

COMPLETE STREETS UPDATE

Title VI & Environmental Justice

January 28, 2016
Honolulu International Airport
Interisland Conference Center

Presented by:
Mike Packard, P.E., PTOE
Senior Traffic Engineer, Associate
SSFM International, Inc.



2016 HDOT Civil Rights Symposium

SSFM
International



Hotel Street at Fort Street



Transportation Expense

Transportation is the **second largest** expense for American households



Hotel Street

Transportation Expense

By the early 2000s, Americans spent an average **18 cents of every dollar** earned on transportation, with the poorest fifth of families spending more than double that.

By the numbers:

\$9,498: average annual cost of owning a car.¹

33 percent: portion of low-income African Americans without access to automobiles.²

25 percent: portion of low-income Latinos without automobile access.³

12.1 percent: portion of low-income Whites without automobile access.⁴

80 percent: portion of federal transportation funding dedicated to highways.⁵



Mobility Challenges

Many neighborhoods throughout Hawai'i lack quality pedestrian facilities.



Kamehameha IV Road

Importance of Pedestrian Facilities

Adults living in neighborhoods with pedestrian facilities are more physically active.



Liliha Street

Transportation Disadvantaged

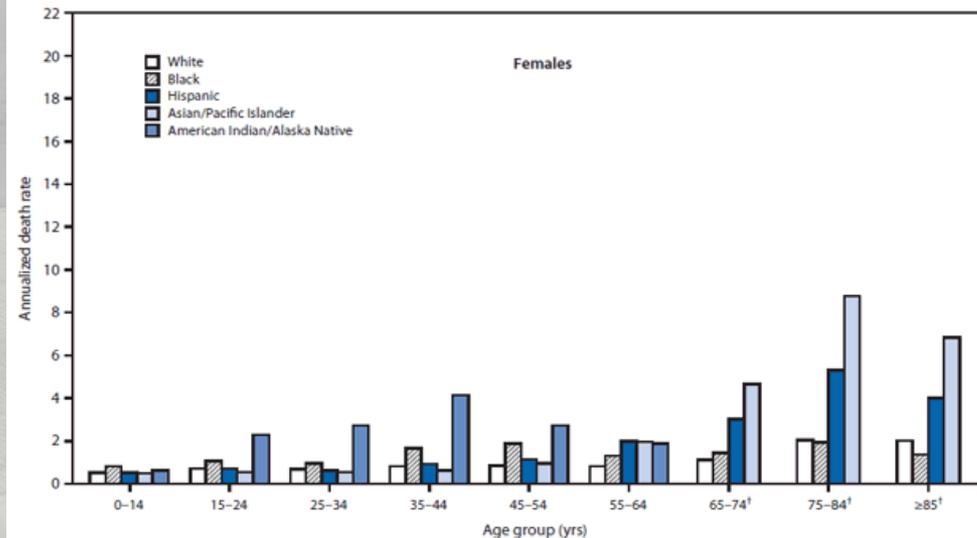
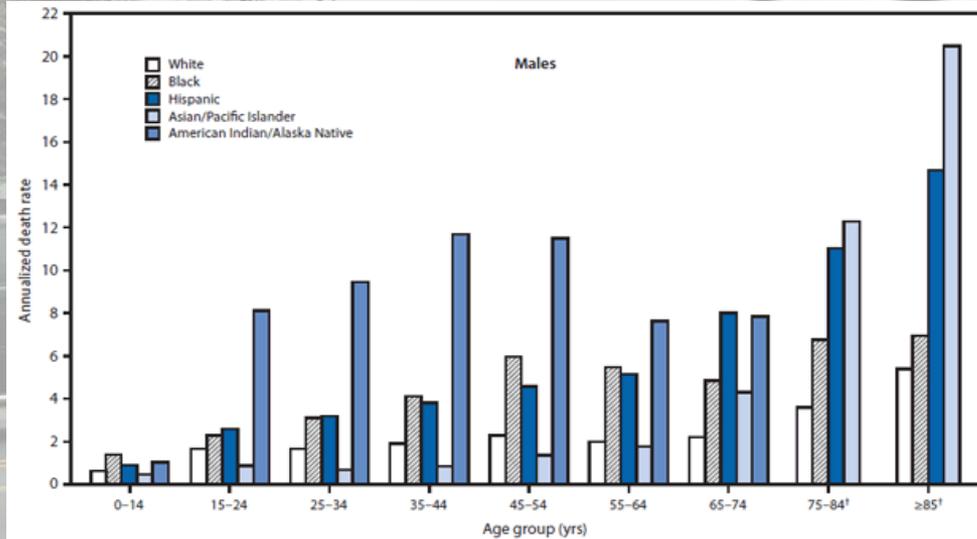
Transportation disadvantaged are often without easy access to convenient, safe transportation alternatives.



North King Street

Pedestrian Death Rates

Age/Ethnicity



Pedestrian Death Rate:

Latinos

- **60% Greater** than Whites
- Latino Children **40% Larger** than White Children

African Americans

- **75% Greater** than Whites
- African Americans Children **more than twice** than White Children

Asian/Pacific Islander

- 75+ year olds, **more than four times greater** than Whites

* Per 100,000 population.

† Data not shown for American Indian/Alaska Natives in these age groups because of small numbers.

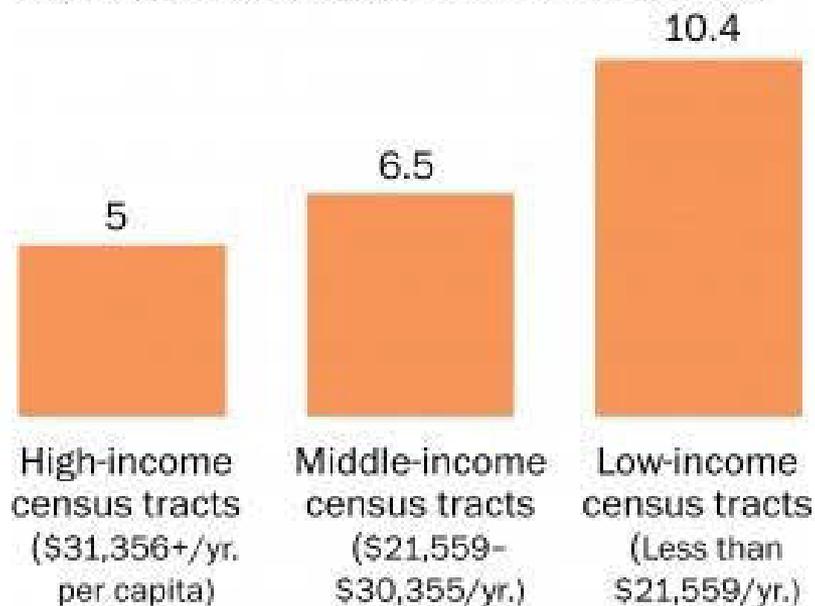
*Graphs from 4/19/2013 CDC Motor Vehicle Traffic Related Ped Deaths 01-12



Pedestrian Death Rates Income

Pedestrian deaths

Deaths per 100,000 people within metro areas*



*2008-2012 data

Source: Governing.com

THE WASHINGTON POST

Pedestrian deaths are much more common in poor neighborhoods in urban America than in wealthier ones .

The poor and minorities are more likely to get around by foot, but they also often live in places where doing that is particularly hard.

*1/15/2016 Washington Post The Inequality of Sidewalks



Pedestrian Death Rates Income

Pedestrians dying at disproportionate rates
in America's neighborhoods

Census Tract Poverty Rate	2008-2012 Deaths per 100K
<=5%	3.8
>5%-10%	5.5
>10%-15%	7.0
>15%-20%	8.3
>20%-25%	9.9
>25%-30%	11.2
>30%	12.6





Pedestrian Death Rates U.S. Metro Areas

Pedestrian deaths in metro areas with greater than one million residents.



Pedestrian Death Rates

State of Hawai'i

Pedestrian deaths in Hawai'i counties and nationally.

County	Total Traffic Fatalities (2003-2013)	Total Pedestrian fatalities	Percentage of Traffic Deaths that were Pedestrians	Annual Pedestrian Deaths per 100,000 (2008-2012)	Percentage of Pedestrian Fatalities by Posted Speed Limit (2003-2012)			Percentage of Pedestrian Fatalities on Arterials
					Under 20 mph	Under 30 mph	40 mph and over	
Hawaii County	340	42	12.4%	2.38	2.4%	14.6%	43.9%	58.5%
Honolulu County	642	180	28.0%	1.93	0.6%	48.9%	11.7%	66.5%
Kalawao County	0	0	N/A	0.00	N/A	N/A	N/A	N/A
Kauai County	91	9	9.9%	1.39	0.0%	77.8%	11.1%	55.6%
Maui County	196	31	15.8%	2.08	22.6%	22.6%	48.4%	67.7%
Total For Hawaii	1,269	262	20.6%	1.98	3.5%	37.0%	19.8%	63.0%
Total for United States	383,489	47,025	12.3%	1.56	1.0%	9.8%	61.3%	52.3%

**From Dangerous By Design 2014 for Hawaii.

Pedestrian Death Rates Honolulu County

Select:

Honolulu County, HI

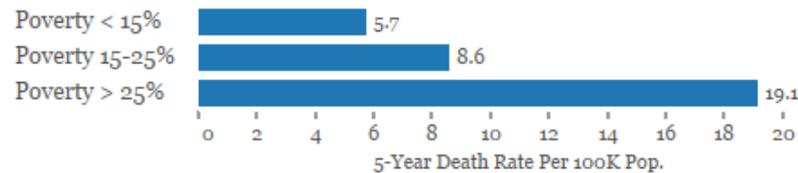
2008-2012 Pedestrian Deaths

Total Deaths:	74
5-Year Death Rate:	7.7 per 100K
Annual Death Rate:	1.5 per 100K

2008-2012 Pedestrian Deaths For Census Tracts

Counties are made up of Census tracts, similar to the size of neighborhoods. Tracts were grouped by poverty rate and per capita income. The following charts represent five-year death rates for tract groups within the selected county. Please note that some counties' rates were calculated using relatively few deaths and small low-income populations.

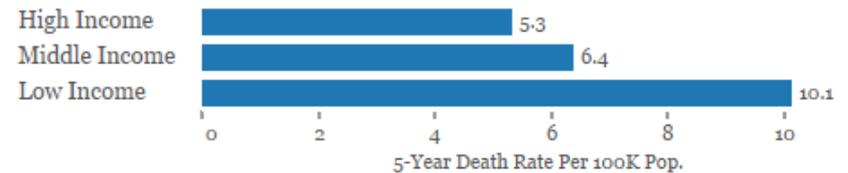
Deaths Per Capita By Census Tract Poverty Rates



14 deaths occurred in tracts with a poverty rate between 15 and 25%

8 deaths occurred in tracts with poverty rates above 25%

Deaths Per Capita By Census Tract Income/Capita



22 deaths occurred in low income tracts

High Income: \$31,356+
Middle Income: \$21,559 - \$31,355
Low income: Less than \$21,559

Honolulu Complete Streets Ordinance

1.3. Complete Streets Ordinance

The Honolulu Complete Streets Ordinance was passed by City Council in 2012. It established the complete streets policy for the City and County of Honolulu. The policy reads: *“...the city hereby expresses its commitment to encourage the development of transportation facilities or projects that are planned, designed, operated, and maintained to provide safe mobility for all users. Every transportation facility or project, whether new construction, reconstruction, or maintenance, provides the opportunity to implement complete streets policy and principles. This policy provides that a context sensitive solution process and multi-modal approach be considered in all planning documents and for the development of all city transportation facilities and projects.”*



CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

ORDINANCE 12-15
BILL 26 (2012)

A BILL FOR AN ORDINANCE

RELATING TO COMPLETE STREETS.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Purpose. The purpose of this ordinance is to implement the provisions of Section 264-20.5, Hawaii Revised Statutes (Act 54 SLE 2009), and establish a Complete Streets policy for the City and County of Honolulu.

SECTION 2. Chapter 14, Revised Ordinances of Honolulu 1990 ("Public Works Infrastructure Requirements Including Fees and Services"), is amended by adding a new article to be appropriately designated by the revisor of ordinances and to read as follows:

"Article _____ Complete Streets

Sec. 14-____1 Definitions.

As used in this article:

"Accessibility" means the ability to reach desired destinations for all transportation system users.

"Complete streets features" include, but are not limited to, sidewalks, crosswalks, accessible curb ramps, curb extensions, raised medians, refuge islands, roundabouts or mini-circles, traffic signals and accessible pedestrian signals such as audible and vibrotactile indications and pedestrian countdown signals, shared-use paths, bicycle lanes, paved shoulders, street trees, planting strips, signs, pavement markings including multi-modal pavement striping, street furniture, bicycle parking facilities, public transportation stops, and facilities including streetscapes, dedicated transit lanes, and transit priority signalization.

"Context sensitive solution" means a process in which a full range of stakeholders are involved in developing complete streets transportation solutions that identify and incorporate appropriate complete streets features designed to fit into, enhance, and support the surrounding environment and context, including land use.

"Directors" means the directors of the departments of transportation services, design and construction, planning and permitting, and facilities maintenance.

OCS0313120303CT

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12-15

- “(1) Improve safety;*
- (2) Apply a context sensitive solution process that integrates community context and the surrounding environment, including land use;*
- (3) Protect and promote accessibility and mobility for all;*
- (4) Balance the needs and comfort of all modes and users;*
- (5) Encourage consistent use of national industry best practice guidelines to select complete streets design elements;*
- (6) Improve energy efficiency in travel and mitigate vehicle emissions by providing non-motorized transportation options;*
- (7) Encourage opportunities for physical activity and recognize the health benefits of an active lifestyle;*
- (8) Recognize complete streets as a long-term investment that can save money over time;*
- (9) Build partnerships with stakeholders and organizations statewide;*
- (10) Incorporate trees and landscaping as integral components of complete streets.”*

Honolulu Complete Streets Checklist

City & County of Honolulu: Complete Streets Checklist

Certification			
Project Title: _____			
Project Engineer:		Division Chief:	
Print Name: _____		(City Projects Only) Print Name: _____	
Signature: _____ Date: _____		Signature: _____ Date: _____	
Dept. Director/Principal:		DPP Complete Streets Coordinator:	
Print Name: _____		Print Name: _____	
Department/Firm Name: _____		Signature: _____ Date: _____	
Signature: _____ Date: _____			

Refer to "Complete Streets Checklist Instructions" for explanation and clarification. Do not certify until checklist is fully completed.

Section A: Street Classification, Street Type and Other Data

1) Is this a transportation facility or project? This includes, but is not limited to, reconstruction, rehabilitation and resurfacing.
 _____ Yes (please describe the project below and complete entire form.)
 _____ No (stop, complete certification and submit to DPP Complete Street Coordinator)

Project Description: _____

Is this a bridge seismic retrofit/scour project? If yes, stop, complete certification and submit to DPP.
 Is this a curb ramp only project? If yes, skip to C.

2) What is the Street Classification?
 Local Minor Collector Minor Arterial Major Arterial
 Major Collector

3) What is the Street Type? Check all that apply.
 Residential Commercial Industrial Mixed Use Other - Explain

4) What is the daily traffic volume (ADT)? (complete for a major collector road or higher classification).

5) If there are sidewalks in the area, describe their condition:

6) Are there any nearby (within a 1/4 mile) transit facilities? If so, please describe.

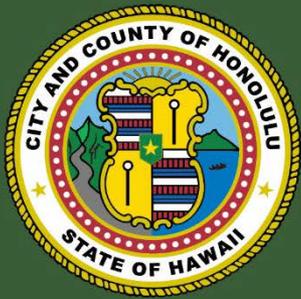
7) Please describe the parking restrictions in the area surrounding the facility or project:

Section B: Approved Plans

1) Does the Oahu Bike Plan make any recommendations with respect to the area surrounding the facility or project? If so, please describe:

2) Does any other neighborhood plan, bicycle plan, pedestrian plan, transit plan or other transportation-relevant plan apply to the area surrounding the facility or project? If so, please identify the plan and describe the recommendations.

Please complete other side.



Honolulu Complete Streets Design Manual



CHAPTER 1: Introduction



Kalakaua Avenue

CHAPTER 2 : STREET TYPE





CHAPTER 3 : TRAVEL WAY



Table 3-2: Representative Examples of Traffic Calming Measures and Their Appropriateness on Various Street Categories

Traffic Calming Classification	Framework Street			Framework Street or Non-Framework Street		Non-Framework Street	
	Boulevards, Parkways and Avenues	Boulevards, Parkways and Avenues	Boulevards, Parkways and Avenues	Avenues	Avenues	Streets, Main Streets and Alleys	
Conventional Street Classification							
Posted / Design / Target / Operating Speed (mph)	35 mph or more	25 to 30 mph	20 to 30 mph	20 to 30 mph	20 to 25 mph	20 mph or less	
Transition Zone from / to higher speed environment	Yellow	Green	Green	Red	Red	Red	
Entrance Features (architecture / landscaping / monument)	Green	Green	Green	Green	Green	Green	
Cross-Section Measures	Reduction in number of lanes	Green	Green	Green	Green	Green	
	Reduction in width of lanes	Green	Green	Green	Green	Green	
	Long Median / Continuous Median	Green	Green	Green	Green	Green	
	Short Median / Refuge	Green	Green	Green	Green	Green	
	Short Medians on Curves	Green	Green	Green	Green	Green	
	Bulb-outs	Green	Green	Green	Green	Green	
	Curb and Gutter	Green	Green	Green	Green	Green	
	Curbless / Flush Streets	Red	Green	Green	Green	Green	
	Flush Medians	Green	Green	Green	Green	Green	
	Pedestrian Scale Lighting	Green	Green	Green	Green	Green	
	Street Trees	Green	Green	Green	Green	Green	
	Building up to the right-of-way	Green	Green	Green	Green	Green	
	Lateral Shifts	Red	Green	Green	Green	Green	
	Shared Spaces	Red	Green	Green	Green	Green	
	Bike Lanes / Protected Bike Lanes / Cycle Tracks	Green	Green	Green	Yellow	Yellow	
	Textured and/or Colored Paving Materials (parking, lanes, bike lanes, crossings, intersections, general purpose lanes, turn lanes, medians)	Green	Green	Green	Green	Green	
	On-street Parking	Parallel	Yellow	Green	Green	Green	Green
		Back-in-angled	Green	Green	Green	Green	Green
		Front-in-angled	Red	Red	Red	Red	Red
		Right-angle	Red	Red	Red	Red	Red
Valley gutters used in conjunction with parking		Green	Green	Green	Green	Green	

Traffic Calming Classification	Framework Street			Framework Street or Non-Framework Street		Non-Framework Street		
	Boulevards, Parkways and Avenues	Boulevards, Parkways and Avenues	Boulevards, Parkways and Avenues	Avenues	Avenues	Streets, Main Streets and Alleys		
Conventional Street Classification								
Posted / Design / Target / Operating Speed (mph)	35 mph or more	25 to 30 mph	20 to 30 mph	20 to 30 mph	20 to 25 mph	20 mph or less		
Periodic Measures	Horizontal Measures	Roundabouts	Green	Green	Green	Green	Green	
		Mini Roundabouts	Red	Green	Green	Green	Red	
		Mini Traffic Circles	Red	Red	Red	Green	Green	
		Impellers (T-intersections)	Red	Red	Red	Green	Green	
		Two-lane chicanes	Red	Red	Red	Green	Green	
		One-lane chicanes (yield condition)	Red	Red	Red	< 3,000 ADT	< 3,000 ADT	< 3,000 ADT
		Short medians	Red	Red	Red	Green	Green	
		Medians on curves	Red	Red	Red	Green	Green	
		Narrowings	Yield Streets	Red	Red	Red	< 1,500 ADT	< 1,500 ADT
	Pinch Points		Red	Red	Red	< 3,000 ADT	< 3,000 ADT	< 3,000 ADT
	Bulb-outs		Green	Green	Green	Green	Green	
	Vertical Measures	Raised Intersections	Yellow	Yellow	Yellow	Green	Green	
		Raised Crosswalks	Yellow	Yellow	Yellow	Green	Green	
		Flat-top Speed Humps (speed tables)	Red	Red	Red	Green	Green	
		Speed Cushions	Red	Red	Red	Green	Green	
Speed Humps		Red	Red	Red	Green	Green		
Not Traffic Calming Measures	Vertical Changes	Rumble Strips (for warning purposes)	In rural areas only	Red	Red	Red	Red	
		Speed Bumps	Red	Red	Red	Red	Red	

Note: Many of these measures can be combined in a variety of ways that are too numerous to list in

Legend:

Appropriate	Appropriate in Specific Circumstances	Not Appropriate
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Keolu Drive



Ulune Street



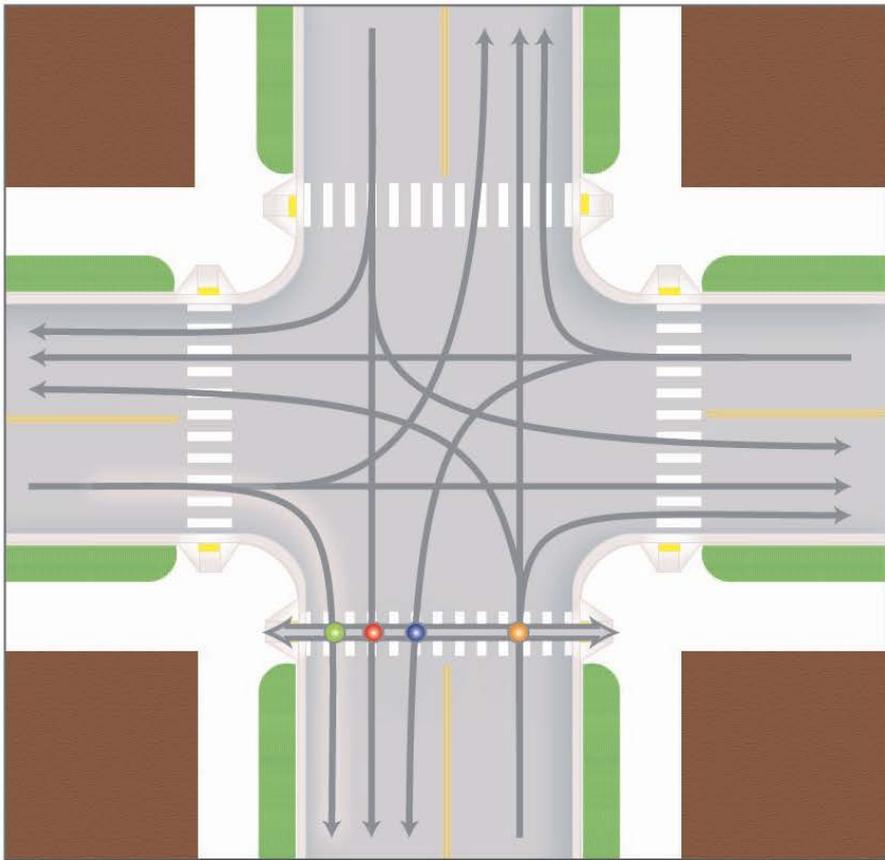
CHAPTER 4 : INTERSECTION DESIGN



Keeaumoku Street at Heulu Street



Vehicle - Pedestrian Conflict Points



- Right turn on green conflict
- Red light running conflict
- Left turn on green conflict
- Red light running or right turn on red conflict

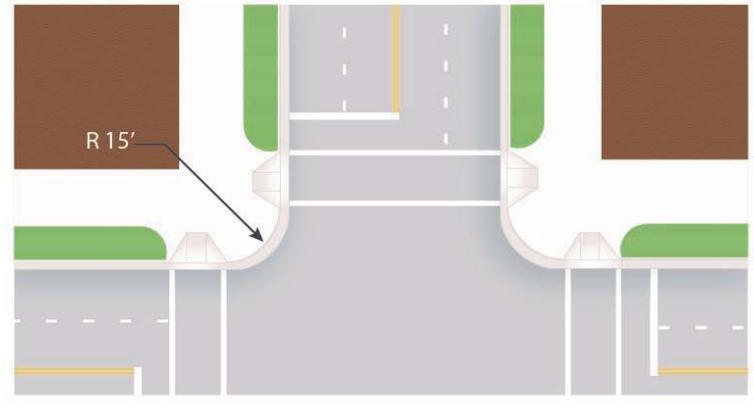
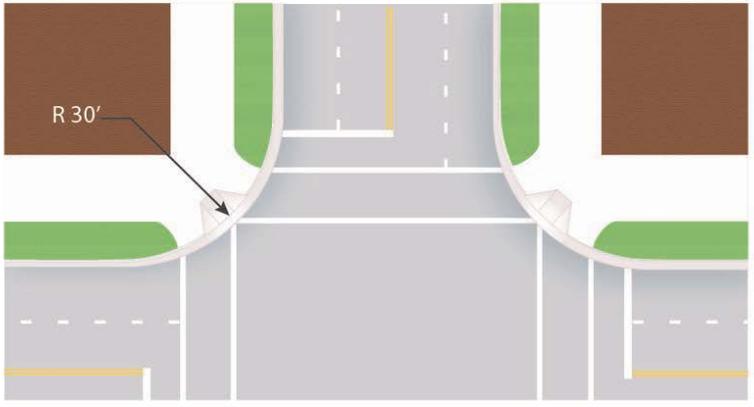
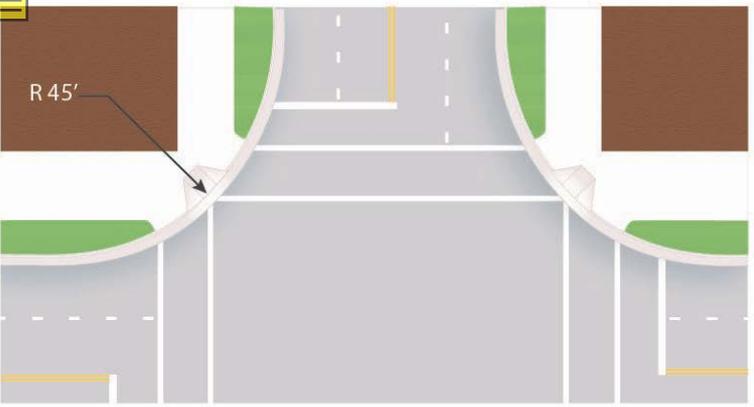
Conventional Intersection
16 Conflict Points



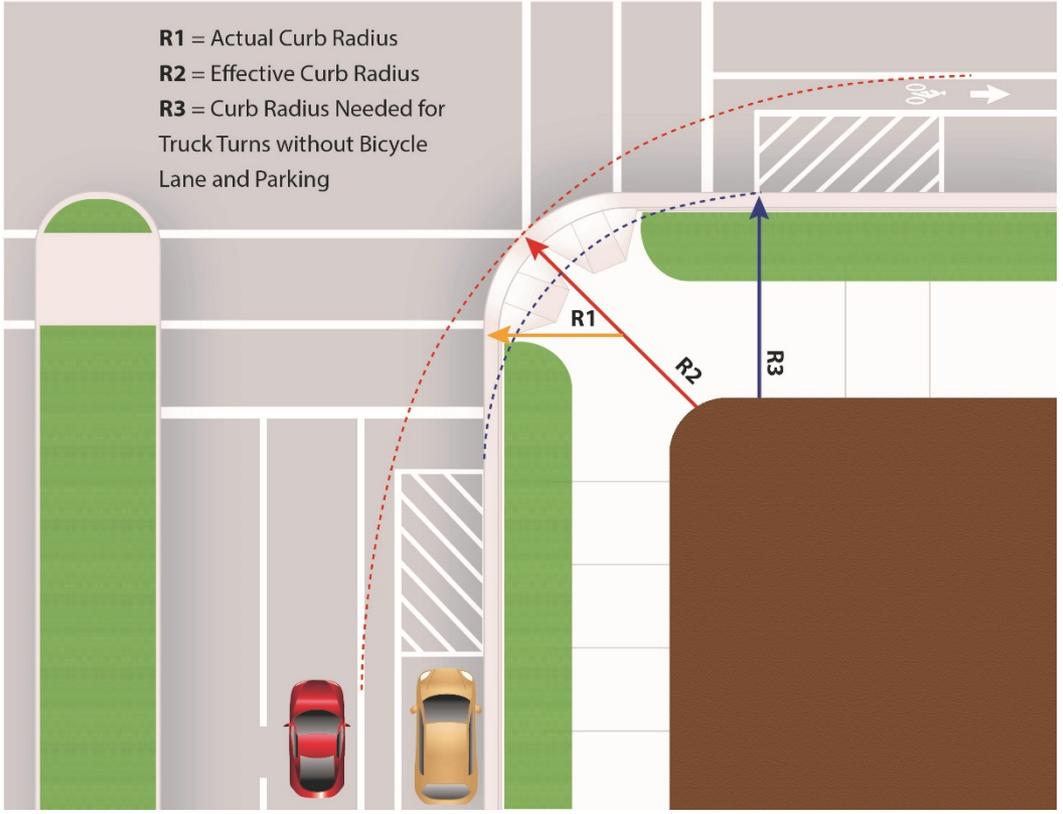
○ Vehicle/Pedestrian Conflicts

Roundabout
8 Conflict Points

Tighter Corner Radii Reduce Crossing Distance and Slow Turning Traffic



The Effective Radius Controls Turning Speeds and the Ability of Large Vehicles to Turn





CHAPTER 5 : PEDESTRIAN CROSSINGS

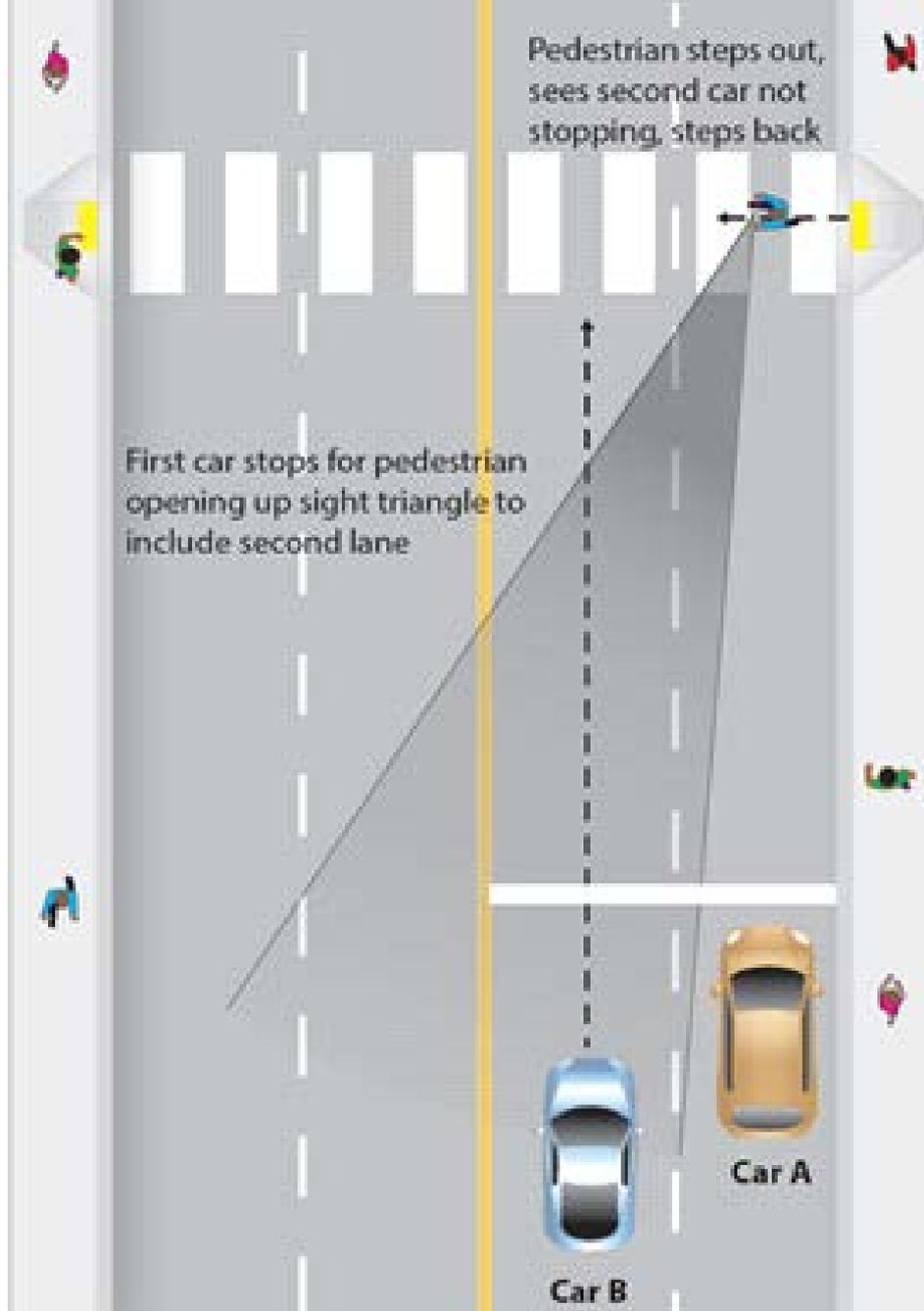




Kalakaua Avenue at Lili'uokalani Avenue



Kihapai Street at Kawainui Street





CHAPTER 6 : BICYCLE FACILITY





Strong and fearless

Wai'ālae Avenue



Enthusied and Confident

Paki Avenue



Wanao Road

Interested but Concerned



Wai'ala'e Avenue

Sharrow



South Kalāheo Avenue

Paved Shoulder



Kailua Road

Bike Lane



Protected Bike Lane

South King Street



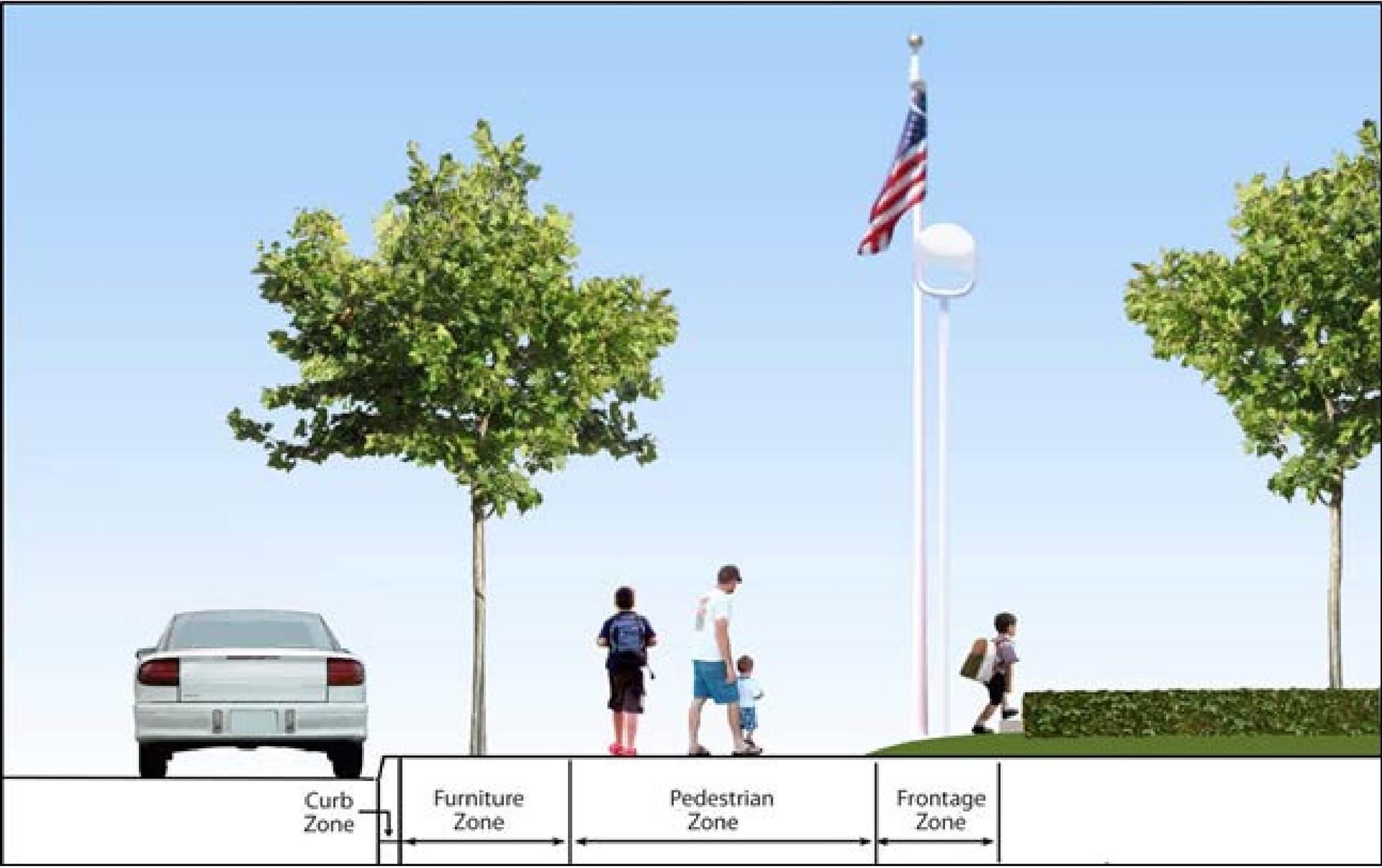
Date Street

Off-Street Path

CHAPTER 7 : PEDESTRIAN ZONE

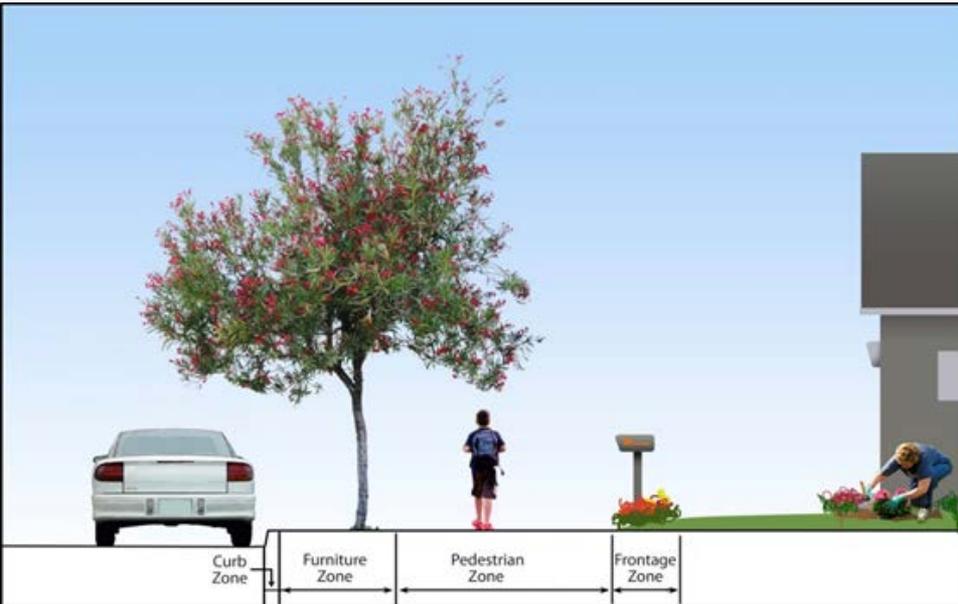


Hekili Street

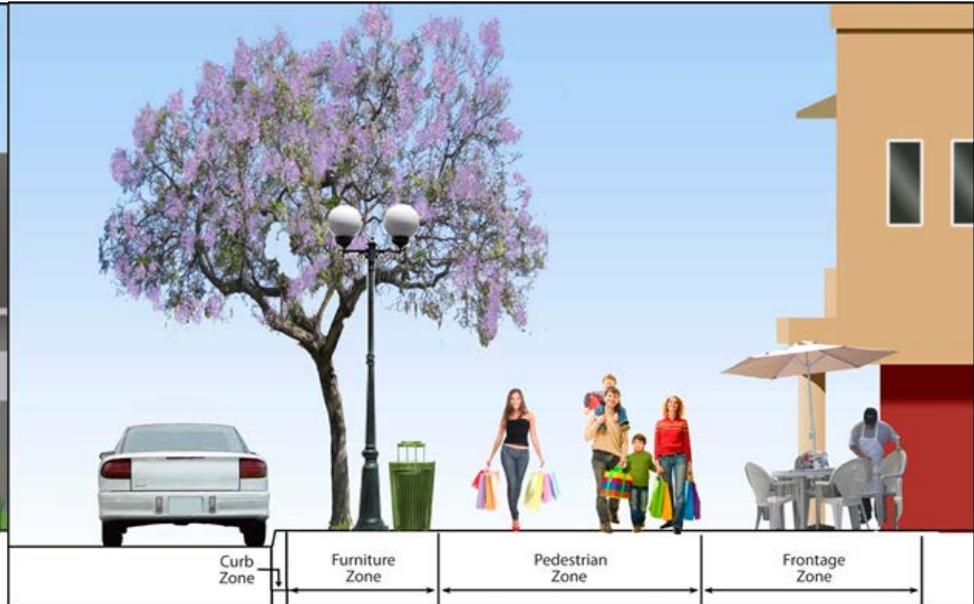




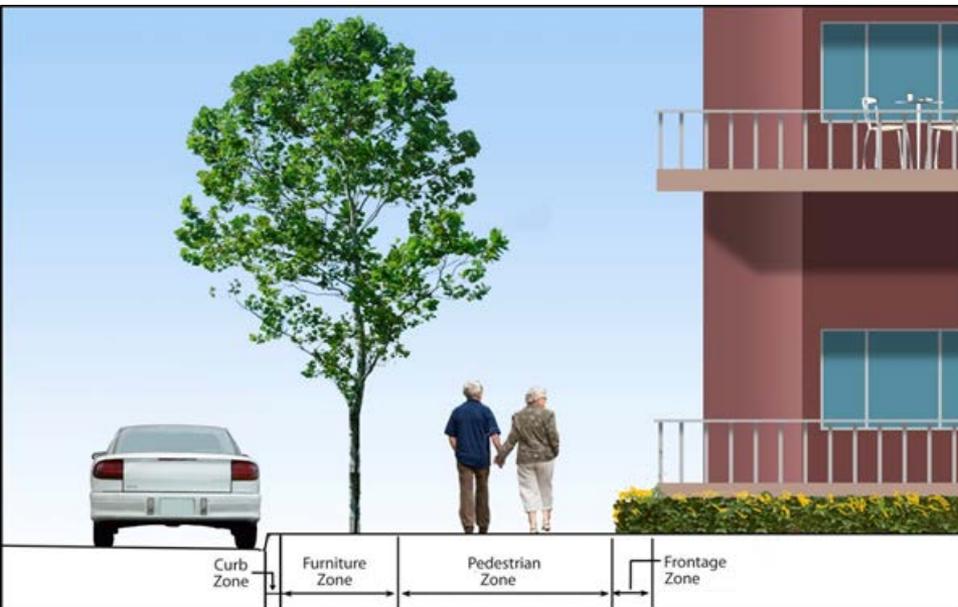
Low/Medium Density Residential



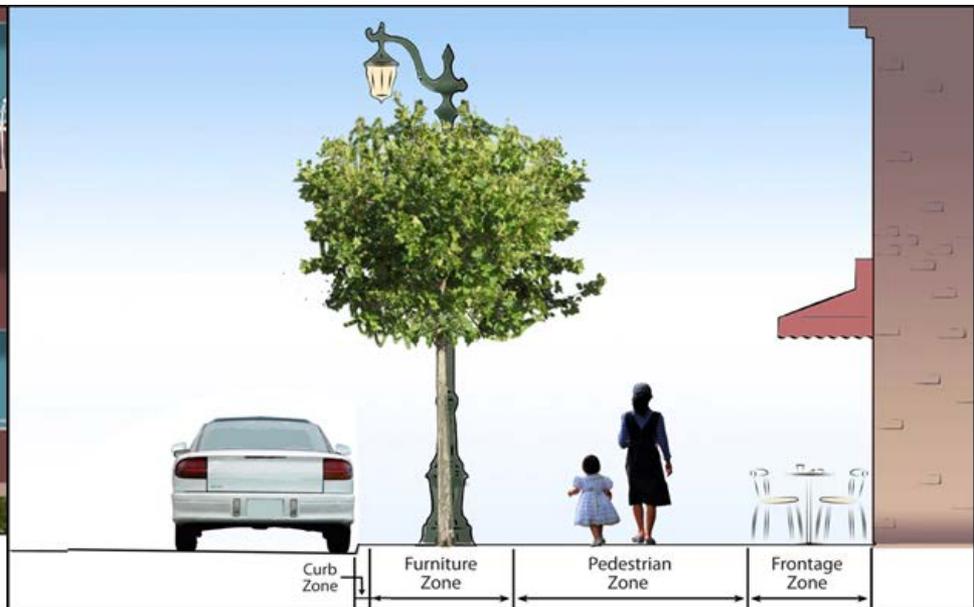
Medium/High Density Residential



Mixed/Multi-Use



Downtown Core/Main Street





North King Street



Ohua Avenue



Kailua Road



University Avenue at Maile Way



University Avenue at Ka'ala Street



University Avenue at Armstrong Street



Kailua Road



CHAPTER 8 : TRANSIT ACCOMMODATION





Ala Moana Transit Center



Hotel Street



Kalakaua Avenue at McCully Street



CHAPTER 9 : STREETSCAPE ECOSYSTEM



Paki Avenue



Fort Street Mall at Hotel Street



Questions?

Mike Packard, P.E., PTOE
Senior Traffic Engineer, Associate
SSFM International, Inc.
mpackard@ssfm.com
(808) 628-5824