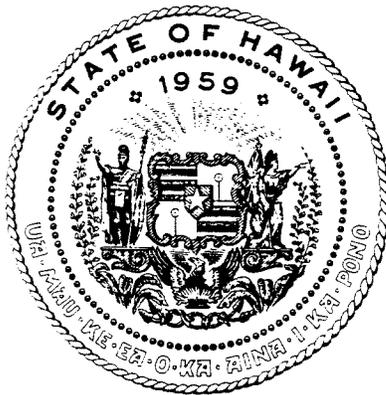


# ***The Hawaii State Plan***

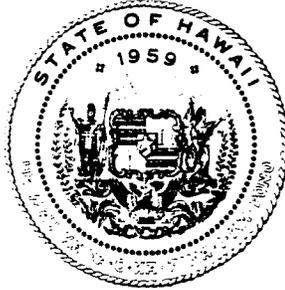


# ***TRANSPORTATION***

***STATE FUNCTIONAL PLAN***

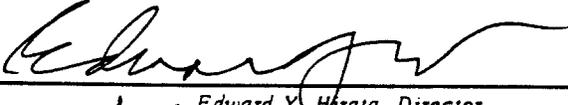
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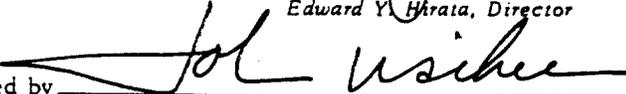
# ***The Hawaii State Plan***



# ***TRANSPORTATION***

*Preparation of this Functional Plan was coordinated by the*  
**DEPARTMENT OF TRANSPORTATION**  
*in accordance with Chapter 226, Hawaii Revised Statutes.*

Submitted By  Date 1/10/91  
*Edward Y. Hirata, Director*

Approved by  Date May 22, 1991  
*John Waihee, Governor, State of Hawaii*



EXECUTIVE CHAMBERS  
HONOLULU

JOHN WAIHEE  
GOVERNOR

FOREWORD

Our transportation systems are our lifelines for the goods, business trade, and services essential to our community's well-being and survival. In an island state, these lifelines must be secure and function well.

We have all experienced in some way the impact that recent growth and economic expansion have had on our islands' roads, airports, and harbors. It is clear we can no longer afford to defer the expansion of existing infrastructure, the replacement of aging infrastructure, or the maintenance of these vital systems. Nor can we ignore the opportunities created by emerging technologies to move work, information, and people more efficiently and economically.

We face a future of scarce Federal funds. This demands more flexibility in our transportation revenue mechanisms and more resourceful ways to share the cost of infrastructure development with users and the private sector. Through strategies in this Plan, and with government, private parties, and citizens working together, our resources will be invested in transportation improvements that will best serve the needs and interests of Hawaii's people and businesses.

JOHN WAIHEE



**STATE OF HAWAII**  
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IN REPLY REFER TO:

**PREFACE**

The Hawaii State Plan identifies our objectives to develop 1) an integrated multi-modal transportation system which serves statewide needs and promotes the efficient, economical and safe movement of people and goods; and 2) a statewide transportation system consistent with planned growth objectives throughout the state.

Our Functional Plan recommends specific strategies and policies to achieve these objectives. These recommendations are based on the identification of current and future requirements and the development of an array of transportation alternatives and action.

With commitment and follow-through from agency leaders and broad support from the general public, we can put this Plan to work to build a better Hawaii for the future.

Edward Y. Hirata  
Director of Transportation

## ACKNOWLEDGMENTS

We would like to thank the many individuals and agencies involved in developing the State Transportation Functional Plan (TFP). These include the Department's Transportation Functional Plan Advisory Committee, the administration and staff of the Department of Transportation, and representatives from various State and County agencies.

We sincerely appreciate the dedicated efforts of all these individuals.

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## ORGANIZATIONAL ACRONYMS USED

|                |  |
|----------------|--|
| <b>ATDC</b>    | = Aloha Tower Development Corp. (DBED)                     |
| <b>B&amp;F</b> | = Department of Budget and Finance                         |
| <b>DAGS</b>    | = Department of Accounting and General Services            |
| <b>DBED</b>    | = Department of Business, Economic Development and Tourism |
| <b>DOA</b>     | = Department of Agriculture                                |
| <b>DOH</b>     | = Department of Health                                     |
| <b>DOT</b>     | = Department of Transportation                             |
| <b>DOTAX</b>   | = Department of Taxation                                   |
| <b>DPS</b>     | = Department of Personnel Services                         |
| <b>FAA</b>     | = Federal Aviation Administration                          |
| <b>HCDA</b>    | = Hawaii Community Development Authority                   |
| <b>HFDC</b>    | = Housing Finance and Development Corporation              |
| <b>HVB</b>     | = Hawaii Visitors Bureau                                   |
| <b>ICSD</b>    | = Information & Communications Services Division           |
| <b>LUC</b>     | = Land Use Commission                                      |
| <b>OMPO</b>    | = Oahu Metropolitan Planning Organization                  |
| <b>OSP</b>     | = Office of State Planning                                 |
| <b>PUC</b>     | = Public Utilities Commission                              |
| <b>UH</b>      | = University of Hawaii                                     |

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**CHAPTER I  
INTRODUCTION**

The Hawaii State Plan, under Chapter 226 of the Hawaii Revised Statutes, provides a long-range guide for Hawaii's future; establishes State goals, objectives, policies, and priorities for the State; and provides a basis for determining priorities and allocating limited resources.

The plan also provides for a Statewide Planning System and the development of State Functional Plans (SFP) in the areas of agriculture, conservation lands, education, employment, energy, health, higher education, historic preservation, housing, human services, recreation, tourism, transportation, and water resources development.

The Hawaii State Legislature adopted the first versions of the functional plans in 1984-85, and revisions were made in 1987-88 to five functional plans related to human needs including education, employment, health, housing, and human services. Currently, revisions are being made to the following seven functional plans relating to physical resource needs and development:

| <u>Function</u>       | <u>Coordinating Agency</u>                               |
|-----------------------|--|
| Agriculture           | Department of Agriculture                                |
| Conservation Lands    | Department of Land and Natural Resources                 |
| Energy                | Department of Business, Economic Development and Tourism |
| Historic Preservation | Department of Land and Natural Resources                 |
| Recreation            | Department of Land and Natural Resources                 |
| Tourism               | Department of Business, Economic Development and Tourism |
| Transportation        | Department of Transportation                             |

## **PURPOSE OF THE STATE FUNCTIONAL PLANS**

State Functional Plans are the primary guideposts for implementing the Hawaii State Plan. While the Hawaii State Plan establishes long-term objectives for Hawaii, the State Functional Plans focus on policies and priority actions which can be implemented in the short-term. These plans will provide the framework for the State budget.

The purposes of the State Functional Plans are to:

- o Identify major statewide priority concerns;
- o Define current strategies for the functional area;
- o Identify major relationships among functional areas;
- o Provide the direction and strategies for departmental policies, programs and priorities;
- o Provide a guide for the allocation of resources to carry out various State activities in coordination with County activities; and
- o Assist in reconciling and coordinating State and county roles and responsibilities in the implementation of the Hawaii State Plan.

## **ROLE OF THE STATE FUNCTIONAL PLANS**

Functional Plans address priority actions that should be undertaken within a two- to six-year period coinciding with the Biennial Budget and Capital Improvement Program budgetary cycles.

State Functional Plans are intended to act in a coordinated fashion with County General Plans and Development Plans. Chapter 226, Hawaii Revised Statutes, specifies that County General Plans and Development Plans be used as a basis in formulating the State Functional Plan. It is also the intent that Counties use approved State Functional Plans as guidelines in formulating, amending and implementing the County General Plans and Development Plans. Thus, State Functional Plans and the County General Plans and Development Plans are intended to be cooperative and coordinated documents. However, State Functional Plans do not mandate County actions. The Functional Plans serve to assure that problems and issues of statewide importance are addressed,

while the County General and Development Plans assure that the unique problems and needs for each County are addressed.

**THEME: BALANCED GROWTH**

The major theme for these physical Functional Plans focuses on the promotion of a balanced growth approach in the use of our limited resources. This recognizes the need for economic development while preserving our fragile environment and multi-cultural lifestyles throughout our island State. The strategies for each SFP are aimed at initiating desired development, while at the same time limiting or discouraging development which would impact negatively on our limited resources. The protection and preservation of our environment and cultural resources remain important objectives. In order to achieve balanced growth, the Functional Plans address issues through the following interrelated elements: Resource Management which ensures the preservation and conservation of fragile, unique ecosystems and other natural physical and historical/cultural resources from loss or degradation; Resource Development which ensures the compatibility of development activities with surrounding communities and infrastructure, and ensures the diversification of economic activities to increase the viability and stability of our economic, environmental and social base; and Infrastructure and Service Supports that promote public and private partnerships for effective management and the timely provision of services and physical infrastructure.

**STATE FUNCTIONAL PLAN ADVISORY COMMITTEE**

The Functional Plan process provides for an Advisory Committee composed of State officials, county officials, members of the public from each county, and experts in the particular functional plan area. Members are appointed by the Governor in accordance with provisions of the Hawaii State Plan, Section 226-57, Hawaii Revised Statutes.

The State Functional Plan Advisory Committee plays a major role in advising State Functional Plan agencies in the revision and implementation of the SFP's. The Committee provides an opportunity for other governmental agencies, the private sector and the public to participate in the revision process. Representation of county officials on each of the State Functional Plan Advisory Committee ensures that the SFP's take into account major concerns in each county. Once the plan has been approved, the Committee will meet at least annually to monitor implementation of the Functional Plan.

## REVIEW AND REVISION

In order to be responsive to constantly changing needs and conditions, Functional Plans are subject to review and revision at least every two years, the timing of which is linked to the review process of the Hawaii State Plan.

In undertaking these reviews, the Department develops various facility master plans and other technical studies and resource materials which provide background information and supporting rationale for policies and actions contained in the Functional Plan.

## COORDINATION

This Functional Plan document was produced by the Department of Transportation through extensive meetings and consultations with the State Transportation Functional Plan Advisory Committee, the Office of State Planning, other affected State and County agencies, the private sector, and the general public.

The Functional Plan agencies initiate interagency coordination by identifying areas with complementary and competing interests. The review and monitoring activities conducted by respective agencies' Advisory Committee provide assurance that the areas of complementary and competing relationships continue to be addressed in the implementation process.

While each Functional Plan agency develops a process for public and agency input, overall responsibility for assuring coordination among Functional Plans on a continuing basis rests with the Office of State Planning.

Each of the major participants in the SFP revision process with their corresponding functions are identified in Chart 1.

CHART 1

KEY PARTICIPANTS IN THE STATE FUNCTIONAL PLAN  
REVISION PROCESS <sup>1</sup>

| PARTICIPANT                        | FUNCTION / ROLE   | MANDATE  |
|------------------------------------|---|----------|
| Governor                           | • Establishes Advisory Committees.  | \$226-55 |
|                                    | • Designates Functional Plan Agencies.  | \$226-55 |
|                                    | • Approves State Functional Plans (SFPs).   | \$226-56 |
|                                    | • Transmits Functional Plans to Legislature, Mayors, County Councils for information and use.   | \$226-56 |
| Legislature                        | • Reviews approved Functional Plans to be used as guidelines for resource allocation in implementing State policies.                                  | \$226-57 |
| Department of Budget and Finance   | • Prepares guidelines for the preparation and revision of SFPs.   | \$226-56 |
|                                    | • Assures that the approved SFPs are used as guidelines in the budgetary review and allocation process.   | \$226-52 |
| State Functional Plan Agency       | • Responsible for preparing and updating SFP.   | \$226-52 |
|                                    | • Works with the SFP Advisory Committee, State and County agencies.   | \$226-55 |
|                                    | • Solicits public views and comments on the SFP.  | \$226-55 |
| Functional Plan Advisory Committee | • Advises SFP agencies in preparing, implementing, monitoring, and updating SFPs.   | \$226-55 |
| Office of State Planning           | • Provides recommendations to the Governor, State and County agencies.  | \$226-53 |
|                                    | • Prepares reports and special studies for the Governor.  | \$226-53 |
|                                    | • Reports on emerging issues for use in the updating of SFPs.   | \$226-53 |
| General Public                     | • Serves on SFP Advisory Committees.  | \$226-55 |
|                                    | • Provides comments, concerns, and input on Functional Plans to SFP agencies through public informational meetings, surveys or other agency contacts. | \$226-55 |

<sup>1</sup> Based on the passage of Act 76, Session Laws of Hawaii 1991, enacted on April 30, 1991, which amended provisions of Part II of the Hawaii State Plan, Chapter 226, H.R.S.

## CHAPTER II APPROACH TO FUNCTIONAL PLAN ISSUES

### Philosophical Statement

The Department of Transportation developed the Statewide Transportation Planning System in response to the continued growth in transportation demand, increased mobility requirements, and a need for innovative and integrated transportation planning. The planning effort is directed towards the development of a balanced, multi-modal statewide transportation system which serves social, economic and environmental objectives. Transportation planning today focuses on a twenty-year planning period.

The Statewide Transportation Planning System includes the interstate highway system, primary, secondary, and urban systems, traffic engineering, safety improvements, bikeways, transit planning assistance, airports, harbors, waterborne transit, and electronic highway systems.

Transportation plans are currently required under two chapters of the Hawaii Revised Statutes: the State Transportation Plan under Chapter 279A, and the Transportation Functional Plan as part of the Hawaii State Plan under Chapter 226.

The State Transportation Plan is developed from various system and facility master studies and provides both long- and short-term recommendations and implementation priorities. The Transportation Functional Plan is part of the State Transportation Plan and focuses on a short- to mid-term action agenda. The Functional Plan discusses critical issues, promotes interdepartmental initiatives, and provides a stronger linkage with the budgetary process by identifying implementing actions and funding requirements. The current draft of the Transportation Functional Plan targets priority actions to be initiated in the 1991-1993 fiscal biennium.

The primary transportation objectives, defined in Section 226-17 of the Hawaii State Plan, are:

1. An accessible integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods; and
2. A statewide transportation system consistent with planned growth objectives throughout the State.

## **Transportation Planning Processes**

The Department currently performs planning under two formal processes: the Metropolitan Planning Process under the Oahu Metropolitan Planning Organization (OMPO) for planning on Oahu, and the Countywide Transportation Planning Process (CTPP) for planning on the neighbor islands.

The direction of OMPO is vested in its thirteen member Policy committee consisting of members from the City Council of the City and County of Honolulu (5), the State Senate (3), the State House of Representatives (3), and Governor's and Mayor's appointees from the State Department of Transportation and City Department of Transportation Services, respectively.

OMPO currently has two advisory committees: the Technical Advisory Committee (TAC) and the Citizens Advisory Committee (CAC). The Technical Advisory Committee is composed of the directors from the State Department of Transportation, the Office of State Planning, the City Departments of Transportation Services and General Planning, and an ex-officio representative from the Federal Highway Administration. The Citizens Advisory Committee consists of representatives from non-governmental organizations.

OMPO is currently completing the Hali 2005, the Oahu long-range transportation plan. This plan will recommend Oahu transportation improvements which will be incorporated into OMPO's Transportation Improvement Program and DOT's Transportation Functional Plan.

The Countywide Transportation Planning Process was established in 1987 to provide for 3-C - cooperative, comprehensive, and continuing - transportation planning on the neighbor islands. Policy, Technical, and Advisory Committees were established on each of the three neighbor island counties. The Policy Committee is composed of the directors from the State Department of Transportation and from the respective county Planning and Public Works Departments. The Technical Committee is composed of staff personnel from these departments and the Citizens Advisory Committee consists of representatives from the general public. Studies initiated within the two years of the existence of the CTPP include:

- o Kauai Islandwide Study
- o Maui Islandwide Study
- o Hawaii Islandwide Study
- o Kahului-Wailuku Area Study
- o West Hawaii Area Study
- o Hilo Area Study
- o Lahaina Area Study

- o Kauai Transit Study
- o Maui Transit Study
- o Hawaii Transit Study

Collectively, the two planning processes provide for 3-C planning for all areas of the State. The planning processes incorporate all counties and the people in the State-County-People triad of planning.

All transportation plans are currently based on land use and are developed to the Year 2010, with the exception of the Hali 2005. Computer forecasting models are concurrently being developed to allow for plans to be continuously updated. Once the individual county islandwide studies are completed and the transportation priorities and requirements of each county identified, these are consolidated into a single document, the State Transportation Plan. The Airports and Harbors system plans are similarly developed.

#### **Issues Identified**

The Transportation Functional Plan Advisory Committee identified the following to be the most critical issues of transportation:

- Issue I. Congestion
- Issue II. Economic Development
- Issue III. Funding
- Issue IV. Education

These issues are discussed in the succeeding sections of this Chapter. Objectives, policies, and implementing actions appear in Chapter III.

#### **ISSUE I. CONGESTION**

Transportation congestion and infrastructure deficiencies are currently statewide problems. Hawaii, like the rest of the nation, has not developed the public infrastructure commensurate with the population and economic growth of the past three decades. Congestion today exists in all three air, water, and land modes of transportation.

Air travel has grown rapidly in the wake of deregulation and the opening of new air gateways and markets, and air freight activity has grown over the past ten years in response to the growing demand for high-value, time-sensitive transportation. With deregulation, overseas carriers are not only flying directly into the Honolulu International Airport

but also into the Keahole, Kahului, and Lihue airports although they cannot takeoff fully loaded out of airports.

Overseas air passenger arrivals in Hawaii from 1980 to 1988 alone were up 56% at 6.7 million passengers, through-passengers were up 27% at 1.4 million passengers, and interisland passengers were up 33% at 9.0 million passengers. Forty-four airlines now serve Hawaii. The demand for gate space and aviation operational and support facilities at Hawaii's airports keeps increasing.

Hawaii projections show more dramatic air passenger increases in the years ahead, particularly in international arrivals. The need for expanded international arrival facilities and increased federal inspection agent staffing is clearly evident. Airport facilities will also soon require larger terminal and cargo capacity and longer runways with the advent of the B747-400 and other wide-bodied new aircraft.

Harbor congestion is attributed to the increased demand for maritime space including space for commercial cargo to accommodate growth in the economy, tourism and the construction industry, and for cruise line, dinner cruise, commuter and shuttle ferries, and recreational vessels. Our harbors also need to be modernized to serve new types of vessels and new cargo-handling systems.

Statewide vehicle registration increased by 40% between 1978 and 1988 with Kauai leading the state with an increase of 71 percent followed by Maui (66%), Hawaii (53%), and Honolulu (32%).

A healthy economy, ample job availability, and high employment rates will continue to generate people and goods movement and place even heavier demands on the transportation infrastructure in the future.

Traffic congestion is also the result of the inefficient use of our existing capacity. Past surveys show residents' orientation to privately-owned vehicles with seventy-five percent commuting to work in privately-owned automobiles. Of these, seventy percent drive alone. Less than ten percent use public transportation.

Past zoning measures further tended to separate the places where people live and work, by creating numerous bedroom communities, and subsequently considerable requirements for work and business travel. Resort areas were similarly developed without employee housing and support facilities, requiring employees, especially those on the neighbor islands, to commute long distances to their jobs. Tourist and shopping trips further tax the transportation infrastructure.

Many transportation improvements require land or rights-of-ways, much of which are not owned or directly under the control of the State. Planning and construction options are often limited because the required parcels were not systematically reserved for future improvements.

While State highways should primarily serve inter-regional travel purposes, many of these highways are now proliferated with numerous road crossings, intersections, traffic signals, and driveway accesses. The result is numerous movement conflicts, slow, interrupted traffic flows, and subsequent requirements for by-pass roads.

Maintenance is also an important transportation function. A large percentage of our infrastructure, including highway bridges, are aging. Lack of funding for effective maintenance and replacement programs can result in unsafe transportation systems or conditions.

A combination of strategies are required to reduce congestion. These include increasing the transportation capacity, expanding and modernizing the transportation infrastructure, addressing decentralization policies and policies which close gaps between where people live and work and reduce the demand for travel, managing our existing transportation systems effectively, and seeking and implementing new transportation alternatives.

Advances in communication and transportation technology can revolutionize transportation and transportation-related services. Telecommunications and teleworking have the potential to reduce work, business, and other trips.

New high-tech, fully computerized ferries - which are capable of fast, comfortable travel - are currently available to help take some of the pressure off our highways. Ferries can shuttle commuters from East, Leeward, and West Oahu to the downtown central business district, and can shuttle tourists from the Airport, Waikiki, West Beach, and Downtown Waterfront origins and destinations. They can also provide an alternative mode for inter-island travel.

Improved superconductors may eventually reduce the cost of storing and transmitting electrical energy and greatly enhance the prospects for employing electric rail trains and people movers. Technological improvements, such as the magnetic levitation transit system, can also decrease our dependence on fossil fuels.

People with disabilities must have access to transportation without being subject to unnecessary delays, health or safety hazards, or undue attention. The Americans With Disabilities Act (PL 101-336) requires all transportation systems to be accessible. The HRS 103-50

Building Design To Meet The Needs of Handicapped Persons, specify that "all plans and specifications for the construction of public buildings and facilities by the state or any political subdivision (counties) shall be prepared so that the buildings and facilities are accessible to and useable by persons with disabilities."

## **ISSUE II: ECONOMIC DEVELOPMENT**

An important relationship exists between transportation facilities and economic development. Transportation facilities are essential for a productive economy. Our airports are important to our residents and the tourist industry; our harbors are critical in importing the goods we consume; and our highways link goods to markets, residents to work, students to school, and people to cultural and recreational activities.

The transportation network is important in helping to meet economic and agricultural diversification and self-sufficiency goals. The transportation infrastructure is important for continued economic growth and diversification to be achieved especially in the new global economy.

As European borders open up, so will economic opportunities. Economic change has already begun in Eastern Europe, trade barriers are falling, and unification is beginning. These changes can bring additional markets for local products as well as provide additional travel options. The first flight of the advanced Boeing 747-400 will also have an impact on the Hawaiian economy. This aircraft will be capable of flying non-stop from Europe to Honolulu and increase the potential to ship agricultural products to European markets.

In Asia, continued expansion of economies in Korea and Taiwan and the loosening of travel restrictions in these countries will provide citizens of these countries with additional opportunities to travel abroad during the 1990's and beyond. The federal government is also selecting another air carrier to fly from the United States to Asia. Competition for these rights is fierce not only between airlines but also between potential gateway cities.

Strategies to continue to support economic development, particularly tourism, business, and agriculture are essential for economic growth and market competitiveness. The Department is currently involved in getting additional air routes and carriers between Hawaii and international points, in getting more U.S. Customs and Immigration staff for Hawaii, and in building additional facilities to handle the needs of Hawaii tourism, business, and agriculture.

While concern was expressed in Kahului and Lihue on airport expansion, runway lengths, direct flights, and internationalization, Lihue, Kahului and Keahole airports are already receiving direct flights from the Mainland. Wide-bodied jet aircraft from the U.S. Mainland have been operating out of Kahului Airport since January 1983, Keahole Airport since September 1983, and Lihue Airport since August 1984. However, these arriving aircraft are currently required to return to Honolulu International Airport to refuel prior to flying on to their final mainland destination. The planned runway extensions at Kahului, Keahole and Lihue Airport will allow these aircraft to return direct to their mainland destination without stopping over in Honolulu for refueling. The runway extensions will make it more economical and convenient for the traveling public. These airports need runway lengths of at least 8,500 feet for flights to West Coast destinations, and up to 11,000 feet for flights to Midwest, East Coast, and other destinations.

The runway extension projects for Kahului, Keahole and Lihue airports are currently being or have been addressed in Airport Master Plans and Environmental Impact Statements. Public information meetings and public hearings have been conducted covering the planned runway extensions at Keahole and Lihue Airport. Additional public information meetings and public hearings are scheduled to be held for the runway extension at Kahului Airport.

A major effort, the Honolulu Waterfront Master Plan was undertaken to provide a comprehensive long-range plan for the Honolulu Waterfront. It attempts to provide for the orderly development of commercial maritime facilities while also attempting to maximize economic, recreational and cultural benefits for the growing population. The Plan addresses the long-term integrity of commercial maritime operations and major issues concerning public access and use of the waterfront.

An important objective of the Honolulu Waterfront Master Plan is the preservation and enhancement of the Port of Honolulu as the hub of the State's commercial harbor system based on the recognition that Hawaii, as an island State, is almost totally dependent on ocean surface transportation. Approximately 80 percent of the required goods to keep the Hawaiian economy functioning are imported, and 98 percent of these imported goods are delivered by ships. Exports, likewise, are transported almost entirely by surface vessels. Thus, no State is as dependent on ocean surface transportation as Hawaii. The majority of overseas inbound and outbound cargo movements arrive and depart via Honolulu Harbor.

### ISSUE III: FUNDING

Hawaii, like the rest of the nation, has not been able to keep up with public infrastructure development. Public infrastructure development has lagged behind population, employment, and economic growth.

The consequences of the underdeveloped public infrastructure, particularly in transportation, are congestion problems, increased commute times, added costs associated with moving people and goods throughout our transportation system and facilities, and quality of life deterioration.

Many large projects need to be implemented to meet both current and future needs. Required improvements to the Interstate System include the upgrade of the H-1 interchanges at Middle Street and at University Avenue. Highway capacity must be increased from Middle Street to downtown and interchanges are required for highly travelled intersections such as on the Likelike Highway at Kahekili Highway and on the Pali Highway at Kamehameha Highway. Kalaniana'ole Highway needs to be widened and Kahekili Highway and Fort Weaver Road serve growing population centers.

Growth in tourism in West Hawaii will increase traffic on the Queen Kaahumanu Highway. Honoapi'ilani Highway on Maui connects Kahului/Wailuku and with Lahaina/Kaanapali/Kapalua resort areas that were little more than countryside 15-25 years ago. On Kauai, the traffic generated by the windward shore development exceeds the capacity of Kuhio Highway. Many neighbor island highways which today serve communities fairly well will see high levels of congestion within the next 20 years. Improvements and rights-of-way actions must be planned for and funded.

The increasing volume of cargo and the popularity of inter-island cruises have resulted in high demands for limited berth spaces at Hilo, Kawaihae, Kahului, and Nawiliwili Harbors. The Honolulu Waterfront Area, from Kewalo Basin to Keehi Lagoon, is also scheduled for major maritime, commercial, and economic development improvements. One of the key implementation factors will be the acquisition of 67 acres of the Kapalama Military Reservation. Long-term relocations, renovations, and improvements must be made statewide.

A strong U.S. and Asian economy and above average growth in the visitor industry signal a need to accelerate investments in the Hawaii Airport System. Currently, the Honolulu International, Kahului, Keahole, Kahului, Lihue, Molokai, and Lanai Airports are scheduled for major improvements to accommodate projected air traffic growth.

All of these improvements will require substantial amounts of funds, far more than the current revenue fund bases can support. Strategies to fund the vast number of transportation improvements required on a statewide basis include: 1) revising existing revenue systems; 2) seeking new revenue sources; and 3) pursuing private sector participation.

#### **ISSUE IV: EDUCATION**

Meeting the infrastructure challenges of the 1990's will also require educating the public and keeping staff abreast of new programs and technologies for dealing with our transportation problems.

One of the key areas is the need to redirect the land transportation focus from the private automobile to transit for both commuting and tourist travel. Both public and private transit development consisting of rapid transit, waterborne transit (ferries), private subscription buses, commuter vans, airport shuttles, and downtown and tourist area shuttles (such as the Waikiki, Restaurant Row, and Pineapple Transit), must be clearly encouraged and supported.

Many residents, while attached to the automobile and the convenience it offers, may not fully realize the total costs associated with owning and operating an automobile. For daily work commuting, from Mililani to downtown for example, commuters could well spend over \$2500 annually in fuel and automobile insurance, maintenance, and depreciation costs. They could also spend an additional \$1200-\$2700 annually for parking. Transportation expenditures at the household level can easily exceed all categories except for housing and food.

While the convenience of the automobile is recognized, vehicular travel time can easily double within the next two decades as both population and the number of registered vehicles continue to increase. Transportation alternatives such as the commuter ferry and the rapid transit system can produce significant travel time savings and quality-of-life improvements.

Another item requiring consideration is the issue of fossil fuels. While fossil fuel supplies will continue to be available for the foreseeable future, world energy markets are likely to tighten considerably in the near future. Fossil fuels include both land transportation and aviation uses. Prices will be driven by the increasing costs of locating and developing fuel supplies, the depletion of fossil fuel reserves, and increased market power by OPEC. World fossil fuel prices can double by the year 2000.

Successful communities share a vision of what they can become, utilize good land-use planning, and have leadership organizations that have the staying power to work for community involvement. They rely on growth management to keep development and public improvements in balance.

New developments cannot proceed too far ahead of the development of public infrastructure. The public must be fully aware that the public infrastructure is the backbone necessary for the rest of our economy to work. Government itself must understand that community consensus is the key to growth management and quality of life improvements. Education helps to find common ground in controversies on managing growth.

Educational topics which must be promulgated include public education on drunk driving, and the benefits of ridesharing, bicycling, seat belt usage, and the use of public transportation. Strategies for providing in-house training and establishing training centers and facilities must be developed.

### **CHAPTER III. OBJECTIVES, POLICIES AND IMPLEMENTING ACTIONS**

This Chapter contains the various objectives, policies, and implementing actions to address the issues identified in Chapter II. In general, they reflect the Department's underlying strategies to:

1. Construct facility and infrastructure improvements in support of Hawaii's thriving economy and growing population base.
2. Develop a transportation system balanced with an array of new alternatives.
3. Implement Transportation Systems Management (TSM) to maximize the use of existing facilities and systems.
4. Foster innovation and use of new technology in transportation.
5. Maximize joint efforts with the private sector.
6. Pursue land use initiatives which help reduce travel demand.
7. Encourage resident quality-of-life improvements through improved mobility opportunities and travel reduction.

#### **ISSUE I. CONGESTION**

**OBJECTIVE I.A: Expansion of the transportation system.**

**POLICY I.A.1. Increase transportation capacity and modernize transportation infrastructure in accordance with existing master plans and laws requiring accessibility for people with disabilities.**

**IMPLEMENTING ACTIONS: Lead Organization - DOT**

**I.A.1.a. Honolulu Harbor - Additional piers, yards, roadways and improvements.**

**FY 92-93: \$20M**

**I.A.1.b. Sand Island Terminal - pier extension and container yard paving, and improvements.**

**FY 92-93: \$19M**

**I.A.1.c.** Barbers Point Harbor - Piers, yards, sheds, land acquisition, and improvements.

FY 92-93: \$20M

**I.A.1.d.** Water Transit System for Oahu - Terminals at various locations.

FY 92-93: \$0.0

Comment: DOT is currently designing and constructing interim facility ferry terminals at Barbers Point and Honolulu Harbor utilizing previously appropriated funds.

**I.A.1.e.** Hilo Harbor - additional yards, dredging, and improvements.

FY 92-93: \$7.6M

**I.A.1.f.** Kawaihae Harbor - additional yards, and improvements.

FY 92-93: \$500,000 (Subject to funding)

**I.A.1.g.** Kahului Harbor - pier extension, land acquisition, and container yard improvements.

FY 92-93: \$10.8M

**I.A.1.h.** Kaunakakai Harbor - roadway improvements.

FY 92-93: \$295,000

**I.A.1.i.** Port Allen Harbor - installation of surge buoy and improvements.

FY 92-93: \$950,000

**I.A.1.j.** Nawiliwili Harbor - Additional pier and container yard improvements.

FY 92-93: \$9.2M

**I.A.1.k.** Statewide Boating Improvements - improvements at Kawaihae, Honokohau, Ala Wai, Haleiwa, Keehi, Port Allen, Waianae, Lahaina, Maalaea, Nawiliwili, Kaulana, Manele and other boat harbors.

FY 92-93: \$12.7M

**I.A.1.1.** Honolulu International Airport - overseas terminal expansion, roadway and parking improvements, new interisland terminal, new international terminal, and automated people mover system.

FY 92-93: \$1,217.5M

**I.A.1.m.** Lihue Airport - reliever inland heliport and extension of Runway 17-35.

FY 92-93: \$4.7M

**I.A.1.n.** Kahului Airport - new access road, widening of Hana Highway, extension of Runway 2-20, and new terminal building.

FY 92-93: \$27M

**I.A.1.o.** Kapalua Airport at West Maui -Acquisition by the Airports Division to maintain the existing facility in West Maui.

FY 91-92: N/A

**I.A.1.p.** Kapalua Airport at West Maui - Master plan, noise compatibility program, and environmental assessment.

FY 92-93: \$300,000

**I.A.1.q.** Keahole Airport - extension of Runway 17-35, new overseas terminal, and expansion of parking and roadways.

FY 92-93: \$77.5M

**I.A.1.r.** Hilo International Airport - Expansion of general aviation facilities, lease lots and air cargo.

FY 92-93: \$9.4M

**I.A.1.s.** Molokai Airport - new terminal building, new aircraft apron, and parking improvements.

FY 92-93: \$4.1M

**I.A.1.t.** Kalaupapa Airport - new runway and paving of aircraft apron and taxiway.

FY 92-93: \$5M (Subject to funding)

**I.A.1.u.** Lanai Airport - extension of Runway 3-21, new terminal building, and expansion of aircraft apron and parking lot.

FY 92-93: \$32M (Subject to funding)

**I.A.1.v.** Statewide Airport Planning - Master plans, noise compatibility programs, environmental assessments and other planning studies.

FY 92-93: \$1.1M

**I.A.1.w.** Interstate Route H-3 - completion of the remaining segments of the project.

FY 92-93: \$450M

**I.A.1.x.** Interstate Route H-2 - Mililani to Waiawa I.C. and H-1 Kunia to Halawa I.C.

FY 92-93: \$8.2M

**I.A.1.y.** Interstate Route H-1 - Repair to Pearl City Viaduct.

FY 92-93: \$4M (Subject to funding)

**I.A.1.z.** Interstate Route H-1 - Resurfacing and Safety Improvements, Pearl City Viaduct to Kaimakani Street.

FY 92-93: \$4M (Subject to funding)

**I.A.1.aa.** Kalaniana'ole Highway Widening. Aina Koa to Keahole Street.

FY 92-93: \$37.9M

**I.A.1.bb.** Likelike Highway-Kahekili Highway Interchange and Kahekili Improvements, Oahu.

FY 92-93: \$28.5M

**I.A.1.cc.** Kamehameha Highway, Halemano-Waiialua Junction to Haleiwa Beach Park.

FY 92-93: \$17M

**I.A.1.dd.** Farrington Highway, Bridge Replacement #3 and 3A.

FY 92-93: \$3.8M (Subject to funding)

**I.A.1.ee.** Old Waialae Road Overpass, Oahu.

FY 92-93: \$1.2M (Subject to funding)

**I.A.1.ff.** Honoapiilani Highway Widening - Maalaea to Kuihelani Highway.

FY 92-93: \$2M (Subject to funding)

**I.A.1.gg.** Honoapiilani Highway Widening and/or realignment, Honokowai to Puamana, Lahaina.

FY 92-93: \$23.8M  
Comment: Construction and Land

**I.A.1.hh.** Honoapiilani Highway Widening, Kuihelani Highway to N. Kihei Road.

FY 92-93: \$11.2M  
Comment: Design, Land and Construction

**I.A.1.ii.** Honoapiilani Highway Widening, Lahaina to Maalaea.

FY 92-93: \$1M (Subject to funding)  
Comment: Planning

**I.A.1.jj.** Haleakala Highway Widening, Pukulani Bypass to Hana Highway. (From 3 to 4 lanes)

FY 92-93: \$11.5M  
Comment: Design, Land and Construction

**I.A.1.kk.** Puunene Avenue Bypass/Mokulele Highway Widening.

FY 92-93: \$1.4M (Subject to funding)  
Comment: Planning and Design

**I.A.1.ll.** Kuihelani Highway Widening, Honoapiilani Highway to Puunene Avenue.

FY 92-93: \$800,000  
Comment: Design

**I.A.1.mm.** Piilani Highway Widening, N. Kihei Road to Kilohana Drive.

FY 92-93: \$700,000 (Subject to funding)  
Comment: Design

**I.A.1.nn.** Hana Highway, Replacement of Timber Bridges. Kapakalua Bridge.

FY 92-93: \$3.5M (Subject to funding)

**I.A.1.oo.** Hana Highway, Replacement of Timber Bridges. Waoa Bridge.

FY 92-93: \$3.3M (Subject to funding)

**I.A.1.pp.** Hana Highway Improvements, Huelo to Hana.

FY 92-93: \$6M (Subject to funding)

**I.A.1.qq.** Queen Kaahumanu Highway Widening.

FY 92-93: \$13.4M  
Comment: Land and Partial Construction

**I.A.1.rr.** Kuakini Highway Widening, Palani Road to Hualalai Road, Hawaii.

FY 92-93: \$800,000  
Comment: Design and Land

**I.A.1.ss.** Kealakehe Parkway and Interchange.

FY 92-93: \$1.8M  
Comment: Planning, Design and Land

**I.A.1.tt.** Keaau-Pahoa Bypass, Hawaii.

FY 92-93: \$2.2M (Subject to funding)  
Comment: Design and Land

**I.A.1.uu.** Keaau-Pahoa Road Widening, Keaau to Pahoa Bypass.

FY 92-93: \$2M (Subject to funding)  
Comment: Design and Land

**I.A.1.vv.** Keaau-Pahoa, Paradise Park Phase II Street 60+00 to 140+00.

FY 92-93: \$1M (Subject to funding)

**I.A.1.ww.** Keaau-Pahoa Road, Town Section.

FY 92-93: \$600,000  
Comment: Planning

**I.A.1.xx.** Hawaii Belt Road, Kealakehe Stream Bridge.

FY 92-93: \$10M (Subject to funding)

**I.A.1.yy.** Hawaii Belt Road, Mud Lane to Kamuela Race Track.

FY 92-93: \$1M (Subject to funding)  
Comment: Design Only

**I.A.1.zz.** Kanoelehua Avenue Widening, between Kamehameha Ave. and Puainako Street, Hawaii.

FY 92-93: \$2M

**I.A.1.aaa.** Puainako Street Widening, Komohana Street to Kilauea Avenue.

FY 92-93: \$1.6M  
Comment: Design and Land

**I.A.1.bbb.** Kuhio Highway Bypass and/or widening - Hanamaulu through Kapaa, Kauai.

FY 92-93: \$1.7M  
Comment: Planning and design

**POLICY I.A.2. Improve regional mobility in areas of the State experiencing rapid urban growth and road congestion.**

**IMPLEMENTING ACTION I.A.2.a.** Plan, design, and construct the road infrastructure for West Hawaii including improving Queen Kaahumanu Highway and developing a supporting local road network.

Lead Organization: DOT

Assisting Organizations: OSP, HFDC, Hawaii County, private developers.

Starting Date:

Cost: N/A

Comments:

Planning started in FY 89 under the Countywide Transportation Planning Process (CTPP).

Total construction cost is estimated at \$165M.

**IMPLEMENTING ACTION I.A.2.b.** Plan, design, and construct road infrastructure for West Maui.

Lead Organization: DOT

Assisting Organizations: OSP, HFDC, Maui County, private developers.

Starting Date:

Cost: N/A

Comments:

Planning started in FY 89 under the CTPP.

Total construction cost is estimated at \$215M.

**IMPLEMENTING ACTION I.A.2.c.** Plan, design, and construct road infrastructure from Lihue to Kapaa.

Lead Organization: DOT

Assisting Organization: Kauai County

Starting Date:

Cost: \$25M (Subject to funding)

Comments:

Planning started in FY 89 under the CTPP.

The \$25M cost item is for the construction of the first four segments from Kapaa to Wailua Bay.

**POLICY I.A.3. Promote the development of public transportation systems.**

**IMPLEMENTING ACTION I.A.3.a. Design and construct commuter terminals for the operation of the Water Transit System for Oahu.**

Lead Organization: DOT

Assisting Organization: City & County of Honolulu

Starting Date:

Cost: None

Comments:

Barbers Point to Downtown Honolulu commuter service to begin in FY 91. Services from Hawaii Kai, Ewa Beach, and Waipahu to follow. The State is obligated to provide the ferry landings only. No vessel capital or operating subsidies are required.

DOT is currently designing and constructing interim facility ferry terminals at Barbers Point and Honolulu Harbor utilizing previously appropriated funds.

**IMPLEMENTING ACTION I.A.3.b. Provide financial support through the Transit Fund for the design and construction of an accessible rapid transit system for Oahu.**

Lead Organization: B & F

Assisting Organizations: DOT, OSP.

Starting Date:

Cost: FY 92 \$50M (Subject to funding)

FY 93 \$50M

Comments:

Study nearing completion; AA/DEIS completed and request for proposals being sought.

Cost to be determined upon completion of the selection of the transit alternative.

A sum of \$53M per year will be deposited into the transit fund to assist all counties in capital cost funding of mass transit systems.

**IMPLEMENTING ACTION I.A.3.c.** Assist Kauai, Hawaii, and Maui counties in the planning, assessment, development/improvement of accessible public transportation systems.

Lead Organization: DOT  
Assisting Organizations: Kauai, Hawaii and Maui Counties, advisory committees, B & F.  
Starting date:  
Cost: FY 92 \$3M (Subject to funding)  
FY 93 \$3M

**Comments:**

Studies initiated in FY 90 to assess transit needs in each county under the Countywide Transportation Planning Process (CTPP). Various alternatives and associated costs to be provided from the studies. System selection to be made by the respective counties. Partial funding will come from the new transit fund which will be in effect in FY 1992.

**OBJECTIVE I.B:** Reduction of travel demand through zoning and decentralization initiatives.

**POLICY I.B.1.** Close the gap between where people live and work through decentralization, mixed zoning, and related initiatives.

**IMPLEMENTING ACTION I.B.1.a.** Promote the development of the Ewa Second City to provide jobs near homes.

Lead Organization: OSP  
Assisting Organizations: DOT, DBED, DAGS, City & County of Honolulu, HFDC, and private businesses.  
Starting Date:  
Cost: N/A  
Comment: The Department of Accounting and General Services initiated a survey to determine the requirements for establishing new State offices in Kapolei. These offices will allow employees living in West, Central, and Leeward Oahu to be able to work closer to their homes and help alleviate peak period commuting to the downtown area.

**IMPLEMENTING ACTION I.B.1.b.** Promote the development of Telework Centers to provide jobs near homes.

Lead Organization: DOT  
Assisting Organizations: DAGS, Governor's Office of Information, private businesses.  
Starting Date:  
Cost: FY 92 \$400,000  
FY 93 \$100,000

**Comments:**

DOT opened the nation's first telework center in FY 90 on a demonstration basis. Based on the Hawaii Telework Center Demonstration project's success, DOT will develop telework centers/satellite offices in every major community in the state to allow more employees to work closer to home and to provide more government services closer to residents' homes.

**IMPLEMENTING ACTION I.B.1.c.** Promote the development of homes near jobs. Examples are residential condominiums in the Kakaako area to allow employees to live close to their downtown offices and employee housing built by resort developers in close proximity to resorts.

Lead Organization: HFDC  
Assisting Organizations: HCDA, OSP, LUC, counties.  
Starting Date:  
Cost: N/A  
Comment: This is a concept to be implemented on an "opportunity" basis.

**IMPLEMENTING ACTION I.B.1.d.** Promote the development of State satellite offices to take services out to the general public and to reduce public travel.

Lead Organization: Office of Information -- Office of the Governor.  
Assisting Organizations: All State departments engaged in providing counter-type services to the general public.  
Starting Date: FY 91  
Cost: N/A  
Comment: OSP surveyed the various departments to determine the type and volume of services provided to the general public. The results of the survey will be used to determine the feasibility and requirements for providing satellite-type services.

**IMPLEMENTING ACTION I.B.1.e.** Develop computer databases and develop "on-line access" systems to reduce business travel and to allow businesses to decentralize out of the downtown area.

Lead Organization: ICSD of B&F  
Assisting Organizations: All state departments.  
Starting Date:  
Cost: N/A

Comment: DOT is currently experimenting with "on-line" access in conjunction with its Telework Center Demonstration Project to reduce business travel and to provide businesses with increased opportunities to decentralize from the downtown area where traffic congestion and office space & parking shortages are emerging as long-term problems.

**OBJECTIVE I.C:** Management of existing transportation systems through a program of transportation systems management (TSM).

**POLICY I.C.1.** Increase the capacity of the existing transportation infrastructure.

**IMPLEMENTING ACTION I.C.1.a.** Develop HOV, contraflow and shoulder lanes to maximize the use of existing facilities, including:

- o Interstate H-2, Mililani I.C. to Waiawa I.C.
- o Contraflow Lanes on the Pali and Likelike Highways.

Lead Organization: DOT  
Starting Dates:  
Cost: \$27M (Subject to funding)  
Comment: Studies and designs in progress.

**POLICY I.C.2. Implement statewide rideshare programs and a network of rideshare coordinators.**

**IMPLEMENTING ACTION I.C.2.a. Organize rideshare coordinators in state and county government, communities, schools, businesses, and resorts.**

Lead Organization: DOT

Assisting Organizations: OSP, OMPO, counties, private sector.

Starting Date:

Cost: \$100,000

Comments:

To be implemented on an "opportunity" basis as part of land use and zoning change conditions and on cooperative or voluntary basis.

The \$100,000 cost item is for the development of the Ewa/Central Oahu Transportation Management Association (TMA), Hawaii's first TMA.

**POLICY I.C.3. Develop park-and-ride facilities.**

**IMPLEMENTING ACTION I.C.3.a. Require park-and-ride facilities be constructed in new residential developments. Include parking stalls accessible for people with disabilities.**

Lead Organization: DOT

Assisting Organizations: OSP, State Land Use Commission, counties, county councils.

Starting Date:

Cost: N/A

Comment: Facilities to be constructed by developers. Project to be implemented on an "opportunity" basis as part of land use and zoning changes.

**POLICY I.C.4. Provide incentives for ridesharing.**

**IMPLEMENTING ACTION I.C.4.a.** Provide tax incentives for employers who provide rideshare programs for employees and for employees who rideshare.

Lead Organization: DOTAX  
Assisting Organization: DOT  
Starting Date: FY 92 or earlier.  
Cost: N/A  
Comment: Cost to be contingent of staffing required to administer and enforce credits. There will be a slight loss of tax revenues as a result of the tax credits.

**IMPLEMENTING ACTION I.C.4.b.** Provide state and county employees with transit subsidies to encourage transit usage. Pursue automobile insurance discounts for employees buying transit passes.

Lead Organization: DPS  
Assisting Organizations: DOT, B&F, Counties, Insurance companies.  
Starting Date: FY 92  
Cost: \$1.8M (Subject to funding)  
Comment: Item should be studied as an employee benefit. Cost will be contingent on the number of employees participating and the amount of subsidy provided.

**IMPLEMENTING ACTION I.C.4.c.** Adjust employee parking fees to encourage carpooling and to discourage single-occupant driving.

Lead Organization: DAGS  
Assisting Organization: DOT  
Starting Date: FY 92  
Cost: None  
Comment: Rate adjustment could actually generate additional revenues.

**POLICY I.C.5. Provide for a viable Bikeway program.**

**IMPLEMENTING ACTION I.C.5.a.** Review, upgrade and implement the bikeway program. Support biking initiatives and biking safety.

Lead Organization: DOT  
Assisting Organizations: Counties, bicycling organizations, bike tour operators, and communities.  
Starting Date: FY 92 or earlier.  
Cost: \$300,000 (Subject to funding)  
Comment: Further study/evaluation by HWY.

**POLICY I.C.6. Promote greater use of motor coach transportation between airports and resort areas.**

**IMPLEMENTING ACTION I.C.6.a. Grant licenses for services at Kahului, Keahole, and Lihue Airports.**

Lead Organization: DOT  
Assisting Organization: PUC  
Starting Date:  
Cost: None.  
Comments:

This policy is intended to encourage the use of motor coach, limousine, van, and other mass transit vehicles in lieu of rental cars for transportation from the airport to resort areas. May generate additional concession revenues for the Airports.  
No cost is expected.

**OBJECTIVE I.D: Identification and reservation of lands and rights-of-way required for future transportation improvements.**

**POLICY I.D.1. Identify, reserve and/or acquire land for future transportation improvements.**

**IMPLEMENTING ACTION I.D.1.a. Reserve land/rights-of-way for anticipated improvements in the following areas/facilities:**

- o Barbers Point (\$5.6M) and Kahului(\$7.5M) for future harbor expansion.
- o Lihue, Kahului, Lanai, Honolulu International, Dillingham, and Hilo Airports for future airports expansion (\$295M).
- o Sand Island and Fort Armstrong for a possible by-pass highway (\$1M).
- o On the various neighbor islands contingent on the completion of the highway master plans.

Lead Organization: DOT  
Assisting Organizations: Counties  
Starting Date:  
Cost: \$309.1M (Subject to funding)  
Comment: Studies in progress.

**POLICY I.D.2. Identify and reserve energy corridors.**

**IMPLEMENTING ACTION I.D.2.a. Reserve energy corridor on the Queen Kaahumanu Highway - Kawaihae Harbor to Keahole Airport.**

Lead Organization: DOT

Starting Date:

Cost: \$100,000 (Subject to funding)

Comments:

Corridor in process of being laid out on rights-of-way maps.

**OBJECTIVE I.E: Planning and designing State highways to enhance inter-regional mobility.**

**POLICY I.E.1. Design highways with controlled accesses, grade-separated crossings, and minimum four-lane divided highway standards where applicable. Encourage counties to develop local road networks for local travel and access.**

**IMPLEMENTING ACTION I.E.1.a. Plan, design and develop Queen Kaahumanu Highway with controlled accesses and grade-separated crossings to maintain regional mobility. Encourage Hawaii County to develop a local road network to serve local traffic and to provide business and residential accesses.**

Lead Organization: DOT

Assisting Organizations: Hawaii County, OSP, HFDC.

Starting Date:

Cost: N/A

Comment: All accesses on Queen Kaahumanu Highway will require grade-separated interchanges. Developers will be asked to construct these.

**OBJECTIVE I.F: Improving and enhancing transportation safety.**

**POLICY I.F.1. Enhance air safety and security.**

**IMPLEMENTING ACTION I.F.1.a.** Coordinate the acquisition/joint use of a general aviation airport at Wheeler Field, Barbers Point, or Bellows Field.

Lead Organization: DOT  
Starting Date: FY 92 or earlier.  
Cost: N/A  
Comment: Cost is contingent on which airport is selected and what agreements are reached with the military.

**IMPLEMENTING ACTION I.F.1.b.** Install operations control, fire alarm and security systems at all airports.

Lead Organization: DOT  
Starting Date: FY 92  
Cost: \$12.4M

**IMPLEMENTING ACTION I.F.1.c.** Installation of Traffic Alert and Collision Avoidance Systems (TACAS) in aircraft as required and monitored by FAA.

Lead Organization: FAA  
Assisting Organization: DOT  
Starting Date: FY 92 or earlier.  
Cost: None  
Comments:  
Airline carrier's responsibility.  
No state cost.

**IMPLEMENTING ACTION I.F.1.d.** Monitor and regulate the noise level of aircraft at airports.

Lead Organization: DOT  
Assisting Organization: FAA  
Start Date:  
Cost: \$500,000  
Comments:  
Project in progress.  
The \$500,000 cost item is for staff and noise monitoring equipment.

**IMPLEMENTING ACTION I.F.1.e.** Implement maintenance programs to ensure FAA Airport Safety and Certification requirements statewide.

Lead Organization: DOT  
Starting Date: FY 92-93  
Cost: \$2M (Subject to funding)  
Comment: Includes proper maintenance of airfield and related areas including runway markings.

**OBJECTIVE I.G: Improved transportation maintenance programs.**

**POLICY I.G.1. Adopt an aggressive transportation maintenance program.**

**IMPLEMENTING ACTION I.G.1.a.** Increase average highway resurfacing frequency from 15 to 12 years.

Lead Organization: DOT  
Starting Date: FY 92  
Cost: \$20M per year. (Subject to funding)

**IMPLEMENTING ACTION I.G.1.b.** Provide for aggressive preventive maintenance programs.

Lead Organization: DOT  
Starting Date: FY 92 or earlier.  
Cost: N/A  
Comment: This is a policy statement for implementation by the various divisions and districts of the Department. Certain programs may require increased budget and resource support.

**POLICY I.G.2. Conduct maintenance work to minimize disruption to the general public.**

**IMPLEMENTING ACTION I.G.2.a.** Perform night/off-hour work as appropriate.

Lead Organization: DOT  
Assisting Organization: DOH  
Starting Date:  
Cost: N/A  
Comments:

This project should be started as early as possible. Additional resources including equipment and flagmen will be required to maintain workcrew safety. For contractual work, bids will be higher to compensate for night differential and increased administration and overhead costs.

**OBJECTIVE I.H: Ensure that transportation facilities are accessible to people with disabilities.**

**POLICY I.H.1. Design and construct transportation facilities so that they are accessible to people with disabilities.**

**IMPLEMENTING ACTION I.H.1.a. Construct new facilities and refurbish existing facilities for safe and convenient access.**

Lead Organization: DOT

Assisting Organization: DOH - Commission On Persons With Disabilities

Starting Date:

Cost: N/A

Comments:

People with disabilities must have access to transportation without being subject to unnecessary delays, health or safety hazards, or undue attention. The Americans With Disabilities Act (PL 101-336) requires all transportation systems to be accessible. The HRS 103-50 Building Design To Meet The Needs of Handicapped Persons, specify that "all plans and specifications for the construction of public buildings and facilities by the state or any political subdivision (counties) shall be prepared so that the buildings and facilities are accessible to and useable by persons with disabilities."

Facilities are to be integrated into new development plans. Existing facilities to be modified as necessary.

**ISSUE II: ECONOMIC DEVELOPMENT**

**OBJECTIVE II.A: Development of a transportation infrastructure that supports economic development initiatives.**

**POLICY II.A.1. Support State economic development initiatives.**

**IMPLEMENTING ACTION II.A.1.a. Develop the Aloha Tower Complex for maritime and other uses, to enhance use of our waterfront resources, and to provide economic benefits.**

Lead Organization: ATDC  
Assisting Organizations: DOT, OSP.  
Starting Date: FY 91  
Cost: None

Comments:  
Negotiations underway with selected developer.  
\$800M cost to be borne by a private developer.

**IMPLEMENTING ACTION: II.A.1.b. Complete acquisition of Kapalama Military Reservation. Develop incrementally to relocate industrial uses and to meet projected containerized cargo demand.**

Lead Organization: DOT  
Assisting Organizations: OSP, HCDA.  
Starting Date: FY 91  
Cost: None

Comments:  
Cost of acquisition (\$98M) is currently funded.  
Determination of development costs pending the completion of development plan for the site.

**POLICY II.A.2. Support tourism and economic development.**

**IMPLEMENTING ACTION II.A.2.a.** Support the development of West Hawaii by developing the transportation facilities and infrastructure in the area.

- o Kawaihae Harbor Development - piers and yards
- o Queen Kaahumanu Highway widening and improvements
- o Keahole Airport runway extension and terminal expansion.

Lead Organization: DOT

Assisting Organizations: OSP, developers.

Starting Date:

Cost: \$19M for Kawaihae Harbor. \$156M for Keahole Airport.

Comments:

Development in progress.

For Kawaihae Harbor, developer assistance is being sought for the improvements to and widening of Queen Kaahumanu Highway.

**IMPLEMENTING ACTION II.A.2.b.** Seek international air routes to priority markets designated by the tourist industry, the agricultural sector, business, and industry. Current priorities are Asia and Europe.

Lead Organization: DOT

Assisting Organizations: DBED, DOA, HVB, OSP.

Starting Date: November 1987

Cost: \$500,000

Comment: Cost represents budget for the initial work.

**IMPLEMENTING ACTION II.A.2.c.** Provide the following facility improvements at airports to support tourism and economic development:

- o International signage.
- o Shops for Hawaiian products.
- o Information counters and courtesy phones at all airports.
- o Display/educational displays at major airports.

Lead Organization: DOT

Starting Date:

Cost: N/A

Comment: Most of these initiatives can be included and integrated into the facility improvement programs; concessionaires will be sought to operate certain shops and services.

**IMPLEMENTING ACTION II.A.2.d.** Increase program support and staffing for Customs, Immigration and Agricultural inspection services at airports.

Lead Organization: DOT

Assisting Organization: Office of Aviation Development, Independent Contractor

Starting Date: November 1987

Cost: \$200,000 (Subject to funding)

Comments:

On-going. DOT currently working with Congress and the federal agencies for additional Customs and Immigration staffing. Other initiatives to be integrated in the construction of new facilities and renovations of existing facilities at the various airports.

**POLICY II.A.3. Support agriculture and agricultural initiatives.**

**IMPLEMENTING ACTION II.A.3.a. Construct new air cargo terminals at Honolulu International, Hilo International, Kahului, Keahole, and Lihue airports.**

Lead Organization: DOT  
Assisting Organizations: DOA, airlines.  
Starting Date:  
Cost - FY 92-93:  
    Honolulu International - \$30M  
    Hilo International - \$6M  
    Kahului - \$4.9M  
    Keahole - \$6.5M  
    Lihue - \$8.3M  
Comment: Programs in progress.

**IMPLEMENTING ACTION II.A.3.b. Support new markets for Hawaii's fruits, vegetables, and flowers by participating in the federal negotiating process for direct service from the mainland and international points.**

Lead Organization: DOT  
Supporting Organizations: DOA, Airlines, freight forwarders and growers associations.  
Starting Date: November 1987  
Cost: \$500,000 (Subject to funding)  
Comments:  
    Programs in progress.  
    Cost Included in improvements addressed in Issue No. I.  
    Cost is part of the \$500,000 in Implementing Action II.A.2.b.

**ISSUE III: FUNDING**

**OBJECTIVE III.A: Expansion of revenue bases for transportation improvements.**

**POLICY III.A.1. Seek revenue increases and new sources of revenue.**

**IMPLEMENTING ACTION III.A.1.a.** Implement the recommendations of the 1988 Highway Revenue Task Force including possible fuel tax, registration fee, and vehicle weight tax adjustments.

Lead Organization: DOT  
Assisting Organizations: B&F, counties.  
Starting Date: FY 92  
Cost: N/A  
Comment: Pending Legislative action

**IMPLEMENTING ACTION III.A.1.b.** Seek new revenue sources including:

- o General Fund revenues
- o New concession activities
- o Federal statutory prohibitions on head taxes

Lead Organization: DOT  
Assisting Organizations: B&F, FAA.  
Starting Date: FY 92 or earlier.  
Cost: N/A  
Comment: These initiatives are designed to produce additional revenues for DOT.

**IMPLEMENTING ACTION III.A.1.c.** Revise existing revenue systems including:

- o Changing the airport facility use charge system.
- o Seeking greater federal-aid discretionary funds.
- o Establishing an Intermodal Transportation Fund in lieu of the separate special funds.

Lead Organization: DOT  
Assisting Organizations: B&F, federal government, Office of Aviation Development.  
Starting Date: November 1987  
Cost: \$100,000  
Comment: Cost includes consulting work in Washington D.C., and projects with the Office

of Aviation Development. These initiatives are designed to produce additional revenues for DOT.

**POLICY III.A.2. Pursue private sector participation in the financing of transportation systems, developments and projects.**

**IMPLEMENTING ACTION III.A.2.a. Seek private sector assistance/funding in projects and programs including:**

- o Oahu IntraIsland Ferry System
- o Hawaii Telework Center Demonstration Project
- o Aloha Tower Development
- o Keehi Lagoon Development

Lead Organization: DOT  
Assisting Organizations: Private companies/developers.

Starting Date:

Cost: N/A

Comments:

The Oahu IntraIsland Ferry System Contract has already been awarded and the Telework Center Demonstration Project is in progress.

The State is seeking private development of some of the ferry landings and 80% federal funding for landings not privately developed.

**IMPLEMENTING ACTION III.A.2.b. Investigate the use of development impact fees to finance transportation improvements.**

Lead Organization: OMPO  
Assisting Organizations: City, DOT

Starting Date: FY 91

Cost: N/A

Comments:

OMPO is conducting an impact fee study during FY 1991. Options and cost for implementation will be determined as a result of the study.

**ISSUE IV: EDUCATION**

**OBJECTIVE IV.A. Providing educational programs.**

**POLICY IV.A.1. Promote alternative modes of public transportation and transportation safety through public relations and marketing programs.**

**IMPLEMENTING ACTION IV.A.1.a. Educate the public on drunk driving, and the benefits of ridesharing, bicycling, seat belt usage, and the use of public transportation.**

Lead Organization: DOT  
Assisting Organizations: Counties, media.  
Start Date:  
Cost: \$300,000  
Comment: These are on-going programs.

**POLICY IV.A.2. Provide staff development opportunities.**

**IMPLEMENTING ACTION IV.A.2.a. Educate and reinforce the staff on the benefits of teleworking and other telecommunication technology including technical updates and breakthroughs. Provide staff with hands-on training on computer, computer software, facsimile machine, video-conferencing and other technology.**

Lead Organization: DOT  
Assisting Organizations: DPS, ICSD of B&F, UH.  
Start Date:  
Cost: \$100,000  
Comment: Implement programs as early as possible.

**IMPLEMENTING ACTION IV.A.2.b. Construct an airport training center.**

Lead Organization: DOT  
Assisting Organization: DPS  
Start Date:  
Cost: \$6.9M  
Comment: Start construction as early as possible.