Crash Analysis Studio

Session 6: Amarillo, Texas
Held on June 30, 2023

Session Participants:

- **Tony Tramel**, Sole Proprietor of a consulting firm providing transportation engineering and expert witness services; 40+ years municipal experience in Texas and Louisiana; Registered engineer with MS degrees from Georgia Institute of Technology
- **Richard Giberson**, Infill real estate developer; Former actuary and investment professional; Grew up in Amarillo and maintains familial ties in the area
- **Eduardo Valdez**, Engaged citizen and traffic safety enthusiast
- **Edward Erfurt**, Director of Community Action at Strong Towns
- **Tony Harris** (moderator), Action Team Coordinator at Strong Towns

Summary of Crash Event

- The crash occurred at 8:03 p.m. (CST) on January 21, 2023 on the 2700th block of S. Osage Street in Amarillo, Texas.
    - The Texas Department of Transportation (TxDOT) granted access to an online version of a redacted crash report.
    - The Amarillo Police Department (APD) also issued a redacted version of an investigation report to a local requestor.

- A 71-year-old motorist struck 32-year-old Hayden Paul Ducommun while he was standing on S. Osage Street.
    - The APD investigation report lists Ducommun's time of death as 8:08 p.m.
    - The TxDOT crash report lists Ducuommun's time of death as 8:11 p.m.
    - Both reports indicate he was not in an intersection or a crosswalk at the time of the collision.

- Both the crash and investigation reports state the following:
    - The motorist was traveling in the outer southbound lane on S. Osage Street.
    - The motorist was not issued a charge.
    - Ducommun had been drinking before the collision.

- The crash report contains no statements from the driver or witnesses; the investigation report listed four witnesses with testimonies from each.

- Though the crash report lists "had been drinking" as a contributing factor, it also indicates that no alcohol or drug specimens were collected from Ducommun or the motorist.

- The investigation report states:
    - Ducommun was struck in the outer southbound lane near 2706 S. Osage Street.
    - An open White Claw container was found near Ducommun's body.
    - Multiple witnesses noted he had been consuming alcohol.

- The investigation report also states the uninjured motorist was taken to the hospital for high blood pressure.

- Both reports and media outlets indicate the motorist was neither charged nor issued a citation.

- Both reports, media outlets, and locals indicate the posted speed limit on S. Osage Street is 40 miles per hour (mph).

Primary Contributing Factors

The design of S. Osage Street accommodates vehicles with minimal provisions for non-motorist users; the street displays disregard for pedestrians who may regularly navigate the site on foot.

Designers and developers have failed to construct a complete network of sidewalks within and near the crash location. With sidewalks missing along large portions of S. Osage Street, conditions behind the curbs may require pedestrians to enter the street when walking.

Roadway designers have acknowledged that motorists will likely make mistakes; designers have used accepted standards to build in roadway features that create margin for driver error and enhance vehicular traffic safety. Through traffic lanes and left-turn lanes–some of which are wider than twelve feet–create forgiveness for driver behavior that could cause automobile-on-automobile collisions.

Partial sidewalks directly alongside traffic traveling at lethal speeds, including travel at the 40 mph speed limit, place an unreasonable burden on pedestrians to predict and account for driver behavior while attempting to walk through and around the area. With no physical barriers or additional pedestrian protections, these design choices assume flawless decision-making from drivers; designers illustrate through their choices that such perfection is–at best–unrealistic.

Transportation professionals recognize that, if a motorist travels at or beyond the posted speed limit of 40 mph, a pedestrian is unlikely to survive if they are struck during a pedestrian automobile crash. The intentional design decision to keep pedestrians in this environment exposes them, as well as motorists, to life-threatening risk. Design-sanctioned disregard for pedestrian infrastructure is an underlying cause of this collision and, by extension, Ducommun's death.

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

1. **The design speed, and the observed travel speed, of S. Osage Street is incompatible with pedestrian travel.**
    a. S. Osage Street is designed to facilitate high speed automobile travel.
        i. Four through traffic lanes allow faster traffic to pass slow-moving traffic, even during short periods of congestion.
        ii. Three through lanes and the center turn lane are 12-feet wide or wider; these are dimensions typically used on highways and other high-speed thoroughfares.
        iii. At the intersections of both SE 27th Avenue and SE 28th Avenue, there are left turn lanes in both directions of travel. Left turn lanes are designed to remove turning automobiles from the traffic stream so they do not impede through traffic.
        iv. Traffic flow off of Ross Osage Drive onto S. Osage Street and through the SE 27th Avenue intersection is inconsistent with Amarillo's street grid development pattern; this divergence may communicate motorist usage to be a higher priority than pedestrian safety.
        v. The S. Osage Street and SE 28th Avenue is an unsignalized intersection featuring one stop sign for traffic turning north or south, but no other measures to facilitate traffic calming or safe pedestrian passage.
    b. The posted speed limit of S. Osage Street is 40 mph. In a recent speed study, 53% of tracked motorists exceeded 40 mph.
        i. That study also recorded the 85th percentile speed, or the speed at which 85% of drivers were traveling at or below, to be 46 mph.
        ii. The Insurance Institute for Highway Safety indicates that fatality rates climb exponentially for pedestrian automobile collisions exceeding 25 mph. When auto speeds exceed 40 mph, pedestrian collisions are most likely to become fatal.
        iii. By design, automobile travel speeds on S. Osage Street are highly dangerous to pedestrians and non-motorists.

2. **There is a dangerous mismatch between the design of S. Osage Street and the built development patterns throughout Amarillo.**
    a. S. Osage Street is a large north/south arterial street interrupting the fine grain street grid of the city.
    b. The corridor is lined by auto-oriented commercial developments that lack interconnectivity, resulting in multiple curb cuts and driveway connections onto S. Osage Street.
    c. S. Osage Street passes through several densely populated residential neighborhoods containing both apartment complexes and single-family homes.
    d. This through road provides allocation for vehicular movements at high speeds, yet denies allocations for pedestrians through features like narrow sidewalks, one of which features a speed limit sign erected in the middle of the pedestrian walkway. These decisions create an unsafe environment for pedestrians and

non-motorists, especially when these users need to cross the traffic stream along S. Osage Street.

e. Vast amounts of undeveloped land on either side of S. Osage Street communicates a false sense of security to drivers that may make them less cognizant of pedestrians in the area and more likely to speed.

3. **Pedestrian infrastructure has been neglected and avoided along S. Osage Street, including at its intersections north and south of the crash location.**
    a. At the intersection with SE 27th Avenue, there are no marked pedestrian crosswalks, pedestrian push buttons on traffic signal poles are not adequately signed or highlighted, and the only available sidewalk is at the northwest corner.
        i. It is unreasonable to expect pedestrians to adhere to navigation protocols when infrastructure to serve their usage is either absent or insufficiently maintained.
    b. Residential areas located behind the commercial developments near the crash location lack direct access to SE 27th Avenue and its signalized intersection with S. Osage Street. Barriers such as fencing prevent direct pedestrian access to sidewalks on SE 27th Avenue.
    c. There are significant disconnections and gaps amongst the sidewalks that are present along S. Osage Street.

Related Contributing Factors

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

4. **The sporadic lighting along S. Osage Street does not sufficiently illuminate the roadway.**
    a. The crash took place in the dark, multiple hours after sundown; nighttime aerial photos illustrate that lighting at the intersection of SE 27th Avenue and S. Osage Street is not exceedingly bright and grows dimmer as one travels further south.

Recommendations

There are viable means to address these factors and decrease the likelihood of future collisions, fatalities, and traumatic injuries. On S. Osage Street, specifically near the 2700th block, the following practices should be adopted.

Immediate:

1. Stripe crosswalks along all four legs of the S. Osage Street and SE 27th Avenue intersection; visual crossing cues will heighten drivers' awareness of pedestrians and other non-motorists on the street.
2. Remove select sections from fences surrounding apartment complexes on the west side of S. Osage Street to provide direct access to SE 27th Avenue and its sidewalk to the signalized intersection with Osage.
3. Encourage motorists to slow down by:

    a. Shortening or removing left-turn lanes with paint.
    b. Inserting temporary vertical elements–such as bollards–that provide optical narrowing of the travel lanes.
4. Use temporary signage to increase motorist and pedestrian awareness of pedestrians in the corridor and at the S. Osage Street and SE 27th Avenue intersection crossing
5. Re-orient city staff to the goals of the Amarillo Comprehensive Plan, adopted in 2010, to lay foundations for ongoing dialogue and future action.

Near Term (within the next 12 months):

6. Reduce traffic speeds through temporary, physical design changes on S. Osage Street. Using paint, flex posts, bollards, and other temporary features, narrow lane widths, shorten or remove left turn lanes, and tighten corner radii.
7. Address obstacles that discourage pedestrians from using existing infrastructure.
    a. Relocate the speed limit sign that was erected in the middle of a sidewalk.
    b. Install permanent signage to highlight pedestrian push buttons at intersections.
    c. Provide accommodation around other physical obstacles, such as switch and transformer boxes.
8. Orchestrate a public campaign around sidewalks to:
    a. Accelerate any existing and documented development plans.
    b. Engage commercial landowners and city staff for their support in connecting gaps between existing sidewalks.
    c. Persuade elected officials to allocate public funds toward sidewalk infrastructure as a neighborhood development priority.
9. With the help of city staff:
    a. Establish and deploy a quick response team–with representatives from public works, maintenance, and/or engineering–to conduct regular walk audits of this area. Empower them to implement incremental or temporary improvements immediately.
    b. Implement permanent signage and striping to heighten driver safety awareness.

Long Term and Systematic:

10. Revisit the Amarillo neighborhood organizing plan, with particular emphasis on arterial road placement and design.
    a. Connect with the Barrio Neighborhood Planning Committee to learn from their planning and development efforts that have taken place in communities west of S. Osage.
11. Reduce traffic speeds through permanent design changes.
    a. Learning from temporary measures, proceed with permanent lane width reductions.
    b. Explore a “Road Diet” that includes a reduction of through traffic lanes from two to one in each direction and development of a center, two-way left-turn lane.
12. Pursue changes to the existing development model that:
    a. Require sidewalk construction with all redevelopment, change of use, and new construction.

b. Require interconnectivity of commercial developments and restrict curb cuts.
c. Support the continuation of the street grid.
d. Encourage new development to be built to the street along S. Osage Street with parking to the rear.

Concluding Statement

The design and conditions present along S. Osage Street and at the crash location are commonplace, both within and beyond the state of Texas. Design emphasis that prioritizes traffic flow at high speeds over non-motorist safety and accessibility has caused injuries and deaths in communities like Amarillo and locations throughout much of North America.

By evaluating the many factors that contribute to a crash, we believe that decision-makers, the public, roadway engineers, and roadway designers can move beyond the current approach, which seeks only to assign blame to involved parties, to a model that helps change the way these spaces are designed, developed, and cared for. In Amarillo, we believe ongoing changes to this location should prioritize the pedestrian experience as a crucial component to development and safety.