report lists Vega at fault for running the Nicoll Street stop sign.
- At its intersection with Nicoll Street, Willow Street has two lanes—one eastbound and one westbound—dedicated to automobile traffic; there is street parking available to westbound drivers on the block just after the intersection.
  - Nicoll Street features one northbound and one southbound lane for through traffic, with street parking available to westbound drivers on the block just after

the intersection.

- The speed limit is 25 miles per hour (mph) on both Nicoll and Willow Street.<sup>1</sup>
- Weather reports indicate that the day of the crash was dry and slightly cloudy.

## Contributing Factors

The intersection of Nicoll Street and Willow Street exemplifies a misalignment between roadway design and neighborhood context. From wide lanes and limited sightlines to confusing visual cues and unchecked speeds, the built environment at this location sends mixed and dangerous signals to all road users. This is exacerbated by the fact that Interstate 91 feeds traffic onto Willow Street just a few blocks from the crash location. These crucial design deficiencies at and around this intersection heighten the likelihood of collisions, especially car-on-car crashes like the [28 that have occurred](#) here from 2020 until early 2025.

While Willow Street operates as a designated emergency route, its form fails to serve the day-to-day needs of residents, pedestrians, and drivers navigating local destinations. Its form is intimidating and threatening enough to cyclists that many of them avoid traveling on Willow Street altogether. Willow Street employs design standards such as wide through traffic lanes to achieve higher travel speeds; these travel speeds disregard intersecting local roadways—like Nicoll Street—that provide access to adjacent land uses. Willow Street prioritizes speed and traffic volume over other design objectives like safety and cost. In many ways, Willow Street reflects a legacy of auto-centric planning practices that no longer meet the needs of the present—especially in dense neighborhoods like East Rock that aspire to be walkable destinations.

Design standards historically aimed at moving vehicles quickly now operate at odds with the community's character and mobility needs. A rudimentary speed study showed a majority of drivers exceed the posted limit, a clear sign that the physical environment encourages non-compliance. Combined with poor visibility, lack of safe pedestrian infrastructure, and social normalization of avoidance behavior, the intersection has understandably become a hot spot for recurring collisions.

Session participants identified the following primary factors that contributed to this crash:

- 1. Willow Street and its intersection with Nicoll Street are designed to facilitate and prioritize high speed and high capacity automobile traffic in a manner mismatched with non-motorist usage, commercial business, and residential developments present in the East Rock neighborhood.**
  - a. Willow Street facilitates high speed automobile travel.

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<sup>1</sup> The general speed limit on New Haven city streets is 25 mph. [Municipal ordinance](#) indicates any higher limits should be clearly posted.

- b. Travel lanes at this intersection are wide enough to make drivers comfortable traveling at a design speed higher than the posted 25 mph limit.
  - i. The westbound lane on Willow Street where the crash occurred is 11.5' wide; this exceeds the [ten-foot width deemed appropriate](#) in most urban areas; the 15' wide lanes on Eastbound Willow Street also exceed the appropriate width for lanes within an urban environment.
  - ii. Brown's Hyundai was traveling westbound on Willow Street and approached the intersection from the east side where lanes are 15' wide.
  - iii. Though the ten-foot wide lanes on Nicoll Street do not exceed width protocol, they are cushioned on both sides by potentially underutilized seven-foot wide parking lanes.
  - iv. Underutilized parking lanes may extend the width of each through traffic lane to 17' at the intersection; this width extension may impact driver behavior and decision-making
- c. Willow Street's status as a designated emergency route entails a design schema that prioritizes high-capacity vehicular traffic at the cost of safety for motorists and non-motorists alike.
- d. The physical geometry of the intersection may give drivers on Nicoll Street the false impression they have the right-of-way.
  - i. Nicoll Street is four feet wider than Willow Street at the intersection<sup>2</sup>, and lacks painted crosswalks, contributing to an unclear hierarchy of priority.

**2. Both Willow Street and its intersection with Nicoll Street feature design components that mismatch with driver expectations and contribute to decision-making errors.**

- a. Drivers exiting highway 91 onto Willow Street may interpret visual cues—such as the gas station, wide lanes, and uninterrupted stretches—as signs they're still in a high-speed corridor, rather than a neighborhood street.
- b. On Willow Street, drivers encounter long stretches with no required stops between major cross-streets; this lack of interruption means drivers build momentum—and expectation—for uninterrupted flow.
  - i. Drivers may treat smaller Intersections, like Nicoll Street, as predictable gap-seeking challenges rather than protected conflict zones.
- c. Willow Street's painted crosswalks and broader curb radii reinforce driver perception that Willow is the primary road; these visual hierarchies override signage for many drivers, especially if signage is misaligned or otherwise obscured.
- d. These mismatches invite subconscious speeding and reduces driver readiness for cross-traffic, pedestrians, and cyclists.

**3. Both the design speed and documented travel speed of Willow Street are incompatible with pedestrian traffic that is encouraged at this intersection and in the area surrounding it.**

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<sup>2</sup> Nicoll Street is 34 feet wide at the intersection, while Willow Street is only 30 feet wide.

- a. The current speed limit on Willow Street is 25 mph.
  - b. A speed study conducted for this studio indicated that 50.4% of eastbound motorists—and 66.1% of westbound motorists—exceeded the posted speed limit. When averaged together, 57.3% of motorists exceeded the posted speed limit.
  - c. The study stated the 85th percentile speed, or the speed at which 85% of drivers traveling at or below, was 29 mph
  - d. A [pedestrian safety analysis](#) states that fatality rates and rates of serious injury climb for automobile collisions involving pedestrians at 25 mph. Though pedestrians were not injured in this crash, more than half of the motorists tracked were traveling beyond 25 mph and past this safety threshold.
  - e. Of the 413 motorists tracked, only five of them were traveling more than ten miles per hour over the speed limit.
  - f. 232 motorists—or 56% of the sample—were driving between 26 and 35 mph. This data distribution may indicate that this space communicates to drivers that it is a low-risk behavior to travel at speeds up to ten miles per hour faster than the posted limit. This increase in travel speed is significant as it directly correlates with crashes that have a higher likelihood of causing severe injuries and/or fatalities.
  - g. By design, vehicle travel speeds on Willow Street subject non-motorist users—including people traveling by foot, cyclists, and public transit riders—and motorist users to substantive danger.
- 4. Pedestrian infrastructure essentials necessary for slowing vehicle traffic and preventing crashes are minimal along Nicoll Street and Willow Street; this lack of infrastructure substantively heightens the fear of road users traveling by foot.**
- a. Approximately [200 residents](#) expressed unanimous concerns about pedestrian safety at this intersection when surveyed and asked to sign a petition during a campaign orchestrated by Alder Smith and Alder Festa in autumn 2024.
  - b. Community members Amanda Czpeiel and Alder Smith counted five people struggling to cross during a 20 minute period [Yale Daily News](#) spent at the intersection in November 2024.
  - c. People traveling by foot are hesitant to cross at designated crossing areas due to motorist speed and disregard for non-motorist road users.
- 5. Aspects of the built environment limit sightlines of motorists and visibility of non-motorist users—particularly along Willow Street.**
- a. The Nicoll Street stop sign for northbound motorists is situated too far to the right; the stop sign falls outside of approaching drivers' central field of view.<sup>3</sup>
  - b. Vegetation in the form of overgrown trees, utility poles, bus shelters, gas station signage, pedestrian signage, and illegally parked vehicles all restrict visibility, especially for drivers attempting to cross or turn from Nicoll.

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<sup>3</sup> The stop sign for southbound motorists on Nicoll Street is also situated too far to the right to fall within approaching drivers' central field of view.

- i. These sources of visual clutter may also reduce the salience of the stop sign on Nicoll Street, which may increase the likelihood that drivers miss that sign altogether or only execute a “rolling stop”.
- c. The curvature of Willow Street further limits clear lines of sight, especially for motorists.
  - i. Motorists attempting to cross or turn from Nicoll Street may underestimate the speed—and distance—of oncoming traffic due to distorted angles.
- d. High speed travel by motorists driving on Willow Street may experience [tunnel vision](#) that makes them less aware of their surroundings.
  - i. Drivers experiencing reduced awareness are less likely to notice pedestrians waiting to cross Willow Street at designated crossing areas.
  - ii. Lower levels of awareness also mean drivers’ reaction times are lower if and when they encounter unsuspected events.
  - iii. The reduced awareness caused by tunnel vision makes drivers more prone to crashes.

**6. Cyclist infrastructure essentials necessary for ensuring cyclist safety are altogether absent along Nicoll Street and Willow Street.**

- a. There are neither bike lanes nor sharrows incorporated into the design of Nicoll Street or Willow Street in either direction.
- b. Panelists report that cyclists avoid Willow Street in its entirety due to perceptions of danger and risk.

## Recommendations

There are multiple ways to address these factors and minimize the likelihood of future collisions, fatalities, and traumatic injuries at the intersection of Nicoll Street and Willow Street. To build a safer, more inclusive, and context-sensitive intersection, interventions must respond to the multi-layered challenges observed—from speeding and line-of-sight issues to cultural avoidance and jurisdictional complexity. Special care has been given to consider Willow Street’s emergency route designation, with emphasis on early collaboration and compromise with fire and EMS officials.

Above all, recommendations reflect a shift toward people-first design. This shift means treating safety as the foundational priority—not an optional add-on. Streets in cities like New Haven should invite walking, biking, and rolling—not just tolerate these modes of transit as irritating alternatives to automobile travel. Through temporary and permanent redesign efforts, this location can evolve from a known danger zone into a proud neighborhood gateway.

Where uncertainty exists, lean into low-cost quick-build pilots that can be monitored and refined. Where clarity exists—such as the need for better visibility, lower speeds, and clearer pedestrian priority—decisive action should be taken. Incremental redesigns of Nicoll Street, Willow Street, and the space where they intersect are essential elements to making East Rock into a thriving neighborhood.

At the intersection of Willow Street and Nicoll Street, the practices outlined below should be adopted.

### **Immediate to Mid-term Recommendations (Within 6 months)**

#### *Increasing Visibility & Sightlines*

1. Reposition both stop signs on Nicoll Street closer to their respective curbs for better visibility.
2. Reposition any additional signage that may contribute to visual clutter or otherwise block driver sightlines.
3. Prune and/or remove obstructive vegetation from Willow Street and Nicoll Street that may be blocking driver sightlines.
  - a. If necessary and appropriate, collaborate with private property owners to develop a plan for ongoing vegetation maintenance.
4. Daylight the intersection by using bollards or delineators to prevent illegal corner parking along Nicoll Street and Willow Street.

#### *Infrastructure Investment*

5. Use paint, bollards, or planters to reallocate existing pavement—likely from through traffic lanes or dedicated parking lanes—and install temporary traffic calming measures such as:
  - a. Curb bump-outs on Willow Street at—or near—its intersection with Nicoll Street.
  - b. Pedestrian refuge islands in the center of Willow Street—likely west of the intersection—that enable two-stage crossings.
6. Use colorful crosswalk treatments to signal pedestrian priority and increase visual friction.
7. Work alongside the city of New Haven to install a speed table and ensure that the installation meets any relevant standards for stormwater drainage.
8. Use barriers or other durable materials to begin making temporary lane reduction measures on both streets permanent, particularly on the 15-foot eastbound Willow Street lanes.
9. Assess the effectiveness of temporary traffic calming measures such as curb bump outs and pedestrian refuge islands.
  - a. If appropriate, ascertain necessary permits and convert curb bump outs into permanent fixtures using materials like granite or concrete.

- b. If appropriate, ensure temporary refuge islands are ADA<sup>4</sup> compliant and convert them into permanent installations using asphalt, concrete, or other durable materials.

#### *Emergency Services Coordination*

- 10. Initiate dialogue with fire and emergency departments to better understand their operational needs and concerns, particularly regarding Willow Street
  - a. Utilize materials specifically written about these stakeholders<sup>5</sup> to prepare for and advance this relationship-building.
- 11. Invite stakeholders from emergency service providers like fire departments to engage in short-term installations that allow them to assess and experience ongoing changes to the intersection and its surrounding area.<sup>6</sup>

#### *Political Leadership & Relationship-Building*

- 12. Elected officials of New Haven should provide direction and guidance to municipal staff for the desired user behavior along Willow Street—particularly at its intersection with Nicoll Street—as an initial step toward improving safety for all road users.
  - a. Elected leadership should prepare a formal document supporting this objective. This document—which may include some or all of this session report—should state:
    - i. Safety for all users shall be the primary design priority that outranks all others for this location.
    - ii. All future design and planning efforts for these roadways shall be contextual to an urban character safe for motorists and non-motorists.
    - iii. Temporary safety measures should be utilized—and more permanent measures designated and worked toward—if dangerous conditions persist or additional undesired user behaviors are identified.
  - b. Municipal leadership and staff should liaise with Alder Smith and Alder Festa to better understand the outreach process employed—and tangible deliverables developed—during this intersection’s petition campaign.
- 13. Consult with Alder Smith to learn more about her [work on Lawrence Street plaza](#) to determine if this might be an appropriate response for part of Nicoll Street.

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<sup>4</sup> Americans with Disabilities Act

<sup>5</sup> One example would be [“Huge Fire Trucks Are Making Us All Less Safe”](#) by Collin Woodard (August 2024).

<sup>6</sup> To learn more about this approach in Jersey City, see [“How To Get Your Fire Department On Board with Narrowing Streets”](#) by Asia Mieleszko (November 2023).

14. Initiate conversations with neighborhood stakeholders, including first responders, to explore the possibility of closing part of Nicoll Street—north of the intersection near East Rock Brewing Company—and converting the space into a public plaza.

### **Long-term and Systematic Recommendations**

15. Work with emergency service providers and city officials to establish policies that balance emergency access needs with street design objectives; ensure policies reflect a comprehensive approach to public safety that acknowledges the needs of all associated parties.
16. Initiate a month-long pilot project to turn a portion of Nicoll Street north of this intersection into a car-free public plaza.
  - a. Work with neighborhood stakeholders to evaluate the economic impacts of this pilot project on the community.
  - b. Engage municipal staff and volunteers to assess how this pilot project impacts traffic flow and traffic calming.
17. Explore possibilities for incorporating dedicated bicycle infrastructure on Nicoll Street; investigate further calming measures necessary to make cycling safe on Willow Street.
18. Evaluate network-wide changes that could shift the flow of vehicles away from this intersection and surrounding residential areas, including rerouting some traffic to Mitchell Drive.

## **Concluding Statement**

The design flaws along Willow Street and at its intersection with Nicoll Street present significant dangers to the New Haven community. Prioritizing traffic flow over the safety and usability of non-motorists has led to injuries and fatalities in communities across Connecticut and North America.

In New Haven, local leaders and citizens must lead by example, transforming Nicoll Street and its intersection with Willow Street into a people-centric place. By adopting modified design principles, the city can ensure that roadways are built to safely accommodate all users, including pedestrians, cyclists, motorists, and transit riders.

Evaluating the numerous factors contributing to crashes allows designers, decision-makers, and the public to move beyond merely assigning blame. Instead, they can focus on systemic design changes that prioritize pedestrian safety alongside motorist usage. Implementing narrower lane widths, for example, has been associated with reduced vehicle speeds and improved safety outcomes.



By transforming this intersection into a local roadway that prioritizes safety and accessibility, New Haven can set a precedent for other communities, ultimately benefiting residents and visitors alike.