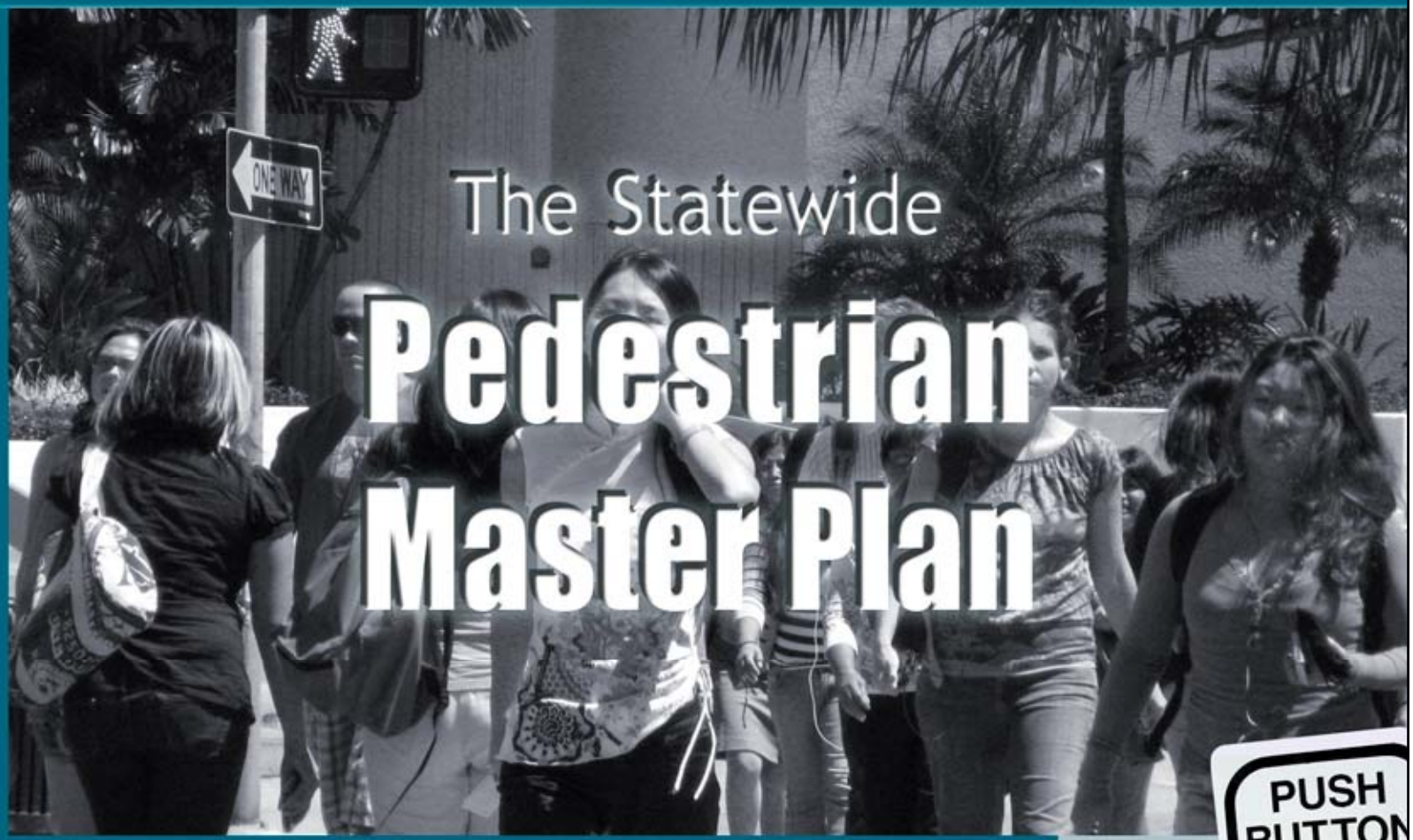
Oahu MPO CAC
September 21, 2011



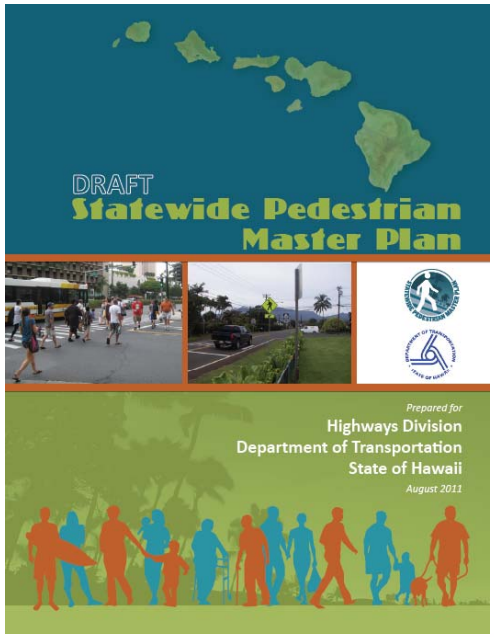
FEDERAL-AID PROJECT No. SPR-0010(31)

By: Rachel Roper, HDOT & Kathleen Chu, CH2M HILL

Presentation Agenda

Statewide Pedestrian Master Plan

- Chapter 1: Introduction and Background
- Chapter 2: Approach
- Chapter 3: Existing Pedestrian Environment
- Chapter 4: Areas of Concern
- Chapter 5: Recommendations
- Chapter 6: Implementation



Introduction and Background

- Purpose
- Vision
- Goals and Objectives
- Consistency with Plans & Policies

Purpose

- Improve pedestrian safety
- Enhance pedestrian mobility and accessibility
- Further implement a multi-modal transportation system
- Develop with a transparent, community-based process

Purpose: Prioritizing Pedestrian Improvements

Use of the five E's

- **Engineering** of infrastructure changes
- **Education** of pedestrians and drivers
- **Encouragement** of better pedestrian and driver awareness
- **Enforcement** of existing pedestrian safety laws
- **Evaluation** and planning of new projects and programs

Purpose: Advancing Complete Streets

COMPLETE STREETS
HAWAII
Walk, Bike, Drive, Ride

- Required by Act 54
- Adopting a Complete Streets policy
- Supports the State's DOT mission

"Transportation facilities that are planned, designed, operated and maintained to provide safe access and mobility for all users, including bicyclists, pedestrians, transit riders, and motorists, and that are appropriate to the function and context of the facility."

Purpose: Fulfilling Federal Requirements

- **Transportation Planning Process:** consider pedestrian needs and concerns
- **SAFETEA-LU:** provide multi-modal transportation options

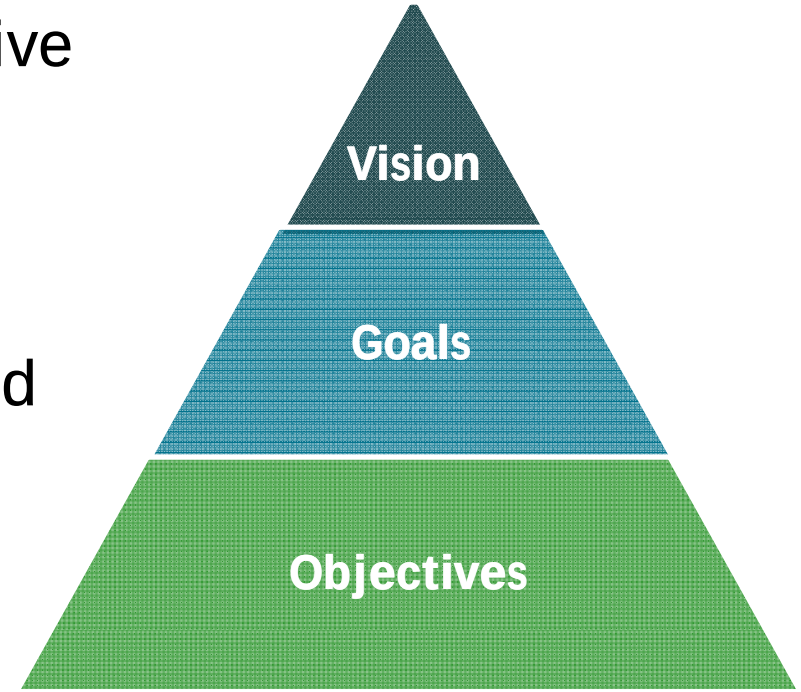
U.S. Department of Transportation
Federal Highway Administration

Additional Benefits

- Improves quality of life
- Improves the environment
- Improves health
- Improves livability of communities

Policy Framework

- Developed through an iterative process with stakeholders
- Drawn from other statewide transportation policies for consistency, such as HSTP and SLRLTP



Policy framework is represented by the vision, goals and objectives.

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 impacts, economic and social sustainability; fosters healthy lifestyles and sustainable communities; and conserves energy.

More people in Hawaii choose to walk for both transportation and recreation as a result of walking environments, mobility, accessibility, safety, and connectivity throughout the transportation system.

Project Focus Areas

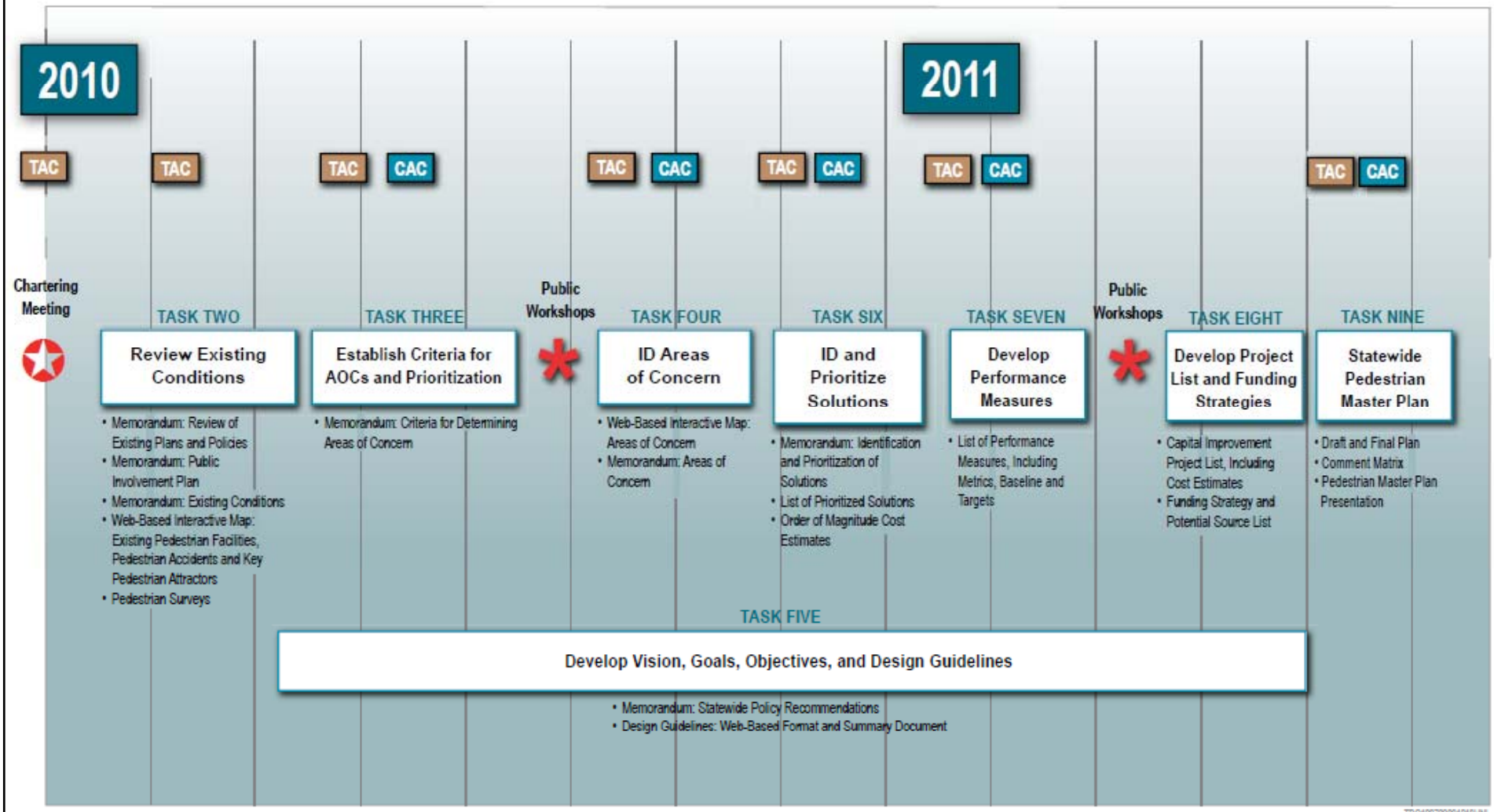
- Support Hawaii's safe and integrated multi-modal transportation system.
- Protect and enhance Hawaii's unique environment and quality of life.

- Encourage the transportation system's support of Hawaii's economy and future growth objectives.
- Support the state's energy efficiency goals.

Approach

- Plan Development Process
- Public Involvement
- Decision-Making Process

Plan Development Process



Public Involvement Plan

- What is a public involvement plan?
  - Ensures a transparent community-based process
  - Provides clarity about decision making
  - Defines roles and relationships
  - Describes project milestones
  - Outlines process and tools for comprehensive outreach

Stakeholders: Technical Advisory Committee

- **HDOT**
  - Highway Safety Branch
  - Highway Design Branch
  - Highway Traffic Branch
  - Project Coordination Branch
  - District Offices – Maui, Kauai, Hawaii, Oahu
- **City and County of Honolulu**
  - Department of Transportation Services
  - Public Transit Division
- **County of Hawaii**
  - Planning and Public Works Departments
  - Mass Transit Agency
- **County of Maui**
  - Planning and Public Works Departments
  - Department of Transportation
- **County of Kauai**
  - Planning and Public Works Departments
  - County of Kauai Transportation Agency
- **FHWA (ex-officio)**

Stakeholders: Citizen Advisory Committee

Get Involved—Help Make Walking Safer in Hawaii

Citizen Advisory Committee Volunteer Opportunity

The Hawaii Department of Transportation (HDOT) invites you to apply for the Statewide Pedestrian Master Plan Citizen Advisory Committee!

What Is The Statewide Pedestrian Master Plan?

The Statewide Pedestrian Master Plan will help:

- Improve pedestrian safety
- Lower the number of pedestrian deaths and injuries
- Promote walking connections to destinations such as transit stops and centers
- Identify where and how to invest funds for sidewalks, paths, shoulders, traffic calming and educational programs

What is the Citizen Advisory Committee (CAC)?

The CAC will bring together a small group of interested citizens to provide:

- Balanced input on how to improve the walking experience and pedestrian safety in Hawaii
- A link between the project and the community and interest groups
- Information about community ideas and issues related to walkability

Job Description

Candidates should be able to:

- Be open to different persectives on walking issues
- Represent their neighborhood, community, interest group or advocacy group
- Participate in 5-8 evening or weekend meetings between February 2010 and April 2011
- Commit 4-6 hours per month
- Review maps and documents and provide feedback

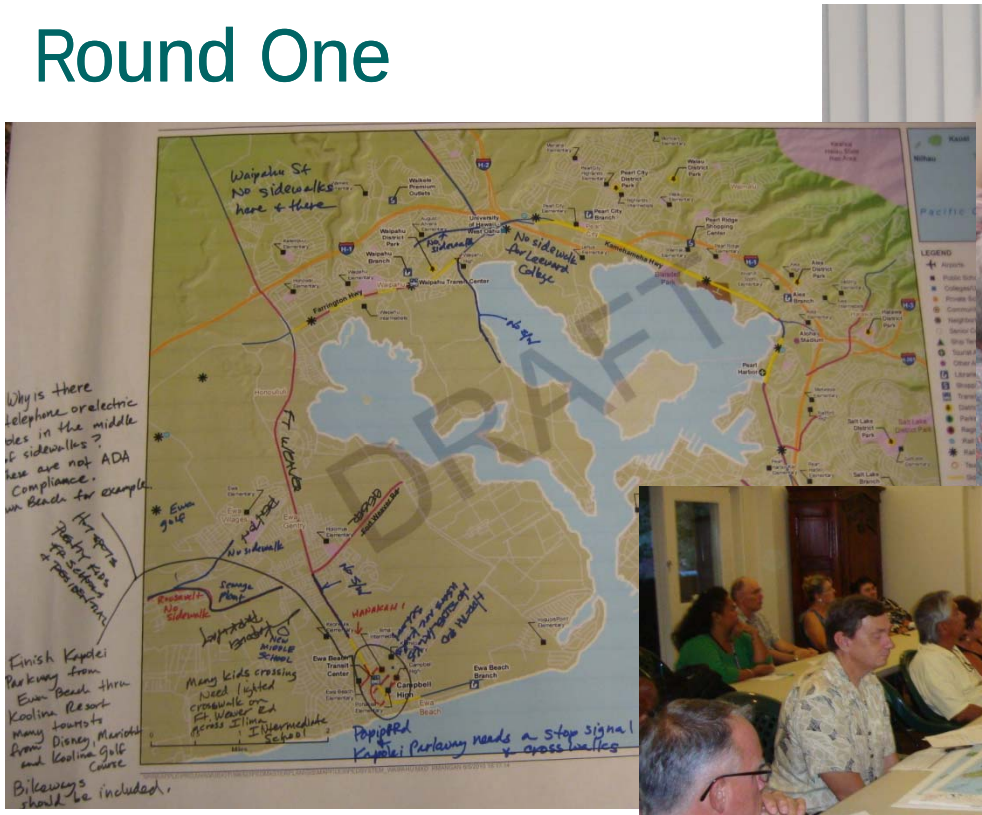
No technical background or experience is required. The CAC is limited to 16 people. Meetings are open to the public.

This is a volunteer position. No person shall, on the grounds of race, color, national origin, or sex be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any HDOT program, policy, or activity.

- Pedestrian
- Bicyclist
- Senior
- ADA
- Vehicle
- Transit
- Student
- Educationer
- Developer
- Resident
- Business Owner
- Health
- Tourism
- Enforcement
- Cultural Resource
- Public at Large

Stakeholders: Public Workshops

Round One

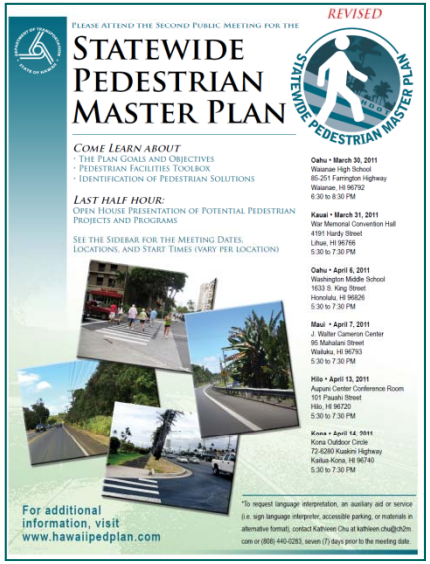


Stakeholders: Public Workshops

Round Two

Stakeholders: Other outreach approaches

- Outreach to special populations
- Small group meetings and individual interviews
- Project website



Existing Pedestrian Environment

- Methodology
- County of Hawaii
- County of Maui
- County of Kauai
- City and County of Honolulu

Methodology: Existing Conditions

Conditions Considers:

- Pedestrian System
- Land Use
- Rural and Urban Areas
- Transit Routes
- Pedestrian Attractors
- Functional Classification & Traffic Levels
- Census Characteristics
- Safety

Ped System: Kauai

LEGEND

- Airports
- Public School within 1 Mile of Facilities
- Colleges/Universities
- Private Schools
- Community Centers
- Neighborhood Centers
- Senior Centers
- Ship Terminal
- Tourist Attractions
- Other Attractions
- Libraries
- Shopping Centers
- Transit Centers
- District Parks
- Parks
- Regional Parks and Community Complexes
- Sidewalk on Both Sides
- Sidewalk on One Side
- No Sidewalk
- State Highways
- Local Roads
- Hotel Areas
- Parks

Sources:
1. Public Attractors, Roads and Sidewalks - Hawaii Department of Transportation
2. Park Polygons - State GIS Website

Notes:
1. The Public Attractors came as an excel sheet with names and addresses. The addresses were used to geocode the locations for GIS. Then the data were manually verified.
2. The sidewalk data were from a shapefile. The data were manually verified and edited to match the State GIS mile point dataset. The data were then spot checked against the HDOT photo log and edited to match.

FIGURE X
Existing Pedestrian System and Pedestrian Attractors
Kauai County
Hawaii Statewide Pedestrian Master Plan

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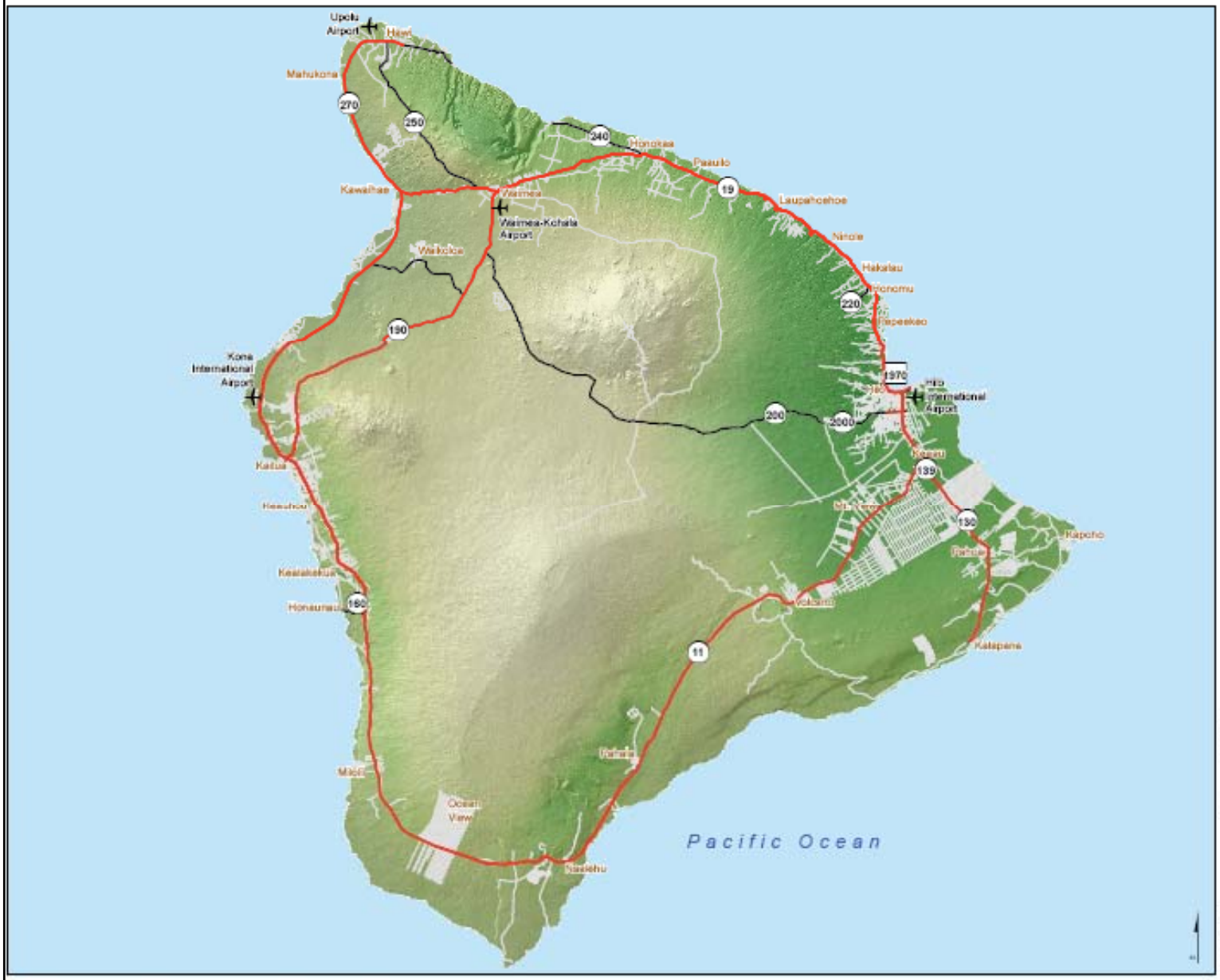
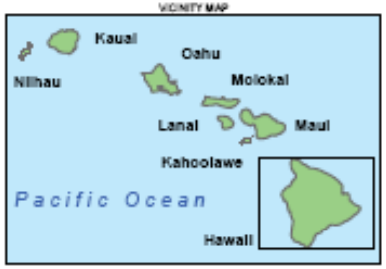
Functional Classification:Oahu

FIGURE 3-29
Functional Classification
City and County of Honolulu
Hawaii Statewide Pedestrian Master Plan

Transit Routes: Hawaii





LEGEND

- Airports
- Bus Route
- State Highways
- Local Roads

Source:
1. Roads - Hawaii Department of Transportation
2. Bus Route - Hawaii County (2006)
3. City Name - Hawaii County

0 4 8 16
Miles

FIGURE X
Existing Bus Routes
Hawaii County
Hawaii Statewide Pedestrian Master Plan

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Urban/Rural Areas: Maui

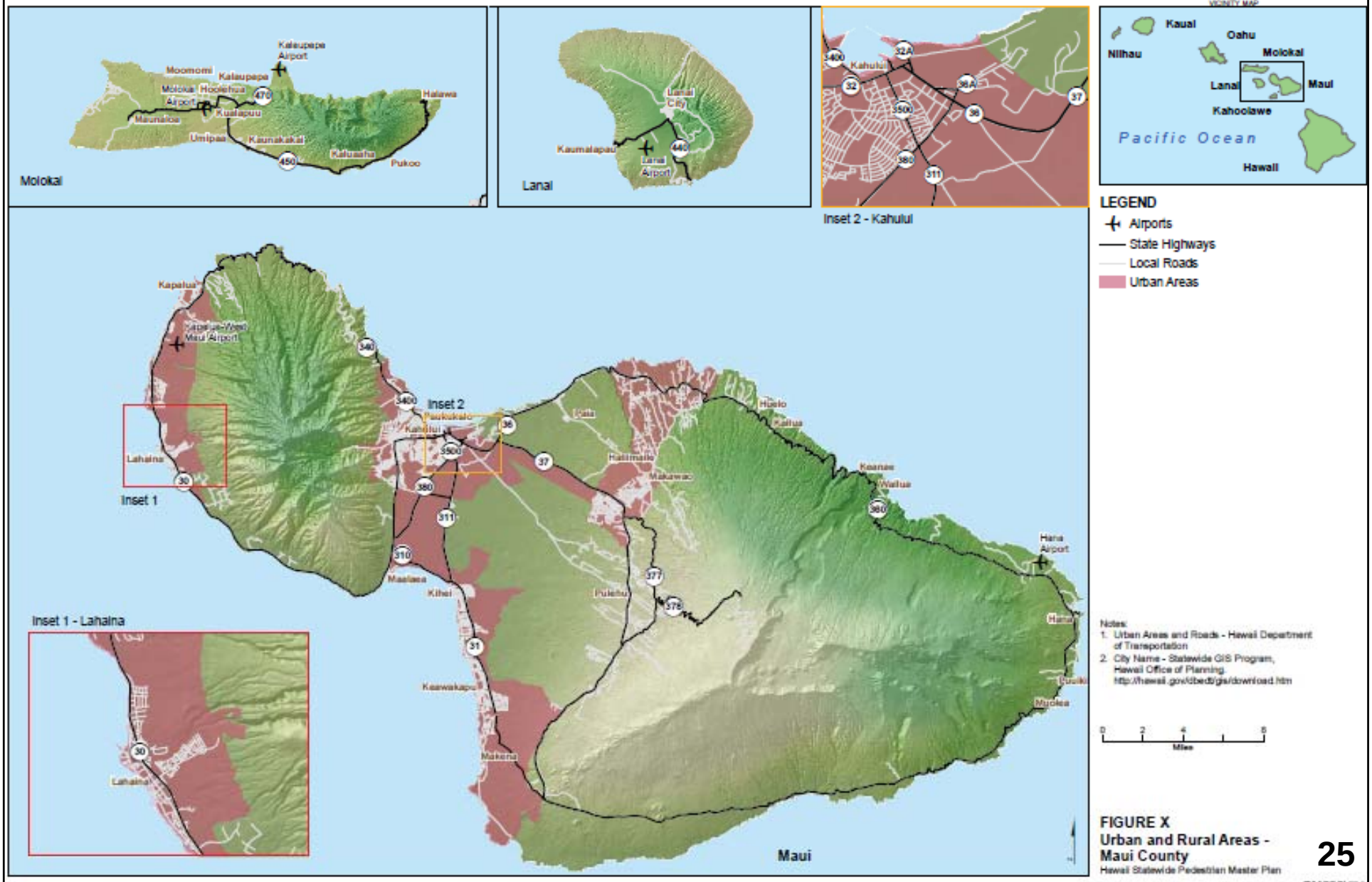

FIGURE X
Urban and Rural Areas - Maui County
Hawaii Statewide Pedestrian Master Plan

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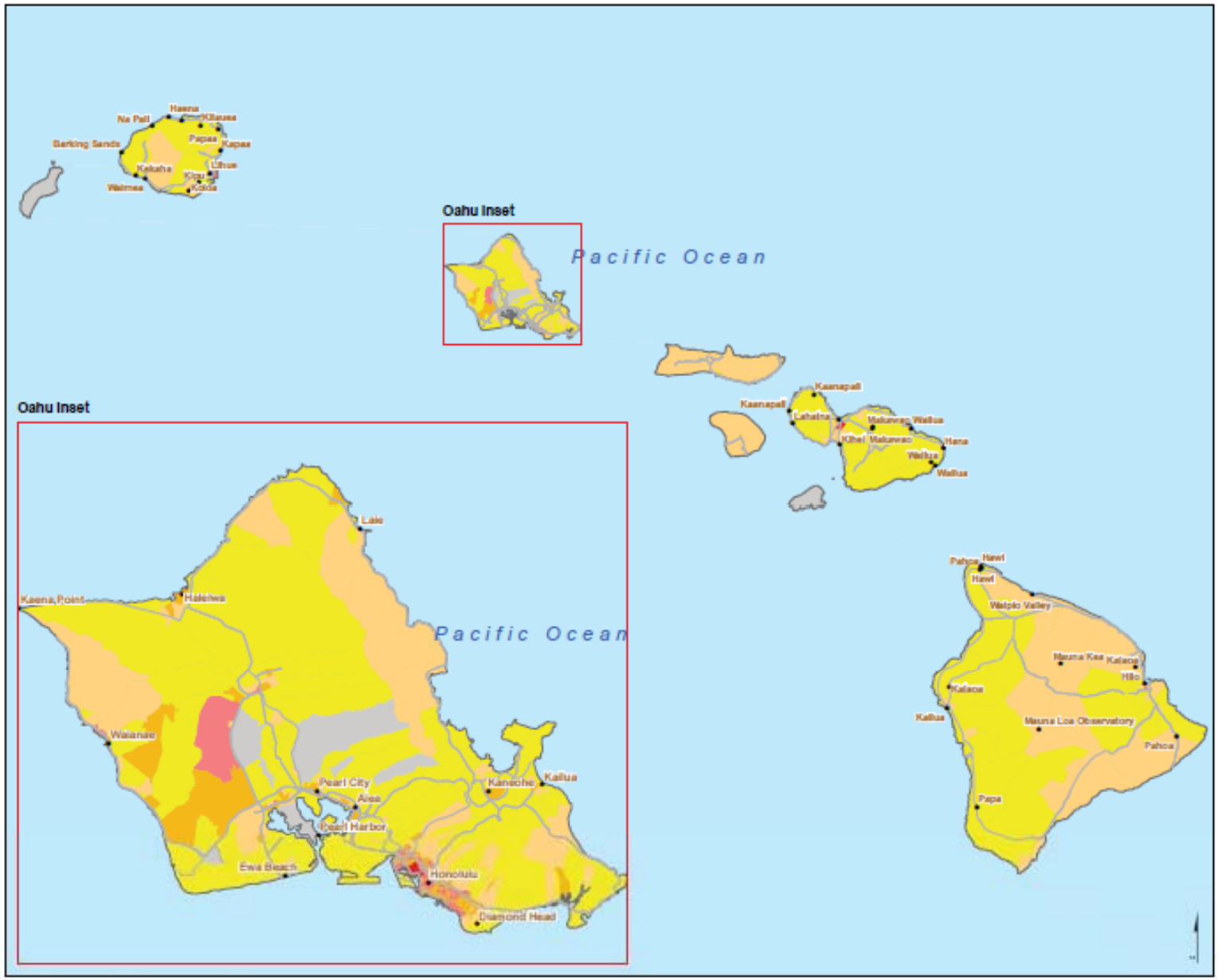
Census: No Access to Vehicles



LEGEND

State Highways

Percent of Population by Block Group With No Access to Vehicles

- 0 - 6%
- 6% - 15%
- 15% - 30%
- 30% - 55%
- 55% - 100%
- No Data

Source:
US Census (2000) demographic data.

FIGURE X
Households with No Access to Vehicles
Hawaii Statewide Pedestrian Master Plan

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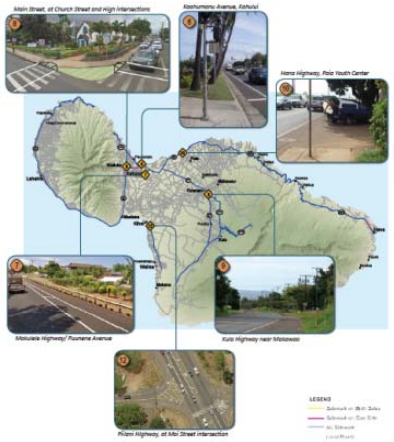
Areas of Concern



- Methodology
- County of Hawaii
- County of Maui
- County of Kauai
- City and County of Honolulu

Methodology: Factors – Areas of Concern

Areas of Concern are places where pedestrian improvements are needed to improve accessibility, safety, and connectivity, or to provide access to pedestrian-oriented populations.

Purpose:

- Define locations of high priority to the state system for pedestrian mobility, accessibility and safety (a TOOL)
- Narrow the focus of the planning process
- Ensure a transparent decision-making process, based on solid criteria that are vetted with the public

Methodology: Factors – Areas of Concern

Factors for Developing Areas of Concern:

Connectivity	• Pedestrian system gaps
Accessibility	• Proximity to schools and pedestrian-intensive land use context
Safety	• Pedestrian accident hot-spots
Pedestrian-Oriented Populations	• High pedestrian potential areas

Methodology: Factor Analysis

1. **Review of Existing Conditions**
   - Input from TAC, CAC and the public
2. **Identify Factors for Developing the Areas of Concern**
   - Connectivity
   - Accessibility
   - Environmental Justice
   - Safety

3. **Prioritize the Area of Concern Factors**
   - Input from TAC, CAC and public
4. **Conduct a Factor Overlay Analysis**
   - Overlay of 4 or more factors

Methodology: Public Input

Public Input and Feedback

1) Solicitation of public comments at seven public meetings
2) Identification of potential opportunities and concerns
3) Compilation in a public comment log
4) Locations with multiple comments identified
5) Validation by the TAC and CAC

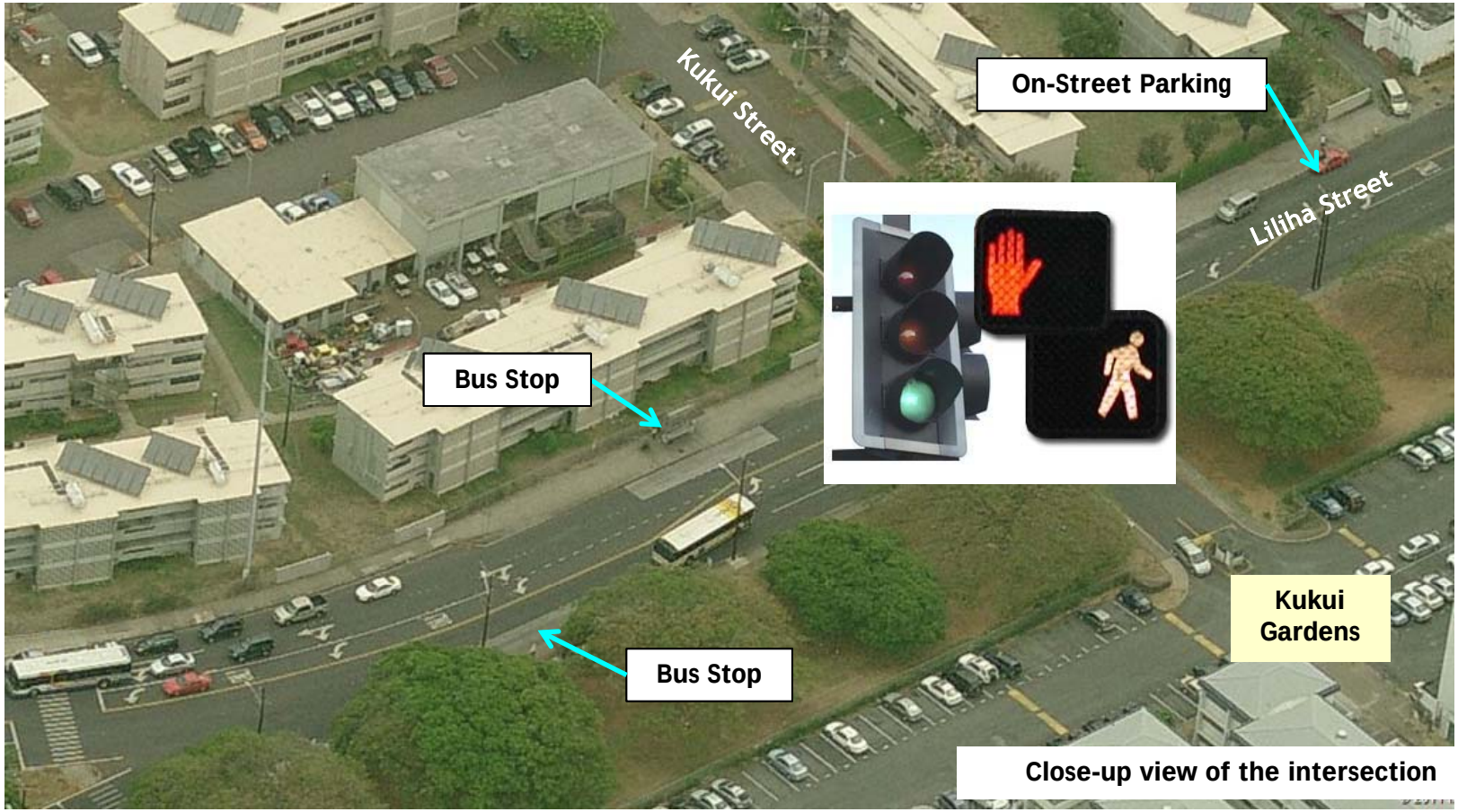
Recommendations

- Solution Development
- Prioritization Process
- Recommended Project Solutions
- Recommended Program Solutions

Walk Wise Hawai'i

Solution Development: Liliha Street at Kukui Street

Solution Development: Liliha Street at Kukui Street



Close-up view of the intersection

Prioritization Process: Purpose

- Rank Projects and Programs in a transparent manner consistent with community values
- Establish criteria early to avoid bias toward specific projects or programs
- Use for COMPARISON
- A decision-making TOOL

Prioritization Process

Process

- Step 1 - Define Criteria & Measures
- Step 2 - Assign Weights
  - Weights correspond to stakeholder values (TAC, CAC, Public)
- Step 3 – Rate the projects and programs
- Step 4 – Calculate results and apply appropriate weights to the criteria
- Step 5 – Compare and report results

Prioritization Process: Criteria

Criterion	Analysis Questions
Connectivity	To what extent does the project provide a direct new or improved connection to pedestrian attractors?
	To what extent does the project fill a sidewalk gap (or address any area where the sidewalk is in need of repair)?
Pedestrian Safety	To what extent does the project address pedestrian safety?
Environment	Does the project impact mountainous terrains, coastal roads (global warming impacts), cultural and historic resources, threatened and endangered species, or Section 4(f) park resources?
Property impacts	To what extent does the project impact property?
Cost	How costly is the project?
Funding availability	To what extent does the project have potential funding sources and how competitive is the project for funding among similar projects?
Pedestrian-Oriented Populations	To what extent does the project serve pedestrian-oriented populations, which are high concentrations of elderly persons, youth, persons earning below the poverty line, and persons with limited access to vehicles, as defined by the US Census?

Prioritization Criteria: Methodology

Criteria	Hawaii	Maui	Kauai	Oahu	Total	TAC	CAC
Pedestrian Safety	1	1	2	1	1	1	3
Pedestrian Connectivity	2	2	1	2	2	2	2
Pedestrian-Oriented Populations	3	3	3	3	3	3	2
System Gaps	4	4	4	4	4	4	4
Environment	5	5	5	7	5	5	6
Funding Availability	7	7	6	5	6	6	5
Cost	6	6	7	6	7	7	7
Property Impacts	8	8	8	8	8	8	8

Recommended Project Solutions

Rank	ID #	Project Name	Description	Potential Solution
1	O-13	Kalihi Street between N. King Street and Dillingham Boulevard	Eight accidents involving pedestrians occurred on Kalihi Street between 2004 and 2008. Four accidents occurred while the pedestrian was crossing within a marked crosswalk, while three occurred outside of crosswalks. The lack of crosswalks may not be the primary contributing factor, since there are crosswalks at most, if not all, street intersections along Kalihi Street.	Install enhanced crosswalk markings at all existing intersections. After obtaining FHWA approval, install a rectangular rapid flash light-emitting diode (LED) beacon near the primary crosswalk across from Kalakaua Middle School.
2	O-6	Farrington Highway, Waianae Town	Between 2004 and 2008, there were 22 pedestrian accidents that occurred along the study segment, with 15 pedestrian accidents occurring in the northern half mile approaching Ala Walua Street. The majority of pedestrian accidents occurred while the pedestrians were crossing within the crosswalks.	Implement Walk Wise Hawaii (WWH), an educational program to educate the community about pedestrian and driver awareness. Re-stripe faded crosswalks and install advanced stop bars and pedestrian signage.
3	O-9	Vineyard. Boulevard at Queen Emma Intersection	There is considerable pedestrian activity in the vicinity of the Vineyard Boulevard/Queen Emma Street intersection with two schools and senior housing nearby. The intersection is signalized with crosswalks, pedestrian countdown timers, and a median refuge. 2004 to 2008 accident data indicates that most accidents occurred when there was a conflict between turning vehicles and pedestrians	Review the traffic signal timing to determine whether a leading pedestrian interval is feasible and implement WWH, an educational program, to the surrounding community.

The Top Three

Recommended Program Solutions

Walk Wise Hawaii

Walk Wise Hawai'i

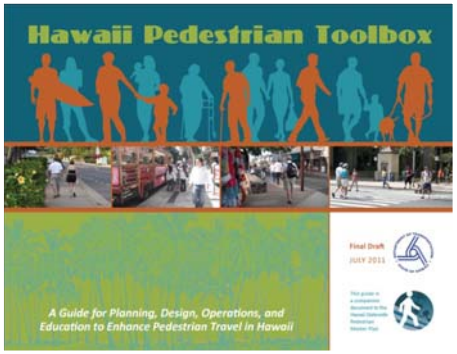
Safe Routes to School

HAWAI'I
Safe Routes to School State Network
www.saferouteshi.org

SAFE ROUTES to School
NATIONAL PARTNERSHIP
Hawaii Network

Implementation

- Hawaii Pedestrian Toolbox
- Funding Strategies
- Performance Measures and Monitoring



Implementation Strategies

1. Referencing best practices in pedestrian-oriented design.
2. Seeking funding for projects.
3. Monitoring the performance of this plan.

Hawaii Pedestrian Toolbox: Why Design Guidelines?

- To promote best practices throughout the state and achieve a broader-scale positive change in pedestrian environment.
- To provide consistency in pedestrian design guidance.
- To provide comprehensive guidance in a number of pedestrian-related topics, including design for "complete streets."

COMPLETE STREETS HAWAII
Walk, Bike, Drive, Ride

Supports "Complete Streets" Objectives

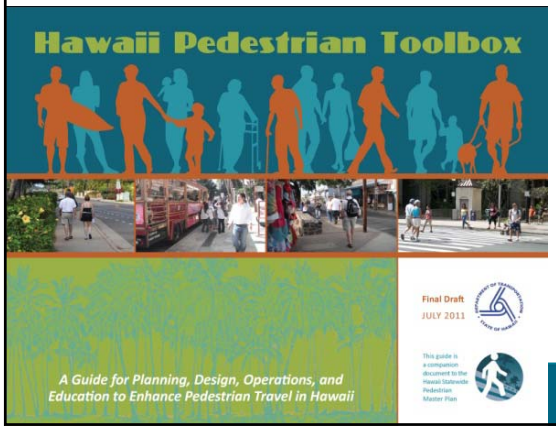
Hawaii Pedestrian Toolbox

What

- Statewide guidance for pedestrian planning, design, operation, and education

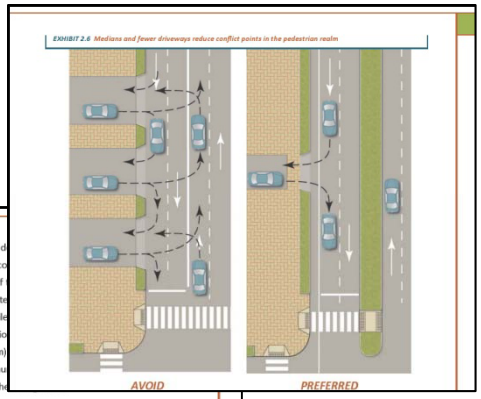
Who

- Traffic, transportation, and civil engineers
- Planners (land use and transportation)
- Urban designers, architects,
- Other design professionals
- Site development/permit reviewers
- Developers



Hawaii Pedestrian Toolbox

- Introduction / How to Use These Guidelines
- Hawaii's Pedestrians
- Overview of the Design Guidelines – A "Toolbox" Approach
- The Toolbox:
  1. Thinking About Pedestrians from the Start
  2. Pedestrian Friendly Streets
  3. Accessibility
  4. Sidewalks and Walkways
  5. Intersections and Crossings



Hawaii Pedestrian Toolbox

The Toolbox continued:

6 Pedestrian Access to Transit

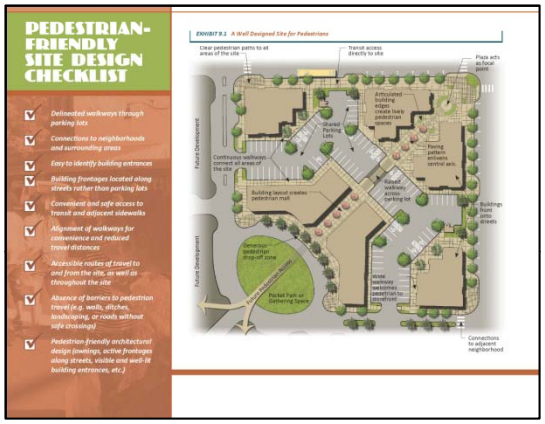
7 Shared Use Paths

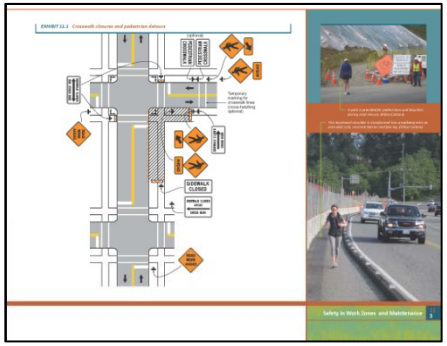
8 Children and School Zones

9 Special Pedestrian Districts/Site Design for Pedestrians

10 Effective Pedestrian Programs

11 Maintenance and Pedestrian Safety in Work Zones



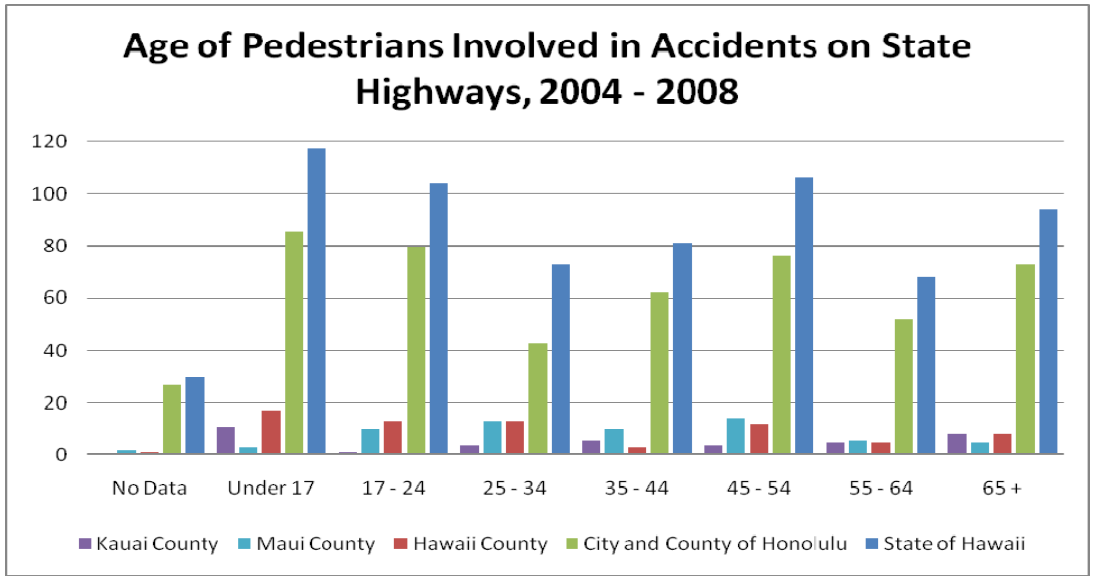


Funding Strategy

1. Determine which improvements can be implemented as part of another planned project or program
2. Determine which improvements can be implemented as part of maintenance
3. Create an individual project, if it can't be implemented as part of maintenance or CIP
4. Look for federal, state and local funding opportunities
5. Evaluate the potential for Public Private Partnerships
6. Recommend new development incorporate pedestrian improvements

Performance Measures

- Measures achievement
- Provides transparency and accountability
- Supports future decision making/priorities
- Intended to be realistic (data is available)



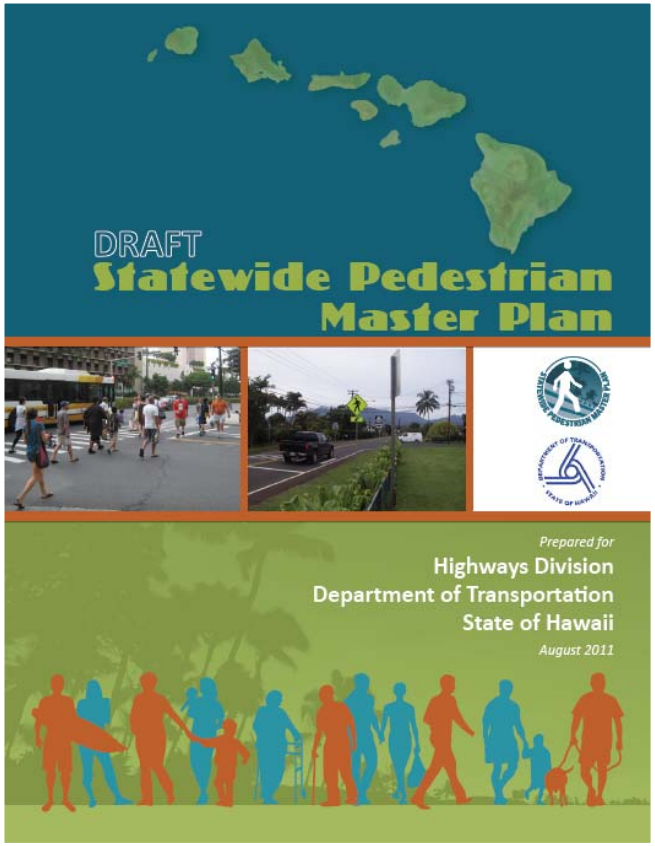
Performance Measures

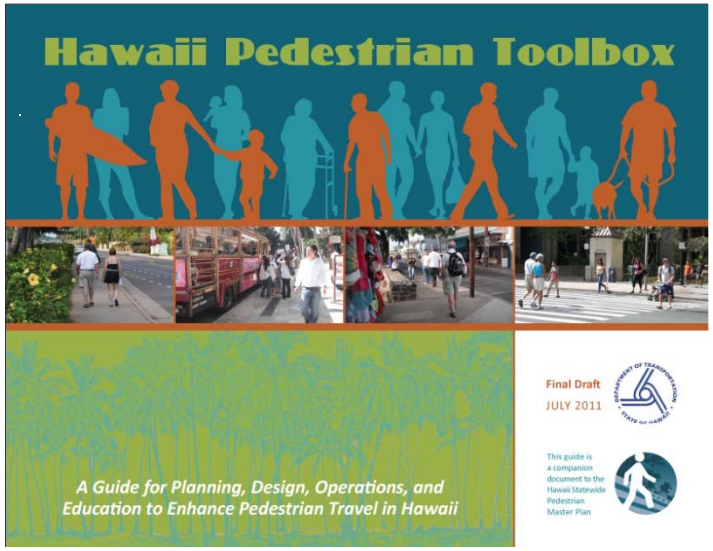
Next Steps

- Comments by October 15th
- Address all comments
- Finalize Statewide Pedestrian Master Plan
- Training Workshops on the Toolbox

Statewide Pedestrian Master Plan

Mahalo!





www.hawaiipedplan.com