

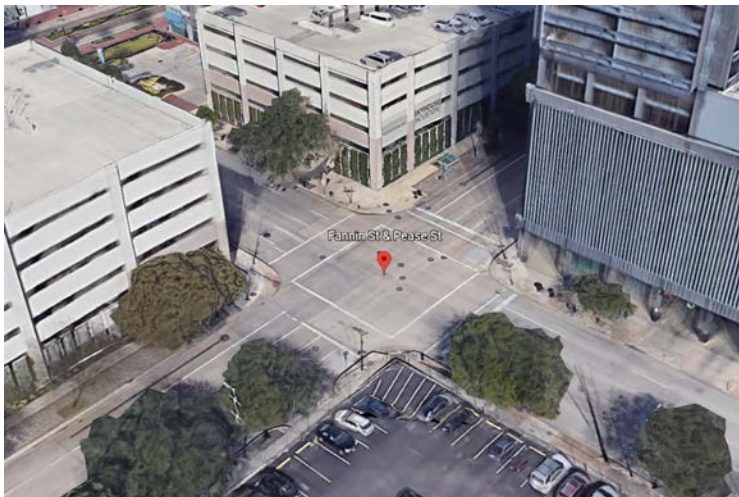
Top 10 Most Dangerous Non-Freeway Houston Intersections in the Post-Lockdown Phase

William Walker, Alexa Truong, Alex Neagu, Anaga Ajoy, Anique Siddiqui, Ashutosh Agrawal*

*Correspondence: ashutosh@uh.edu

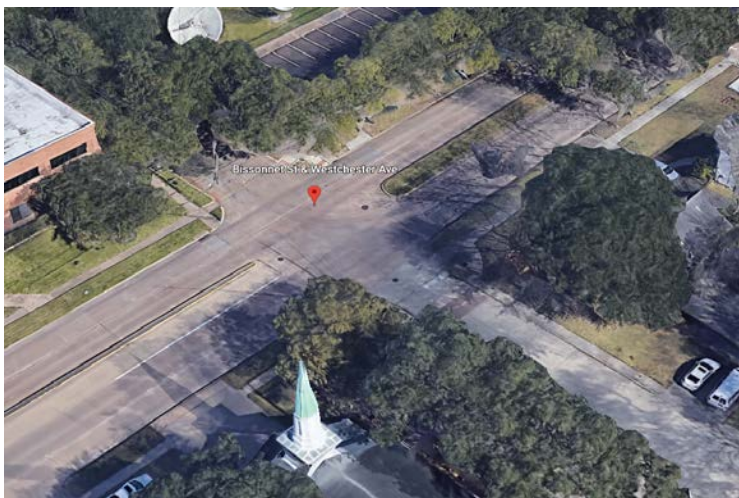
Covid-induced stresses are on a decline, however, the stress of driving in the 3rd largest county of the country is on a rise again. While freeways are known to be the accident hotspots, neighborhood intersections could also be a troubling point of concern when it comes to car accidents. Accidents at intersections account for nearly one third of the total accidents in Harris County since the opening of last year. In this article, we have identified the top 10 most dangerous neighborhood intersections (non-freeway intersections) that have seen a large frequency of accidents in this time window. We might encounter these 'silent danger-spots' during a quick neighborhood trip to a grocery shop, or a mall, or a school, without ever realizing their threat. Remarkably, many of these intersections do not fall in the socially vulnerable sections of the city, as is typically assumed. Below are the top 10 non-freeway intersections that have been the hotspots of accidents in Harris County in the post-lockdown phase.

1. Pease St & Fannin St (59 accidents)



Pease St & Fannin St ranks the highest with an astonishing 59 accidents reported in this past year. This intersection is flanked by a high density of parking garages. This intersection falls in a low-to-moderate Social Vulnerability Index (SVI) region.

2. Bissonnet St & Westchester Ave (41 accidents)



Bissonnet St & Westchester Ave saw a total of 41 accidents this past year. This intersection in West University is near to businesses such as HEB, Kroger, and Walgreens, making it a populous junction. It is also flanked by large trees that might compromise road visibility. This intersection falls in the low SVI region.

3. Main & Montrose (Mecom Fountain Roundabout) (39 accidents)



The Main St & Montrose St with the Mecom Fountain Roundabout, near Hermann Park and Rice University experienced 39 accidents in 2021. With multiple yield and stop signs, this junction might offer navigational challenges, especially to those visiting the TMC. This intersection is surrounded by regions with low and low-to-moderate SVI levels.

4. FM 1960 & W. Lake Houston Parkway (39 accidents)



The intersection at FM 1960 & W. Lake Houston Parkway has experienced 39 accidents in the last year. At this intersection, FM 1960 has some atypical left-turn splits, which may confuse the drivers. This intersection is flanked by regions with low, low-to-moderate, and moderate-to-high SVI levels.

5. S. Gessner Rd & Westpark Dr (39 accidents)



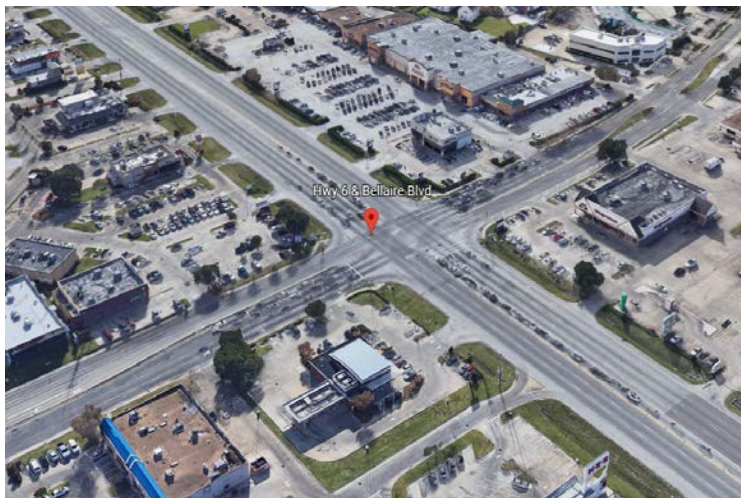
S. Gessner Rd & Westpark Dr also saw 39 accidents this past year. This intersection is located near a toll road and is close to Sneed Elementary, Emerson Elementary, and Tenney School making it a concerning point for parents and children. The intersection is adjacent to moderate-to-high and high SVI regions.

6. Spencer Rd & Highway 6 (37 accidents)



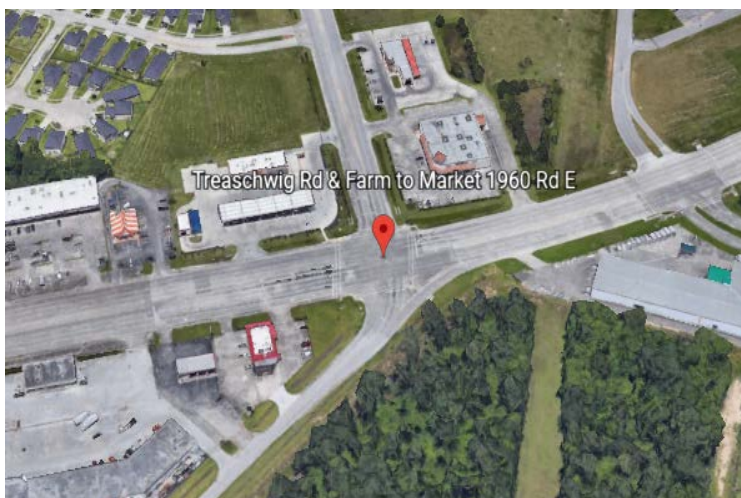
Spencer Rd & Highway 6 has reported 37 accidents in the past year. A unique feature of this intersection is its close proximity to the Langham Creek High School and the Kahla Middle School. This intersection is surrounded by regions with low and moderate-to-high SVI levels.

7. Highway 6 & Bellaire Blvd (37 accidents)



Highway 6 & Bellaire Blvd also reported 37 accidents, including 1 pedestrian fatality. The intersection is very close to HEB and Taylor High School. The intersection is surrounded by regions with low-to-moderate, moderate-to-high, and high SVI levels.

8. Treaschwig Rd & FM 1960 (36 accidents)



Treaschwig Rd & FM 1960 reported 36 accidents. The intersection has non-perpendicular roads, which might promote confusion in drivers. This intersection is flanked by regions with moderate-to-high and high SVI levels.

9. Clay Rd & Barker Cypress Rd (36 accidents)



Clay Rd & Barker Cypress Rd also had 36 accidents in the last year. This intersection is close to Thornton Middle School, Watkins Middle School, Cy-Lakes High School, and Cardiff Junior High School making it a point of concern for children and parents. This intersection falls into a low-to-moderate SVI level.

10. Highway 6 & Westheimer Rd (36 accidents)



The last entry on our list is Highway 6 & Westheimer Rd which also experienced 36 accidents in the last year. This intersection is close to the West Oaks mall and has multiple lanes in each direction. This intersection is flanked by regions with low, low-to-moderate, and moderate-to-high SVI levels.

Our list touches upon the increasingly alarming condition of the roads within Harris County since opening up last March. While Houston freeways are often thought to be the hubs for car accidents, our analysis shows that these unassuming neighborhood intersections could be another source of high accidents and stress. Surprisingly, many of the intersections in our list do not fall in the socially vulnerable sections of the county. These facts leave us with a lingering question: what makes these intersections the 'silent danger-spots'?

Furthermore, the analysis also alludes to the following points about the city and the drivers. First, the pandemic has worsened the safety at these intersections. The number of accidents at these intersections in the pre-Covid years (2018-2020) were lower than in the post-lockdown phase (barring 1 data point). Second, 4 out of 10 intersections in our list are close to schools, which is very alarming as it compromises the safety of children. This clearly reveals a lack of alertness on the part of our drivers. Third, it is likely that the percentage of people working from

home last year was higher than that in the pre-Covid years. Despite this fact, the number of accidents at these intersections have gone up. Finally, the emotional hardships due to personal or professional reasons triggered by the pandemic, or a break in the lifestyle due to reduced driving, or the excitement to be back on the road, might have compromised the vigilance of Harris County drivers.

Note: The accident data was collected from TXDoT (<https://cris.dot.state.tx.us/public/Query/app/home>), since the ending of lockdown in March 2021. The accidents that occurred within 275 feet of the middle of an intersection were counted in the cohort for that intersection. The Social Vulnerability Index (SVI) was accessed from the CDC (<https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>). The intersections images are obtained from Google Earth.