

*Stepping into a new future*

# Safe Routes to Kihei High School: *Pedestrian Route Study*

Kihei, Maui, 2014



**EXHIBIT 2**

The last sixty-plus years have focused on applying advanced engineering to move more cars and to move them faster. Most roadways have been designed primarily for automobile and truck travel, which in many cases has made streets less safe for pedestrians, older adults, children, people with disabilities, and bicyclists. The overall result is streets that accommodate cars and that deter people from active transportation. Land settlement practices—strip centers, cul-de-sacs, poorly sited schools, and single-use zoning—compound the problem, producing auto dependency. Our auto dependency is furthered by development patterns that have changed the form of communities from walkable, transit oriented, street grid systems to strip and single-family development accessed by regional automobile corridors. Emphasis on only one mode and not fully integrating other users into the design of roadways has severely impeded the safety of pedestrians and the overall connectivity for non-motor vehicle users.

Various trends are changing the projections for future travel demands; that is, they are changing our understanding of the type of transportation systems people will want and need in the future. Aging population, a millennial generation who is choosing not to drive, rising fuel prices, growing traffic problems, increasing safety, health and environmental concerns, and changing consumer preferences are all increasing demand for walking, cycling and transit. When we restore streets as places that are safe for children, we will also be supporting communities that are vibrant and safe for all.

Taking the steps to include pedestrians and bicyclists in street design

Kihei High School, projected to open in 2018, will be located mauka (mountainside) of Pi'ilani Highway at Kulanihako'i Street between the Kulanihako'i and Waipuilani gulches. Today, the majority of the population of Kihei is concentrated on the makai (seaside) of the Pi'ilani Highway. Students and community members will be traveling along and across the highway to access the school. Because the Kihei High School campus is envisioned as a place for the community to gather, the main issue facing the community of Kihei is how students will cross Pi'ilani Highway on foot or bike. The State Land Use Commission and Maui County Council have imposed zoning conditions requiring a Pedestrian Route Study (regarding FHWA/RD-84/082, see Supporting Documents page 66) and require an overpass or underpass be provided, as well as at-grade improvements. This report was created to address the above conditions and is intended for the Department of Transportation's approval.

The report recommends that the Department of Transportation approve an at-grade crossing that includes all roadway users at Pi'ilani Highway and Kulanihako'i Street, a location where pedestrians need to be included first and foremost at-grade. Pedestrian overpasses and underpasses allow for pedestrian movement separate from vehicle traffic. However, they are usually considered as a last resort measure. It is more appropriate to install safe crossings that are accessible to all pedestrians and bicyclists at-grade. Due to the local topography and community in-

The State Land Use Commission and Maui County Council condition, in part, reads:

"[Department of Education] shall complete a pedestrian route study for Phase 1 of the Project which includes ingress and egress of pedestrians through defined location(s) approved by DOT and shall analyze compliance with proposed warrants in FHWA/RD-84/082 (July 1984) to the satisfaction of DOT. The pedestrian route study and analysis shall be completed and approved prior to [Department of Education] executing a contract for the design of Phase I of the Project."

put this report also recommends an underpass, although this will take partnership with state and county government agencies, private landowners and the community of Kihei to complete the pedestrian network so that the underpass is used.

Hawaii State Complete Streets Act 54 (2009), focuses on a multi-modal transportation system:

*“to accommodate convenient access and mobility for all users of the public highway, including pedestrians, bicyclists, transit users, motorists, and persons of all ages and abilities.”*

The safety of all street users, especially the most vulnerable users (children, elderly, and disabled) and modes (pedestrians and bicyclists) should be paramount in any design of the roadway. The safety of streets can be dramatically improved through appropriate geometric design and operations. A Federal Highway Administration safety review found that streets designed with sidewalks, raised medians, better bus stop placement, and traffic calming, such as roundabouts and raised medians, improves pedestrian safety while still allowing it to move efficiently and effectively: a virtuous cycle.<sup>5</sup>

Ensuring people are included in the design of our streets

As Dr. Richard Jackson, author of *Designing Healthy Communities* states, “The metric needs to be people. The purpose of transportation is not to move cars and other vehicles; it’s to move people; it’s to move people using automobiles, buses, bicycle and their own feet. If you make people the benchmark you end up making better decisions.”

The overarching principle of this report is: all streets and intersections should be studied and designed with the expectation that pedestrians and bicyclists will use them, along with motor vehicles. Designs should create an environment that is conducive to walking and bicycling, encourages people to walk and bike, and where the street becomes a place people want to be. This is reinforced in Hawaii State Complete Streets Policy, Maui County Complete Streets Resolution, Maui County General Plan and Hawaii’s State Pedestrian Plan, which states the following vision: “Hawaii’s integrated and multi-modal transportation system provides a safe and well-connected pedestrian network that encourages walking among all ages and abilities. The system promotes a positive pedestrian experience; promotes environmental, economic and social sustainability; fosters healthy lifestyles; and conserves energy. More people in Hawaii choose to walk for both transportation and recreation as a result of enhanced walking environments, mobility, accessibility, safety, and connectivity throughout the transportation system.” A new opportunity exists for the Department of Transportation to put these policies and plans into action by including people—especially youth—on foot and bicycle in the design of the intersection at Pi’ilani Highway at Kulanihako’i Street.

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<sup>5</sup> B J. Campbell, et al. (2004). A Review of Pedestrian Safety Research in the United States and Abroad, Federal Highway Administration.