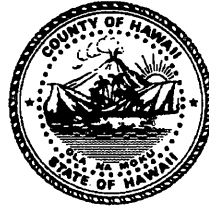


From the office of -
Council Member
District 3



Office: (808) 961-8396
Fax: (808) 961-8912
Email: sue.leeloy@hawaiiicounty.gov

SUSAN L.K. LEE LOY
25 Aupuni Street, Hilo, Hawai'i 96720

MEMORANDUM

DATE: November 16, 2020

TO: Aaron S.Y. Chung, Council Chair
and Members of the Hawai'i County Council

FROM: *for* Sue Lee Loy, Council Member

SUBJECT: Resolution No. 779: Adopting the County of Hawai'i Street Design Manual to guide the implementation of Complete Streets and multimodal design principles for Hawai'i County roadway projects.

2020 NOV 16 AM 9:46
COUNTY CLERK
COUNTY OF HAWAII

Attached is a PowerPoint to accompany the presentation from Natasha Soriano, Transportation Planner, regarding Resolution No. 779.

Please distribute copies for the November 17, 2020, meeting of the Public Works and Mass Transit Committee.

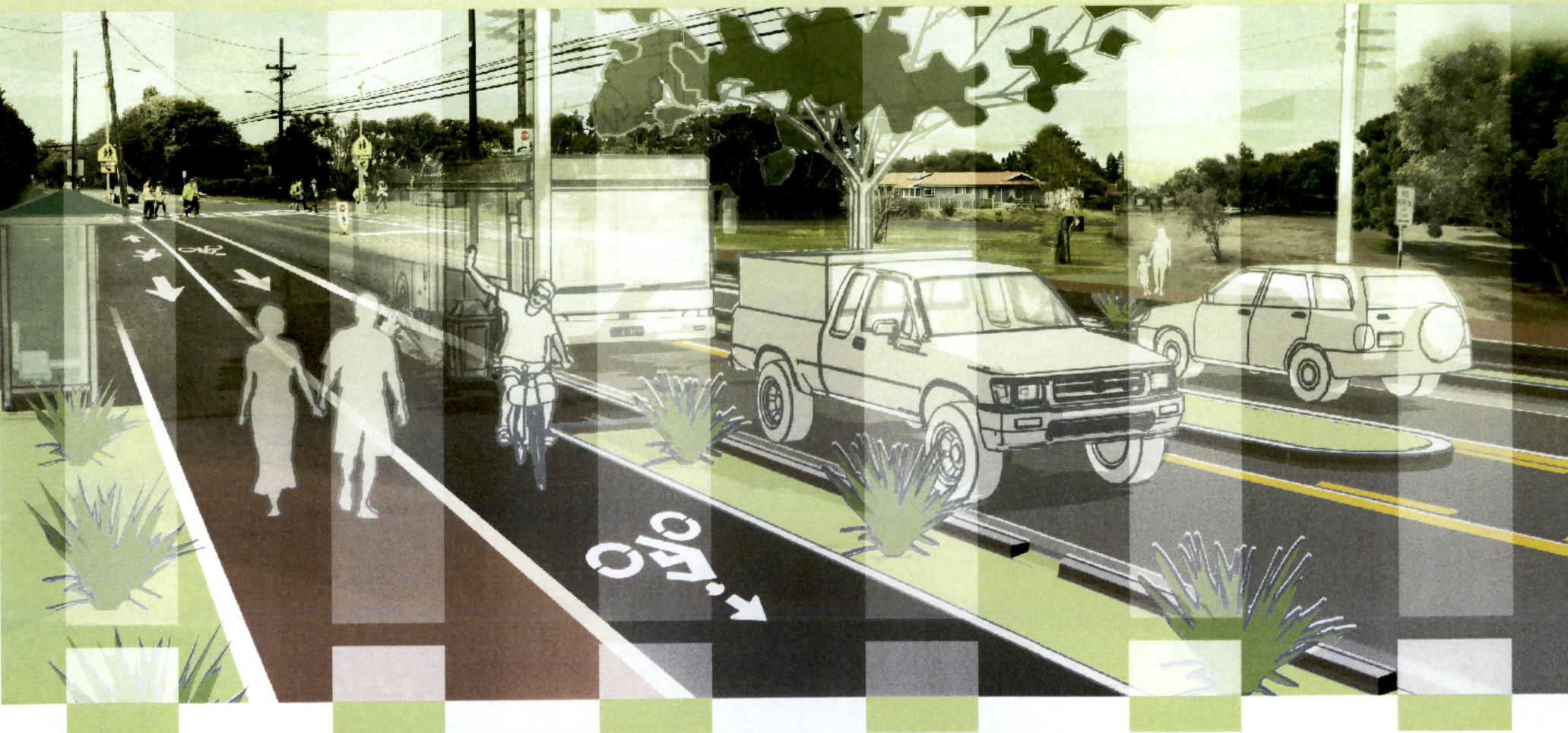
SL:ps

Comm. No. 1154.1
Ref. To: P/PW/MTC
Ref. Date 11/17/2020

COUNTY OF HAWAII

COMPLETE STREETS

County Council Presentation, November 17, 2020



Complete Streets for Hawai'i Island



What are Complete Streets:



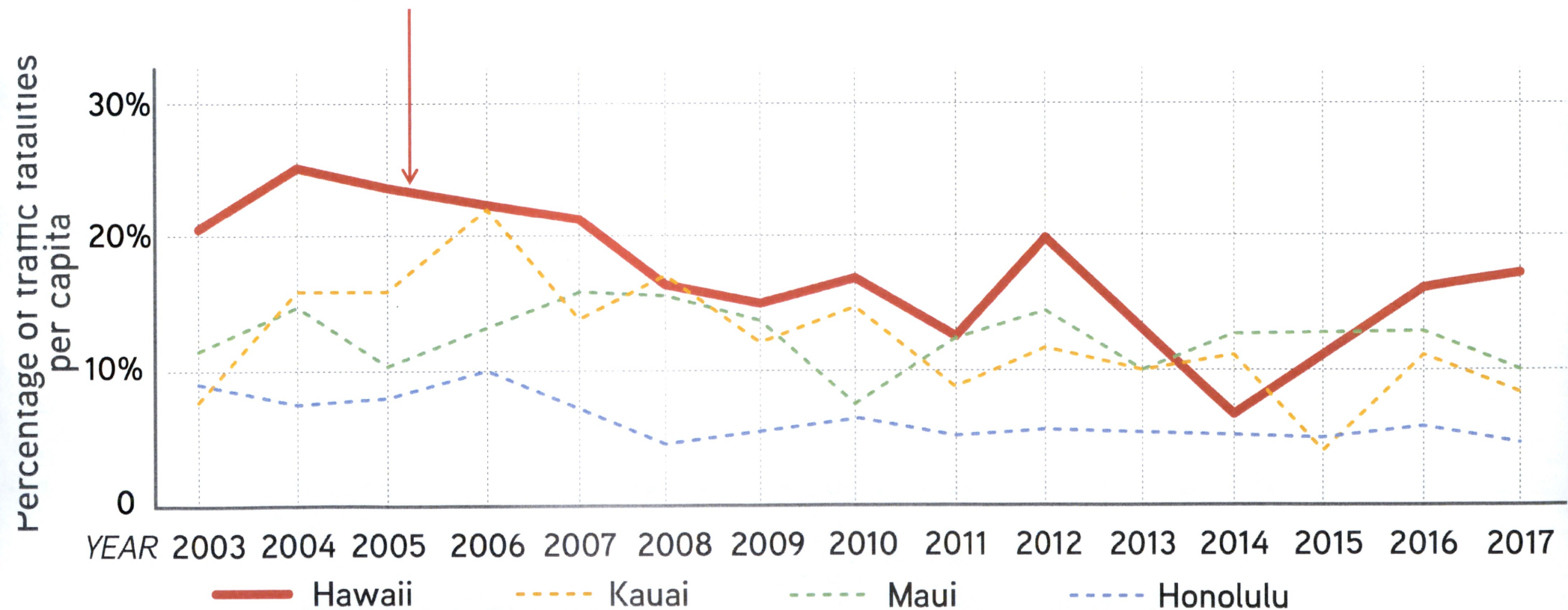
- All Ages & Abilities
- Multimodal Options
- Prioritize Safety
- Environmentally Sensitive
- Context Sensitive
- Economic Benefits



SAFE, HEALTHY, and
EQUITABLE MOBILITY for all.

Safety for All

- For the past several years, Hawaii County has led the state in the percentage of traffic fatalities per capita.
- Vulnerable users were disproportionately killed on Hawaii Island (Native Hawaiians, Pacific Islanders, elderly)



Access for All

Ali'i Drive, Kona



Livability for All



Economic Revitalization



Mexican Food

(808) 542-5166

Fresh Authentic Thai Cuisine

BROWN RICE SUSHI and MUSUBI
DRAGON KITCHEN
EST. LOCAL

CAFE
Pesto
RICE BAR

BUILDING

Ra's

★ REMY'S ★
BURGERS
FISHN CHIPS
SANDWICHES
PLATE LUNCH

EVERYONE
WELCOME

Aloydee's
THAI Food
(808) 542-5166

FREE
SUNSHINE
SANDWICHES

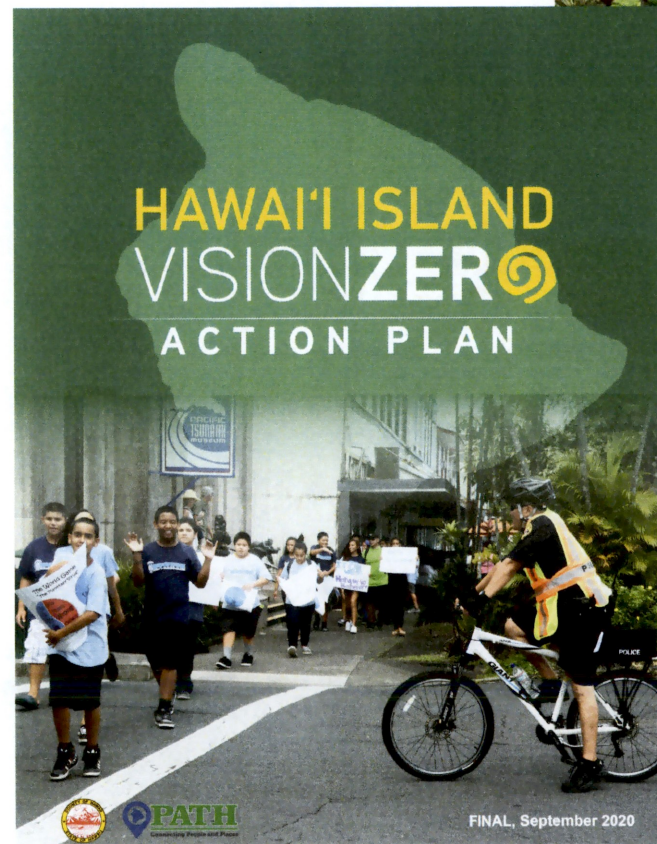
Complete Streets Policy in Hawai'i

2009 – State of Hawaii adopted Act 054 requiring all Counties to “adopt a complete streets policy that seeks to reasonably accommodate...access and mobility for all users...of all ages and abilities...”

Counties:

Hawaii County's Complete Streets Resolution 171-11 went into effect in October 2011. It expressed support for the County to establish a Complete Streets policy and program. The County also adopted a Vision Zero resolution and Vision Zero Action Plan in 2020.

Kauai County, Maui County, and Honolulu County have all passed Complete Streets policies and adopted Complete Streets Design Manuals for the design of County roadways.

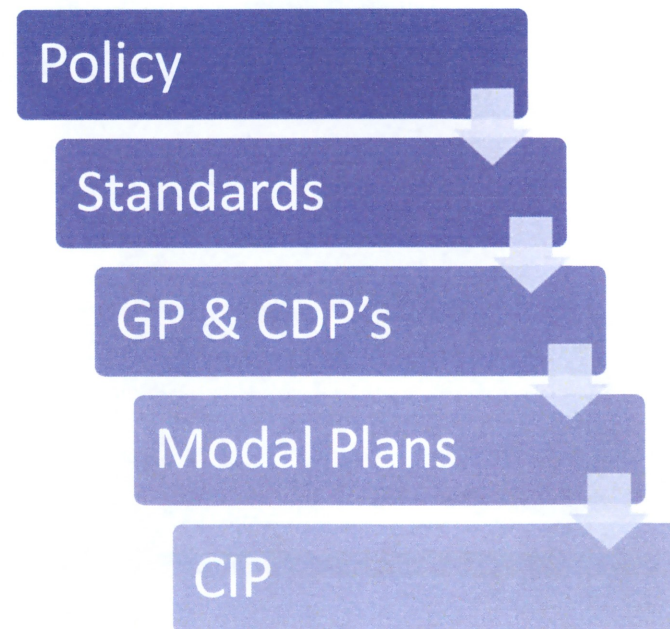


Complete Streets Prioritization Framework

- A modal hierarchy is recommended for Hawai'i Island that prioritizes pedestrians, followed by bus transit, bicycles, and passenger vehicles.



- Establishing this modal prioritization through policy, standards, and planning enables the County to prioritize project funding and implementation.



Complete Streets Program



Complete Streets Program Development

Research
Best
Practices,
Plans &
Policies

Working
Group
Kickoff

Review
Current
Standards

DPW
Division
Meetings

- Issues/Needs
- Opportunities

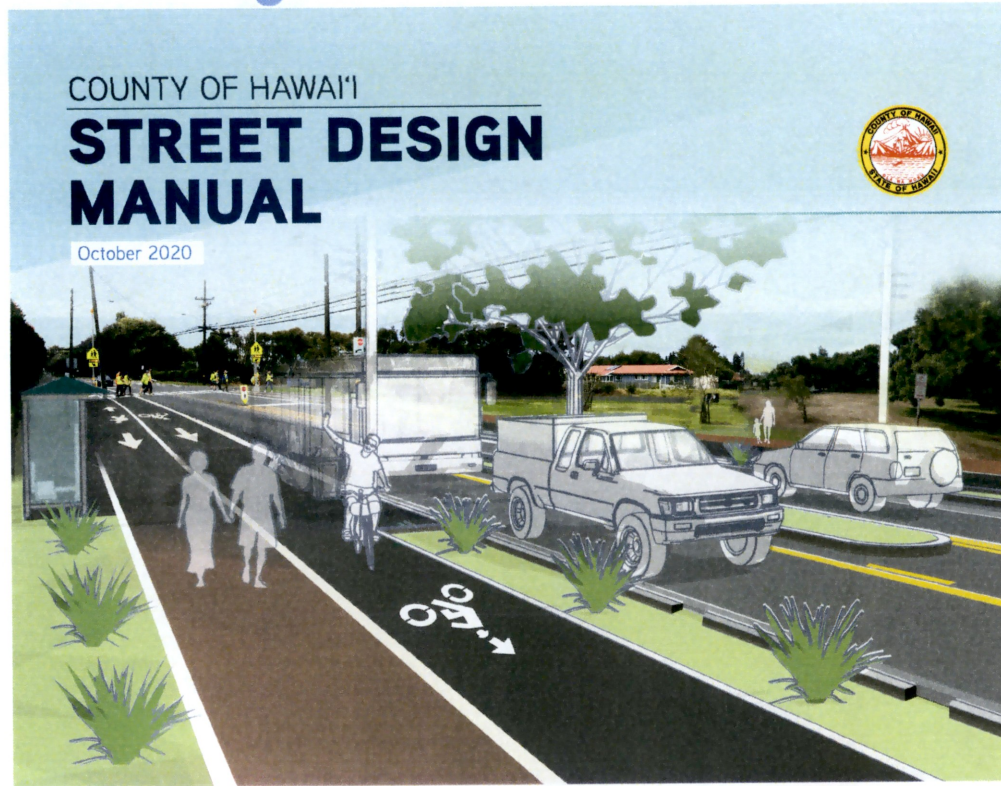
Demo
Project:
Kīlauea
Road Diet

Design
Guideline
s
Workshop

Draft
Manual
Review &
Revision

Adoption &
Implementation

Complete Streets Program Documents



01

Street Design Manual

- Toolbox of design treatments that support CS principles
- For use by public/private engineers, design professionals, planners, developers etc.

02

Plant List:

- Identifies appropriate tree and plant species for use in County of Hawai'i roadway projects
- Species are identified by ecozone, application, native/non-native status

03

Code Changes:

- To support implementation of CS and street design manual
- County Streets (Ch 22)
- Subdivisions (Ch 23)
- Vehicles & Traffic (Ch 24)
- Zoning (Ch 25)
- Public Transportation (Ch 18)

County of Hawai'i Street Design Manual



Street Design Manual layout

- **INTRODUCTION** : Guiding Principles, Background, Use of the Manual

- Chapter 2: **STREET TYPES &**

- Chapter 3: **TRAVELWAY**

- Chapter 4: **PEDESTRIAN ZONES**

- Chapter 5: **PEDESTRIAN CROSSINGS**

- Chapter 6: **BICYCLE FACILITIES**

- Chapter 7: **INTERSECTION DESIGN**

- Chapter 8: **TRANSIT**

- Chapter 9: **STREETSCAPE**

- Chapter 10: **DESIGN PROCESS**

- **APPENDIX A**: Existing Standards & Guidelines & Plans

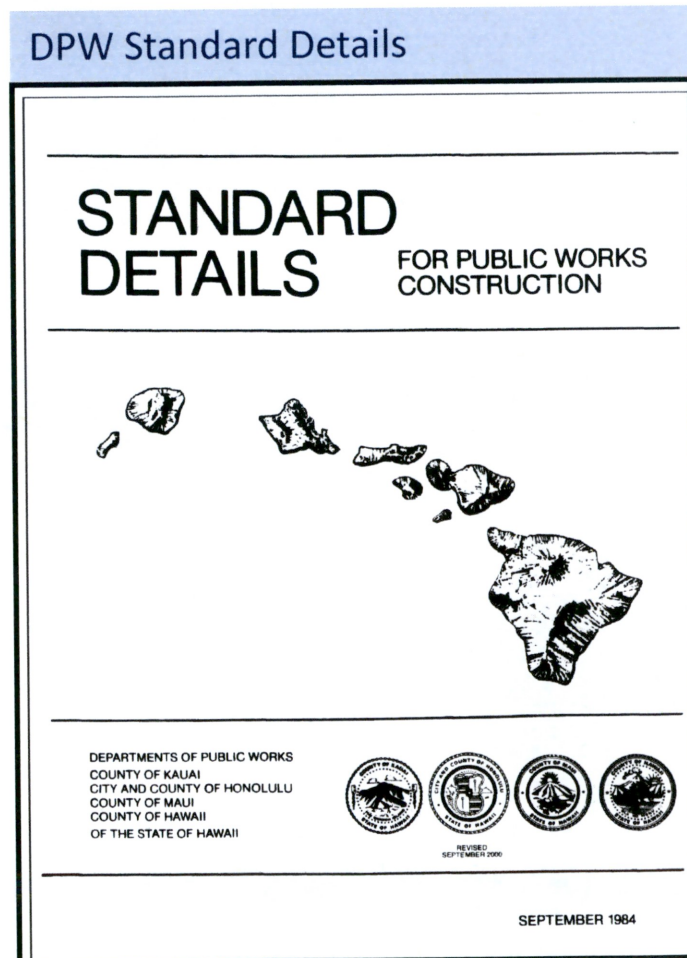
- **APPENDIX B**: COH DPW Standard Details

- **APPENDIX C**: Complete Streets Checklist & Instructions

- **APPENDIX D**: Plant List for Hawai'i County Roadway Projects

Approach to Developing Updated Standards

- Incorporated existing standards when possible
- Updated and/or replaced standards as needed to conform to COH policy direction and best practices



Street Design Manual – Street Typology:

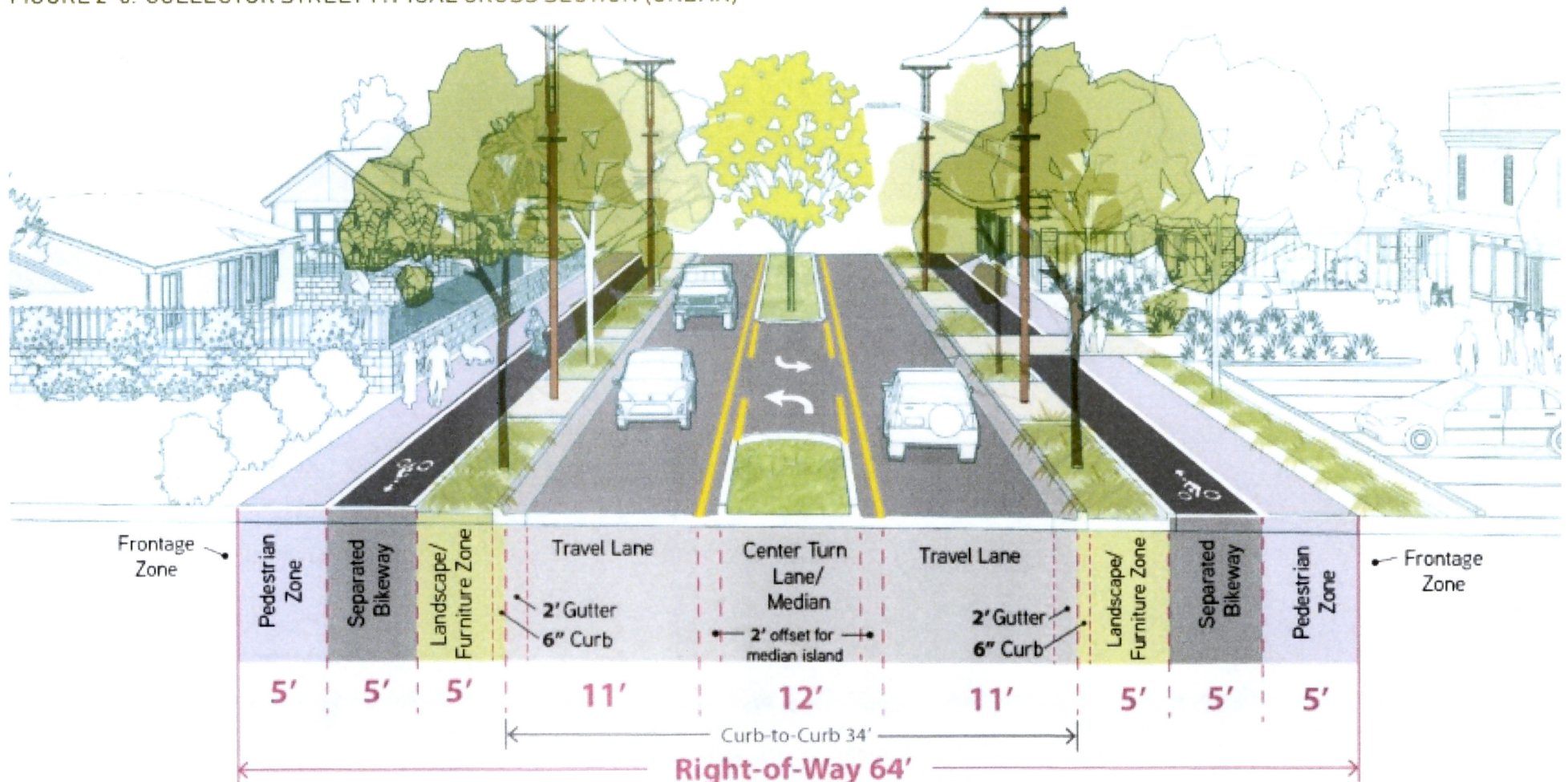
STREET TYPE	DESIGNATION/FUNCTION	EXAMPLES	CHARACTERISTICS
PARKWAY*	<ul style="list-style-type: none"> Connects regions and towns Includes dividing island or median strip 	<ul style="list-style-type: none"> Volcano Highway (Route 11) Queen Ka’ahumanu Highway (Route 19) 	<ul style="list-style-type: none"> Lanes 2-5 Traffic Volume: High
PRIMARY ARTERIAL*	<ul style="list-style-type: none"> Connects regions and towns 	<ul style="list-style-type: none"> Māmalahoa Highway (Route 11) Hawai’i Belt Road (Route 19) 	<ul style="list-style-type: none"> Lanes 2-5 Traffic Volume: High
SECONDARY ARTERIAL	<ul style="list-style-type: none"> Serves local and visitor traffic May carry heavy truck traffic Fewer access points than a Collector Street 	<ul style="list-style-type: none"> Henry Street Waikoloa Road 	<ul style="list-style-type: none"> Lanes: 2-5 Traffic Volume: High
COLLECTOR STREET	<ul style="list-style-type: none"> Serves mostly local traffic Serves mixed use destinations More access points than Arterials 	<ul style="list-style-type: none"> Kilauea Avenue Kinoole Street Wainaku Street 	<ul style="list-style-type: none"> Lanes: 2-3 Traffic Volume: Medium
BUSINESS STREET	<ul style="list-style-type: none"> Serves through and local functions Typically found in town cores and village centers Higher pedestrian volume 	<ul style="list-style-type: none"> Keawe Street Ali’i Drive Pāhoa Village Road 	<ul style="list-style-type: none"> Lanes: 2-3 Traffic Volume: Medium
INDUSTRIAL STREET	<ul style="list-style-type: none"> Serves industrial and heavy commercial areas Serves larger vehicles 	<ul style="list-style-type: none"> Halekauila Street Melekahiwa Street 	<ul style="list-style-type: none"> Lanes: 2-3 Traffic Volume: Low to High
MINOR STREET	<ul style="list-style-type: none"> Serves residential, low density development, and agriculture 	<ul style="list-style-type: none"> Alu Street Iwalani Street Mud Lane 	<ul style="list-style-type: none"> Lanes: 2 Traffic Volume: Low

* When street falls under HDOT jurisdiction, this Manual does not apply.

Street Design Manual – New Construction Guidance:

- New Construction guidelines prioritize safe and accessible transportation alternatives for all.
- Utilizing existing road right-of-way widths, users are provided separate, dedicated space targeting the most vulnerable users.

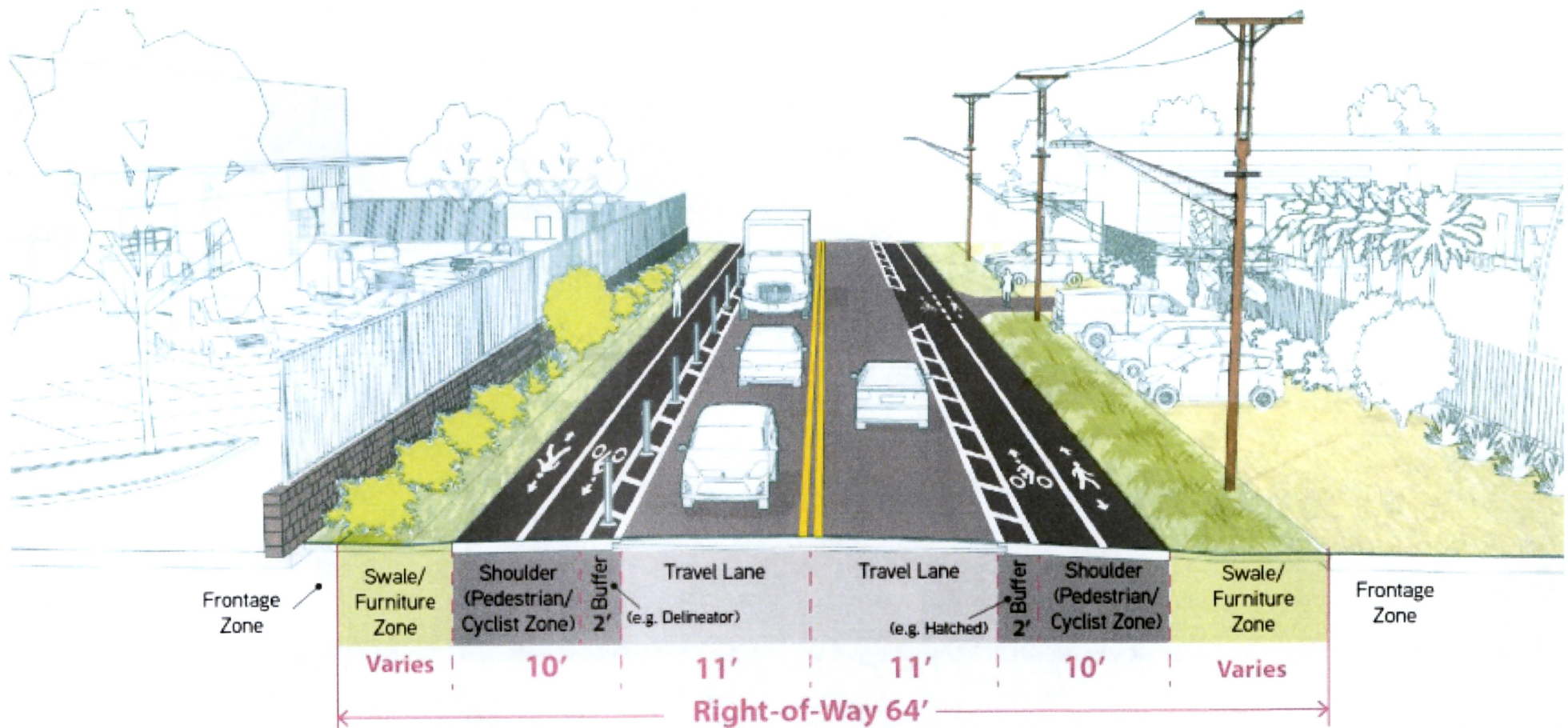
FIGURE 2-6: COLLECTOR STREET TYPICAL CROSS SECTION (URBAN)



Street Design Manual – Retrofit Guidance:

- Roadway retrofits propose the reconfiguration of existing right-of-way to provide enhanced mobility for all users.
- Takes into consideration intended use (road type) land use context (urban/rural) and constraints (right-of-way, curbed/curbless pavement).

FIGURE 2-9: INDUSTRIAL STREET TYPICAL CROSS SECTION (RURAL)



Street Design Manual – Priority Design Treatments:

- Toolbox of features provides guidelines for incorporation while providing flexibility in design.

TABLE 2-3: PRIORITY DESIGN TREATMENTS TABLE

STREET COMPONENT	SECTION – DESIGN TREATMENT	PARKWAY	PRIMARY ARTERIAL	SECONDARY ARTERIAL	COLLECTOR STREET	BUSINESS STREET	INDUSTRIAL STREET	MINOR STREET	
TRAVELWAY	3.2 Design/Target Speed	Per HDOT		30-40 mph	25-35 mph	15-25 mph	25 mph	15-25 mph	
	3.3 Design Vehicle	Per HDOT		City Bus	City Bus	SU-30	WB-50	SU-30	
	3.4 Lane Width	11'	11'	11'	11'	10'	11'	10'	
	3.9 Raised Medians	1	2	2	3	3	4	5	
	3.9 Traffic Calming/Speed Reduction	4	4	4	3	2	4	3	
	7.7 Left-Turn Lanes	Acceptable on high-speed roads or in urban areas where volumes necessitate (See guidelines for exceptions)							
7.7 Right-Turn Lanes	Should be generally avoided unless volumes necessitate (See guidelines for exceptions)								
PARKING LANE	3.6.1 On-Street Parking	5	4	4	3	2	3	3	
	4.5.3 Parklets	5	4	4	4	3	4	5	
	6.7.2 Bike Corrals	5	4	4	4	3	4	5	
INTERSECTION	7.2 Roundabout	3	3	3	3	3	3	3	
	7.4 Corner Radii	28' effective curb radius default (See guidelines)							
	7.4 Curb Extensions	5	4	4	3	2	4	3	
PEDESTRIAN CROSSING	3.8 Signage	Where deemed necessary (See guidelines)							
	5.3 Marked Crosswalks	All legs of signalized intersections and other places where determined per analysis (See guidelines)							
	5.6 Crosswalk Lighting	At all pedestrian crossing locations (See guidelines)							
	5.7.1 Pedestrian Signals	At all signalized intersections where there is an existing or potential use by pedestrians (See guidelines)							
	5.7.1 Pedestrian Scrambles	5	4	4	4	3	4	5	
	5.7.2 Pedestrian Hybrid Beacon	Where warranted (See guidelines)							
BICYCLE FACILITY	5.7.3 Rectangular Rapid-Flashing Beacon	Where deemed necessary (See guidelines)							
	6.3.1 Bike/Shared-Use Paths	2	2	2	3	3	3	4	
	6.3.2 Bike Lanes	5	4	4	3	3	3	4	
	6.3.2.2 Separated Bikeways	4	3	3	2	2	3	5	
	6.3.2.3 Raised Bikeways	5	3	3	3	3	3	5	
	6.3.3 Paved Shoulder Bikeways	Should be incorporated into most rural travelways (See guidelines)							
	6.3.5 Shared Roadways	5	5	5	4	4	4	3	
6.3.5.2 Bicycle Boulevards	5	5	5	5	4	5	4		
SIDEWALK ZONE (MINIMUM WIDTH)	4.2 Pedestrian Zone	5'	5'	5'	5'	8'	5'	5'	
	4.2 Furniture Zone	5'	5'	5'	5'	4'	3'	3'	
STREET FURNISHINGS	3.10 Street Lighting	1	1	1	1	1	1	4	
	4.2 Seating	5	4	4	4	3	4	4	
	4.2 Street Trees	4	3	3	3	2	4	3	
	4.5.2 Public Art	4	4	4	3	2	4	4	

1 - Incorporate

2 - Priority

3 - Accommodate

4 - Limited Circumstances

5 - Not Recommended

Street Design Manual – Complete Streets in Practice:

- Provides a toolbox of features that enable complete streets principles to be applied to all areas of construction, maintenance, and operation
- Provides a context-sensitive design process to be followed in roadway projects
- Formalizes efforts to enhance safety for the benefit of all



Next Steps



Next Steps

- Adoption of Manual by Council Resolution (2020)
- End User Workshop (early 2021)
- Adoption of Code & Rule Changes (2021)
- Departmental Implementation:
 - Complete Streets Checklist
 - Internal Review Processes/Workflows
 - Complete Streets Coordinator
 - Modal Planning
 - Project Prioritization & Budgeting

MAHALO

Questions & Comments

Comparison to other Hawai'i Manuals

City & County of Honolulu, Complete Streets Design Manual

- Finalized September 2016
- Adapted version of *Model Design Manual for Living Streets, County of Los Angeles*, including theory and detail

County of Kaua'i, County of Maui Street Design Manual

- Finalized October/December 2018
- "Simplified" version of LA Manual with minimal detail



County of Hawai'i, Street Design Manual

- **Sections similar to C&C, COM, and COK Street Design Manual (with LA Manual as basis)**
- **Detail/graphics for ease of use**