



City of Santa Barbara
Public Works Department

Interoffice Memorandum

DATE: December 6, 2019

TO: Mayor and Council

FROM: Derrick Bailey, Principal Transportation Engineer
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SUBJECT: Traffic and Parking Analysis for ADU and JADU Development

The purpose of this technical memorandum is to provide an opinion regarding the impacts on traffic safety and evacuations, parking supply, and traffic congestion by the development of Accessory Dwelling Units (ADU), and Junior Accessory Dwelling Units (JADU) in Santa Barbara.

It is our opinion that increased intensity of ADU's and JADU's in the City will generally have a negative impact on traffic congestion, traffic safety, parking supply, and evacuations. The specific impact will likely vary by neighborhood. Those reasons are documented below:

Traffic Congestion

Adding an ADU or JADU to existing single family neighborhoods will significantly increase the trip generation potential of those neighborhoods. Similar land uses (small apartments) indicate the trip generation potential could increase by 50% to 75% above existing. The resulting traffic increase will cause further traffic congestion at already impacted intersections and will create new impacted intersections.

Take the Mesa neighborhood as an example. The highest concentration of jobs in Santa Barbara is Downtown, which is on the opposite side of Highway 101 from the Mesa. The two primary routes for drivers between the Mesa and Downtown go through the following intersections, which are at or near capacity during peak hours:

- Carrillo Street at San Andres Street
- Carrillo Street at Highway 101
- Castillo Street at Montecito Street
- Castillo Street at Highway 101

So adding ADU's and JADU's in the Mesa neighborhood, for example, will result in added congestion at major intersections.

Traffic Safety

Adding ADU's and JADU's to single family neighborhoods has the potential to increase the number of collisions on city streets.

The frequency of traffic collisions is proportional to the amount of traffic and the distance traveled. For example, collision frequencies can be measured by the following rates:

- The amount of traffic entering a given intersection. The more traffic that enters an intersection, the more collisions can be expected.
- The amount of collisions per distance travelled. As the cumulative distance (vehicle miles travelled) travelled increases, more collisions can be expected.

Adding ADU's to JADU's to single family neighborhoods are likely to result in more vehicle trips because the jobs and housing are typically not balanced in neighborhoods. Single family neighborhoods have a higher proportion of vehicle trips compared to areas, such as downtown, where jobs and housing are more balanced. That means ADU's and JADU's in single neighborhoods will result in increased vehicle trips, which in turn will result in higher intersection volumes and a cumulative increase in the amount of vehicle miles travelled. Higher intersection volumes and higher vehicle miles travelled will result in an increase in collisions.

The City adopted a Vision Zero Policy, which aims to eliminate serious and fatal injuries from our roadway network. Limiting increases in vehicle miles travelled is an important tool to improve traffic safety. Limiting increases in vehicle miles travelled will require land uses that result in a good jobs/housing balance.

Parking

Development of ADU's and JADU's will result in added demand for street parking. There are two specific concerns with added demand for street parking.

First, some neighborhoods already have conditions where demand for on street parking exceeds the supply, such as parts of the Eastside, Westside, and Lower West neighborhoods.

Second, some neighborhoods, such as the Riviera, do not have consistent street widths that support any on street parking. New on street parking demands can reduce the travelled way for traffic and emergency responders. Parking enforcement in non-central locations is complaint driven, and challenging due to a small parking enforcement staff.

Evacuations

Added development in high fire areas will result in more people to evacuate in case of emergency. The roadway capacity needed to evacuate additional people should be evaluated before allowing increased housing intensity.

As mentioned above, added development will increase the demand for on street parking. On street parking can result in travelled ways narrower than the fire code permits, which affects the ability to evacuate neighborhoods and emergency responders to access the neighborhood.