CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

FILED
AUG 31 2016
PURSUANT TO ROH Sec. 1-2.5

No. 15-252

RESOLUTION

APPROVING THE DOWNTOWN NEIGHBORHOOD TRANSIT-ORIENTED DEVELOPMENT (TOD) PLAN.

WHEREAS, the Revised Ordinances of Honolulu (ROH) Sections 21-9.100 through 21-9.100-4 of the Land Use Ordinance, enacted by Ordinance 09-4, establish a procedure for the creation of special districts known as transit-oriented development (TOD) zones, and accompanying development regulations, around rapid transit stations to encourage appropriate transit-oriented development; and

WHEREAS, ROH Section 21-9.100-2 provides that for each TOD zone, a neighborhood TOD Plan shall be approved by the Council and shall serve as the basis for the creation or amendment of a TOD zone and the TOD development regulations applicable thereto; and

WHEREAS, plans for the Honolulu Rail Transit project call for three stations in Downtown—one at the corner of Dillingham Boulevard and Kaaahi Street (Iwilei Station), one at the corner of Nimitz Highway and Kekaulike Street (Chinatown station), and a third near the intersection of Nimitz Highway and Bishop Street (Downtown station); and

WHEREAS, the Department of Planning and Permitting (DPP) and its consultant, Dyett & Bhatia Urban and Regional Planners, have prepared the Downtown Neighborhood TOD Plan (July 2015) to serve as the basis for the creation of TOD zones around the Iwilei, Chinatown, and Downtown rail transit stations; and

WHEREAS, the process of creating the Downtown Neighborhood TOD Plan was inclusive, open to residents, businesses, landowners, community organizations, government agencies, and others; and

WHEREAS, the process considered population, economic, and market analyses and infrastructure analyses, including capacities of water, wastewater, and roadway systems; and

WHEREAS, the Downtown Neighborhood TOD Plan does not ignore past planning for the community, but builds on the objectives of the Chinatown Special District; and

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RESOLUTION

WHEREAS, the Downtown Neighborhood TOD Plan is consistent with the Primary Urban Center Development Plan established by ROH Chapter 24, Article 5; and

WHEREAS, the Council desires to approve the Downtown Neighborhood TOD Plan; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu that, pursuant to ROH Section 21-9-100-2(f), the Council hereby approves the Downtown Neighborhood TOD Plan (July 2015) attached hereto as Exhibit A and incorporated herein by this reference; and

BE IT FURTHER RESOLVED that, pursuant to ROH Section 21-9.100-3(a), the Director of the DPP is directed to submit to the Planning Commission, within 120 days of the adoption of this Resolution, a proposed ordinance establishing TOD zones for the Iwilei, Chinatown, and Downtown rail transit stations, and the TOD development regulations applicable thereto; and

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RESOLUTION

BE IT FINALLY RESOLVED that copies of this Resolution be transmitted to the Mayor, the Director of the Department of Planning and Permitting, and the Honolulu Authority for Rapid Transportation.

INTRODUCED BY:

(br)

DATE OF INTRODUCTION:

AUG 3 1 2015
Honolulu, Hawaii

Councilmembers

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CITY CLERK
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C & C OF HONOLULU

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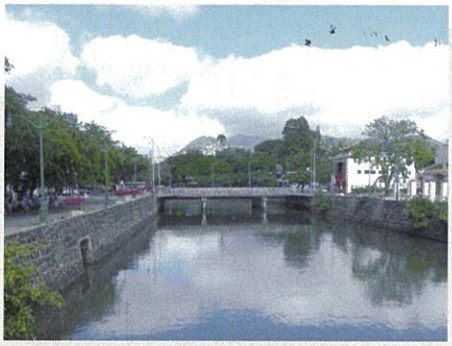
AUG 3 1 2016
PURSUANT TO ROH Sec. 1-2.5

Exhibit A

Downtown Neighborhood
Transit-Oriented Development Plan
Draft Final Plan
July 2015



City and County of Honolulu

Downtown
Neighborhood Transit-Oriented Development Plan

Draft Final Plan

July 2015

Prepared by

DYETT & BHATIA

Urban and Regional Planners

Bills Engineering Inc.

Keyser Marston Associates

Weslin Consulting Services, Inc.

William Chang Architect

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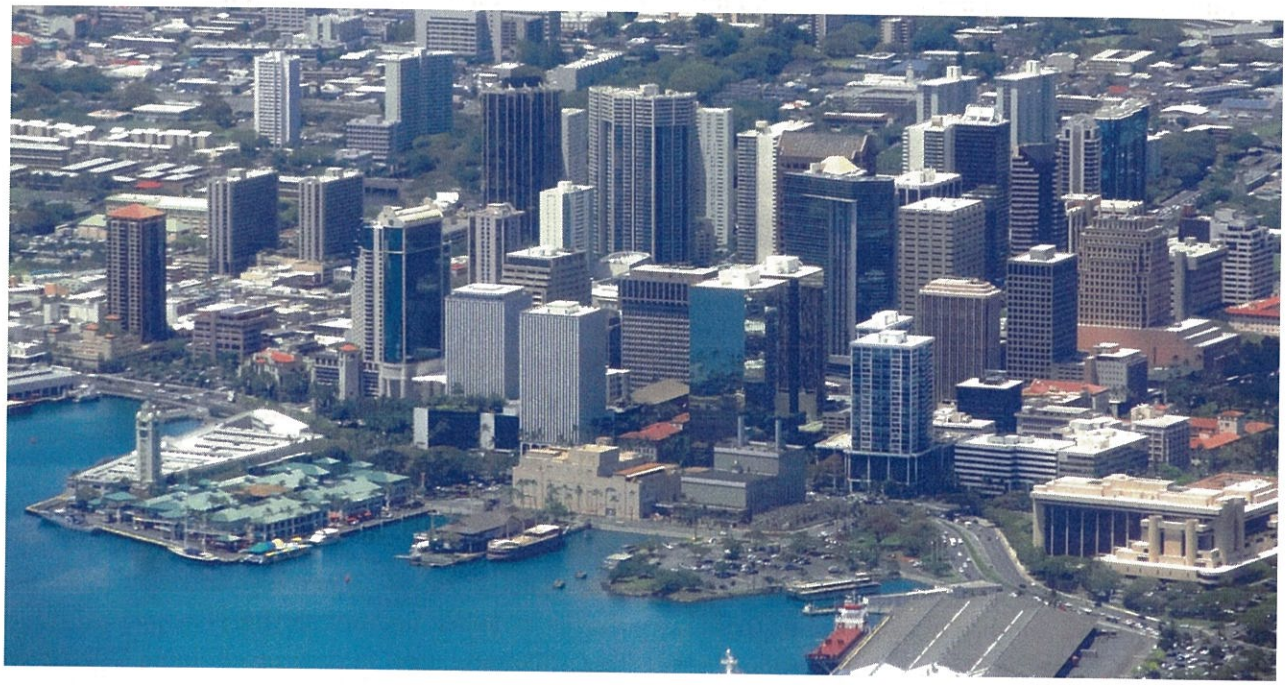
1 INTRODUCTION

Downtown Honolulu is home to the vibrant financial district, which is Oahu's center of employment, as well as one of the oldest Chinatowns in the United States. With the introduction of rail transit, Downtown has the opportunity to emerge as a vital mixed-use district, with a new neighborhood in Iwilei, more diverse housing and employment opportunities, educational centers, new open spaces and entertainment venues, a waterfront promenade, and a multi-modal circulation network connecting residents, workers, and tourists to key destinations, homes, and jobs.

The rail project will improve travel reliability and is expected to shorten travel times for most riders between homes throughout the corridor and jobs in urban Honolulu. It is also expected to improve access to the airport and other major destinations, as well as increase transportation options by transit, bicycle, and on foot. Integrating rail planning with neighborhood planning is essential to realizing the full potential of this major regional transit investment. The Downtown Neighborhood Transit-Oriented Development (TOD) Plan will guide development over the next era of Downtown's growth and enhancement.

This plan provides a land use and circulation framework to guide future development; identifies more detailed policies and regulatory standards for urban design, parks and community benefits and services; and recommends implementation measures to advance the community's vision into reality.



The rail project will provide reliable transit to Downtown Honolulu and opportunities for redevelopment and revitalization.

1.1 Purpose and Process

Honolulu Rail Transit Project

The U.S. Department of Transportation Federal Transit Administration and the City and County of Honolulu (City) are undertaking a project that will provide rail transit service on Oahu. The Honolulu Rail Transit corridor is approximately 20 miles long, extending from East Kapolei in the west to Ala Moana Center in the east, with 21 station stops. In subsequent phases, the rail corridor is envisioned to extend to West Kapolei and the University of Hawaii at Manoa. The fixed-guideway system will operate in an exclusive elevated right-of-way to ensure speed and reliability and avoid conflicts with vehicles and pedestrians. The service will connect employment and residential centers and provide access via feeder buses and shuttles at stations to areas not served by rail.

The project is intended to improve the speed, reliability, and quality of transit. For example, the trip between the Downtown station and the Honolulu International Airport will be 12 minutes, and between Downtown and Waipahu less than a half hour, with speeds comparable to or faster than driving, particularly in peak period traffic. The Downtown station is projected to have the second highest ridership (after only Ala Moana Center station), with over 10,000 boardings per day.

The project will be constructed in stages. The stage between East Kapolei and Aloha Station has begun and is expected to be operational by 2018. The last stage—which includes the three Downtown stations—will be under construction between 2015 and 2018. The entire 20-mile long project is projected to be operational in 2019.

Following Section 106 guidelines, the Honolulu Authority for Rapid Transit (HART), the agency implementing the project, entered into a Programmatic Agreement with Consulting Parties in September of 2011. While the agreement primarily covers cultural, historical, and archaeological mitigation, there are also stipulations related to urban design around station areas and the consideration of historic preservation in the station areas.

Neighborhood Transit-Oriented Development (TOD) Plans

What is the Downtown Neighborhood TOD Plan?

The City is preparing neighborhood transit-oriented development (TOD) plans that integrate land use and transportation planning around the rail stations in anticipation of the rail project. The plans are intended to address opportunities for new development, including rehabilitation and adaptive reuse of existing buildings and assets, and to holistically plan for orderly growth and improved accessibility around the stations. The Downtown TOD Plan ("the Plan") addresses land use, local transportation, public facilities and services, economics, infrastructure planning, and options for implementation around the three Downtown stations: Downtown, Chinatown, and Iwilei.

What are the objectives of the Plan and how will it affect me?

The rail project is expected to increase transit ridership in Honolulu, and help reduce the growth of traffic congestion by taking cars off the road as more people use transit to access their homes, jobs, and other destinations. This plan will further boost transit and walkability by promoting land use patterns that enable more people to live and work within walking distance of a rail station. This will also foster more efficient use of land by decreasing the need for parking and even car ownership, and promoting higher-density development.

Improved transit access and new shopping and services adjacent to the rail will be beneficial for residents and employees in Downtown and Chinatown, where densities are already high and parking is limited. It will enable visitors going to Chinatown to take transit, relieve parking pressures, and contribute to revitalization of Aloha Tower, by making these areas easily accessible from other parts of the island. It will enable community members to enjoy additional restaurants and retail shopping, as well as convenient access by rail to other parts of the city. A new high-intensity mixed-use district in Iwilei, outlined in this plan, will provide a mix of housing types in close proximity to Downtown and the rail system, and a wider complement of neigh-

borhood amenities, including stores, public facilities, social services, and parks. Iwilei could become an attractive neighborhood for a variety of population segments—professionals working in Downtown or Kalihi, young people just starting out their careers, as well as seniors who want convenient access to services without having to drive.

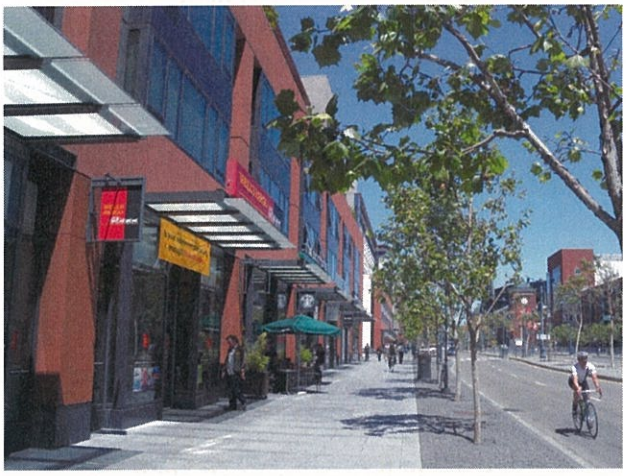
How and when will the Plan be implemented?

The TOD Plan works together with the City's other regulatory documents, including the Land Use Ordinance, to outline the vision, policies, and specific regulations for new development while preserving historic and/or cultural resources. Property owners and developers will ultimately decide on the opportune time to build. Some development may take place in the short-term in advance of or soon after the rail is fully operational in 2019. Other development projects and improvements may take as many as 20 or 30 years to come to fruition. The availability of funding on the part of the City (e.g., through its Capital Improvement Program), timing of key infrastructure improvements (as described in Chapter 5 and 6), and the general economic and lending climate for private development, are some of the factors that will affect the timing and extent of development and revitalization.

The TOD Plan articulates the community's vision and needs, while providing enough flexibility to allow land owners and applicants to make decisions based on market demand and economic conditions. Maps, diagrams, photographs, and conceptual three-dimensional models and sketches are used extensively throughout the Plan to illustrate the vision and policies and to provide guidance to developers and decision-makers. Actual future development will not precisely match the conceptual illustrations but should follow the intent.

In parallel to this TOD planning effort, the City is preparing zoning regulations that will create a TOD Special District to help implement the vision of each of the TOD plans. The TOD Special District regulations (Sec. 21-9.100 of the Land Use Ordinance) will supplement or modify the underlying zoning district regulations, establishing standards that explicitly promote TOD. Some design standards may apply to all

Integrating land use planning with the rail project provides opportunities for improved connections for pedestrians, bicyclists, and transit riders, thereby reducing traffic congestion, promoting community health, and adding to Downtown's vibrancy.



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As shown in these California examples, higher-density transit-oriented development helps to support transit ridership and creates vibrancy during the day and/or evening, depending on the types of uses—residential, office, or a mix.

WHAT IS TRANSIT-ORIENTED DEVELOPMENT (TOD)?

Transit-oriented development (TOD) typically refers to development within easy walking distance of a major transit stop that both capitalizes on and supports transit ridership. TOD may be redevelopment of existing facilities or new development. Transit stops may be rail stations, major bus stops, or other well-used transit hubs. The areas where TOD typically occurs is the ¼- or ½-mile radius around the station/stop (a five or ten-minute walk). TOD should be designed at the pedestrian scale since all transit trips begin and end as walking trips.

TOD is typically moderate to higher-density development, with a mix of residences, employment, and shopping. Higher densities are an important part of the TOD definition in order to encourage use of transit, reduce the area devoted to parking, and support shopping, open space, and pedestrian facilities. In other words, a community cannot support the amenities inspired by TOD opportunity without customers (residents or employees). For example, a contemporary supermarket of about 45,000 square feet requires the support of 8,000 to 10,000 people, ideally within a ¼-mile radius.

Density can create more housing choices and more affordable housing, and reduce household transportation costs. Though typically composed of a mix of uses, depending on the community or site context, TOD areas or projects may be more oriented toward residential development or employment uses.

station areas throughout the rail corridor, such as those relating to pedestrian-oriented design. Other standards may be specific to just one or a few stations. For example, different setbacks standards may apply in the urban setting of Downtown versus the greenfield setting of East Kapolei.

Process and Community Engagement

This plan was developed in a four-phase process, as shown in the graphic schedule on the following page. Community involvement was integral to shaping the Plan, with neighborhood board meetings, public workshops, interviews, a survey (described below), and project website providing opportunities for input during each phase.

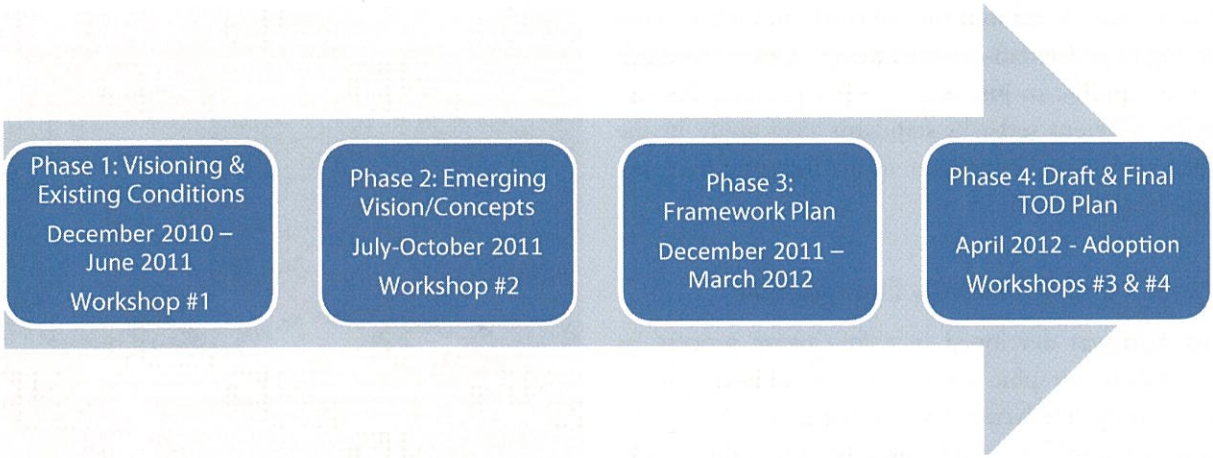
The Project Advisory Committee, comprised of Downtown community leaders and stakeholders, helped to shepherd the process, contributing to the community vision, identifying major issues and opportunities, reviewing policy recommendations and products, and helping to design community workshops.

Community Survey Findings

A community needs survey was mailed to 40 percent of all households within a ½-mile of the stations—a random sample of 4,000 households. The survey was offered in both English and Chinese. The response rate was very high—28 percent (1,088 responses)—providing the perspective of a large portion of Downtown residents that will be most affected by the rail and potential development. The priorities and issues identified in the survey results contributed to the vision and policies in this plan and are summarized below and in the relevant chapters throughout the Plan. Overall, Downtown residents:

- Appreciate the proximity of jobs and shopping and convenient access to transit;
- Identify the highest priorities for improvement as safety measures, cleanliness, aesthetics, and solutions to homelessness;
- Support improvements in landscaping, gathering spaces/seating, and bus shelters as the most impor-

Residents, business owners, property owners, advocates and other stakeholders participated in key milestones during the TOD planning process, creating the community vision, and refining the Plan's key principles.



tant enhancements once the rail is developed;

- Value Chinatown, other historic resources, markets, and small shops in the community;
- Perceive bicycle facilities as limited, traffic as congested, and parking as lacking;
- Support improving sidewalks and adding street lights as the top priorities for streetscape improvements, as well as providing more on-street parking and bike lanes and expanding bus service;
- Feel safe in parks during the day, but not at night or when homeless people are present; and
- Support additional services for homeless individuals, including job training, medical/mental health facilities, and emergency and transitional shelters.

Project Phases

1. The **Visioning & Existing Conditions** phase included an extensive community outreach effort to understand issues and aspirations. Outreach activities included interviews with over 20 stakeholders/groups; a workshop attended by approximately 110 community members, two meetings with the Advisory Committee, and a community survey completed by nearly 1,100 residents. Supplementing the visioning process were a series of technical analyses that resulted in a Market Demand Study and an Existing Conditions Report, which looked at opportunities and constraints related to land use, circulation, community design, the real estate market, and infrastructure. An overall vision and set of planning principles emerged from this first phase and provided a guide for next steps in the process.
2. The **Emerging Vision/Concept** phase illustrated the emerging vision for the Downtown neighborhood, including its three station areas, and explored options for land use, open space, and circulation. A Concept Plan described future land use and development possibilities based on the opportunities and challenges analyzed during the existing conditions analysis and direction from community outreach activities. Feedback from outreach meetings informed further revision of the concept.
3. The **Framework Plan** phase formed the bridge between exploration of various options and this plan. It outlined the overall concept for each station area and specific land use, circulation, and open space ideas. The Framework Plan was further refined following review by the Advisory Committee, government agencies and other project stakeholders. Policy recommendations were also explored in this phase.
4. The final **TOD Plan** phase involved the preparation of the TOD Plan report; public and agency review of the Draft Plan; public hearings; and formal acceptance by resolution by the City Council.

1.2 Project Location and Boundaries

Project Location

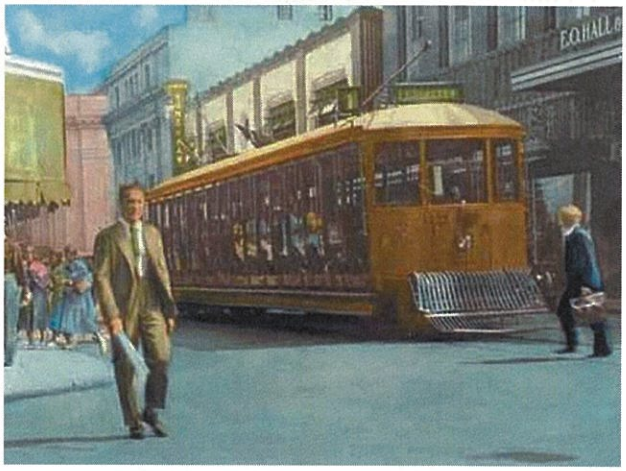
The three Downtown corridor rail stations are located in urban Honolulu, near the eastern end of the rail transit line, as shown in Figure 1-1. The station areas encompass the city's financial district, its historic Chinatown, Aloha Tower area, Palama Settlement, and industrial/warehouse uses in Iwilei.

Throughout this plan, a ½-mile (2,600-foot) radius is drawn around each of the three stations to approximate a ten-minute walking distance, generally an acceptable maximum walking distance from transit. A ¼-mile (five-minute) walking distance is also drawn to highlight the sites closest to the stations, as shown in Figure 1-2. The plan generally uses the ½-mile radius to address transportation improvements, urban design recommendations, and infrastructure needs, though some portions of the area are excluded due to inaccessibility (i.e., mauka of H-1 and Sand Island).

TOD Zone

A smaller area called the "TOD Zone" includes areas closest to the stations that are the most viable and important TOD sites. This zone encompasses most of the sites with development or redevelopment potential related to rail transit. The TOD Zone is the area where special district regulations will apply. Although the TOD Zone highlights the sites that are most likely to redevelop in response to rail transit access, it is also possible that sites beyond this area could also redevelop as TODs.

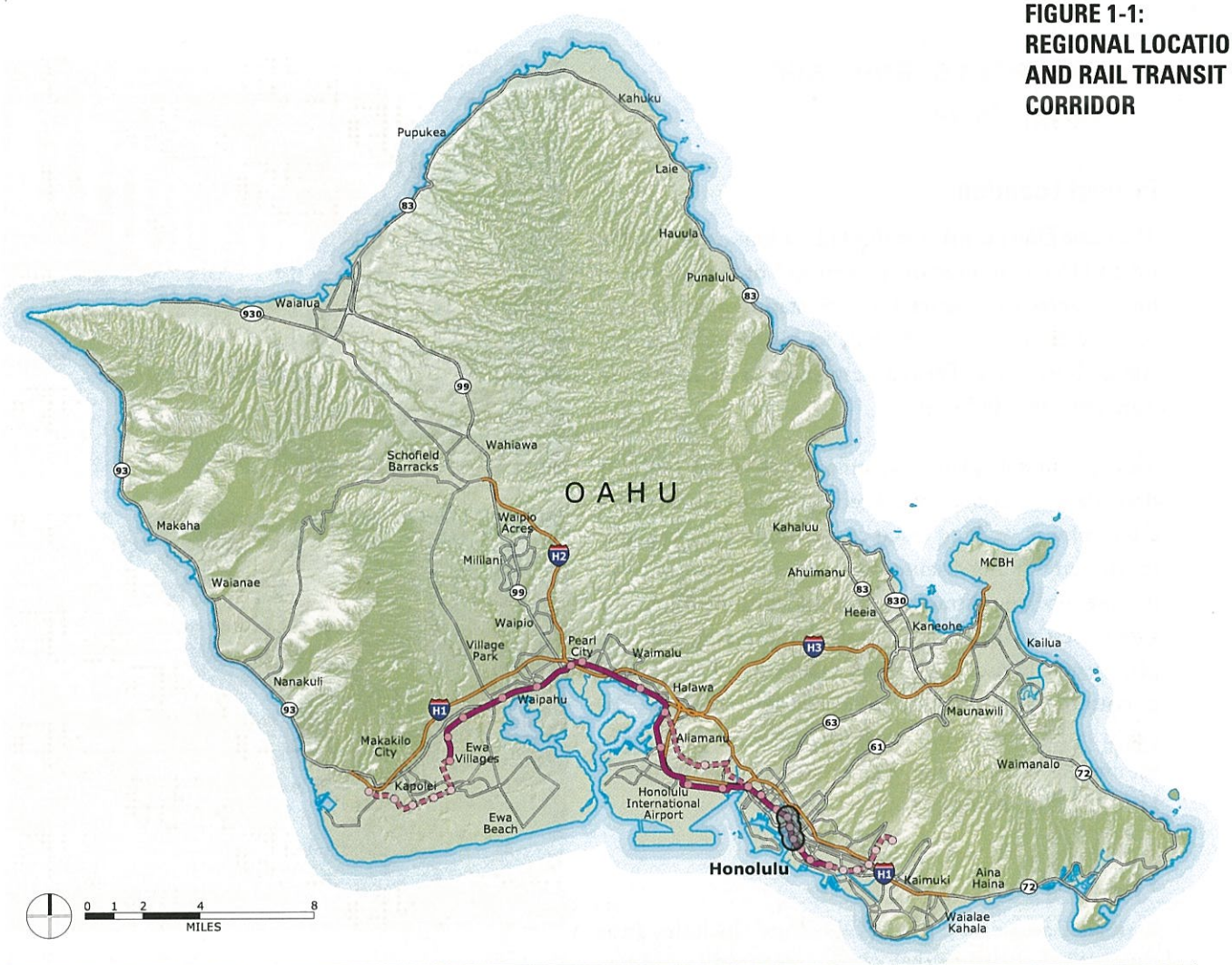
ISLAND PHOTO COLLECTION

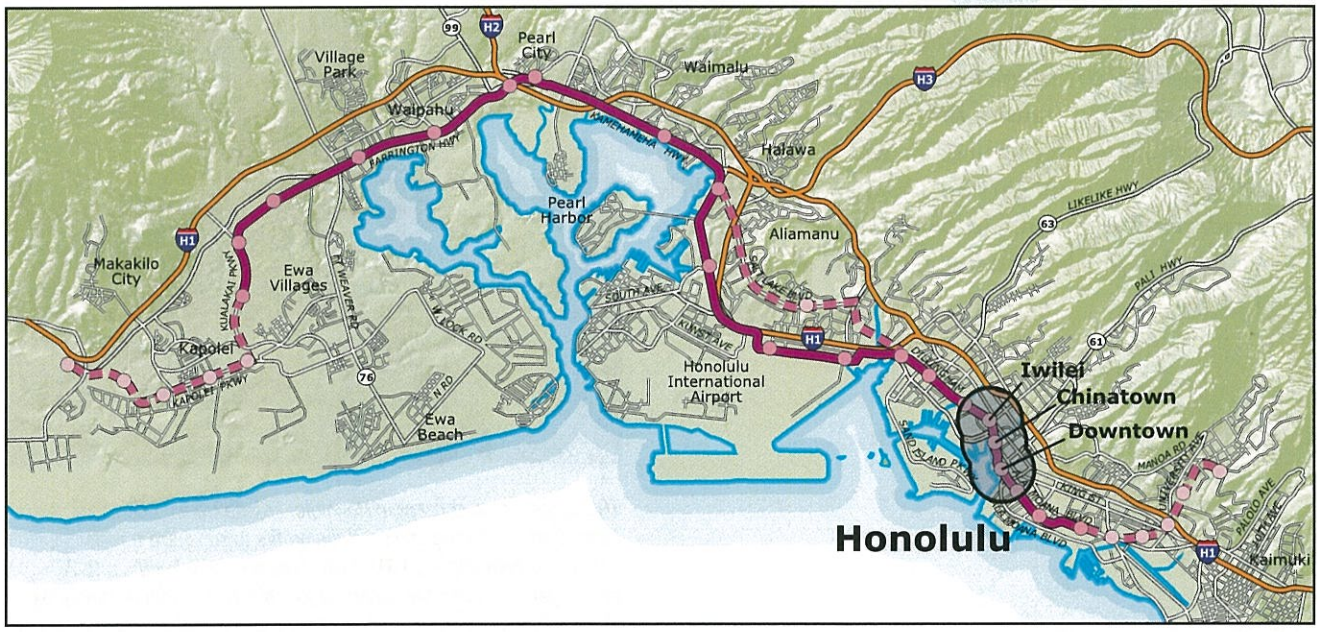


COLLECTION OF ROBERT C. PAOA

TOD is not a new concept in Honolulu. Private transit operators developed real estate and used the profits to subsidize transit operations beginning in 1901. Iwilei was a terminal with up to 28 passenger trains per day departing to and arriving from destinations in Pearl City and Waipahu. Today, transit use is still an integral part of many residents' daily lives.

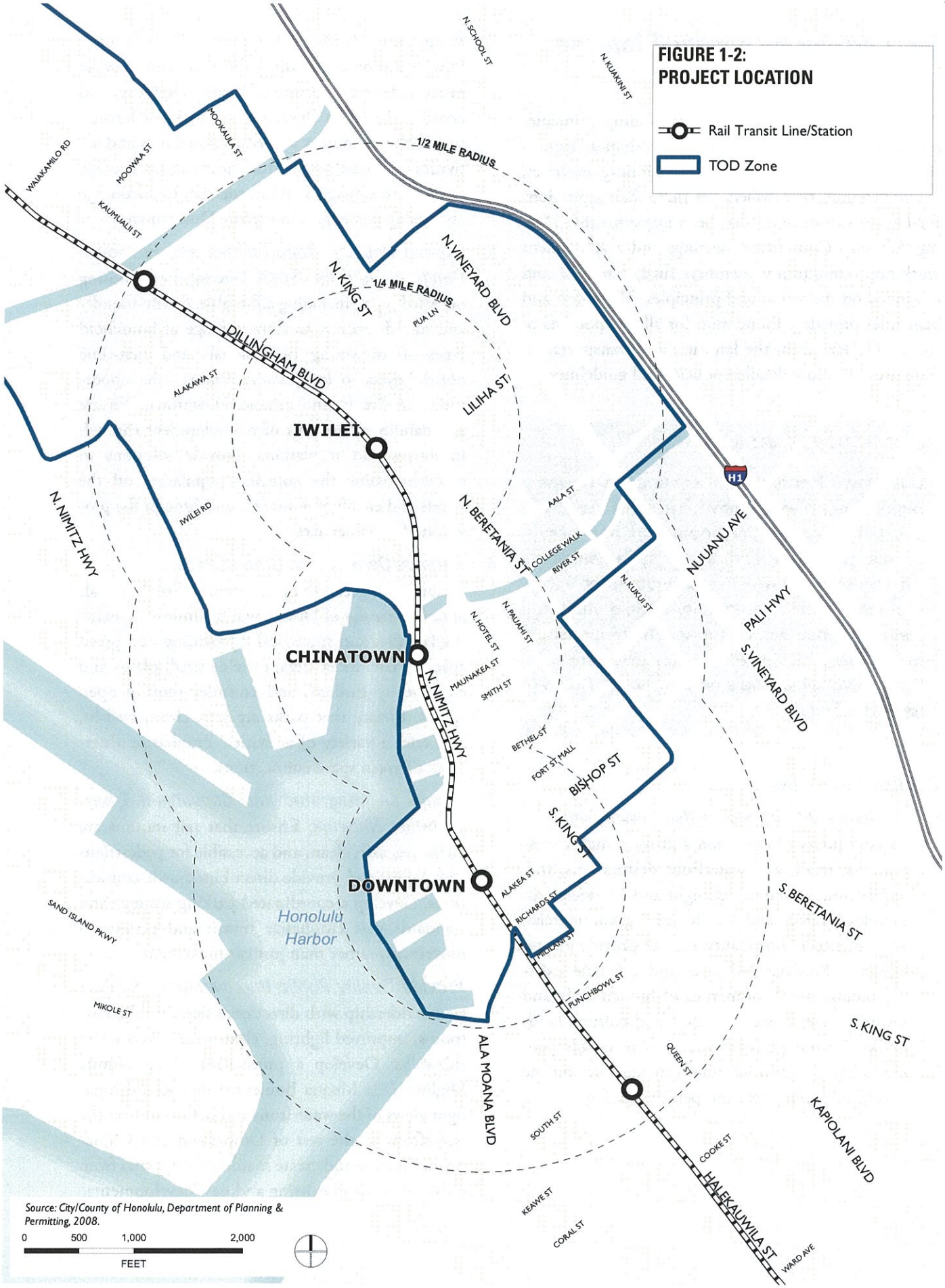
FIGURE 1-1: REGIONAL LOCATION AND RAIL TRANSIT CORRIDOR





Honolulu Rail Transit Corridor and Stations

Future Phases



Source: City/County of Honolulu, Department of Planning & Permitting, 2008.

1.3 Corridor Vision and Planning Principles

A community vision and a set of guiding principles emerged from public participation activities, including the survey and community visioning exercises, where community members described their aspirations for Downtown once rail has been implemented. During Advisory Committee meetings and a subsequent workshop, community members further refined and expanded on the vision and principles. The vision and principles provide a foundation for all components of the TOD Plan, from the land use and transportation framework to more detailed policies and guidelines.

COMMUNITY VISION

Downtown Honolulu will continue to be the region's premier employment center with a substantial residential population and easy access to stores and everyday amenities. An accessible and activated waterfront with promenades and community uses, a vibrant, historic Chinatown, and a new high-intensity mixed-use Iwilei district as an extension of Downtown will create a new image for Downtown Honolulu.

Guiding Principles

1. *Develop a Vibrant Mixed-Use Downtown.* Expand hours of operation and uses, such as restaurants, retail, and waterfront destinations, that will encourage activity at night and on weekends. Develop visitor- and locally serving commercial, and potentially hospitality, uses to provide greater vibrancy. Preserve, enhance, and celebrate existing buildings and properties of human scale and historic value, as well as scenic and cultural landmarks. Encourage residential uses to enable people to live closer to jobs and provide "eyes on the street," improving real and perceived safety.

2. *Enhance Downtown's Waterfront Orientation.* Provide a promenade along the waterfront; enable easier pedestrian crossing of Nimitz Highway; and revitilize the Aloha Tower area as a regional destination with community and educational uses and activities that draw people from near and far. Provide attractions, signage, and information to encourage cruise ship passengers to explore Downtown.

3. *Expand Housing Opportunities and Provide a Range of Housing Types.* Develop new housing of varied types, including affordable, family-friendly and mixed-income, to allow a range of household types—from young professionals and first-time home buyers to low-income seniors—the opportunity to live in and around Downtown. Ensure affordability at the start of redevelopment through incentives and regulations. Provide solutions to accommodating the homeless population off the streets and enabling re-integration through the provision of social services.

4. *Balance Density with Green Space.* Ensure good access to open spaces and parks to balance the density of Downtown by improving existing facilities and strategically providing new green spaces. Plant street trees, provide small plazas and community gardens, and consider rooftop open spaces. Ensure that parks are safe, clean, well-lit, and offer a variety of activities. Emphasize a network of green space connections.

5. *Create an Integrated and Convenient Transportation Network.* Ensure that rail stations are attractive, safe, clean, and accessible for pedestrians and cyclists and provide direct bus/shuttle connections. Develop a coordinated parking strategy and standards that emphasize transit and pedestrian movement, rather than just car movement.

6. *Provide Quality Public Improvements.* Support transit ridership with directional signs, public restrooms, improved lighting, clean streets, and wider sidewalks. Develop a promenade along Nimitz Highway/Ala Moana Boulevard that would highlight views of the waterfront and better connect the waterfront to the rest of Downtown and Chinatown. Preserve and create mauka-makai views from public streets and existing and new developments.

Overall Concept

Figure 1-3 illustrates the vision and guiding principles for the Downtown Neighborhood TOD Plan, including generalized land uses, key destinations, views, and connections. Each of the components is explored in further detail in subsequent chapters and illustrations; a station-by-station summary is described here:

- **Downtown:** Downtown continues as the region's premier employment center, with Bishop Street and a revitalized Fort Street Mall providing mauka-makai connections between the station, Downtown offices, the historic Aloha Tower, and a revitalized Aloha Tower complex. The waterfront features a promenade that links uses and the stations, provides opportunities for new active uses, creates a segregated walking and biking path, and allows views of the waterfront. Figure 1-4 illustrates how these improvements could hypothetically look.
- **Chinatown:** The scale and character of historic buildings and historic Chinatown are maintained following rail's arrival, but transit access is improved, and key opportunities for development are pursued on parking lots along Nimitz Highway. An enhanced promenade along Nuuanu Stream creates a stronger open space link between the waterfront and Foster Botanic Garden and expanded places for gathering. New uses and public services accommodate the needs of seniors, children and families, and a multi-cultural community.
- **Iwilei:** The most transformative vision for TOD in the Downtown neighborhood is a new high-intensity mixed-use Iwilei district. This new full-service neighborhood, with residences, public facilities, and neighborhood shopping services, serves as an extension of Downtown and a transition to Kalihi. It creates an opportunity for new housing within walking distance of Chinatown and Downtown. Industrial activities are retained along the Iwilei harbor front, while historic warehouse buildings offer potential for adaptive reuse for the new proposed uses. New streets and paths break up large blocks in Iwilei and improve accessibility to Iwilei station, Dole Cannery, Kukui Gardens, Mayor Wright Homes, Palama Settlement, and future uses.

The vision and guiding principles seek to build on the area's existing assets to produce a premier destination for business, shopping and living, all conveniently accessed by rail transit.

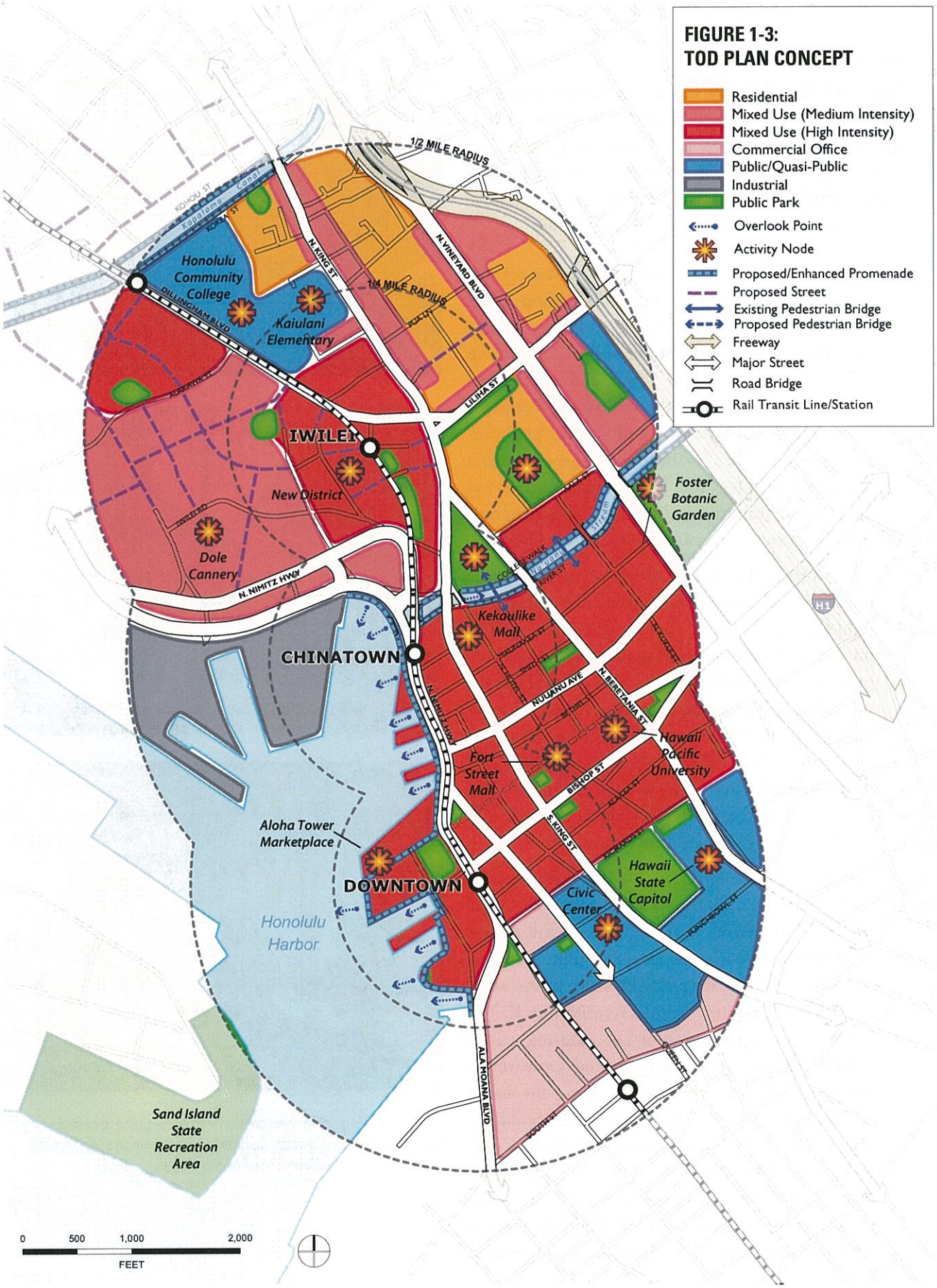
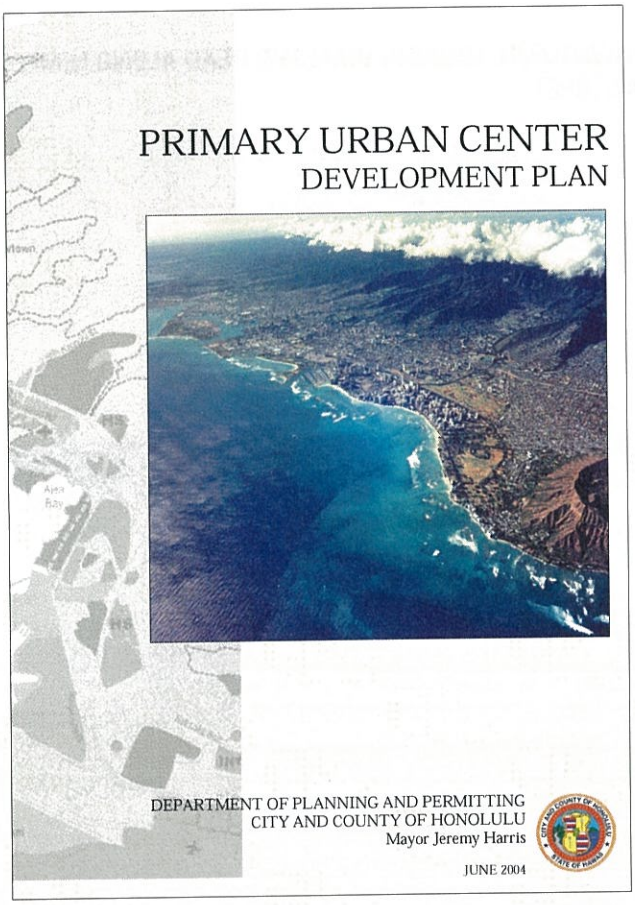


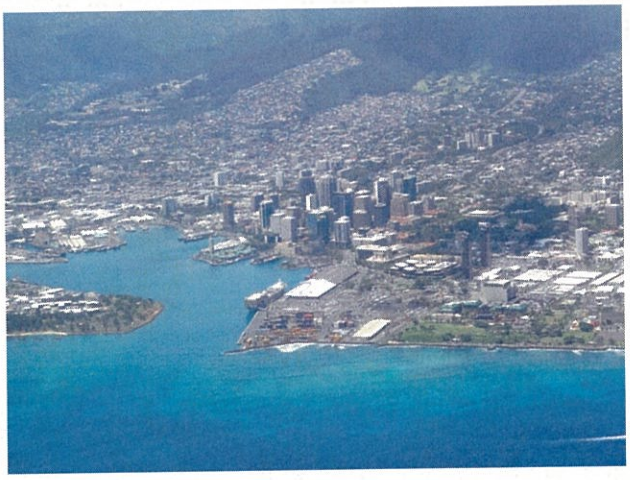
FIGURE 1-3:
TOD PLAN CONCEPT
Residential
Mixed Use (Medium Intensity)
Mixed Use (High Intensity)
Commercial Office
Public/Quasi-Public
Industrial
Public Park
Overlook Point
Activity Node
Proposed/Enhanced Promenade
Proposed Street
Existing Pedestrian Bridge
Proposed Pedestrian Bridge
Freeway
Major Street
Road Bridge
Rail Transit Line/Station
1/2 MILE RADIUS
1/4 MILE RADIUS
Honolulu Community College
Kaiulani Elementary
IWILEI
New District
Dole Cannery
CHINATOWN
Kekaulike Mall
Foster Botanic Garden
Fort Street Mall
Hawaii Pacific University
Aloha Tower Marketplace
DOWNTOWN
Civic Center
Hawaii State Capitol
Honolulu Harbor
Sand Island State Recreation Area
N. KING ST
N. VINEYARD BLVD
DILLINGHAM BLVD
N. NIMITZ HWY
LILIHA ST
KUUANU AVE
N. BERETANIA ST
BISHOP ST
ALA MOANA BLVD
0
500
1,000
2,000
FEET

FIGURE 1-4:
ILLUSTRATIVE VIEW OF DOWNTOWN, LOOKING DIAMOND HEAD ALONG NIMITZ HIGHWAY AT MAUNAKEA STREET

Existing.

Conceptual illustration of the rail line and potential new development on an existing parking lot (left) and the HECO power plant (right, background). New streetscape improvements and a waterfront promenade create a street that is more conducive to walking, biking, and accessing transit. Illustration is conceptual and intended only to illustrate vision; actual development may not match the illustration.





The Primary Urban Center Development Plan will continue to guide development in Downtown Honolulu.

1.4 Planning Context: Related Plans and Policies

While the focus of the Downtown Neighborhood TOD Plan is to create new policies to promote TOD, the Plan also functions alongside other policy and planning documents and associated implementing ordinances and rules as follows. (Transportation, parks, and infrastructure policy documents are described in their respective chapters.)

City and County of Honolulu General Plan

The General Plan establishes long-range goals and policies to guide overall planning and development for the island of Oahu. It calls for rapid transit in an exclusive right-of-way from Ewa to Hawaii Kai. The TOD Plan also carries forward many of the General Plan's other policies including those related to a diverse economy, pedestrian and bicycle facilities, affordable housing, adequate public facilities/services, well-designed buildings and public spaces, community health, and educational opportunities.

Primary Urban Center Development Plan

The Primary Urban Center (PUC) Development Plan (DP) translates the General Plan policies to the regional level (Kaimuki to Pearl City). It guides development decisions and actions required to support expected growth in Oahu's most populous region. It emphasizes retaining the qualities that attract both residents and visitors, while encouraging the full development of the PUC, consistent with the General Plan projections showing the PUC accommodating approximately 46% of the island's population by 2025. In 2010, the actual population was 435,118 or 45.6%.

The TOD Plan projects that roughly 6,000 dwelling units could be captured near the Downtown station areas by 2035, shifting them away from other areas. Using a projected average household size of 2.28, the population in the station areas could increase by roughly 13,680. However, it is important to note that this increase will be market driven and will occur incrementally over many years.

The PUC DP calls for the development of a balanced transportation system, offering pleasant and efficient travel choices. It supports rapid transit for an east-west corridor and other travel modes, such as walking and bi-

cycling. The TOD Plan encourages safe and convenient connections to and from each station with proper facilities to promote transit use, including improved and/or new streets and sidewalks, bicycle facilities, active transit plazas, and street trees, enabling residents, workers and visitors to access key destinations, residences, and jobs.

The PUC DP recommends developing existing and new neighborhood centers—central places where people gather for shopping, entertainment or recreation, and which entail pedestrian and park improvements. It also promotes "in town neighborhoods" that offer residents access to all of the services and opportunities they need like jobs, shopping, hospitals, parks, and entertainment. The TOD Plan envisions these types of communities with diverse housing options, employment opportunities, and educational centers, including in a new high-intensity, mixed-use Iwilei.

The creation of public open spaces along the waterfront and strengthening of the physical and visual connections to the water are also desired in the PUC. The shoreline is recognized as a principal organizing element, and the PUC DP sees the Honolulu Harbor area as a mixed-use area with a renewed Irwin Park and other open spaces for community gathering and recreation opportunities, thereby providing economic and social assets for the surrounding community. Waterfront access is recognized as a key component for the revitalization of Chinatown, and expanded pathways and greenbelts are called for along Nuuanu Stream. The TOD Plan envisions Nuuanu Stream improvements and a harborfront with new bike paths and connections leading to a new waterfront promenade. At the same time, the Plan supports the continuation of harbor-related uses.

Land Use Ordinance

The Land Use Ordinance regulates the use, size, and character of development in the city. This zoning code includes standards for land use, lot size, building heights, setbacks, and building area.

Chinatown Special District and Design Guidelines

The Chinatown Special District was established to preserve and enhance the historic character of Chinatown, while allowing moderate redevelopment at the edges of

Special District regulations—in the Chinatown core (top, middle) and in the Capital area (bottom)—will continue to guide design that is sensitive to the context and unique character of these historic Downtown districts.

the district, compatible with the area's historic architecture and cultural significance. The TOD Plan seeks to implement many of its objectives, including improving view corridors between Chinatown and the harbor and promoting the district's long-term economic vitality as a unique pedestrian-oriented community of retail, office, and residential uses.

Hawaii Capital Special District and Design Guidelines

The Hawaii Capital Special District was established to maintain the historic and architectural character and park-like setting of Hawaii's primary civic center. Standards regulate portions of the Downtown station area, namely the waterfront and around Alakea and Richards Streets. The TOD Plan upholds the existing building heights limits and special standards, including design guidelines and standards for site planning, façade treatments, signs, and open space.

Kaka'ako Community Development District TOD Overlay Plan

In May 2013, the Hawaii Community Development Authority (HCDA) released the Kaka'ako Community Development District TOD Overlay Plan. The plan, which covers the Aloha Tower and HECO sites, supplements exising HCDA plans for Kaka'ako. It seeks to maximize development through the use of smart growth principles, multi-modal transportation, and walkable neighborhood design.

National and State Registers of Historic Places

The National Register of Historic Places (NRHP) is the United States federal government's official list of districts, sites, buildings, structures, and objects deemed worthy of preservation. In addition, the State Historic Preservation Division of the Department of Land and Natural Resources maintains a statewide Inventory of Historic Properties throughout Hawaii and works to preserve and sustain reminders of earlier times that link the past to the present. The TOD Plan covers properties and districts on both registers.

Affordable Housing Rules

The City's inclusionary housing rules (Amendment of the Affordable Housing Rules for Unilateral Agreements) require residential projects of ten or more units seeking a zone change to provide affordable units at below market rate. It stipulates that approximately 30 percent of the total number of dwelling units should be sold or rented to low and moderate-income households. (The actual final percentage depends on the mix of unit types—units with two or more bedrooms are given more weight than studio and one-bedroom units.) The Rule also offers incentives for TOD housing. In addition, in-lieu fees may be paid to satisfy the affordable housing requirement for projects totaling 100 units or fewer.

The City is currently pursuing new affordable housing requirements for all residential projects over a certain size not seeking a zone change.

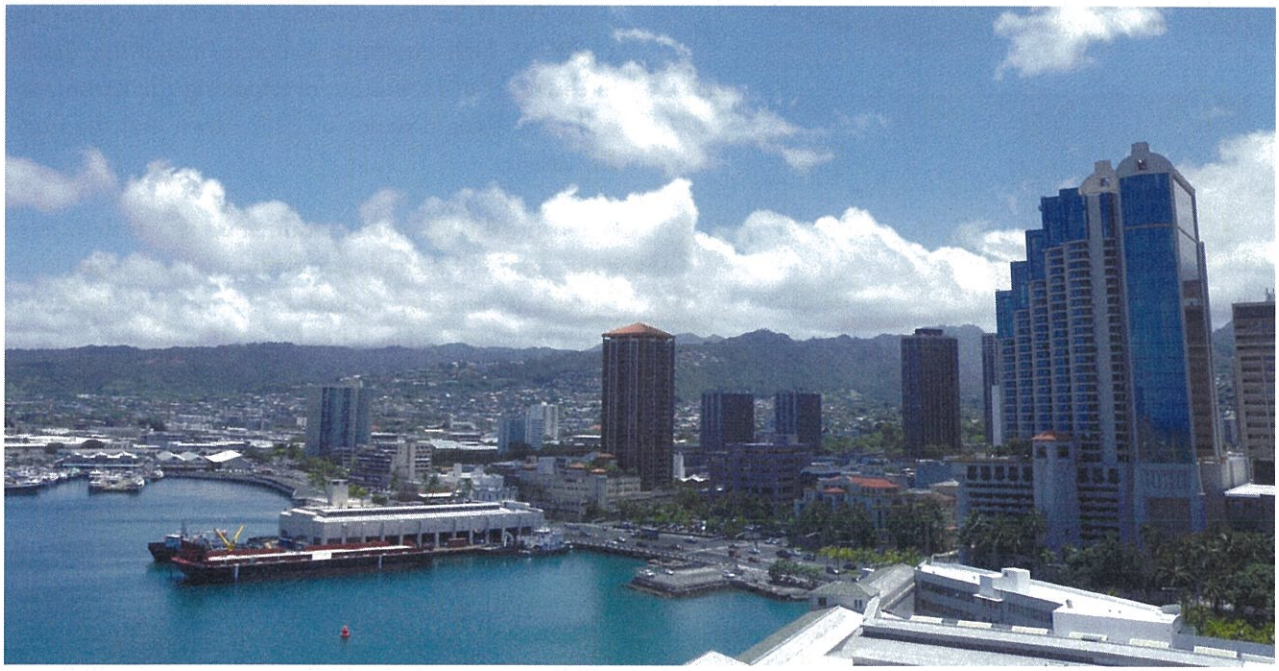
1.5 Plan Organization

Following this introduction, this report is organized as follows:

- **Chapter 2** describes the proposed land uses and potential build out resulting from the plan, including the land use classification system, maximum building heights, and building density/intensity.
- **Chapter 3** describes the circulation plan and mobility strategy, including a set of improvements to create a safe, convenient multi-modal network.
- **Chapter 4** illustrates improvements to the public realm, including open space and streetscapes. It also includes recommendations for urban design measures that can help achieve the community vision of pedestrian-oriented station areas and help ensure community safety.
- **Chapter 5** discusses improvements to public facilities and services, specifically infrastructure systems (water, sewer, and drainage), affordable housing and social services, and other community services.
- **Chapter 6** provides a consolidated implementation program, including zoning and land use regulations, a responsibility matrix, phasing, and financing options.

2 LAND USE

This chapter outlines the land use strategy that will enable development of the Downtown planning area into a vital mixed-use destination that supports transit ridership, with expanded residential, commercial, and educational opportunities, as well as enhanced community services for existing and future residents. It identifies the location and extent of proposed new land uses, presents a classification system for future land uses, and estimates development potential to help anticipate the implications of land use changes on circulation, infrastructure, and public facilities and services. A summary of the market demand study and analysis of constraints (economic and environmental), which served as the basis of the land use framework, is also provided in this chapter.



The Downtown planning area includes a range of land uses, heights, and building intensities, including: high-rise office uses in Downtown; cultural uses, small businesses, and mid- to high-rise residences in Chinatown; and low-intensity warehouse and industrial uses on the waterfront and in Iwilei. Together, these three station areas provide a diverse range of services, housing types, and employment opportunities, and a foundation on which rail transit and more transit-oriented development can build.

Offices represent the largest land use category in the corridor in terms of total square footage, illustrated in these images of Downtown. However, due to their density, they represent only a small portion of total land area.

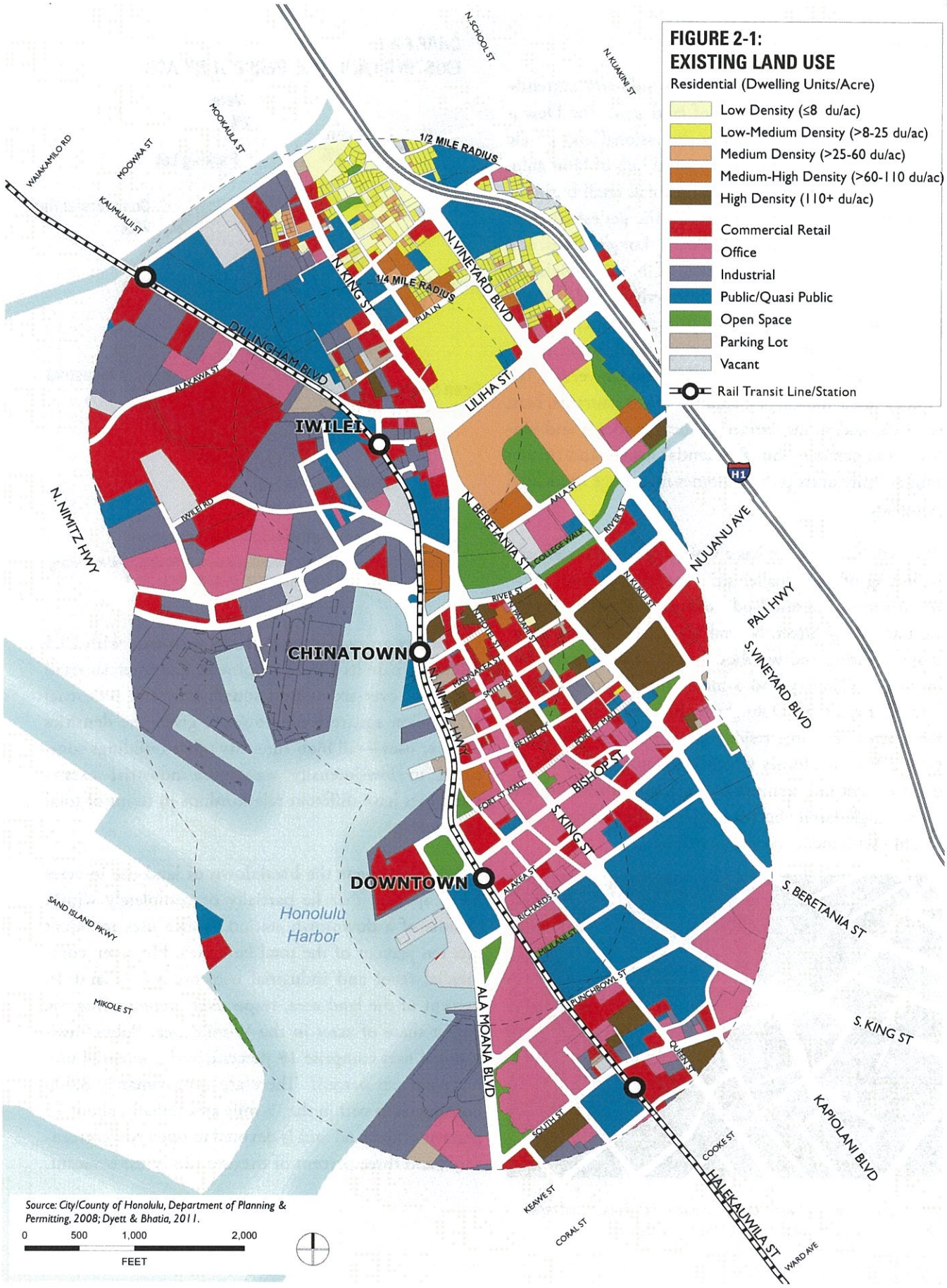
2.1 Context

Two of the three station areas in the Downtown TOD Neighborhood Plan—Downtown and Chinatown—already have a culture of transit ridership and transit-oriented development patterns: skyscrapers in the financial district, small-block grid street patterns, and residential, retail, and office uses that are a convenient walk to transit. The planning goal for these areas is to provide opportunities for continued context-sensitive development and enhance quality of life for residents, workers, and visitors though improved transit access, new parks and public facilities, and better walking conditions.

A key opportunity exists for revitalizing the Aloha Tower complex into a lively waterfront community gathering place. An increase in residential population Downtown and a greater mix of uses and improvements to the public realm will help foster walkability, urban living, and street vitality during non-work hours.

The Iwilei district, which has the third downtown station, presently has low-intensity large floor plate buildings, vacant or underutilized large blocks, and missing sidewalks. It has the potential to be transformed into a vibrant high-intensity, walkable mixed-use district in the heart of Honolulu, overlooking the harbor, and within walking distance of Chinatown and the financial district.

Achieving this vision will require new streets to improve connections to the rail station and a finer-grained block pattern to enhance walkability; improved sidewalks, street lighting, and building/street interface; significant expansion of residential uses, including new housing makai of Dillingham Boulevard to create a critical mass of residents; and retail, office/business incubator uses that "activate" the streets. New parks and open spaces and public facilities will also be needed to complement the increased population.



Source: City/County of Honolulu, Department of Planning & Permitting, 2008; Dyett & Bhatia, 2011.

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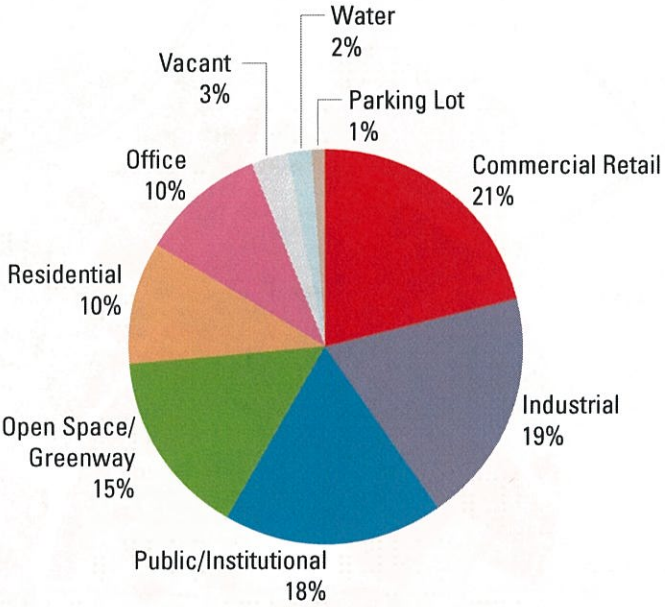
Existing Land Use

As illustrated in Figure 2-1, the ½-mile area currently encompasses a diverse range of land uses. The Downtown station area is primarily professional and public office uses, representing the financial hub of Honolulu. It has a combination of large and small retail businesses throughout the area and along the pedestrian-only Fort Street Mall, including Walmart, Long's Drugs, and many lunch restaurants. Makai of Nimitz Highway, the Aloha Tower Marketplace formerly provided shopping, restaurants, and services, primarily for cruise ship passengers, but is undergoing major renovation to accommodate facilities for Hawaii Pacific University. The Chinatown station area includes many restaurants, bars, markets, and shops, attracting local residents and visitors from across Oahu. Residential towers and smaller multi-family units provide homes for a large residential population.

The Iwilei station area has a variety of commercial uses, including offices, smaller strip commercial uses, auto-repair shops, and fast food fronting Dillingham Boulevard and King Street. Several big-box retail businesses, manufacturing and warehouse uses, as well as the former Dole Cannery and a movie theater complex, are located makai of Dillingham Boulevard. Mauka of King Street are large residential complexes—including Mayor Wright Homes which is being planned for redevelopment into a mixed-income, mixed-use community—single-family homes, strip commercial retail, and Palama Settlement community center.

Industrial uses, including production, storage, distribution, and repair facilities, are concentrated makai of the Iwilei station.

CHART 2-1:
EXISTING LAND USE, PERCENT BY ACRES



Note: Acreages exclude streets and other rights-of-way.

Source: City/County of Honolulu, Department of Planning and Permitting, 2008; State of Hawaii, 2011; Dyett & Bhatia, 2011.

Office uses are dominant in the ½-mile area, with 10.5 million square feet of development. Commercial retail uses total over six million square feet, and industrial 3.7 million square feet. However, given the densities of these uses—tall high-intensity office buildings compared to low-intensity warehouse/industrial uses—these uses have different relationships in terms of total land acreage.

Chart 2-1 depicts the breakdown of land use in acres for properties that lie partially or completely within ½-mile of a downtown station. Office uses represent just ten percent of the total land area. However, commercial retail and industrial uses occupy 21 and 19 percent of the land area, respectively, representing the largest share of acres in the ½-mile area. Public/institutional uses comprise 18 percent, and residential uses represent ten percent. There are approximately 8,400 housing units within the ½-mile area. Finally, about 15 percent of the land area is devoted to open space/greenways, and three percent of the area (28 acres) is vacant.

Opportunity Sites

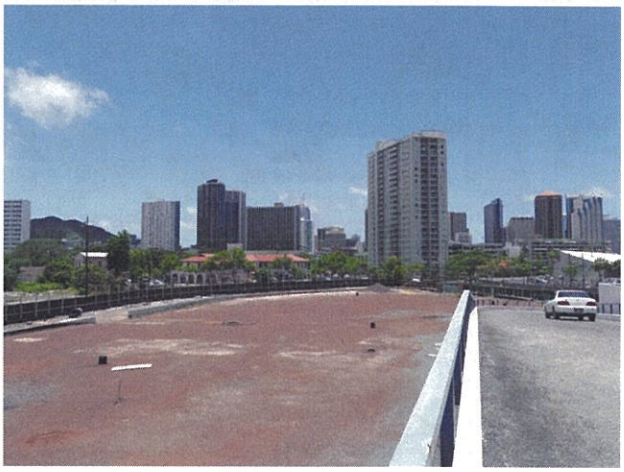
Although much of the Downtown planning area will remain the same for many years after the arrival of rail, several sites around the stations may be appropriate for redevelopment or revitalization in the short- (0 to 5 years), medium- (5-10 years), or long-term (10 to 25+ years). While some buildings may be demolished and rebuilt from the ground up, others may be adaptively reused or improved. Adaptive reuse of historic properties may benefit host communities by retaining the district's historic significance.

Potential development or "opportunity" sites are those non-historic properties that are vacant or considered to be underutilized due to low building intensities or low building value relative to land value, or where buildings are vacant or in disrepair. In addition, stakeholders and City staff identified several sites as having reuse possibility during the initial community outreach and existing conditions analysis phases. Sites such as these have the greatest potential for transit-oriented development and are the focus for related improvements to sidewalks, streets, landscaping, and other amenities that can encourage walking, biking, and transit use. Opportunities are limited around the Chinatown and Downtown stations. However, the Iwilei station area, where there is vacant land and low-intensity warehouse uses, has a significant concentration of opportunity sites.

Identification of a site as an "opportunity" does not necessarily mean that the site will undergo change over the next 20 to 30 years. It is possible that a site with reuse potential may not undergo change while other sites that are not considered to have much potential may change. The purpose behind identifying sites as opportunities is to help evaluate likely future development potential and impacts.

Market Demand Summary

In the first phase of the TOD Plan process, the consultant team assessed the potential market demand for residential, retail, office, industrial, and hotel uses in the ½-mile area. Trends and projections for each use analyzed are summarized below. The "Market Opportunities Study: Downtown Neighborhood TOD Plan," a report published in 2011 and available on the City's website, should be consulted for additional details and data sources.



Opportunities include redevelopment of uses, revitalization of existing buildings, and development on vacant and underutilized sites. The HECO substation (top), Aloha Tower Marketplace (middle), and Iwilei station area (bottom) represent key opportunity sites.

The Downtown planning area already contains both large-format retail (Iwilei, top; Downtown, middle) and smaller retailers (Chinatown, bottom). The market demand analysis projects some continued growth of small and medium-sized stores to serve existing and future residents and workers.

Residential Trends and Projection

Residential construction activity in Honolulu has declined over the past several years, even preceding the national recession. Furthermore, despite high demand for rental housing opportunities in the urban core, there has been almost no new development of market-rate rental apartments in years, a reflection of the discrepancy between the values of for-sale condominiums versus those supported by apartment rents.

Currently, over half of all residents (50.4%) in the planning area have commutes of 20 minutes or longer, according to the U.S. Census Bureau's 2005-2009 American Community Survey. Construction of the rail system will result in greater demand for housing close to transit on Oahu, as people seek to minimize the distance, time, and cost of travel. Locating this housing in attractive mixed-use neighborhoods and near jobs, stores, and cultural/entertainment amenities can further increase the desirability and market acceptance of housing closer to transit. With three of the system's rail stations, the Downtown corridor could capture 3.5 percent of new housing in Honolulu in the next 25 years (compared to 2.5 percent presently), or 6,000 additional units, as shown in Table 2-1. These units will likely be in mid- and high-rise buildings.

Retail Trends and Projection

Downtown contains many retail establishments and restaurants catering to the downtown workforce, residents, and students, such as those from Hawaii Pacific University. Chinatown is home to numerous stores, restaurants, and small business establishments. However, the largest volumes of sales at a single establishment are generally found at big-box stores such as those located near the Iwilei station, including Costco and Kmart, as well as Home Depot and Best Buy (closer to Kapalama station). Except for these big-box stores, much of the inventory of retail space was built more than 30 years ago; as a result much of that space is in need of significant reinvestment or redevelopment.

Based on projected household growth, the market demand study finds that the market could support approximately 485,000 square feet of retail development within the ½-mile radius by 2035. Based on the anticipated

breakdown of retail sales, it is likely that a large portion of future TOD-type retail will be in small- to medium-format stores with the largest of these stores being in the 50,000 to 60,000 square-feet range, or about the size of a modern supermarket. Other retail sales, such as clothing stores (non discount), sporting goods, books and music, gift stores, and eating and drinking establishments, will likely be in smaller formats. A portion of the retail space, perhaps in the ten to 15 percent range, could be supported on the ground floor of mixed-use buildings, with residential or office uses above.

Office Trends and Projections

The vast majority of office space in Honolulu is located Downtown. However, most office development was in the late 1980s and early 1990s, and, in fact, there has not been a new multi-tenant office building built in Honolulu since the First Hawaiian Center in 1996. There continues to be high vacancy rates and weakness in the finance, insurance, real estate, and tourism-related sectors of the office market, while office space catering to tenants with government and military contracts remains fairly steady, according to Hawaii Commercial Real Estate, LLC.

In the near term, there will be limited opportunities for new office development given the high cost of construction, the projected slow recovery in the economy, and the availability of vacant space. As the economy stabilizes over the longer term and more healthy growth patterns return, there will likely be demand for new office space, likely in the following industries: high tech, life sciences/biotech, and defense contracting. This growth in demand will continue to put upward pressure on office rents. The market demand study estimates that approximately 3,400 new office jobs could be generated in the Downtown ½-mile area between 2010 and 2035, within an additional 910,000 square feet of office space.

Hotel Trends and Projections

Visitor numbers to Hawaii dropped dramatically during the recession, with the Japanese earthquake and tsunami of March, 2011, providing another blow. However, the state attracted nearly 7.3 million visitors in 2011, just shy of the 2006 record, according to the Hawaii Tourism Authority. Vacationers spent $14.52 billion in 2013, the highest total in state history. Demand for hotel rooms is likely to continue to increase in the future. With declining ability to accommodate that growth in Waikiki and other popular tourist locations, increasing tourism will instigate the demand for new hotel accommodations in other areas. The market assessment did not see new tourist-based hotels being developed in the Downtown ½-mile area in the foreseeable future, although it is possible that a new hotel could be supported for business customers if the area continues to grow jobs. In the long-term, the new transit line could help encourage new development in the area surrounding Aloha Tower, including potentially a new hotel, which could also be used as a training facility for the hotel management program at Hawaii Pacific University.

TABLE 2-1: MARKET DEMAND PROJECTIONS FOR THE DOWNTOWN ½-MILE AREA, BY 2035

DWELLING UNITS	RETAIL (SQ. FT.)	OFFICE (SQ. FT.)
+/-6,000	+/-485,000	+/-910,000

Source: Keyser Marston Associates, "Market Opportunities Study: Downtown Neighborhood TOD Plan," May 2011.

Industrial Trends and Projections

Generally, industrial uses would not be considered consistent with TOD due to the large land areas that they involve and their low-intensity use. However, because many of the existing industrial businesses in the area appear to be economically healthy, there may not be a compelling reason for many of those properties to be redeveloped for any other use in the near term, particularly since the rents that might be supported by alternative uses are generally not yet sufficient to justify the high costs of new construction. The market fundamentals for industrial uses are relatively healthy, particularly in the Iwilei submarket, where vacancy rates are low. Eventually, rising property values will justify redevelopment of some industrial uses in the Iwilei station area with higher value uses such as office and retail. The Dole Cannery and Gentry Pacific Design Center are examples of large industrial uses that have been converted to other uses.

Several industrial uses and harbor operations are located in Iwilei. Although many are well-tenanted and may continue to operate as-is or be adapted for use the future, some sites may be more immediately available for redevelopment.

Development Constraints

Development opportunities may be affected by market conditions, environmental constraints, and historic status. The TOD Plan identifies policy measures to alleviate potential constraints described below and financing strategies to fill gaps in funding.

Economic Constraints

A common challenge for successful TOD in all three station areas is their largely built out nature. Therefore, development of TOD on any significant scale will require redevelopment of existing built properties. There may in fact be numerous buildings within the study area that at some point in time will be good candidates for redevelopment due to poor physical condition or property underutilization. Two other issues that need to be addressed are the presence of crime and homelessness. Station-specific economic constraints are described below:

- *Iwilei Station Area* presents good opportunities for TOD to occur on a large scale due to the large number of underutilized properties that would be candidates for redevelopment at some future time. However, the presence of homeless populations and perception of crime are critical development constraints. In addition, the electric power substation immediately adjacent to the station is incongruous with pedestrian-oriented design, and its continued presence would limit the overall density, attractiveness, and accessibility of the station area.
- *Chinatown Station Area* possibilities for TOD are limited. The area is almost entirely built out and there are few opportunities for redevelopment. Small parcels and many owners make larger-scale reuse and consolidation unlikely. In addition, special district regulations designed to preserve the area's historic and cultural character restrict development density and height. However, several vacant sites along Nimitz Highway and the waterfront do represent significant opportunities for TOD.
- *Downtown Station Area* has few opportunities as it is also largely built out. The best opportunities for new development may be the parking lots makai of Nimitz Highway and near Aloha Tower. These parcels are adjacent to the station and enjoy wa-

terfront views/location and proximity to Downtown, Ala Moana, and Waikiki. One significant challenge is that Nimitz Highway, which is under the jurisdiction of the State of Hawaii Department of Transportation, physically isolates these parcels from other parts of Downtown.

From an implementation perspective, TOD can be encouraged if the City, together with the State of Hawaii, is able to adopt a consistent, well-coordinated set of policies that removes regulatory barriers and prioritizes key infrastructure improvements. These policies may include flexibility in meeting parking requirements and priority funding for projects in TOD areas.

Environmental Constraints

The environmental constraints evaluated include hazardous materials, sea level rise, and erosion. Fire hazards, seismic risk are deemed to be low and are not discussed here. Figure 2-2 describes potential environmental hazards that could affect development potential. Further site-specific analysis may be required before development can take place.

Soils and Erosion

Most of the land makai of Dillingham Boulevard and Nimitz Highway is landfill, which may be susceptible to liquefaction (during earthquake events). Areas where erosion is possible are shown mauka of Iwilei station on Kaena clay soils with slightly sloped terrain.

Hazardous Materials

Given the industrial nature of Honolulu Harbor and the Iwilei district, hazardous materials, such as lead and petroleum, may exist on sites due to past or present activities. The presence of hazardous materials can have air quality and fire threats, add time and cost to redevelopment or make certain uses infeasible due to their sensitive users (such as residential units or schools). The State Department of Health Hazard Evaluation & Emergency Response Office maintains an inventory of known and potential hazardous materials sites, including clean up completed to date, additional clean up required, and ongoing assessments. Compliance with this and other state regulations are necessary before embarking on development projects. Remediation grants are available.

Flooding

Flooding could occur as a result of storms, sea level rise, or tsunamis in some portions of the ½-mile area. As of January 19, 2011, the City and County of Honolulu adopted revised Flood Insurance Rate Maps (FIRM). All Downtown stations were identified as being in Zone X, defined as "areas determined to be outside the 0.2 percent annual flood (500-year) chance." The current FIRM has retained a majority of the Zone X designation but has added small AE zones (with elevations determined) adjacent to the Downtown station and Chinatown station, as shown in Figure 2-2.

Zone AE is subject to a 1 percent annual flood (100-year). Finished floors in the AE zone must be at or higher than the elevation number identified on the FIRM. In addition, flood insurance rates carry a higher premium when in an AE zone. Within potential flood zones, the City requires flood certification to be prepared by a qualified professional to certify that construction of improvements meet the flood hazard district regulations of the zoning code, conform to flood elevations of FIRM, are adequate to resist regulatory flood forces, and do not adversely increase flood elevations or affect flooding on surrounding properties.

Sea Level Rise

The University of Honolulu Coastal Geology Group researchers predict that up to one meter (just over three feet) of sea level rise may be plausible by 2100. Initial modeling suggests that three feet of sea level rise at mean higher high water height (the average of only the higher of the high water heights) could inundate areas makai of Dillingham Boulevard near the Iwilei station and small portions of Downtown if no protection measures are put in place.

Sea level rise will need to be addressed on a regional and statewide scale since it has implications beyond the scope of this neighborhood plan. The Oahu Metropolitan Planning Organization has been working to synthesize planning and engineering resources to identify and prioritize assets for protection, including Honolulu Harbor.

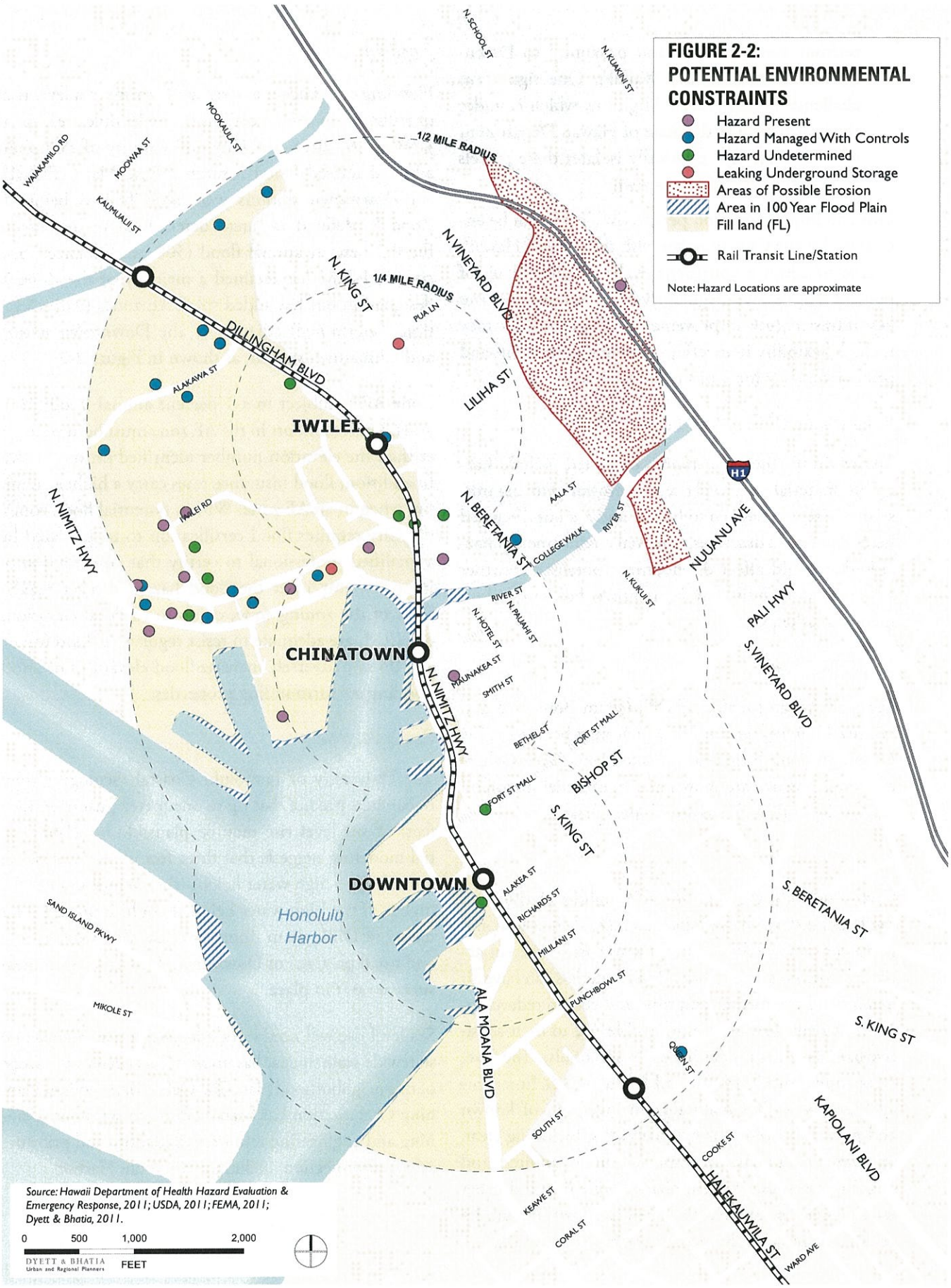


FIGURE 2-2:
POTENTIAL ENVIRONMENTAL CONSTRAINTS
Hazard Present
Hazard Managed With Controls
Hazard Undetermined
Leaking Underground Storage
Areas of Possible Erosion
Area in 100 Year Flood Plain
Fill land (FL)
Rail Transit Line/Station
Note: Hazard Locations are approximate
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Honolulu Harbor
DILLINGHAM BLVD
N. KING ST
N. VINEYARD BLVD
LILIHA ST
N. BERETANIA ST
N. NIMITZ HWY
NUUANU AVE
PALI HWY
S. VINEYARD BLVD
BISHOP ST
S. KING ST
S. BERETANIA ST
ALA MOANA BLVD
KAPIOLANI BLVD
HALEKAUWILA ST
N. SCHOOL ST
N. KUAKINI ST
MOOKAULA ST
MOOWAA ST
WAIAKAMILO RD
KAUMUALII ST
PUA LN
ALAKAWA ST
HALEI RD
AALA ST
COLLEGE WALK
RIVER ST
N. KUKUI ST
N. PAUAHI ST
N. HOTEL ST
MAUNAKEA ST
SMITH ST
BETHEL ST
FORT ST MALL
ALAKEA ST
RICHARDS ST
MILILANI ST
PUNCHBOWL ST
QUEEN ST
SOUTH ST
COOKE ST
KEAWE ST
CORAL ST
WARD AVE
SAND ISLAND PKWY
MIKOLE ST
H1
Source: Hawaii Department of Health Hazard Evaluation & Emergency Response, 2011; USDA, 2011; FEMA, 2011; Dyett & Bhatia, 2011.
0 500 1,000 2,000
FEET
DYETT & BHATIA
Urban and Regional Planners

The Downtown Neighborhood TOD Plan supports mitigation of and adaptation to global climate change and sea level rise. Its emphasis on developing walkable stations areas and access to transit has the effect of reducing vehicle miles traveled and the corollary greenhouse gas emissions that are known to contribute to climate change.

Historic and Cultural Resources

Historic and cultural resources are essential parts of the character and identity of a place. The ½-mile area includes the Chinatown Special District and Merchant Street Historic District and portions of the Hawaii Capital Special District, which are listed on the National Register of Historic Places. In addition, there are several properties and structures that are listed (or eligible for listing) on the National or State Register of Historic Places, as shown in Figure 2-3 and Table 2-2. These include Aloha Tower and the Central Fire Station, as well as the Nuuanu Stream Bridge.

The TOD Plan encourages the preservation and reuse of historic resources, through the continued use of the special district regulations in Chinatown and the Hawaii Capital Districts. Still, buildings may be preserved and improved through adaptive reuse, allowing new businesses to occupy historic structures. For example, the Plan calls for restoration of Irwin Park, which is a historic property marking the welcome site for dignitaries and other ship passengers in the 1930s and 1940s; it is identified for improvement through this plan to truly celebrate this landmark as a park and gathering place, rather than its current use as a parking lot.

Cultural resources include properties that yield information important to Hawaiian prehistory or history. These resources are particularly sensitive in the Downtown corridor. According to the Final EIS for the rail project, there is high potential for archeological resources and burial sites around the Downtown station areas. The State's constitution recognizes the value of conserving and developing the historic and cultural property for the public good, declaring historic and cultural heritage of the state among its most important assets. Any significant historical properties—whether architectural, archaeological, or cultural—identified during the development process will have to comply with federal, state, and local preservation laws and regulations.

Designated historic properties are concentrated around the Downtown and Chinatown stations, but other sites and structures may be determined eligible for listing upon further review and analysis.

TABLE 2-2: HISTORIC RESOURCES

MAP ID	NAME	ADDRESS	HAWAII REGISTER	NATIONAL REGISTER	ELIGIBLE
1	Alexander & Baldwin Building	822 Bishop Street	√	√	
2	Aloha Tower	Pier 9, Honolulu Harbor	√	√	
3	C. Brewer Building	827 Fort Street	√	√	
4	Dillingham Transportation Building	735 Bishop Street		√	
5	Emerald Building	1148 Bishop Street	√		
6	Falls of Clyde	Pier 7, Honolulu Harbor		√	
7	Palama Fire Station	879 N. King Street	√	√	
8	Central Fire Station	104 S. Beretania Street	√	√	
9	Old Kakaako Fire Station	620 South Street	√	√	
10	Hawai'i Theatre (The)	1130 Bethel Street	√	√	
11	Hotel Street Sidewalk Features	Hotel Street		√	
12	Iolani Palace	364 S King Street		√	
13	Irwin Memorial Park	Nimitz Highway	√		
14	J. Campbell Building	Hotel and Fort Streets		√	
15	Joseph W. Podmore Building/ Bon Bon Café	202-206 Merchant Street	√	√	
16	Kamehameha V Post Office	Merchant and Bethel Streets	√	√	
17	Kaumakapili Church	766 North King Street	√		
18	McCorriston Building	Fort Street @ Hotel Street		√	
19	OR&L Office, Document Storage Building, and Terminal Building	North King Street @ Iwilei Road	√	√	
20	Our Lady of Peace Cathedral	1183 Fort Street	√	√	
21	Portland Building	Hotel and Fort Street		√	
22	Royal Brewery	553 S. Queen Street		√	
23	Saint Peter's Church	229 Queen Emma Street	√		
24	Tong Fat Company, Ltd.	425 N. King Street		√	
25	U.S. Immigration Office	595 Ala Moana Boulevard		√	
26	Nu'uanu Stream Bridge	Nuuanu Avenue			√
27	Wood Tenement Buildings	425 N. King Street			√
28	Institute for Human Services/Tamura Bldg	536 Kaahi Street			√
29	Walker Park	Fort and Queen Street			√
30	DOT Harbors Division Offices	79 South Nimitz Highway			√
31	Pier 10/11 Building	Pier 10/11			√
32	Dole Cannery	650 Iwilei Road			√
33	American Can Company	560 N. Nimitz Highway			√
34	Honolulu Medical Examiner Office	835 Iwilei Road			√
35	Kamani Trees	Dillingham Boulevard			√
36	Quonset Huts	1001 Dillingham Boulevard			√
n/a	Merchant Street Historic District	see Figure 2-3		√	
n/a	Chinatown Historic District	see Figure 2-3		√	
n/a	Hawaii Capital Historic District	see Figure 2-3		√	

Source: State Historic Preservation Office; Honolulu High-Capacity Transit Corridor Project, Final Programmatic Agreement, Surveyed Properties Considered Eligible for National Register, 2011.

Note: List of eligible properties is not comprehensive.

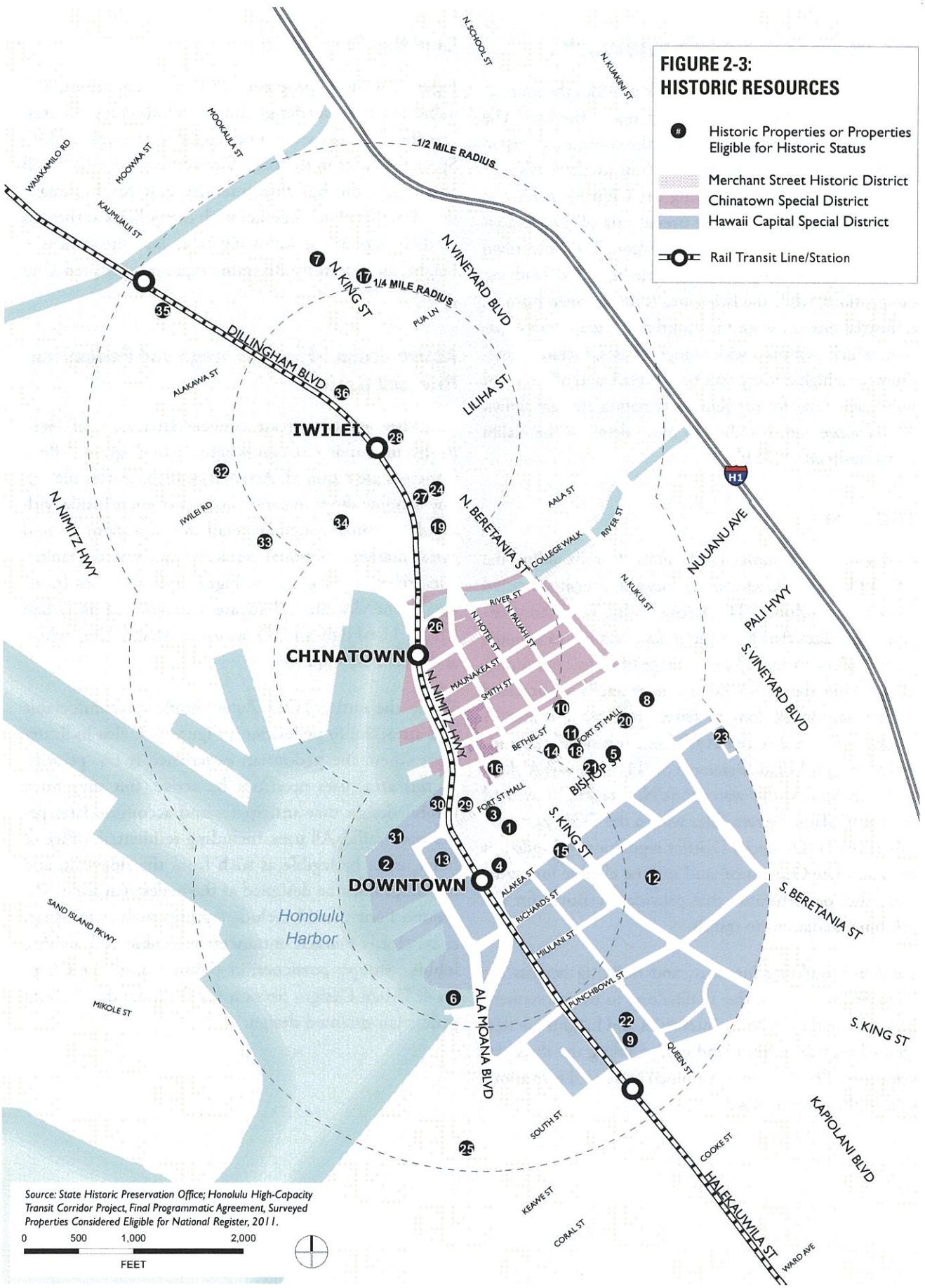


FIGURE 2-3:
HISTORIC RESOURCES
Historic Properties or Properties Eligible for Historic Status
Merchant Street Historic District
Chinatown Special District
Hawaii Capital Special District
Rail Transit Line/Station
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Honolulu Harbor
DILLINGHAM BLVD
N. KING ST
N. VINEYARD BLVD
N. BERETANIA ST
N. NIMITZ HWY
NUUANU AVE
PALI HWY
S. VINEYARD BLVD
S. KING ST
S. BERETANIA ST
ALA MOANA BLVD
KAPIOLANI BLVD
HALEKAUWILA ST
H1
Source: State Historic Preservation Office; Honolulu High-Capacity Transit Corridor Project, Final Programmatic Agreement, Surveyed Properties Considered Eligible for National Register, 2011.
0 500 1,000 2,000
FEET

2.2 Development Framework

The TOD Plan land use framework provides the foundation for development around the stations. The Land Use Plan (Figure 2-4) seeks to achieve the community vision of maintaining Downtown Honolulu as the city's employment center and preserving the Chinatown historic district, while expanding the overall mix of uses and vibrancy, particularly around Iwilei station. The Downtown and Chinatown station areas maintain mixed land use designations, while the Iwilei area is transformed from an industrial mixed-use area to an urban mixed-use designation, which permits a wider range of uses, including medium- and high-density residential, retail, and office. Land use designations for the Kapalama station area are shown for reference and described in more detail in the Kalihi Neighborhood TOD Plan.

TOD Zone

As described in Chapter 1, within the ½-mile radius, the TOD Plan establishes a more focused Transit-Oriented Development Zone ("TOD Zone"). The TOD Zone encompasses sites that have the most potential to support transit ridership and take advantage of transit proximity. Sites within the TOD Zone can generally be accessed from a station on foot in fewer than ten minutes. A shown in Figure 2-4, the TOD Zone is generally bounded by Vineyard Blvd./Beretania St./H1 Freeway, Alakea/Richards Streets, the waterfront/Nimitz Highway, and Alakawa/Palama Streets. Sites within the TOD Zone are subject to TOD Special District regulations (detailed in the Land Use Ordinance) and may be eligible for grants and other opportunities that provide incentives for development adjacent to transit.

Land use, building intensity, and building heights are identified for sites in the TOD Zone in the subsequent pages. Note that building intensities and heights are designated separately from land use, enabling the three development features to be combined as needed for various sites in the planning area.

Land Use Classifications

Figure 2-4 shows proposed land use designations, and Table 2-3 describes designations, including typical uses. Specific allowed uses will be regulated through a TOD Special District in the Land Use Ordinance, which will also reflect the building intensity and heights established in this plan. Together with the policies at the end of this chapter, the following table and the land use, height, and intensity diagrams represent adopted City policy.

Active Ground-Floor Frontage and Pedestrian-Oriented Design

The Plan seeks to create concentrated areas of vitality by identifying streets where "active" ground-floor frontages are required. Active uses include uses that allow window shopping and entice customers inside with visible entrances, such as: retail stores, restaurants and cafés, markets, personal services (e.g., salons, banks), bars, theaters, or galleries. Figure 2-5 identifies frontages (generally limited to areas designated as Urban Mixed Use-High and Downtown Mixed Use) where active uses are required.

While the entire TOD Zone should be comfortable and attractive to pedestrians, Figure 2-5, also indicates areas where the pedestrian experience is top priority. In this area, uses need not be active, but they must exhibit design that anticipates and accommodates pedestrian traffic. All uses, including residential, office or hotel, must be legible as such from the sidewalk, and buildings must be designed at the pedestrian scale. The ground floor should include features such as transparency; clearly marked entrances; accessible and inviting lobbies; stoops; porticoes; or public plazas. See Chapter 4: Urban Design, Section 4.2 for more detail about pedestrian-oriented design.

"Active" ground-floor frontages include cafés (Fort Street Mall, left) or retail (Victoria Gardens, Rancho Cucamonga, CA, right). Windows, articulation, and signage invite customers, encourage window shopping, and help to create a bustling urban environment.

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Mixed-use designations accommodate a range of uses that support neighborhood vibrancy at various times of the day and week, as shown in these San Diego, CA examples.

DYETT & BHATIA

DYETT & BHATIA

Allowing a variety of housing types and densities, such as where townhomes and small apartments front larger high rises, ensures that high-density districts are livable, vital, and scaled to the pedestrian, as shown in these Vancouver, Canada examples.

TABLE 2-3: DOWNTOWN TOD LAND USE DESIGNATIONS

LAND USE DESIGNATION	DESCRIPTION
Medium Density Residential	Allows urban residential development typically in a low- to mid-rise setting with adequate public facilities and infrastructure.
High Density Residential	Allows high-density residential development in an urban setting, typically in mid- to high-rise buildings, with adequate public facilities and infrastructure.
Urban Mixed Use-Medium	A lower-intensity classification of Urban Mixed Use for sites just beyond the immediate Iwilei station location to create a medium-density mixed-use district. Supports medium-density housing in a neighborhood setting with a mix of commercial, residential, and public uses. Supports a mix of uses, either horizontally or vertically and single-use projects (i.e., 100% residential or 100% non-residential).
Urban Mixed Use-High	Accommodates a diverse array of uses, including a mix of commercial, residential, live/work, research and development/lab, and public uses immediately adjacent to the Iwilei station and along the rail corridor to create a high-density mixed-use district (outside the central business district). Supports a mix of uses, either horizontally or vertically, as well as single-use projects (i.e., 100% residential or 100% non-residential).
Downtown Mixed Use	Intended to support Downtown and Chinatown's role as a center of regional importance, allowing a variety of uses in the central business district including: office, government, retail, and multi-family residential uses, as well as public/quasi-public facilities.
Commercial Office	Intended for commercial office development, accommodating a range of business types and serving several neighborhoods.
Industrial	Allows a range of light and heavy industrial activities.
Public/Quasi-Public	Intended for a variety of public and quasi-public uses, including schools, community services, and transit stations.
Public Park	Intended for public open space, parks, recreation, promenades, and greenways for the general community.
Chinatown Special District	As stated in the Land Use Ordinance, this special district is intended to preserve and enhance the historic character of Chinatown, while allowing moderate redevelopment at the edges of the district.
Hawaii Capital Special District	As stated in the Land Use Ordinance, this special district was established to maintain the historic and architectural character and park-like setting of Hawaii's primary civic center.
Merchant Street Historic District	This district, which contains buildings of great architectural and historical value, is not a Secial District per the Land Use Ordinance, but is subject to State Historic Preservation Division review.

Source: Dyett & Bhatia, 2012.

Redevelopment of big-box retail uses and surface parking lots (left) into higher-density mixed-use developments (Charlotte, NC, right) can help achieve the vision of a new vibrant district in Iwilei.

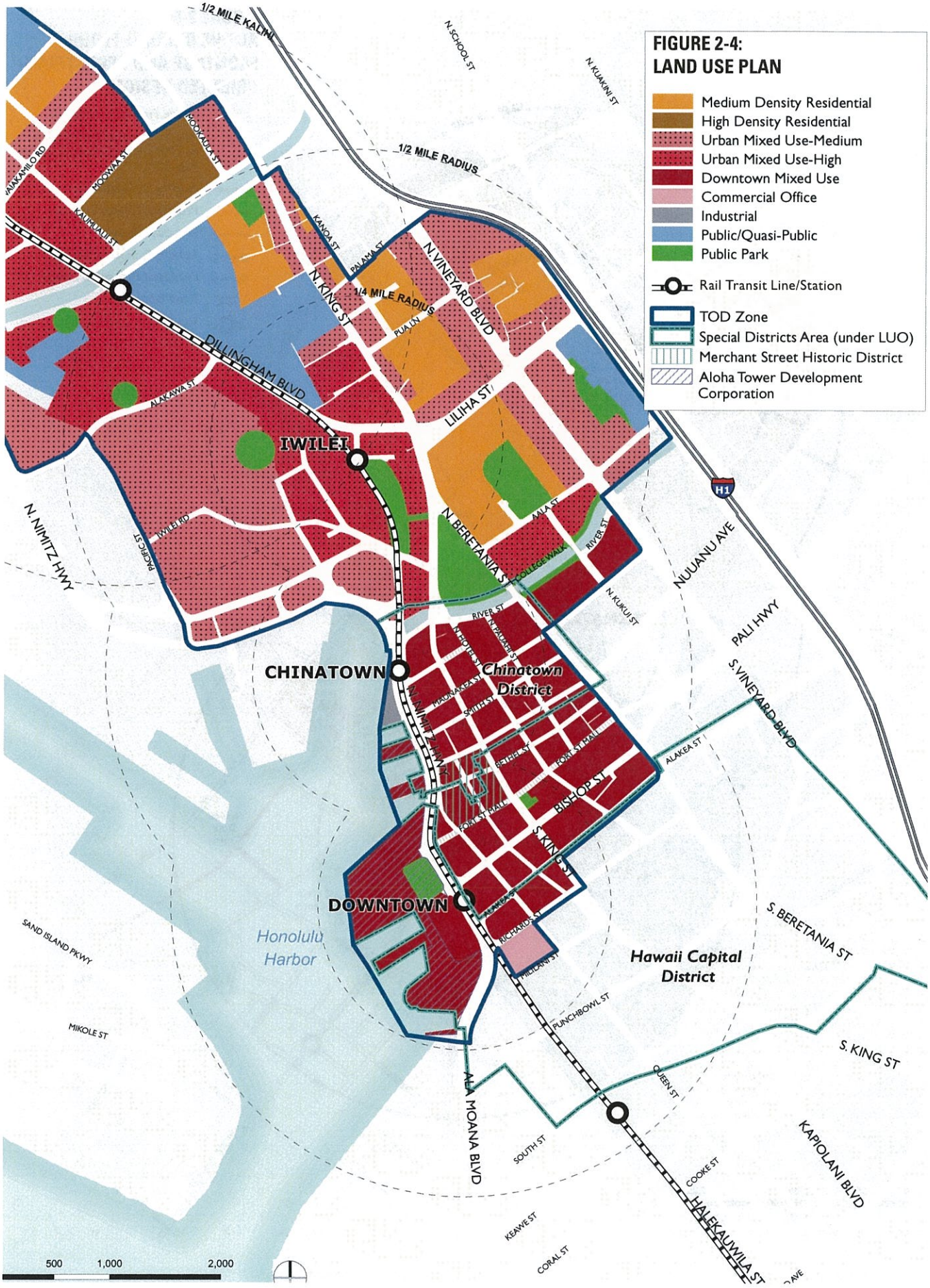


FIGURE 2-4:
LAND USE PLAN
Medium Density Residential
High Density Residential
Urban Mixed Use-Medium
Urban Mixed Use-High
Downtown Mixed Use
Commercial Office
Industrial
Public/Quasi-Public
Public Park
Rail Transit Line/Station
TOD Zone
Special Districts Area (under LUO)
Merchant Street Historic District
Aloha Tower Development Corporation
1/2 MILE KALIHI
1/2 MILE RADIUS
1/4 MILE RADIUS
N. SCHOOL ST
N. KUAKINI ST
MOOWAA ST
MOOKAULA ST
KAUMUALI ST
KANOA ST
PALAMA ST
N. KING ST
N. VINEYARD BLVD
PUA LN
DILLINGHAM BLVD
ALAKAWA ST
LILIHA ST
IWILEI
IWILEI RD
PACIFIC ST
N. NIMITZ HWY
N. BERETANIA ST
AALA ST
RIVER ST
COLLEGE WALK
N. KUKUI ST
NUUANU AVE
PALI HWY
S. VINEYARD BLVD
CHINATOWN
Chinatown District
N. HOTEL ST
N. PAUAHI ST
MAUNAKEA ST
SMITH ST
BETHEL ST
FORT ST MALL
BISHOP ST
S. KING ST
ALAKEA ST
DOWNTOWN
RICHARDS ST
MILILANI ST
Honolulu Harbor
Hawaii Capital District
S. BERETANIA ST
SAND ISLAND PKWY
MIKOLE ST
PUNCHBOWL ST
S. KING ST
QUEEN ST
ALA MOANA BLVD
SOUTH ST
COOKE ST
KAPIOLANI BLVD
HALEKAUWILA ST
KEAWE ST
CORAL ST
H1
500
1,000
2,000

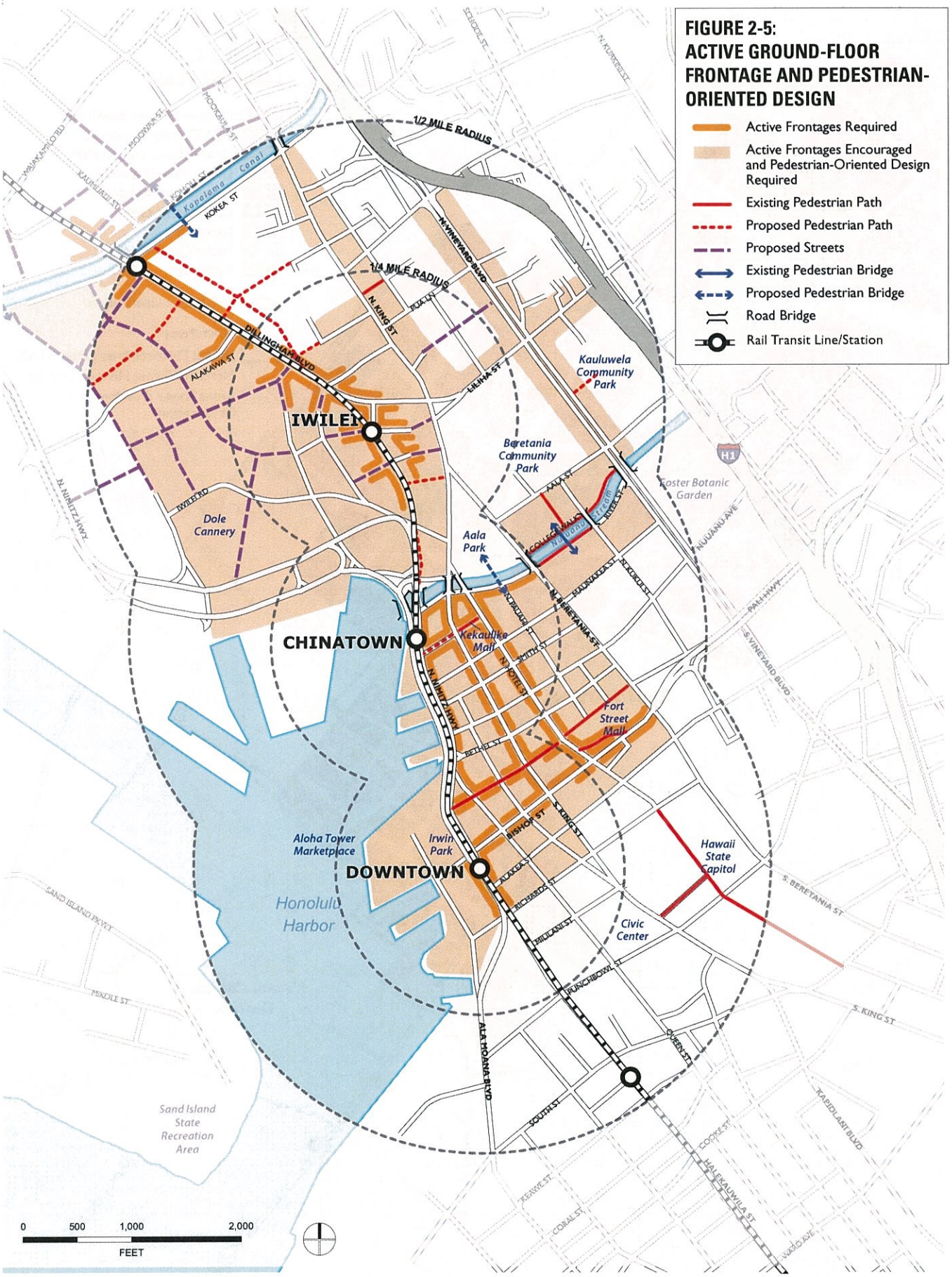
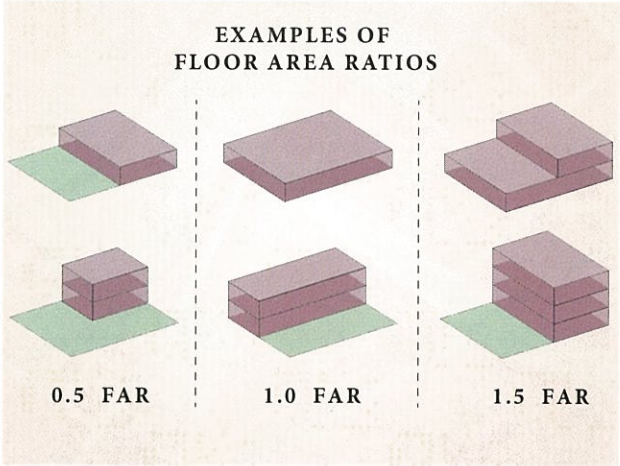


FIGURE 2-5:
ACTIVE GROUND-FLOOR FRONTAGE AND PEDESTRIAN-ORIENTED DESIGN
Active Frontages Required
Active Frontages Encouraged and Pedestrian-Oriented Design Required
Existing Pedestrian Path
Proposed Pedestrian Path
Proposed Streets
Existing Pedestrian Bridge
Proposed Pedestrian Bridge
Road Bridge
Rail Transit Line/Station
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Kapalama Canal
KOKEA ST
DILLINGHAM BLVD
ALAKAWA ST
N. KING ST
N. VINEYARD BLVD
LILIHA ST
Kauluwela Community Park
Beretania Community Park
Koster Botanic Garden
Dole Cannery
Aala Park
Kekaulike Mall
Fort Street Mall
Aloha Tower Marketplace
Irwin Park
Honolulu Harbor
Hawaii State Capitol
Civic Center
Sand Island State Recreation Area
N. NIMITZ HWY
S. BERETANIA ST
S. KING ST
ALA MOANA BLVD
0 500 1,000 2,000
FEET

Building Intensity

Achieving development intensities that create vibrant and walkable communities is a central tenet of TOD. Figure 2-6 illustrates maximum building intensities for the TOD Plan. Existing allowable buildings intensities are attached as an appendix for reference. Intensity is expressed as floor area ratio (FAR), which measures the ratio of building square footage to land square footage. For example, an allowable FAR of 2.0 means that for every square foot of land, a developer may build two square feet of building area. However, this does not necessitate a two-story building that covers the entire site. As shown in the accompanying graphic, there are many different ways to achieve the same FAR.



The highest intensities in the TOD Plan are located Downtown in the central business district. The Iwilei station area contains the next highest intensities and represents the most substantial change over existing (2015) regulations. Allowable intensities decline with distance from the station. In the Downtown Mixed Use designation, in exchange for additional publicly accessible open space, streets/connections, and/or affordable housing (beyond what is required), sites within the TOD Zone are eligible for building intensity bonuses, as illustrated in Figure 2-6. Higher intensities may also be allowed in other TOD Zone designations in exchange for community benefits.

Building Heights

Figure 2-7 illustrates proposed maximum building heights. These heights, together with FAR, setbacks, building massing, and other site planning requirements (described in the City's Land Use Ordinance) influence the bulk and design of a development. Existing allowable buildings heights are attached as an appendix for reference. The tallest building heights will continue to be located in the Downtown core. Low building heights are shown in the Chinatown core and in the Capital District area, consistent with the existing requirements of those special districts. Taller heights are proposed along Nimitz Highway immediately adjacent to the Chinatown station, and surrounding the Iwilei station, with heights stepping down makai of the station and toward the waterfront.

Building heights and intensities in the historic Chinatown core will continue to be low, in contrast to high-rise development around the Downtown station (middle). Building heights and intensities in Iwilei (bottom) are expected to increase given the new mix of uses desired.

Per CFR Part 77, the Federal Aviation Administration may require Notification of Proposed Construction or Alteration (FAA Form 7460-1) for structures within the maximum building height limit.

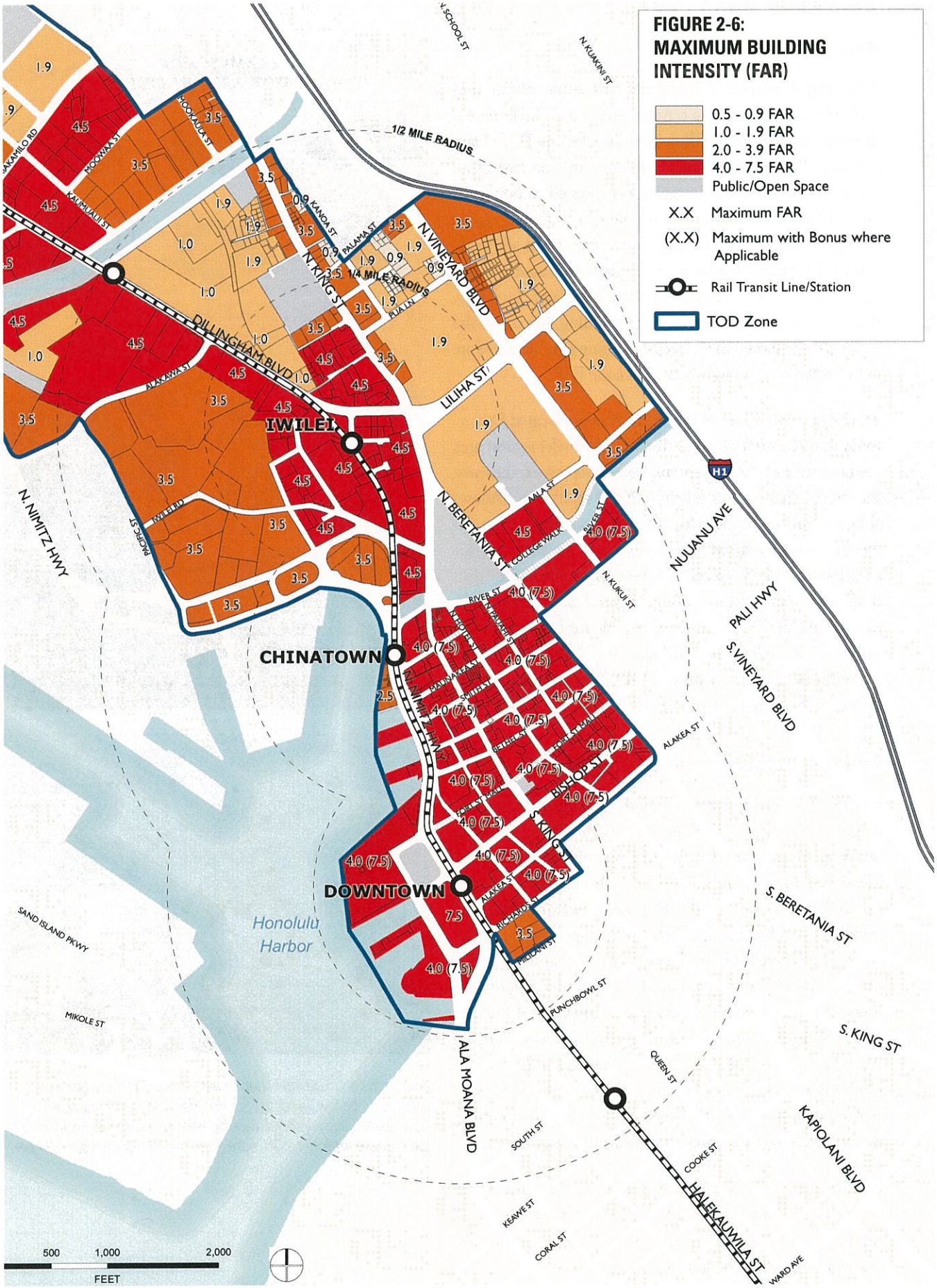


FIGURE 2-6:
MAXIMUM BUILDING INTENSITY (FAR)
0.5 - 0.9 FAR
1.0 - 1.9 FAR
2.0 - 3.9 FAR
4.0 - 7.5 FAR
Public/Open Space
X.X Maximum FAR
(X.X) Maximum with Bonus where Applicable
Rail Transit Line/Station
TOD Zone
IWILEI
CHINATOWN
DOWNTOWN
Honolulu Harbor
1/2 MILE RADIUS
1/4 MILE RADIUS
DILLINGHAM BLVD
N. KING ST
N. VINEYARD BLVD
LILIHA ST
N. BERETANIA ST
N. NIMITZ HWY
NUUANU AVE
PALI HWY
S. VINEYARD BLVD
S. BERETANIA ST
S. KING ST
KAPIOLANI BLVD
ALA MOANA BLVD
HALEKAUWILA ST
BISHOP ST
N. SCHOOL ST
N. KUAKINI ST
MOOWAA ST
MOOKAULA ST
KAUMUALII ST
KANOA ST
PALAMA ST
PUA LN
ALAKAWA ST
IWILEI RD
PACIFIC ST
AALA ST
RIVER ST
COLLEGE WALK
N. KUKUI ST
N. HOTEL ST
N. PAUAHI ST
MAUNAKEA ST
SMITH ST
BETHEL ST
FORT ST MALL
ALAKEA ST
RICHARDS ST
MILILANI ST
PUNCHBOWL ST
QUEEN ST
SOUTH ST
COOKE ST
KEAWE ST
CORAL ST
WARD AVE
SAND ISLAND PKWY
MIKOLE ST
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FEET

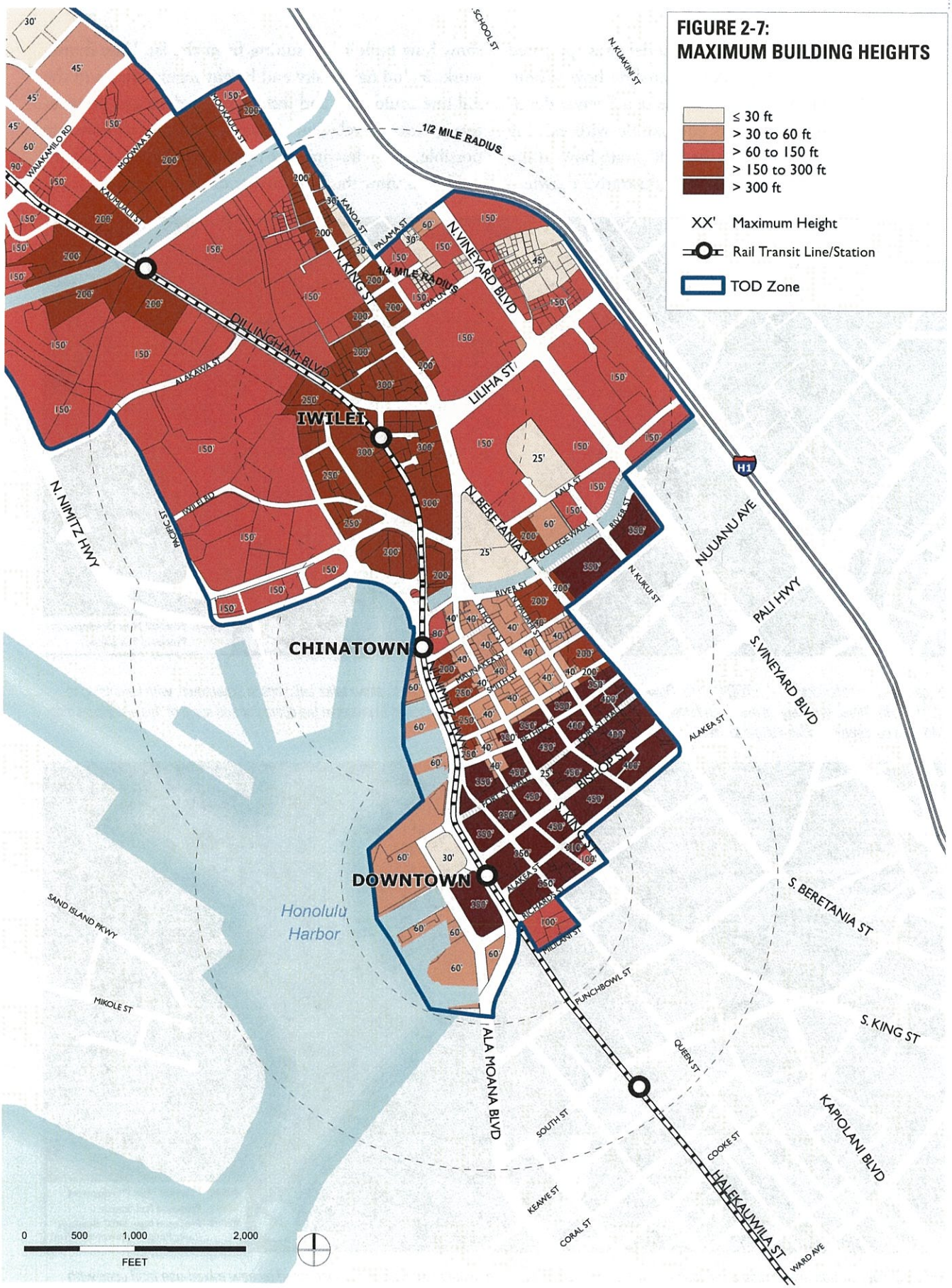


FIGURE 2-7:
MAXIMUM BUILDING HEIGHTS
≤ 30 ft
> 30 to 60 ft
> 60 to 150 ft
> 150 to 300 ft
> 300 ft
XX' Maximum Height
Rail Transit Line/Station
TOD Zone
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Honolulu Harbor
DILLINGHAM BLVD
N. KING ST
N. VINEYARD BLVD
LILIHA ST
N. BERETANIA ST
N. NIMITZ HWY
NUUANU AVE
PALI HWY
S. VINEYARD BLVD
S. BERETANIA ST
S. KING ST
KAPIOLANI BLVD
ALA MOANA BLVD
HALEKAUWILA ST
SAND ISLAND PKWY
MIKOLE ST
H1
0 500 1,000 2,000
FEET

A three-dimensional computer model was prepared as part of the planning process to analyze how various height and intensity regulations could influence development and ensure that it is compatible with existing buildings. Renderings shown here illustrate how future buildings may appear. In addition, illustrative drawings show how buildings resulting from the land use framework, including density and height regulations, and the rail line could look and feel from a pedestrian's perspective at street level. Since multiple design solutions are possible, these drawings are hypothetical and are not intended to show the exact nature of future development.

Birds-eye view of buildout of the TOD Plan for Downtown and Chinatown. The Plan continues to allow taller buildings in Downtown, with heights up to 450 feet. In Chinatown, heights are much lower, consistent with the Special District regulations to preserve the character and scale of this historic district. Model is conceptual and not site-specific.

View of Iwilei station and station area, looking ewa along the rail line. The Iwilei station area is transformed by new mixed-use land uses with heights up to 300 feet, heralding a new district for living, working, and recreation.

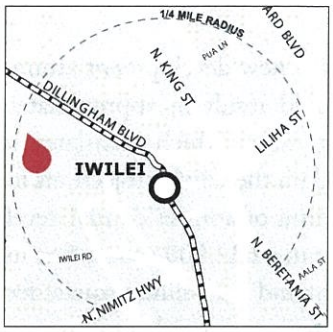


FIGURE 2-8:
ILLUSTRATIVE VIEW OF IWILEI DISTRICT, LOOKING EWA TOWARD ALAKAWA STREET

Existing

Conceptual illustration of new mixed-use development, transforming the Iwilei district into a vibrant walkable district, with new streets and both regional- and neighborhood-serving retail.

2.3 Potential Development

Methodology

Development potential is summarized in terms of building floor area and housing units that can be expected with implementation of the TOD Plan, as well as an estimated number of new residents and jobs. The potential is calculated based on the existing/future land uses shown on the land use maps, assumptions for intensity and use mix, lot coverage and allowances for new streets and open space, the likelihood of redevelopment (i.e., vacant sites are assumed to be more likely to redevelop than underutilized sites), and existing development on opportunity sites that would be lost due to redevelopment.

The three-dimensional diagrams on previous pages and the potential development projections below assume a realistic amount of development over time, as opposed to a maximum permitted by the Plan, as it is unlikely that every site will build out to the maximum intensity permitted. Sites that are currently vacant or have been specifically identified by the City, stakeholders, or property owners are assumed to have a high level of redevelopment potential—about 80 percent of these sites are expected to redevelop. Sites with low densities and/or low building values are illustrated as having a moderate level of redevelopment potential. On the other hand, opportunity sites within the Chinatown Special District are assumed to have much lower redevelopment potential—just 20 percent—due to the height restrictions, small parcel size, and historic regulations. In general, about 65 percent of the sites that have been identified as opportunity sites are assumed to redevelop.

Potential Buildout

Table 2-4 describes potential new development around the rail stations. TOD could result in approximately 6,500 additional housing units, which translates to 13,400 new residents based on the City's projections for future household size. In terms of non-residential development, TOD could result in a 632,000 square-feet increase in retail development and 1.1 million square feet of additional office and light industrial development (including lab and R&D space), potentially producing about 4,100 new jobs. Finally, 31 acres of new parks, open spaces, and paths are accommodated in the TOD Plan. These open spaces are discussed in more detail in Chapter 4: Urban Design. Chapters 3 and 5 review the potential impacts and necessary improvements that will need to be developed concurrently for transportation and infrastructure, respectively.

These new development values reflect a realistic level of development that can be absorbed from transit-oriented development, based on an assessment of market data and real estate conditions. As described in Section 2.1 above, the market demand analysis estimated that the Downtown corridor could support +/- 6,000 new dwelling units, +/- 485,000 square feet of retail, and +/- 910,000 square feet of office. The development potential described here falls within these ranges, while leaving some flexibility in the distribution between the Downtown corridor and the adjacent Kalihi corridor, for which a separate TOD plan has also been prepared.

TABLE 2-4: DOWNTOWN TOD PLAN DEVELOPMENT POTENTIAL

	RESIDENTIAL (DWELLING UNITS)	COMMERCIAL RETAIL (SQUARE FEET)	OFFICE/R&D/ LIGHT INDUSTRIAL (SQUARE FEET)	PUBLIC USES/PARKS (ACRES)
Existing Development	8,800	6,290,000	10,810,000	16
Downtown Station Area (Net New)	*1,680*	*226,580*	*700,642*	*7*
Chinatown Station Area (Net New)	*1,466*	*56,206*	*311,355*	*5*
Iwilei Station Area (Net New)	*2,965*	*297,073*	*40,337*	*17*
Kapalama Station Area (Net New)	*422*	*52,058*	*24,560*	*2*
TOD Plan (Net New)[1,2]	6,500	632,000	1,077,000	31
GROSS FUTURE DEVELOPMENT[3]	**15,300**	**6,922,000**	**11,887,000**	**47**

1. The Planning Areas for the Downtown and Kalihi TOD Plans overlap around Kapalama and Iwilei station by approximately 1,200 dwelling units, 13,000 sq. ft. of retail, 4,000 sq. ft. of office/R&D, and eight acres of parks. If the reader is interested in total development potential for all six stations, these values must be subtracted out to avoid double counting.
2. Values may not sum precisely due to rounding.
3. Assumes support infrastructure is adequate (i.e., sewer, water)

Source: Dyett & Bhatia, 2012; Hawaii Community Development Authority, 2011.

2.4 Goals and Policies

As described in Chapter 1, the community vision and guiding principles provide a foundation for all components of the TOD Plan. The goals and policies below provide more detailed objectives and direction to guide City departments and decision-makers implementing the Plan through amendments to the Land Use Ordinance, Capital Improvement Program or other means. Chapter 6: Implementation provides a complete summary of responsible agencies and departments.

GOALS

Land Use

LU-G1: Develop vibrant mixed-use districts with a range of residential, shopping, employment, and cultural uses that provide activities during the day and evening and support rail transit ridership.

LU-G2: Enhance the waterfront orientation of the Downtown station areas, with new uses at Aloha Tower, redevelopment of historic Irwin Park into a public open space, and new destinations along the waterfront linked by a pedestrian and bicycle promenade.

UD-G3: Establish a contiguous pedestrian-oriented area within the corridor to enhance walkability and pedestrian comfort.

LU-G4: Foster continued role of Downtown as Honolulu's employment and financial hub, and promote a wider range of uses—including additional housing and retail uses—around the Downtown station.

LU-G5: Maintain the scale and fabric of the historic Chinatown, historic Merchant Street and historic Capital districts. Ensure that infill development is compatible and harmonious in scale, bulk, mass and orientation to complement the historic context.

LU-G6: Guide transformation of the Iwilei district as a new mixed-use high-intensity/high-rise, pedestrian oriented neighborhood, capitalizing on its pivotal location in Honolulu's core, overlooking Honolulu Harbor, and with improved connections to Chinatown and Downtown.

LU-G7: Expand housing opportunities with a range of housing types—townhomes, mid-rise, and high-rise—to create a new mixed-income neighborhood in Iwilei with a full range of amenities and services, including parks and open space, a walkable street grid, and enhanced connectivity to the waterfront. (Affordable housing policies are described in Chapter 5.)

LU-G8: Revitalize the Aloha Tower area in a manner that respects the historic Aloha Tower and nearby pier buildings with uses and amenities that allow students, local residents, and visitors to enjoy its magnificent waterfront setting.

LU-G9: Encourage reviatalization of the neighborhood that includes Mayor Wright Homes, Palama Settlement, and nearby areas.

Building Intensity and Height

LU-G10: Create a varied skyline with the highest heights and intensities in the Downtown district, stepping down to the Chinatown historic core, and rising up, but more moderately, to create another high-rise node around the Iwilei station.

LU-G11: Preserve the height and scale of development in the core of Chinatown's historic district.

Economic Development

LU-G12: Enable a wide range of economic activity, including financial and professional employment in Downtown, small businesses and food-related industries in Chinatown, and lab, research and development, and high-tech industries in Iwilei.

LU-G13: Retain and foster the growth of Honolulu's small businesses that provide economic and employment opportunities for residents.

POLICIES

Land Use

DOWNTOWN STATION

LU-P1: Focus new office development in the Downtown core to take advantage of collocation with existing office uses and related retail services, such as cafés, lunch venues, banks, and copy centers.

LU-P2: Allow and encourage residential development in all parts of Downtown to enable people to live closer to jobs, promote after-hours street vitality, and make efficient use of resources such as parking.

LU-P3: Coordinate with the State and Hawaii Pacific University to encourage redevelopment of the Aloha Tower area to support rail transit and provide a vibrant waterfront destination.

- Support a mix of uses, such as education, housing, office, retail, entertainment, marketplace, and/or hotel with community-oriented uses and activities (also see Economic Development policies below).
- Encourage use/redesign of Irwin Park as a true gathering space and a gateway to Downtown.
- Coordinate with the Hawaii Electric Company (HECO) and Hawaii Community Development Authority (HCDA) to relocate the substation at Aloha Tower and reuse the site, including exploring the potential of repurposing and reuse of the 1930s-era power plant, and integration with the adjacent Irwin Park and mixed-use development.
- Work with property owners/managers of the Maritime Museum to encourage reopening and revitalization to celebrate the city's waterfront and its maritime history and to create a cultural destination along the harbor.

LU-P4: Support the revitalization of Fort Street Mall as a pedestrian-oriented shopping street from Aloha Tower to Beretania Street:

- Work with the Fort Street Business Improvement District to encourage façade improvements and attract a greater mix of small businesses to meet the needs of local workers and students.
- Work with Hawaii Pacific University in expanding its presence Downtown. Support compatible uses, such as retail, restaurants, services, supplies, and partnerships with public and private entities.
- Allow residential development above retail/office development, such as the Walmart site, to add housing opportunities near transit for students and Downtown workers and add a critical mass of new residents to support restaurants, entertainment venues, and other evening and weekend uses.

CHINATOWN STATION

LU-P5: Promote the addition of more permanent activities and attractions in Chinatown, capitalizing on the success of monthly First Friday events, including more shops and services, restaurants, entertainment venues, and art and cultural destinations.

LU-P6: Encourage uses that build on Chinatown's existing character, such as businesses that are multi-cultural, family-friendly, food-related, small and locally owned.

- Buildings and open spaces should be designed to highlight the identity of the district and its rich multi-cultural character.
- New uses should be compatible with existing businesses in terms of their use type, as well as architectural character, height and scale.

LU-P7: Foster reuse of surface parking lots along Nimitz Highway with mixed-use developments, cultural uses, community services, shopping, food-related and/or residential units. Provide some public parking within new structured parking facilities.

IWILEI STATION

LU-P8: Rezone sites to designations consistent with the Urban Mixed Use (High and Medium) designations as shown in the Land Use Plan (Figure 2-4) and classification system (Table 2-3). Rezoning would enable the Iwilei station area to develop as a mixed-use walkable district, with a full complement of uses: a residential neighborhood with a range of housing types and affordability levels; an employment center focused on high-tech, lab, and research and development; local-serving and destination retail and activities; and new parks and open spaces that balance the high-intensity development and create identity for the new district.

LU-P9: Allow a diverse range of retail establishments of any size provided that they are pedestrian-oriented and have active street frontages. Encourage developers to incorporate big-box retailers within new, higher-density developments, such as two-story retail or mixed-use retail with offices or residential units on upper floors.

LU-P10: Accommodate parking for big-box retailers and other large commercial uses in parking structures or within new developments to enhance walkability and foster intensity within the TOD areas.

LU-P11: Coordinate with HECO to, in the short-term, incorporate the electricity substation into the urban district through screening. In the longer term, work with HECO to relocate the substation away from the immediate station area.

LU-P12: Maintain working harbor and port activities and jobs makai of Nimitz Highway. Coordinate with the Department of Transportation - Harbors Division to allow commercial uses along the waterfront, retain views of the waterfront, and enable implementation of the promenade.

ALL STATIONS

LU-P13: Establish a TOD Zone that extends approximately a five- to ten-minute walking distance around each station, as shown in Figure 2-4, to foster transit-oriented development, prioritize streetscape and other public realm improvements, and focus community investment.

LU-P14: Encourage consolidation of small lots (less than 10,000 square feet) in order to achieve the heights and densities permitted. Maintain a list of vacant and underutilized properties for interested developers and property owners.

LU-P15: Permit complementary retail uses and amenities on sites adjacent to or integrated with the rail stations, such as day care centers, food markets, pharmacies, and other daily services.

LU-P16: Preserve and enhance, where feasible, existing buildings and properties of human scale and historic value through adaptive reuse and rehabilitation.

- Provide incentives such as streamlined permitting, tax credits or reductions, additional use allowances, transfer of development rights, and other public or private programs.
- Advertise opportunities for adaptive reuse tax incentives and other benefits on the City's website.
- Except for those concerning health and safety, remove regulatory constraints to preservation—for instance, the cost of upgrading infrastructure and utilities.
- Require future development projects to comply with applicable state and federal historic preservation laws and regulations.

LU-P17: Identify specific park and open space locations in advance of the rail's operation to ensure that development proceeds in tandem with new open spaces. Proactively locate new parks that meet the design criteria and intent of the open space network (see Chapter 4) through a variety of mechanisms, including, but not limited to:

- Acquisition: Use in-lieu fees to purchase properties and construct parks.
- Dedication: Coordinate with developers and property owners in advance of project development to secure good locations for open spaces through dedication and tools such as development incentives and land swaps.
- Easements: Enable public use while retaining private ownership and maintenance through easements.
- Park Impact Fees: Determine appropriate impact fees on residential and non-residential development.
- Open Space Bonus: Modify as needed the open space bonus program in the Land Use Ordinance to permit additional building intensity in exchange for a larger provision of open space.

LU-P18: Require or permit active ground floor uses on key streets, consistent with Figure 2-5. Active uses include uses that attract walk-in visitors and have a high degree of visibility (i.e., windows/transparency) from the street, such as retail stores, restaurants, cafés, markets, theaters, personal services, and galleries.

LU-P19: Within the Pedestrian-Oriented Design area indicated on Figure 2-5, require all uses to be legible to the pedestrian and designed at the pedestrian scale for comfort and accessibility. Commercial uses should exhibit ground-floor transparency and clear entrances. Residential, office, or

hotel uses should include accessible and inviting lobbies, architectural features such as stoops or porticoes, or public plazas at the sidewalk.

LU-P20: Prohibit new auto-oriented establishments, such as drive-through establishments that create curb cuts and require substantial paved drive aisles.

LU-P21: Provide accommodation in the TOD Special District for the maintenance and upgrade of nonconforming properties.

Building Intensity and Height

LU-P22: Permit maximum building intensities, as defined in the Maximum Building Intensity diagram (Figure 2-7) and maximum building heights, as defined in the Maximum Building Height diagram (Figure 2-7).

LU-P23: Outside of Chinatown and Hawaii Capital Special Districts, Merchant Street Historic District and other properties of historic significance, allow additional intensity above the maximum (up to a bonus maximum, as per Figure 2-6) through a discretionary process, in exchange for the provision of parks, streets/connections, or affordable housing, beyond what is already required.

LU-P24: Within the TOD Zone, require development to be a minimum of 50 percent of the maximum FAR, unless findings are made that such intensities are not feasible due to site or other conditions and would constitute an unreasonable hardship.

LU-P25: Focus the planning area's tallest building heights and greatest intensities in Downtown. Establish Iwilei as a second node of intensity for mid- and high-rise development to maximize access to transit and to create a vibrant TOD area. Taper heights down beyond the immediate station areas.

LU-P26: Continue to allow opportunities for existing uses to grow and expand in accordance with historic district regulations.

LU-P27: Allow taller buildings in specific locations as shown on Figure 2-7, while ensuring that new development minimizes shadow and view impacts on existing residences.

Economic Development

LU-P28: Assess the specific market opportunity for a hotel near Aloha Tower. Analyze the historic, current, and projected occupancy rates and room rates of competitive hotels, and forecast demand from the likely customer base. Explore potential coordination with Hawaii Pacific University's hospitality management program.

LU-P29: Build on Chinatown's unique identity as an attraction for local residents' daily shopping needs and services as well as for visitors' interest and cultural understanding. Utilize the unique skills, cultural heritage, business connections, and market penetration capabilities of current community members and business owners to shape future development.

LU-P30: Provide opportunities for a range of business types and sizes by limiting lot consolidation, particularly in the Iwilei area.

- Attract leading edge industries, based in technology, medical/bio, engineering, and media that provide good quality jobs with potential for career advancement. Coordinate with local universities and existing businesses to understand the space needs of new enterprises.
- Support small and medium-sized spaces and the continuation of small businesses and start-ups by accommodating incubator spaces and multi-tenanted buildings.

3 MOBILITY

This chapter outlines strategies for developing an integrated multi-modal transportation network in the Downtown corridor that will enhance community livability and also support rail transit ridership. The chapter identifies enhancements to the street network and facilities for all users, including but not limited to pedestrians, bicycles, automobiles, and transit riders. The strategies discussed here will improve connectivity, safety, and ease of travel, as well as enhance overall livability and quality of life for residents, workers, and visitors.

Developing a comprehensive multi-modal circulation network will be essential to enabling safe, convenient access between the rail stations and jobs, homes, schools, shopping, entertainment and other destinations.

3.1 Existing Circulation Network and Operations

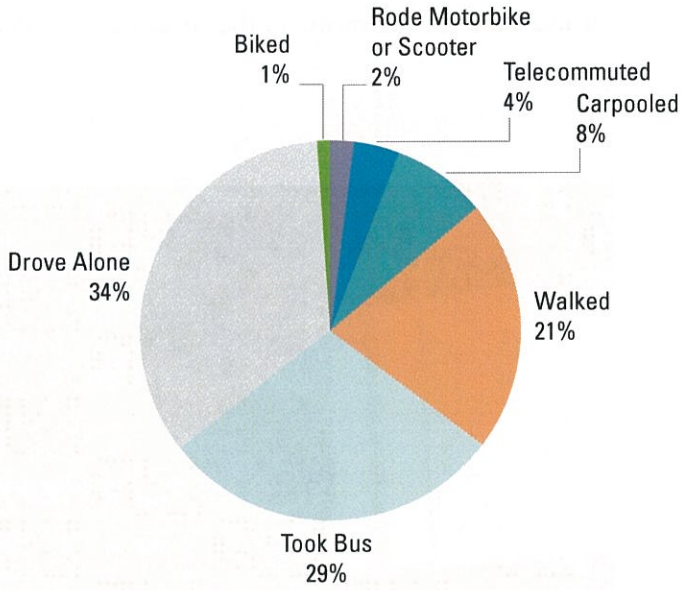
This section describes the existing (as of 2012) circulation network and conditions in the ½-mile area around the three Downtown stations. It describes city and state plans that have been prepared or are underway, as well as any deficiencies identified during the technical analysis phase of the project or articulated by community members through the household survey and at workshops and meetings. The improvements discussed in Section 3.2 respond to the context and deficiencies identified in this section.

Travel Patterns

Downtown Honolulu already has a culture of using alternatives modes of transportation, with relatively high rates of walking and bus transit ridership among workers and residents, as shown in the Journey to Work statistics in Table 3-1. Although 77 percent of households have one or more vehicles, according to respondents to the community survey, residents often prefer to walk or use transit. This is likely due to convenience and low cost, compared to the inconvenience and high cost of driving and parking, particularly in the Downtown and Chinatown station areas. Nearly half of commuters in the Downtown corridor walked or used public transportation to get to work, compared to 14 percent of residents citywide.

These statistics are confirmed by the community survey completed as part of this planning effort (see Chapter 1 for details). As shown in Chart 3-1, approximately 29 percent of respondents used transit to get to work or school, and 21 percent walked. Still, driving alone was the most frequently used mode of transportation, representing 34 percent of trips. Carpooling and telecommuting accounted for eight and four percent of trips, respectively. Biking accounted for just one percent of commute trips. The rates of walking and bus transit use were highest among residents/respondents closest to the Chinatown station. In sum, these findings suggest that rail transit will be well-utilized and successful when implemented.

CHART 3-1: OVERALL COMMUTE MODE SHARE, 2011



Source: Downtown Community Survey, prepared for City and County of Honolulu Department of Planning and Permitting by National Research Center, September 2011.

TABLE 3-1: JOURNEY TO WORK MODE SHARE, BY LOCATION, 2000

	DAILY PERSON TRIPS TO WORK, BY PERCENT				
	DOWNTOWN SUB-AREA	HONOLULU	HAWAII	US	OBSERVATIONS
Drove Alone	33%	61%	64%	76%	Only NY and DC were lower than Hawaii.
Carpooled	13%	19%	19%	12%	Only two metro areas were higher than Honolulu.
Public Transportation	19%	8%	6%	5%	Six metro areas were higher than Honolulu.
Walk	30%	6%	5%	3%	Six states were higher than Hawaii.
Other Modes	3%	2%	2%	1%	
Worked at Home	2%	4%	4%	3%	

Sources: City and County of Honolulu, Department of Planning and Permitting, 2000 Census SF 1 File. Journey to Work: 2000 - Census 2000 Brief; Clara Reschovsky, U.S. Department of Commerce, Economics and Statistics Admin., U.S. Census Bureau; tables 5 and 6, March 2004.

Street Network

The street network represents the foundation for the circulation system and all modes of travel. Buses, personal vehicles, bicycles and trucks share the roadways, and sidewalks, where present, line the roadways for pedestrian (and sometimes bicycle) travel. Circulation is provided by streets that generally comprise a grid-like network in the Downtown and Chinatown station areas. However, large and inconsistently shaped parcels in the Iwilei station area (particularly makai of the station) result in block sizes and shapes that are not pedestrian friendly and make for circuitous travel.

The Downtown street network provides good regional access. Major roads that traverse the TOD Plan area include Nimitz Highway, Dillingham Boulevard, Beretania Street, King Street, Vineyard Boulevard, Ala Moana Boulevard, and the H-1 Freeway, as shown on Figure 3-1. The street network directly surrounding the Downtown and Chinatown stations forms a compact grid with small blocks and a walkable environment. The area around Iwilei station, however, has large, oddly shaped blocks that are more challenging to navigate, and create a less hospitable environment for pedestrians. Nimitz Highway, a six-lane arterial, runs through all three station areas and inhibits access to Honolulu Harbor and waterfront attractions.

According to the community survey conducted as part of preparing this plan, two-thirds of neighborhood residents rated traffic flow on local streets as fair or poor, and the condition of local streets as fair or poor. Despite Downtown's compact grid of streets, residents within the Downtown station area rate traffic flow in their neighborhood as only slightly better than residents within the Iwilei station area.

Streets are shared by personal vehicles, buses, trucks, bicycles, and pedestrians, which often leads to competition for right-of-way and potential safety conflicts, as shown in Downtown (top, middle) and Iwilei (bottom). Ensuring that the circulation network is safe for all users is a priority of the TOD Plan.

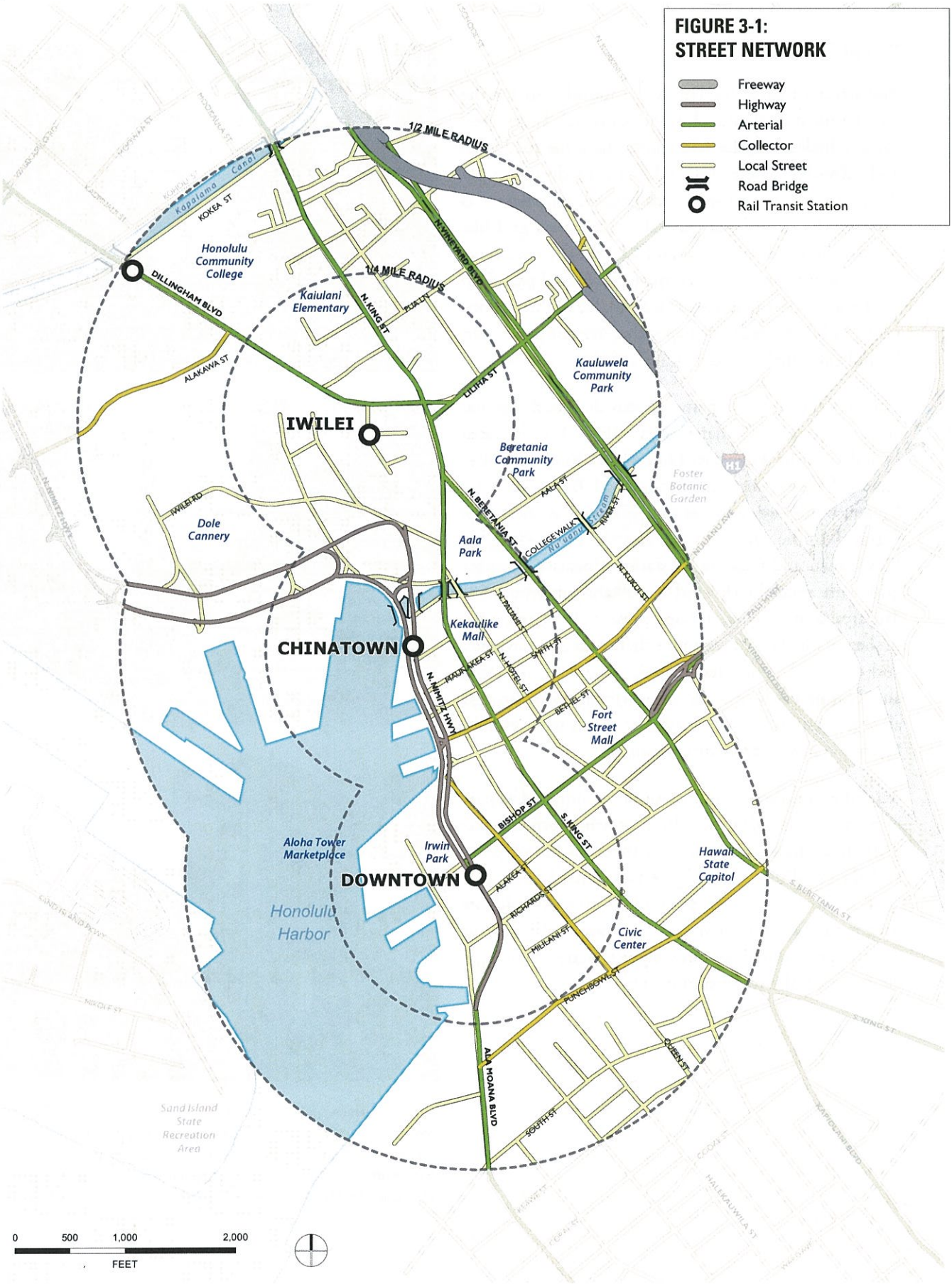


FIGURE 3-1:
STREET NETWORK
Freeway
Highway
Arterial
Collector
Local Street
Road Bridge
Rail Transit Station
1/2 MILE RADIUS
1/4 MILE RADIUS
Kapalama Canal
KOKEA ST
Honolulu Community College
DILLINGHAM BLVD
Kaiulani Elementary
N. KING ST
PUA LN
N. VINEYARD BLVD
ALAKAWA ST
ULIHA ST
Kauluwela Community Park
IWILEI
Beretania Community Park
AALA ST
N. BERETANIA ST
COLLEGEWALK
Nuuanu Stream
IWILEI RD
Dole Cannery
Aala Park
N. KUKUI ST
Foster Botanic Garden
Kekaulike Mall
CHINATOWN
N. PAUOAHI ST
SMITH ST
MAUNAKEA ST
N. HOTEL ST
N. NIMITZ HWY
BETHEL ST
Fort Street Mall
BISHOP ST
S. KING ST
Aloha Tower Marketplace
Irwin Park
DOWNTOWN
ALAKEA ST
RICHARDS ST
Hawaii State Capitol
Honolulu Harbor
MILILANI ST
Civic Center
PUNCHBOWL ST
QUEEN ST
ALA MOANA BLVD
SOUTH ST
Sand Island State Recreation Area
0
500
1,000
2,000
FEET

Pedestrian Facilities and Station Access

Pedestrian facilities and safe, convenient access to transit are essential components of successful TOD. According to analysis completed for this TOD Plan, approximately 97 percent of rail transit trips to Downtown's three stations will begin as walking, biking, or bus transit trips by 2030. The introduction of the rail system and implementation of the Downtown Neighborhood TOD Plan will, therefore, necessitate improved connections to transit by these modes of travel.

Hawaii is consistently ranked higher than most other states for pedestrian fatalities by the Fatality Analysis Reporting System.[1] At the same time the state also reports more walking trips compared to other states. Pedestrian facilities in the corridor are varied, and survey respondents rated pedestrian facilities as good to poor.

Overall, the ease of walking in the corridor was rated as excellent or good by just over half of residents (54 percent). In general, residents gave high ratings for the presence of sidewalks and low ratings for the condition of sidewalks. They also gave high ratings for the number of crossing lights, but low ratings for safety while walking. These ratings varied by station area—those who lived closest to the Downtown station gave higher ratings for all aspects of walking than those who lived closer to the Iwilei and Chinatown stations.

Statewide Pedestrian Master Plan

To address safety concerns and infrastructure deficiencies, the 2013 Statewide Pedestrian Master Plan seeks to improve pedestrian mobility and safety on state facilities and roadways. Through a process that combined community mapping with data analysis of sidewalk/crosswalk conditions and accident reports, the Hawaii State Department of Transportation identified deficiencies, areas with high pedestrian accident rates, and proposed improvements.

The Master Plan includes a toolbox to identify best practices for pedestrian safety, mobility, and accessibility, including layout of sidewalks and intersections; signalization; and street design near schools. It also defines potential federal, state, and local funding sources for listed improvements including improvement districts and parking fees. Three of the Master Plan's priority projects are located in the planning area, as described in Table 3-2.

TABLE 3-2: STATEWIDE PEDESTRIAN MASTER PLAN IMPROVEMENTS WITHIN THE DOWNTOWN PLANNING AREA

LOCATION	DESCRIPTION	PROPOSED IMPROVEMENT
Liliha Street, at Kukui Street (Iwilei Station Area)	Crash data indicates the intersection area has experienced ten reported pedestrian crashes (between 2004 and 2008), all of which have occurred while pedestrians were in a crosswalk. The presence of crosswalks can give pedestrians a false sense of security in instances where there is no stop control (traffic signal or stop sign) for vehicles. Lack of attention by motorists, on-street parking, and bus maneuvers may contribute to the crash rate.	Install a traffic signal at the intersection of Liliha Street and Kukui Street to provide pedestrians with a dedicated crossing phase. (Completed)
Vineyard Boulevard, between Palama Street and Aala Street (Iwilei/Chinatown Station Area)	Crash data indicates that conflicting movements of turning vehicles and pedestrian crossings, and pedestrians crossing outside of crosswalk or against the walk signal were primary factors involved in the 13 reported pedestrian crashes that occurred within this section of Vineyard Boulevard between 2004 and 2008.	Implement Walk Wise Hawaii (WWH), an educational program to educate the community about pedestrian and driver awareness. Install additional pedestrian signage for drivers turning onto Vineyard Boulevard.
Ala Moana Boulevard (Nimitz Highway), between Bishop Street and Richards Street (Downtown Station Area)	Ala Moana Boulevard in Honolulu experiences high volumes of traffic and considerable pedestrian volumes. There is a sidewalk gap on the makai side of Ala Moana Boulevard between Richards Street and Bishop Street, which is impractical for pedestrians traveling along Ala Moana Boulevard.	Install sidewalks on the makai side of Ala Moana Boulevard between Bishop Street and Richards Street. (Completed)

Source: Highways Division, Department of Transportation, State of Hawaii. Statewide Pedestrian Master Plan, May 2013.

1 Source: National Highway Traffic Safety Administration

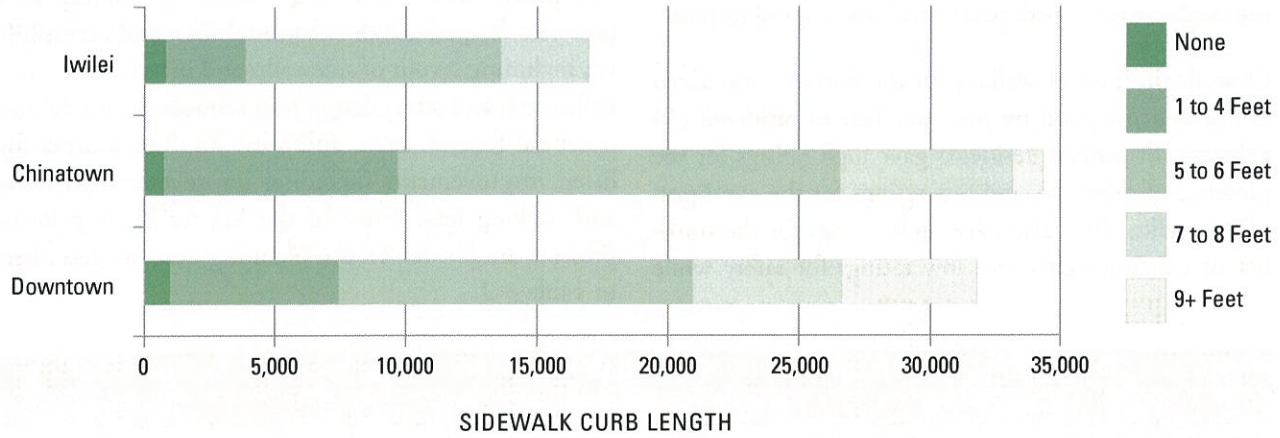
Sidewalk Conditions Inventory

As part of this TOD planning process, an inventory of sidewalk and crosswalk conditions was completed on all streets within ¼-mile of each station.

Sidewalk conditions were categorized as follows: (1) no sidewalk; (2) 3-4 feet of effective width; (3) 5-6 feet of effective width; (4) 7-8 feet of effective width; and (5) 9+ feet of effective width. Effective width was defined as the amount of sidewalk that provides a continuously unobstructed pathway, with the exception of occasional temporary obstructions such as illegally parked vehicles. Chart 3-2 provides a summary of this analysis.

Overall, just three percent of all curb length within a ¼-mile of the three stations was found to lack sidewalks. However, sidewalks are often less than six feet in width, which is narrow considering the high volumes of pedestrian activity, particularly in the Chinatown station area. In addition, pedestrian mobility in the Iwilei station area is particularly challenging due to an array of fences and dead end streets. Wait times to cross some of the wider, busier streets such as Nimitz Highway, Dillingham Boulevard, and King Street inhibit pedestrian movement. A station by station analysis of sidewalk conditions and station access is described in more detail below.

CHART 3-2: SIDEWALK CURB LENGTH AND WIDTH, BY STATION, 2012



Source: Weslin Consulting Services, 2012.

Although sidewalks are generally present throughout the Downtown corridor, they are often too narrow to accommodate the high levels of pedestrian traffic. In particular, the Chinatown station area (left and right) is constrained by narrow sidewalks and obstructions in the pedestrian pathway.

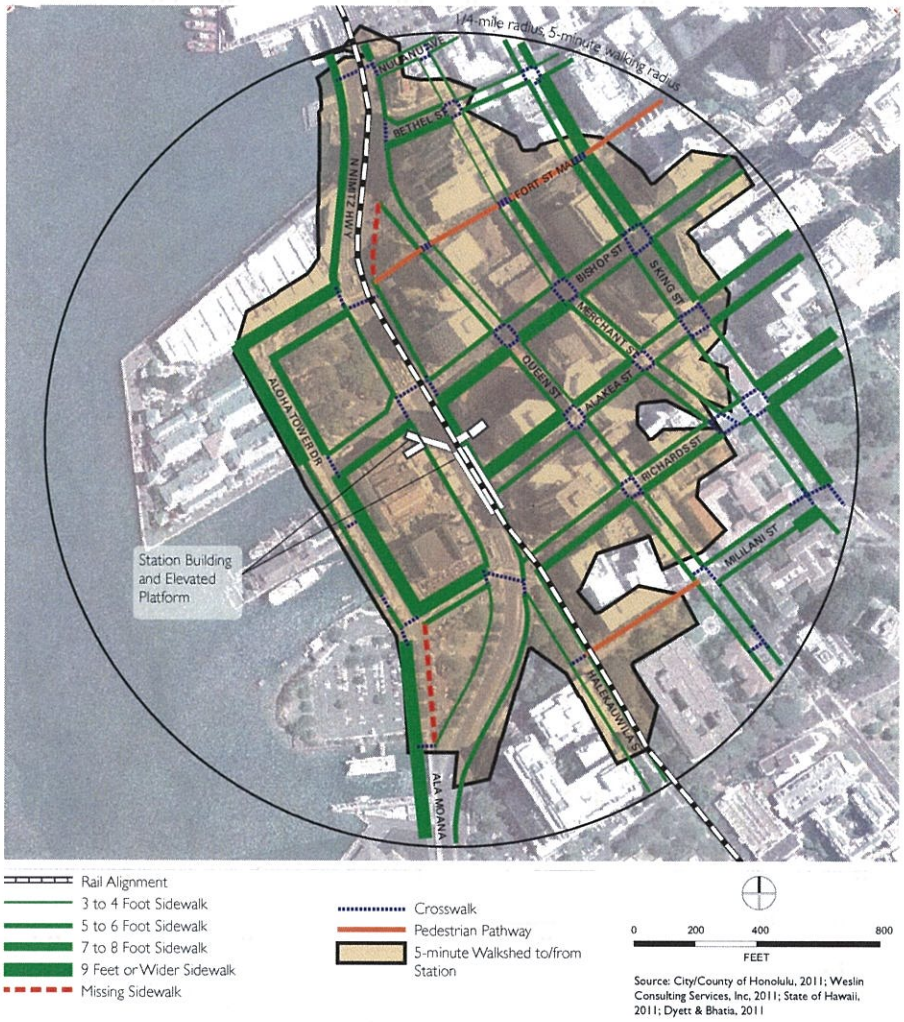
Downtown Station Area

The Downtown station will be located on an elevated structure centered above Ala Moana Boulevard (Nimitz Highway) between Bishop and Alakea Streets. Access to the elevated platform will be offered at two station entrances located on either side of the highway. One entrance will be on the southwest corner of the intersection formed by Ala Moana Boulevard and Bishop Street. The other at-grade station entrance will be located next to the existing plaza between the two existing buildings on the mauka side of Ala Moana Boulevard. The station will be in close proximity to many existing bus routes and stops including the Hotel Street Transit Mall. The station is near many surface and structured private parking facilities.

Figure 3-2 identifies all sidewalks by width and crosswalks in the Downtown ¼-mile station area. Nearly all streets in the Downtown station area have sidewalks, and Downtown has far more sidewalks with an effective width of nine feet or more than the other two station areas. Sidewalks and crosswalks connect in all directions from the mauka entrance of the station. The makai entrance to the station will provide access to/from Aloha Tower and the waterfront.

Downtown also has several pedestrian malls, including Fort Street Mall and Mililani Street Mall. Within and between government buildings are other courtyards and plazas. Aloha Tower Marketplace is designed for the pedestrian. The most salient problem with accessibility within Downtown is that Nimitz Highway has created an obstacle inhibiting pedestrian activity between the business district and the waterfront. Furthermore, the timing of signals controlling pedestrian access across Nimitz Highway is often cited as being too long between intervals.

FIGURE 3-2:
DOWNTOWN STATION LOCATION AND PEDESTRIAN CONDITIONS



Source: City/County of Honolulu, 2011; Weslin Consulting Services, Inc, 2011; State of Hawaii, 2011; Dyett & Bhatia, 2011

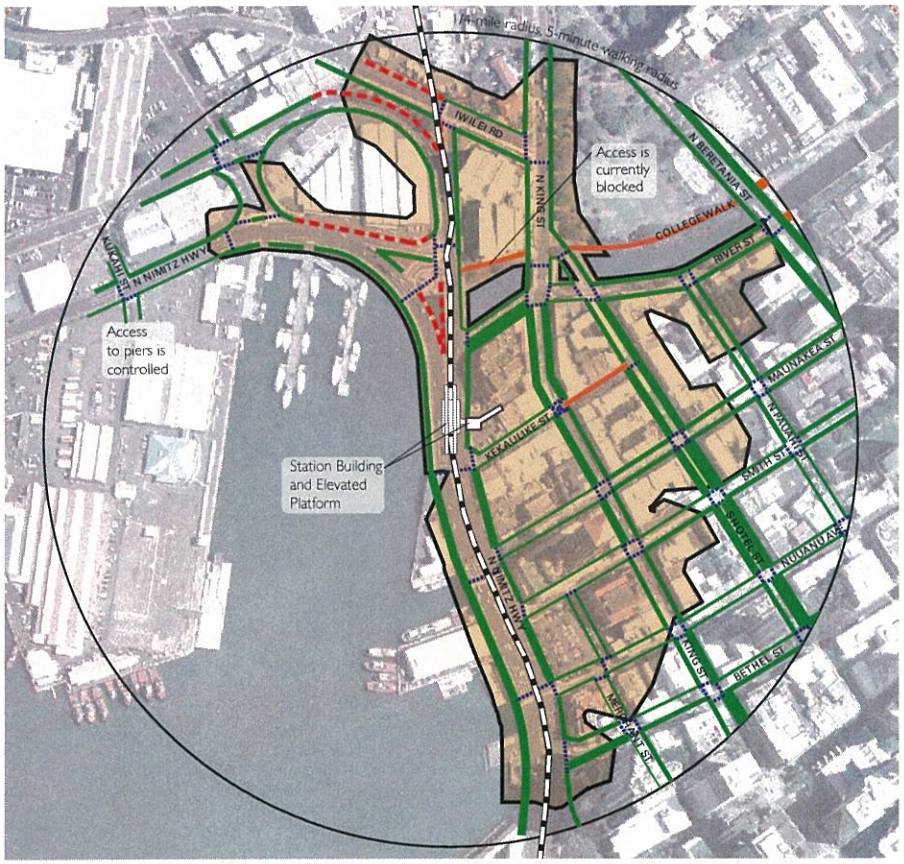
Chinatown Station Area

The Chinatown station will be located on an elevated structure centered above Nimitz Highway between Kekaulike and River Streets. The station is at the edge of Chinatown's main shopping and restaurant district, near Nuuanu Stream and Kekaulike Mall. Access to the elevated platform and concourse will be offered on the mauka side of Nimitz only, from the property on the northeast corner Nimitz Highway and Kekaulike Street. No new major bus facility or off-street parking will be provided. Bus improvements are not included because the station is in close proximity to many existing bus routes and stops including the Hotel Street Transit Mall. The station will also be located near many surface and structured parking facilities including the Chinatown Municipal Parking Garage.

Figure 3-3 identifies all sidewalks and crosswalks in the Chinatown station area. Chinatown's overall pedestrian accessibility is good due to the extensive homogeneous sidewalk network in the mauka and diamond head portions of the station area, and due to the pedestrian malls available to the public. Chinatown has more sidewalk coverage than the other two Downtown neighborhood station areas even though the station area includes over 30 percent water. Chinatown has 93 crosswalks, more than even the Downtown station area.

However, sidewalks are often not wide enough to accommodate the heavy pedestrian traffic in Chinatown. The sidewalk widths illustrated are the effective width, or the full sidewalk width minus permanent obstructions such as utility poles, mailboxes, light poles, sign posts, parking meters, fire hydrants and street trees. Chinatown's sidewalks contain more obstacles during business hours when produce stands locate along public streets. This further constricts the effective sidewalk width below the dimensions shown. Busy bus stop locations also crowd narrow sidewalks with waiting passengers.

FIGURE 3-3:
CHINATOWN STATION LOCATION AND PEDESTRIAN CONDITIONS



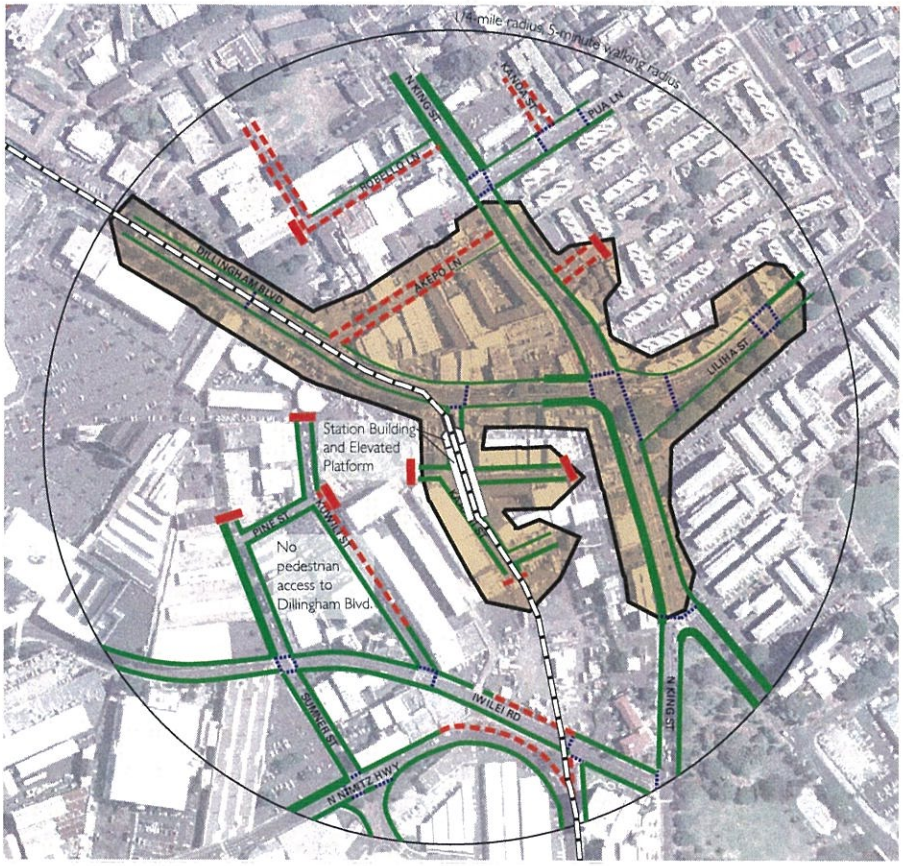
Source: City/County of Honolulu, 2011; Weslin Consulting Services, Inc. 2011; State of Hawaii, 2011; Dyett & Bhatia, 2011

Iwilei Station Area

The Iwilei station will be located on an elevated structure makai of the Dillingham Boulevard and Kaaahi Street intersection. The portion of the station area bound by Dillingham Boulevard, North King Street, Alakawa Street, and North Nimitz Highway is essentially isolated from any efficient pedestrian connection to the Iwilei station. Some sidewalks and crosswalks do exist, but their connectivity is impeded by an array of pedestrian islands, wide curbs and other pedestrian accommodations in an otherwise vehicle-dominated environment. Many existing rights-of-way end at fences or gates, or spill into surface parking areas. Mauka of the Iwilwi station, Liliha Street connects to upland residential areas. Liliha Street offers sidewalks on both sides, but pedestrians must cross at least two legs of the busy Dillingham, North King and Liliha intersection to access the station and experience extensive wait times at signals. There will be no parking provided at the station. New bus stops will be located on either side of Kaaahi Street.

Figure 3-4 identifies all sidewalks by width and crosswalks in the Iwilei TOD planning area. Approximately 95 percent of all street curbs in the Iwilei station area have sidewalks. Although sidewalks are abundant on existing street segments, safe and secure pedestrian access is limited due to the small number of streets and their poor connectivity. In fact, a major section of the station area does not have reasonably direct pedestrian access to the Iwilei station. The figure also includes the location of dead-end streets that prohibit any passage by the public.

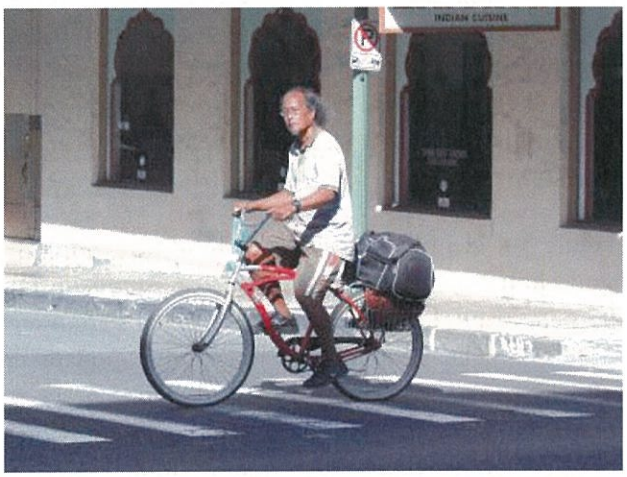
FIGURE 3-4:
IWILEI STATION LOCATION AND PEDESTRIAN CONDITIONS



Rail Alignment
3 to 4 Foot Sidewalk
5 to 6 Foot Sidewalk
7 to 8 Foot Sidewalk
Missing Sidewalk
R.O.W. Ends/Dead End
Crosswalk
5-minute Walkshed to/from Station

0 200 400 800
FEET

Source: City/County of Honolulu, 2011; Weslin Consulting Services, Inc. 2011; State of Hawaii, 2011; Dyett & Bhatia, 2011



Biking accounts for a small share of trips in the corridor due to concerns about safety. Cyclists can often be seen riding on the sidewalks in Downtown and Chinatown to avoid conflicts with vehicles—but this creates potential conflicts with pedestrians.

Bicycle Facilities

Given the flat terrain, good weather, and existing street network, the Downtown corridor has the potential to be a great location for recreational biking and commuting by bicycle. However, bicycle use is limited in the area due to the lack of bicycle facilities and concerns about safety (i.e., conflicts with vehicles).

According to the community survey, approximately 83 percent of respondents rated safety while bicycling as fair or poor in Downtown. Response rates were similar for the condition and availability of bicycle paths and lanes and the availability of bike racks/storage. It is, therefore, not surprising that bicycle ownership rates in Downtown are quite low—just 23 percent of households have adult bikes, and 37 percent of households with children have bikes for children.

Existing facilities for bicycle movement in the Downtown Neighborhood TOD Plan area are primarily limited to bike lanes on Nimitz Highway and a bike route on the Hotel Street Transit Mall. However, due to heavy traffic on Nimitz Highway and the relative narrowness of its bike lanes, many cyclists actually prefer to use the parallel sidewalk instead, even though it meanders and does not provide the most direct pathway. The Hotel Street Transit Mall provides some bicycling amenities such as bike racks and priority turning signals, but its narrow width and heavy bus traffic are less than ideal conditions for bicycling.

Oahu Bike Plan

Policies and projects for bicycle facilities have been codified in Bike Plan Hawaii, A State of Hawaii Master Plan (1994), and adapted with some revisions in the Oahu Bike Plan: A Bicycle Master Plan. The Oahu Bike Plan also defines existing and planned bicycle facilities.

The Oahu Bike Plan divides implementation measures by priority: priority one (highest priority), two, and three projects, as shown in Table 3-3. The proposed projects in this area include bike lanes along Liliha and King Streets and integration of bicycle facilities with the rail transit system. At each station, the plan calls for bike storage (racks or lockers depending on the number

TABLE 3-3: OAHU BIKE PLAN PROPOSED IMPROVEMENTS WITHIN THE 1/2-MILE AREA

STATION	IMPROVEMENT
Iwilei	• Iwilei Transit Station Bike Path (project 2-112) • Dillingham Boulevard Southern Section Bike Route (project 1-38) • Liliha Street (Palama) Bike Lane (project 3-97) • King Street Northern Section Bike Lane (project 2-123)
Chinatown	• King Street Chinatown Bike Lane (project 3-94) • King Street Middle Section Bike Lane (project 2-122) • Nuuanu Stream Bike Path Extension (project 2-131) • River Street Bike Route (project 2-136)
Downtown	• Aloha Tower Bike Path (project 1-30) • Fort Street Mall Bike Route (project 1-40) • Queen Street Bike Route (project 1-71) • Ala Moana Boulevard Bike Lane (project 3-73) • Halekauwila Street Bike Route (project 2-109) • King Street Middle Section Bike Lane (project 2-122) • Bishop Street Bike Route (project 3-79)

Source: Oahu Bike Plan, August 2012.

of boardings), "stair rails" to facilitate moving bicycles up and down stairs, and services such as attended parking and repair facilities at stations with high AM peak period boardings (e.g., >1,000). These recommendations and other bicycle improvement projects are illustrated in Section 3.2.

Transit Facilities

Existing Ridership

Public transportation on Oahu is currently composed of TheBus for fixed-route operations and The Handi-Van for on-demand service for persons with disabilities. The rail project will complement these existing services with high-frequency service. Bus routes will be adjusted once the rail system is operational to bring people to and from the stations.

The Downtown corridor enjoys a high level of bus transit ridership and is currently well-served by bus transit, especially within the Downtown station area. According to the community survey, 29 percent of commuters used the bus to travel to school or work. Moreover, unlike their perspectives of pedestrian and bicycle travel in the community, survey respondents were generally more satisfied about the conditions and safety of bus transit. Approximately 71 percent of respondents rated the overall ease of bus travel as good or excellent, with the highest rating for the Downtown station area. Safety while riding the bus and ease of locating bus stops were rated similarly high.

In contrast, the condition of bus stops and safety while waiting for the bus were rated somewhat lower—only 46 and 47 percent of respondents, respectively, rated these indicators as excellent or good. This suggests that the TOD Plan should seek to improve bus shelters, lighting, and overall safety around transit stops.

Rail-to-Bus Transit

Coordinating the stops, schedules, and fares of rail and bus transit will be essential to creating an integrated transit system and encouraging ridership. The bus and shuttle network will need to be redesigned to avoid service redundancies with the rail line. Schedules and time-transfers will need to be coordinated to better support rail-to-bus transfers. In addition, improved bus shelters, signage, and other streetscape improvements are necessary to ensure safety around stops.

Ferries

Honolulu Harbor and Aloha Tower offer an excellent location for ferry and water taxis both inter- and intra-island, and convenient access to the Downtown rail station. While past ferry service was discontinued for financial and environmental regulatory reasons, community members and the state legislature have been supportive of reviving this service.

Several small off-street parking lots and structures are located in the Chinatown area and seem to be most heavily used by patrons of Chinatown shops and restaurants. Downtown off-street parking garages are used mostly by employees who have reserved spaces for themselves and their visitors.

Vehicular Traffic

Level of service (LOS) measures operational conditions for roadways or intersections. It is traditionally used to measure roadway conditions and vehicle delay but can also characterize non-vehicular transportation modes when relevant measurements are applied, such as number of crosswalks and presence of sidewalks, in the case of pedestrian travel.

The Nimitz Highway and Halekauwila Street intersection, performing at LOS F in the a.m. peak hour, was the only spot in this area determined to have a LOS of E or F, indicating severe traffic delays. Most other street intersections operate at LOS A, which signifies free-flowing travel. Only one other intersection, at Queen and Bishop Streets, operated at LOS D. Downtown streets carry high volumes of vehicle traffic, but these vehicles use Downtown streets throughout the entire day in contrast with other intersections more impacted by concentrations of commuter weekday movements.

Parking

There is extensive on and off-street parking capacity throughout the Downtown ½-mile area. Both off-street surface and structured parking is heavily used. On-street parking is often time regulated and metered. Typical parking limitations are two hours or less.

Parking rate surveys, performed annually by Colliers International, show a decline in parking costs over the past two years in both Downtown Honolulu and across the nation. The median daily parking rate for Honolulu was $44 per day in 2008, the ninth highest among major U.S. downtowns. By 2010, Honolulu's median daily parking rate had dropped to $33 per day, but its rank had risen to be the second highest in the nation with only Midtown New York City being higher.

Colliers rates Honolulu's availability of parking as "fair," meaning that parking garages are 60 to 80 percent full Monday through Friday and on weekends during special events. Not surprisingly, 77 percent of survey respondents ranked the amount of public parking as either fair or poor, likely due to cost and availability. None of the three Downtown stations are anticipated to have public parking, though the private sector is not prohibited from developing parking.

3.2 Multi-Modal Circulation Improvements

The Downtown Neighborhood TOD Plan recommends creating an integrated and convenient multi-modal circulation network by improving the street grid; addressing the pedestrian and bicycle network deficiencies described previously; and enhancing bus transit and direct connections between rail and other modes. Consistent with the City and County of Honolulu Complete Streets Ordinance, all improvements to transportation facilities are to be planned, designed, operated, and maintained to provide safe mobility for all users. The Plan also seeks to develop a coordinated parking strategy that accommodates vehicle parking while still emphasizing transit and pedestrian movement. Figure 3-5: Multi-Modal Circulation Network (Circulation Diagram) summarizes the circulation improvements for the corridor, which are described in more detail in the text below.

Street Network

The foundation of the multi-modal circulation system is the network of local streets. They provide the neighborhood's basic transportation infrastructure, accommodating vehicles, buses, bicyclists, and pedestrians, as well as access to public and private property. The streets are also a major component of the public realm (as described in Chapter 4: Urban Design), framing views of the surrounding city and landscape, and creating a sense of place where social interactions occur.

The TOD Plan identifies potential locations of new streets and multi-use connections to create an interconnected street network that serves multiple transportation modes and improves access to the rail stations and existing and future development. The Downtown and Chinatown station areas already enjoy a fine-grained street grid, which will be maintained. New streets are primarily shown in the Iwilei station area to provide access within the proposed mixed-use district and to Chinatown and Downtown.

The large blocks makai of the Iwilei station should be divided in a coherent street pattern that creates additional street frontage for new development; improves access between the station and the surrounding district, including Honolulu Community College; and facilitates movement among individual parcels. For example, in the illustrative concept plan shown below, Sumner Street and a new street perpendicular to Pacific

A network of new streets around the Iwilei station would improve access to the station, existing and new destinations surrounding the station, and Chinatown/Downtown.

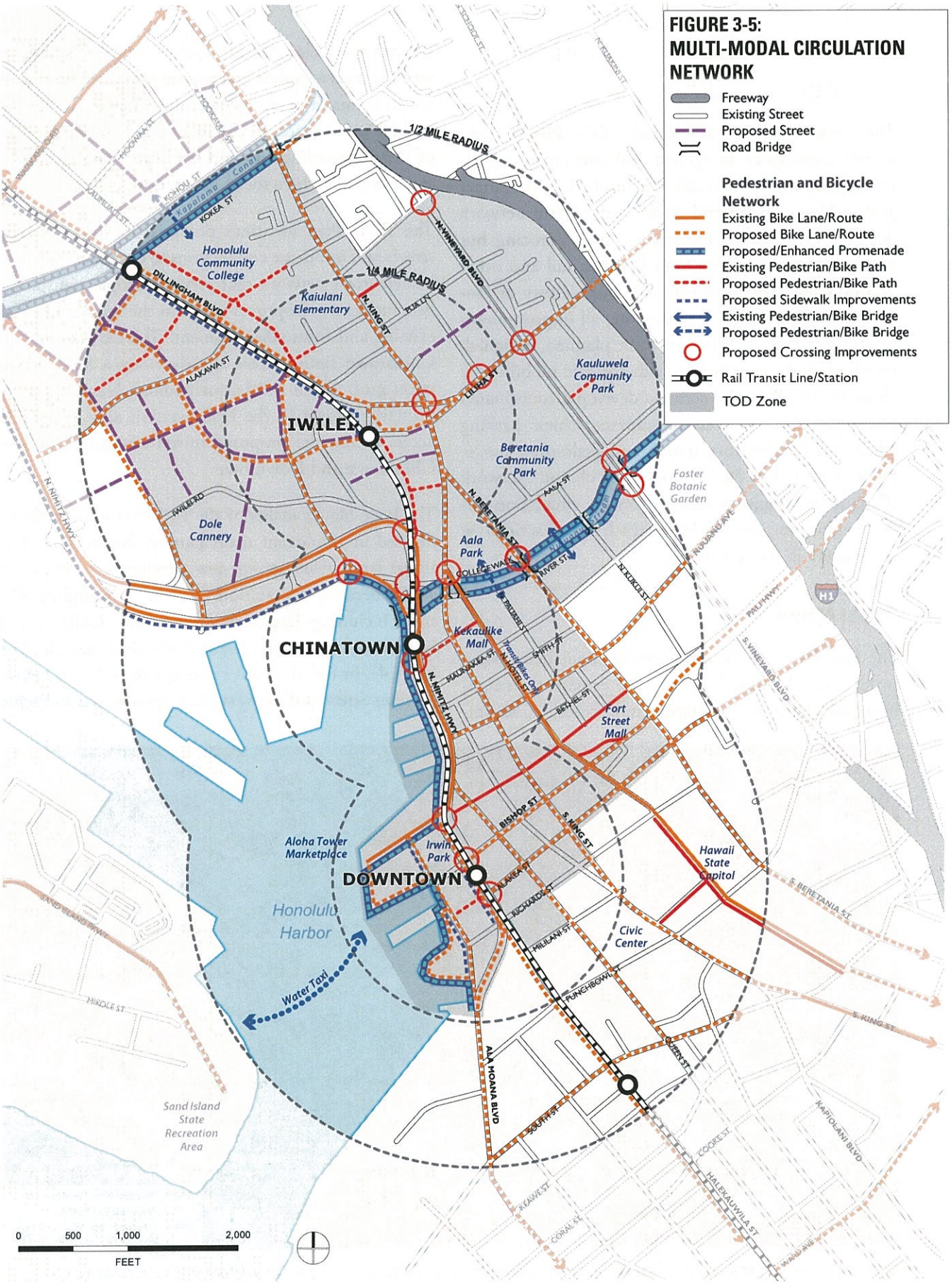


FIGURE 3-5:
MULTI-MODAL CIRCULATION NETWORK
Freeway
Existing Street
Proposed Street
Road Bridge
Pedestrian and Bicycle Network
Existing Bike Lane/Route
Proposed Bike Lane/Route
Proposed/Enhanced Promenade
Existing Pedestrian/Bike Path
Proposed Pedestrian/Bike Path
Proposed Sidewalk Improvements
Existing Pedestrian/Bike Bridge
Proposed Pedestrian/Bike Bridge
Proposed Crossing Improvements
Rail Transit Line/Station
TOD Zone
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Honolulu Community College
Kaiulani Elementary
Kauluwela Community Park
Beretania Community Park
Foster Botanic Garden
Dole Cannery
Aala Park
Kekaulike Mall
Fort Street Mall
Hawaii State Capitol
Civic Center
Irwin Park
Aloha Tower Marketplace
Honolulu Harbor
Water Taxi
Sand Island State Recreation Area
DILLINGHAM BLVD
N. VINEYARD BLVD
N. KING ST
ALAKAWA ST
LILIHA ST
N. BERETANIA ST
AALA ST
COLLEGE WALK
RIVER ST
N. KUKUI ST
N. NIMITZ HWY
N. HOTEL ST
S. HOTEL ST
S. TRUSTEES ST
SMITH ST
BETHEL ST
BISHOP ST
S. KING ST
ALAKEA ST
RICHARDS ST
MILILANI ST
PUNCHBOWL ST
QUEEN ST
ALA MOANA BLVD
SOUTH ST
COOKE ST
HALEKAUWILA ST
KAPIOLANI BLVD
S. BERETANIA ST
S. VINEYARD BLVD
PALI HWY
NUUANU AVE
H1
0 500 1,000 2,000
FEET

Street both extend to a roundabout 200 feet makai of Dillingham, directly across from a key pedestrian path shown in HCC's Long Range Development Plan. At the convergence of these two streets, a new large community park is shown. The entire new street network concept is shown in Figure 3-5, the Circulation Diagram. Although new streets may not follow these locations precisely, the intent of this illustration is to show how streets should connect to the stations, arterials and collectors, and to suggest the appropriate block size. Block lengths shown average approximately 350 feet.

Pedestrian and Bicycle Facilities

The TOD Plan also identifies a range of improvements to pedestrian and bicycle facilities within the station areas to enhance accessibility, attractiveness, and safety. Many of these, such as landscaping, street furniture, lighting, and façade improvements, are described in detail in Chapter 4. The Circulation Diagram presented here, Figure 3-5, highlights only improvements to circulation and mobility throughout the Downtown TOD Plan area.

A key part of this network are routes that are for the exclusive use of pedestrians and bicyclists, identified as pedestrian/bike path or promenade. Kekaulike Mall is proposed to extend to Nimitz Highway as a pedestrian-only path, with limited truck access for deliveries. Similarly, a new path is recommended under the rail guideway from Iwilei station to Iwilei Road and Aala Park. Public promenades are also proposed to provide more opportunities for active transportation, recreation, and stronger connections to the waterfront areas and Nuuanu Stream.

In addition, the Circulation Diagram identifies new bicycle paths and lanes located on the street network, improved pedestrian crossings, and bridges to improve safety and create a connected network for cyclists and pedestrians. These are discussed further below.

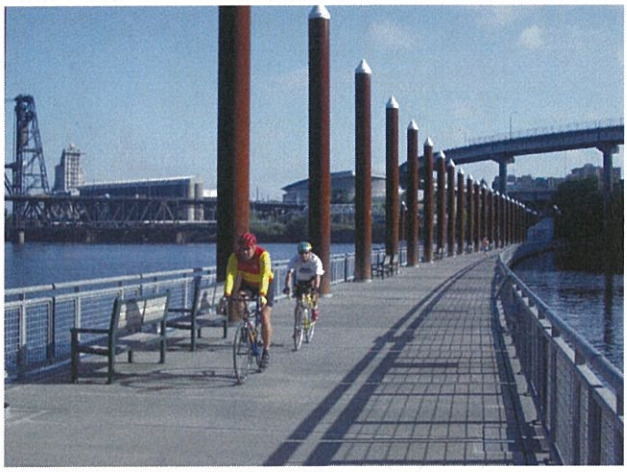
Promenade

A promenade is proposed along the Downtown/Chinatown harborfront and along both sides of Nuuanu Stream. Discussed in greater detail in Chapter 4: Ur-

DYETT & BHATIA

Designing attractive, safe pedestrian and bicycle facilities that are separated from vehicular facilities will improve accessibility to the rail stations and boost transit ridership. This is exemplified in Chinatown (top), Fort Street Mall (middle) and San Francisco, CA (bottom).

DYETT & BHATIA



DYETT & BHATIA

The TOD Plan proposes a comprehensive bicycle network, including on- and off-street bicycle routes and lanes, as shown in Carlsbad, CA (top) and Portland, OR (middle). Bicycle parking at each of the stations and key destinations will improve the safety and convenience of bicycling .

ban Design, the promenades provide opportunities for recreation and exercise; build stronger physical connections to the waterfront; and are a key part of the city's overall circulation network. With consistent landscaping and improved pedestrian crossings across Nimitz Highway/Ala Moana Boulevard and Nuuanu Stream, the promenade would provide a non-vehicular route that is attractive, peaceful, and directly accessible from the rail stations. While some commuting cyclists may still choose the on-street bicycle lanes, the promenades would accommodate less confident riders traveling through the area.

Bicycle Facilities

Bicycle routes, lanes, and paths should efficiently and safely connect bicyclists to the rail stations, to destinations within the Downtown corridor, and to the regional bike network, as shown in Figure 3-6. Based on the Oahu Bike Plan, this plan designates a number of new bicycle facilities within the corridor, including along Ala Moana Boulevard, King Street, Queen Street, and Beretania Street. Proposed mauka-makai bicycle connections include Liliha Street, Nuuanu Avenue, Alakea Street, Bishop Street, and South Street. In addition, new bicycle routes and lanes are applied on the

BICYCLE FACILITY CLASSIFICATION (ADAPTED FROM THE OAHU BIKE PLAN)

Bicycle Paths (Class I), referred to as shared use paths, are off-street grade-separated facilities at least 12-feet in width.

Bicycle Lanes (Class II) are on-street facilities delineated by wide white striping and pavement stencils indicating bike-use only. Lanes are typically five- to six-feet wide.

Bicycle Routes (Class III) are on-street facilities often shared with vehicle traffic. Posted street signs and pavement markings alert drivers that bicyclists may be present. Routes are typically implemented when there is not sufficient room for a bicycle lane in the roadway.

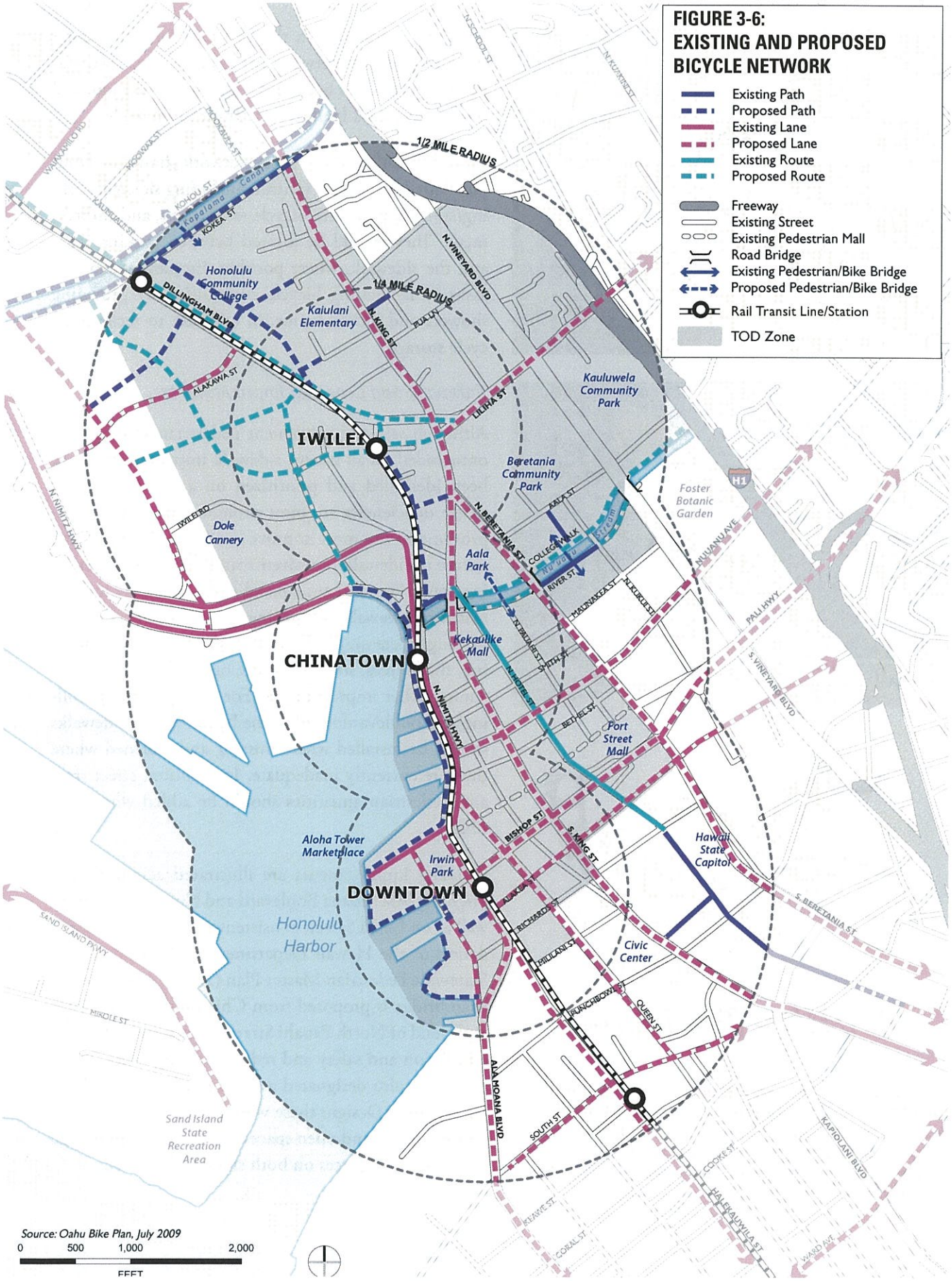


FIGURE 3-6:
EXISTING AND PROPOSED BICYCLE NETWORK
Existing Path
Proposed Path
Existing Lane
Proposed Lane
Existing Route
Proposed Route
Freeway
Existing Street
Existing Pedestrian Mall
Road Bridge
Existing Pedestrian/Bike Bridge
Proposed Pedestrian/Bike Bridge
Rail Transit Line/Station
TOD Zone
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Honolulu Community College
Kaiulani Elementary
Kauluwela Community Park
Beretania Community Park
Foster Botanic Garden
Dole Cannery
Aala Park
Kekaulike Mall
Port Street Mall
Aloha Tower Marketplace
Irwin Park
Hawaii State Capitol
Civic Center
Honolulu Harbor
Sand Island State Recreation Area
N. VINEYARD BLVD
N. KING ST
DILLINGHAM BLVD
ALAKAWA ST
LILIHA ST
N. BERETANIA ST
N. NIMITZ HWY
BISHOP ST
S. KING ST
ALA MOANA BLVD
S. BERETANIA ST
S. VINEYARD BLVD
PALI HWY
NUUANU AVE
KAPIOLANI BLVD
Source: Oahu Bike Plan, July 2009
0 500 1,000 2,000
FEET

DYETT & BHATIA

DYETT & BHATIA

Pedestrian crossings can be improved in active pedestrian areas through measures such as signalized crosswalks, mid-block crossings designed with unique pavers/markings, installation of LED or audible crosswalks, and avoiding free-right turn lanes at intersections. These improvements are illustrated in examples from Santa Monica, CA (top) and Mountain View, CA (middle).

new streets proposed in the Iwilei station area; under the rail guideway between Iwilei and Chinatown stations and diamond head of the Downtown station; and on the Honolulu Harbor waterfront promenade.

Bicycle facilities on the street network should be complemented by support facilities including signage, parking/storage at stations, bicycle retail stores, and enforcement. They should be located between parking lanes and the sidewalk, where possible. Employers can also assist in facilitating bicycle commuting by providing showers and locker rooms, in addition to secured bicycle storage.

Sidewalk and Crossing Improvements

Although safe and convenient pedestrian access is recommended on all streets, sidewalk improvements have been identified and prioritized on a few key streets, where deficiencies are most pronounced or where improvements can most improve access to rail transit. The nature of sidewalk improvements will depend on existing conditions and anticipated needs, but may include installing sidewalks or striping where they are currently missing; increasing sidewalk width; and adding lighting, shade trees, street furniture or wayfinding signage, among other improvements. For example, along Dillingham Boulevard north of the Iwilei station, sidewalks should be installed where missing and widened where they are currently inadequate. In addition, street trees and pedestrian amenities should be added where feasible.

Crossing improvements are illustrated across Nimitz Highway/Ala Moana Boulevard and Nuuanu Stream, as well as on Liliha Street, consistent with the recommendation of the Hawaii Department of Transportation's Statewide Pedestrian Master Plan (2013). A new pedestrian bridge is proposed from Chinatown to Aala Park at the end of North Pauahi Street to improve pedestrian circulation and safety and reduce walking times. Some streets are also designated as "Green Streets" in Chapter 4: Urban Design; these would serve as connections between parks and open spaces and would feature large shade-providing trees on both sides of the street.

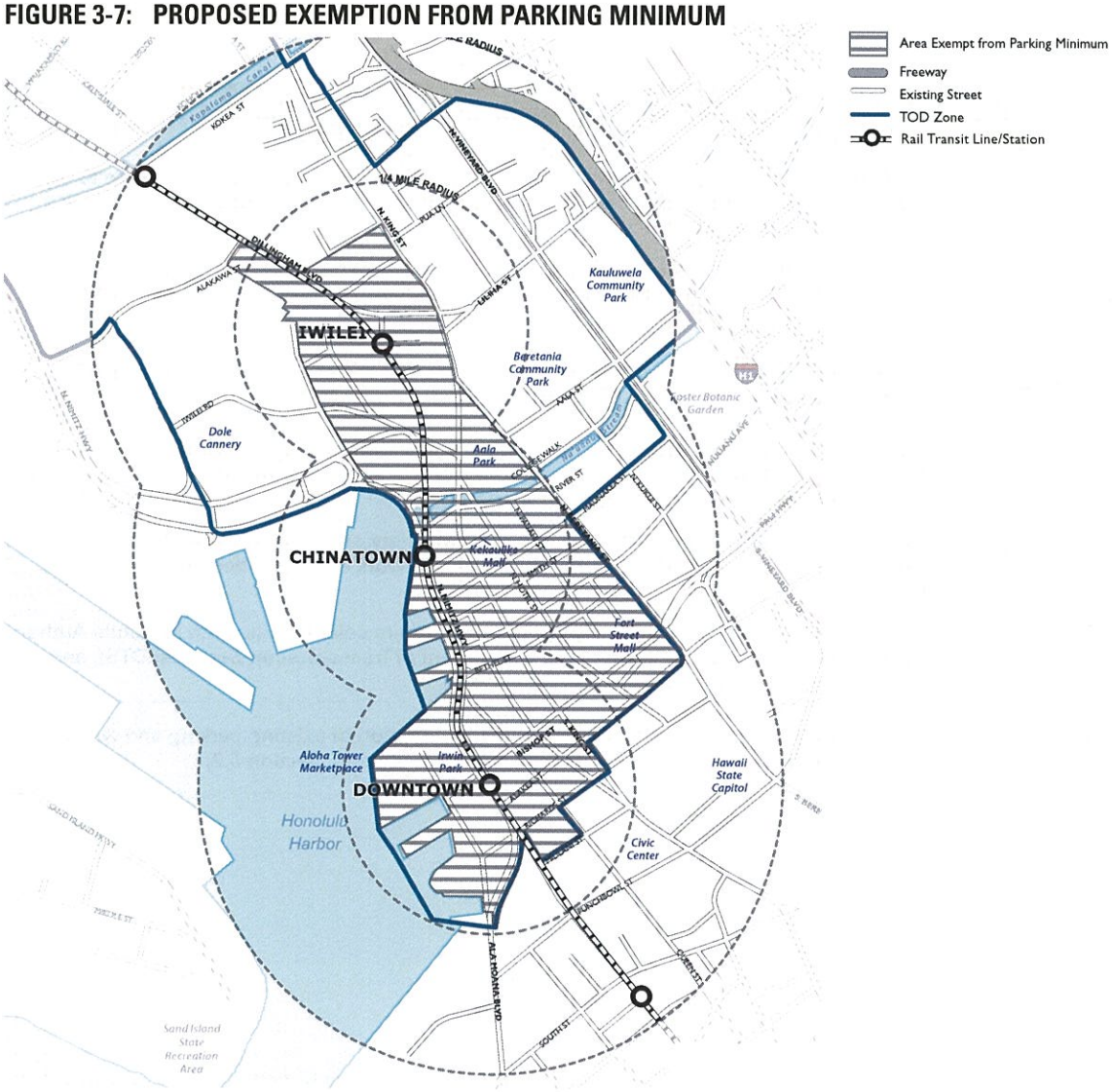
Parking

Appropriate parking regulations can further broader community planning objectives, including infill development, support for transit and other modes, and development of walkable communities, and even enhance housing affordability by requiring less building area or property to be devoted to parking. While the TOD Plan aims to moderate the overall need for parking, it also recommends a number of forward-thinking parking regulations, as well as strategies to help ensure an appropriate supply of parking.

Flexibility in parking configurations and shared parking provisions allow for efficient use of space and should be employed throughout the corridor where possible. Demand-responsive pricing of public parking spaces can also help regulate parking supply. To promote efficient use of land, surface parking lots should be discouraged, and reduced parking requirements should be permitted where special conditions exist. Additionally, the City may explore parking maximums as a potential TOD tool. Recommended parking standards by land use and additional regulations are detailed in Chapter 6: Implementation, Section 6.2.

In addition to the regulations described in Chapter 6, the TOD Plan recommends that certain areas, closest to rail transit, be exempt from parking minimums. Outlined in Figure 3-7 below, this exemption should apply to the areas of highest intensity and nearest to transit stations areas. It includes most of the areas desig-

FIGURE 3-7: PROPOSED EXEMPTION FROM PARKING MINIMUM



nated as Downtown Mixed Use, as well as some of the areas designated as Urban Mixed Use-High and Urban Mixed Use-Medium.

Parking management strategies can also help to better utilize existing parking facilities through pricing and information technology. For example, Honolulu does not have the real-time electronic parking availability signage found in many other downtowns. Consequently, it may appear that parking capacity is more limited than it actually is. Drivers in San Francisco are now benefitting from a phone application that relies on wireless sensors imbedded in streets and city garages that can inform drivers in seconds when a parking spot has become available. Honolulu is currently completing an Urban Core Parking Master Plan which should provide more information on parking conditions including parking demand characteristics and strategies for improvement.

Electronic parking information provides real time updates of parking availability, leading to more efficient utilization of the parking supply.

TABLE 3-4: SUMMARY OF MAJOR MOBILITY IMPROVEMENT RECOMMENDATIONS

IMPROVEMENT	DESCRIPTION
New Street Network	System of vehicular rights-of-way that maximizes through streets; prioritizes access to transit stations; and enhances access to and within residential areas. Illustrated conceptually in Figure 3-5: Circulation Diagram.
Promenades	Pedestrian- and bicycle-only rights-of-way that improve views; heighten enjoyment of the harborfront and Nuuanu Stream recreation opportunities; and improve overall mobility and access in the corridor. (See Figure 3-5)
Sidewalk Improvements	Construction of sidewalks where missing or inadequate to enhance safety and accessibility to rail transit along key streets. (See Figure 3-5)
Crossing Improvements	Enhancements to crosswalks to increase safety across Nimitz Highway, Nuuanu Stream, North Vineyard Boulevard, and at other key intersections. May include signalization, striping, and/or bulb-outs. (See Figure 3-5)
Connected Bicycle Routes, Lanes, and Paths	System of bicycle facilities that eases and ensures safety of movement to and within the Downtown corridor. Shown in Figure 3-6: Bicycle Network and described in the Oahu Bike Plan.
Coordinated Bus-Rail-Ferry Transit	Coordinated multi-modal transit system that will require collaboration with Honolulu Authority for Rapid Transportation (HART), the Department of Transportation Services (DTS), and Oahu Transit Services (TheBus).
Parking Management Strategy	A multi-faceted approach that will enable better utilization of existing parking and will help clarify future parking needs. (See Chapter 6: Implementation, Section 6.2)

M. GARRITY

Small blocks provide more walking route options and opportunities for more storefront visibility (as shown in Chinatown, top). Expanded sidewalk widths would accommodate heavy pedestrian traffic, or pedestrian and bicycle access in the case of the promenades (Tokyo, Japan, above).

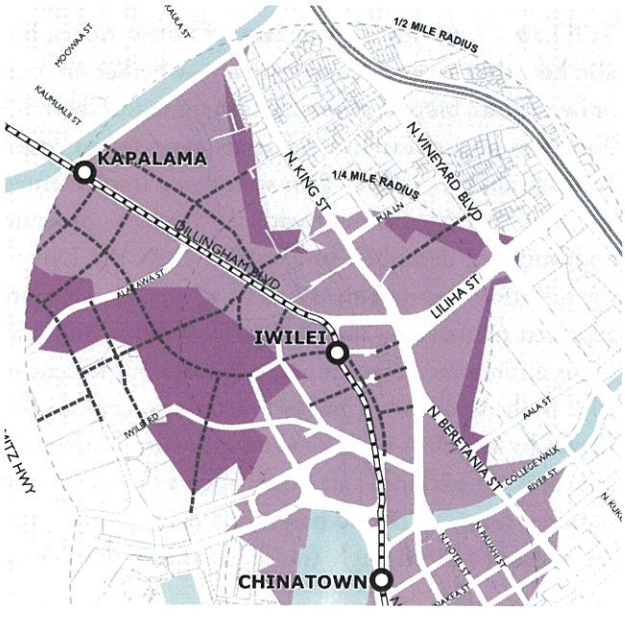
3.3 Projected Multi-Modal Transportation Conditions

The Honolulu Rail Transit project will provide fast and reliable transit service, while TOD will increase the number of homes, jobs and destinations accessible by rail. Together, these factors are likely to shift how community members choose to travel to school, work, medical care, shopping, entertainment and other destinations, as they weigh speed, costs, and convenience. This section analyzes the impact of the rail and the improvements described above on future travel patterns.

Walking Access

The proposed new streets are located primarily around the Iwilei station, which currently has large blocks and few through streets. This recommended street pattern is anticipated to improve access to transit as well as the overall walkability of the proposed mixed-use district. Figure 3-8 illustrates one effect: it dramatically increases the number of properties that may be accessed within a seven-minute walk of each station. This increased accessibility is an essential component to transit-oriented development, allowing for a walkable neighborhood, direct linkages to the stations, and better access to destinations within the district.

FIGURE 3-8: WALKABILITY ANALYSIS



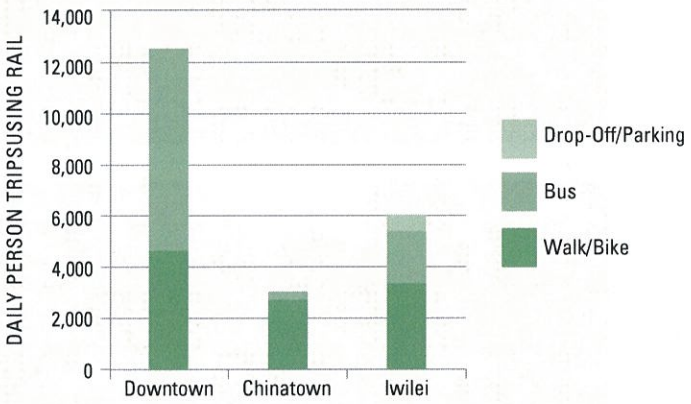
Rail Transit Ridership and Station Access Projections

The EIS for the rail project estimated that there will be a total of 116,330 daily boardings on the rail system by 2030. This is an average of 5,540 daily person boardings at each rail station, and the average for the three stations in Downtown nearly matches that, at 5,233 boardings. The Downtown station is projected to be the second highest used station along the rail line (10,770 daily boardings) with only Ala Moana Center station having more passenger activity. On the other end of the spectrum, the Chinatown station is projected to be the least used station with 1,560 daily person trips.

Notably, the projected ridership in the EIS did not include the potential increase in riders as a result of TOD. To rectify this, the planning team analyzed the effect of the proposed TOD uses and development pattern on rail transit ridership. Ridership would be expected to increase since TOD by its very nature seeks to support transit ridership by creating new origins and destinations—such as homes, jobs, and shopping—within safe and convenient walking distance of transit. Table 3-5 supports this hypothesis, projecting a 39% increase in ridership for the three Downtown stations compared to the EIS projections. Most of this increase is attributed to new development around the Iwilei station and Chinatown station (ewa of Nuuanu Stream) and the increase in transit usage by new residents, workers, and students accessing these new destinations.

TOD affects not just the number of transit riders, but also how they access the rail stations—whether on foot, or by car, bus, bicycle, scooter, or other mode. Chart 3-3 illustrates how rail transit riders are expected to access each station if the TOD Plan were to be implemented in a way that is consistent with the land use program and buildout described in Chapter 2. At the Downtown station, nearly two-thirds of all transit riders are expected to arrive by bus. Access by walking and biking is anticipated to account for 90 and 56 percent of trips to the Chinatown and Iwilei stations, respectively. Access by vehicle—both kiss-and-ride (drop-offs/pick-ups) and self-parking—are anticipated to be low for all stations, since no public parking is being provided at the station sites (though transit users may choose to use other parking lots/garages). This, however, could change with the construction of new parking garages at strategically placed locations in, or within easy walking distance of, the Downtown planning area.

CHART 3-3:
PROJECTED STATION ACCESS RATES, BY MODE (WITH TOD PLAN BUILDOUT)



Source: Weslin Consulting Services, Inc., 2012.

Vehicle Traffic

Summary of Vehicle Trips

A traffic analysis was completed to understand the potential traffic impacts associated with new development. Overall, future development anticipated under the TOD Plan does not contribute substantially to vehicle trip generation, especially when accounting for transportation demand management (TDM) measures, such as pedestrian, bicycle, and bus access improvements, and vanpool/carpool/ridesharing programs. The Institute of Transportation Engineers' (ITE) vehicle trip generation rates and reductions to account for transit service (2% to 20% for work trips and 2% to 10% for non-work trips) were applied to each land use classification described in Chapter 2 in order to assess anticipated vehicle trip generation.

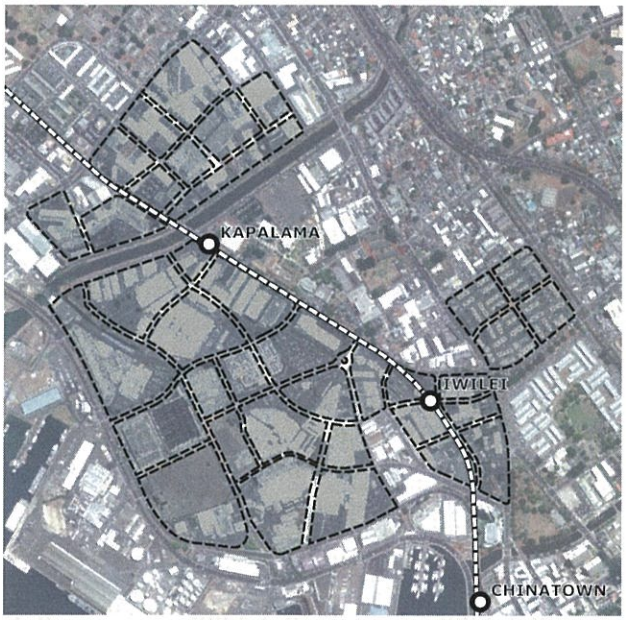
This analysis identified that each weekday there are approximately 519,000 vehicle trips generated within the ½-mile area, as shown in Table 3-6. As a result of buildout of the TOD Plan, the ½-mile area could expect 53,000 net new vehicle trips, or a ten percent increase

TABLE 3-5: PROJECTED RAIL TRANSIT RIDERSHIP, BY STATION

	STATION			
	DOWNTOWN	CHINATOWN	IWILEI	TOTAL
Initial EIS Estimate (No TOD Assumed)	10,770	1,560	3,370	15,700
TOD Plan Estimate (With TOD & Moderate-Level TDM[1])	12,649	3,073	6,061	21,783
PERCENT INCREASE	**17%**	**97%**	**80%**	**39%**

1. For the "moderate" commitment level, the emphasis is on a higher quality of pedestrian and bicycle linkages to stations and on absolute safety achieved by the elimination of conflicts with vehicle traffic. Details can be found in "Transportation Assessment: A Technical Memorandum Prepared for the Downtown Neighborhood TOD Plan." Weslin Consulting Services, Inc, May 2012.

Source: Weslin Consulting Services, Inc., 2012; Honolulu High-Capacity Transit Corridor Project Final Environmental Impact Statement; by the United States Department of Transportation Federal Transit Administration and the City and County of Honolulu Department of Transportation Services, June 2010; Table 3-20.



New blocks resulting from an expanded street network in the Kapalama/Iwilei station areas. The expanded network builds on existing street segments to establish through streets; improve access to the stations; and create smaller block lengths in residential areas.

in total trips. With additional TDM measures, vehicle trips to and from destinations within the entire planning area could be reduced by 18% to 22% over the future condition without TDM measures, depending on the level of implementation. Total future vehicle trips resulting from a moderate level of TDM measures, such as those illustrated in figures 3-5 and 3-6, is shown in the table below.

Comparative Analysis

As described and illustrated in Chapter 2, this Plan establishes a focused Transit-Oriented Development Zone ("TOD Zone") encompassing sites within a ½-mile of the stations that have the most potential to support transit ridership and take advantage of transit proximity. Table 3-7 focuses on the projected change in vehicle trips for the TOD Zone and compares (A) existing conditions with three future (2030) conditions.

TABLE 3-6: WEEKDAY VEHICLE TRIP ENDS IN THE DOWNTOWN CORRIDOR (TRAFFIC ANALYSIS ZONES WITHIN THE 1/2-MILE AREA)

	NUMBER OF TRIPS[2]	% INCREASE OVER EXISTING
Existing Conditions	519,000	
Net Increase	53,000	
Total Future (With Rail Project & TOD, but no TDM Measures)	**572,000**	**10%**
Total Future (With Rail Project, TOD & Moderate-Level TDM Measures)[1]	**462,000**	**-11%**

1. For the "moderate" commitment level, the emphasis is on a higher quality of pedestrian and bicycle linkages to stations and on absolute safety achieved by the elimination of conflicts with vehicle traffic. Details can be found in "Transportation Assessment: A Technical Memorandum Prepared for the Downtown Neighborhood TOD Plan." Weslin Consulting Services, Inc, May 2012.
2. Three TAZs are in both the Kalihi and Downtown Neighborhood TOD areas and would be double counted if one were combining the two transportation assessments.

Source: Weslin Consulting Services, Inc., 2012.

The outcome of this analysis isolates the contribution that the rail project, TOD and related TDM measures—such as pedestrian and bicycle improvements, and carpooling/vanpooling—may have on reducing vehicle trips. Column (B) describes future traffic conditions in the Downtown area assuming normal growth rates and no rail project (i.e., No Build Alternative from the EIS). In this case, vehicle trip ends are expected to increase by 30 percent over existing conditions. Column (C) isolates the potential impact of rail on reducing vehicle trip ends, compared to Column (B), suggesting that though trips would still increase, they would increase at a much lower rate—just nine percent.

Lastly, Column (D) models the scenario articulated in this TOD Plan, where the TOD Plan and TDM measures complement the rail project by supporting transit ridership. In this scenario, vehicle trips are only expected to increase by three percent overall from existing conditions. The Chinatown station area sees the most dramatic reduction in vehicle trips due to limited new development, but a substantial increase in transit access.

TABLE 3-7: DAILY VEHICLE TRIP ENDS, BY STATION AND SCENARIO (TRAFFIC ANALYSIS ZONES WITHIN THE DOWNTOWN TOD ZONE)

	(A) EXISTING	(B) 2030 FUTURE WITHOUT RAIL PROJECT OR TOD PLAN		(C) 2030 FUTURE WITH RAIL PROJECT (BUT, WITHOUT TOD OR TDM)		(D) 2030 FUTURE WITH RAIL PROJECT, TOD AND TDM	
STATION	VEHICLE TRIP ENDS	VEHICLE TRIP ENDS	CHANGE VS. EXISTING	VEHICLE TRIP ENDS	CHANGE VS. EXISTING	VEHICLE TRIP ENDS	CHANGE VS. EXISTING
Downtown	164,000	210,600	28%	178,600	9%	172,400	5%
Chinatown	55,000	65,600	19%	56,000	2%	51,000	-7%
Iwilei	90,100	125,400	39%	103,400	15%	94,100	4%
Downtown TOD Zone[1]	**309,100**	**401,600**	**30%**	**338,000**	**9%**	**317,400**	**3%**

1. Total numbers may not sum precisely due to rounding.

Source: Transportation Assessment, Downtown Neighborhood TOD Plan, Weslin Consulting Services, Inc., 2012, pages 36-49.

3.4 Goals and Policies

GOALS

MB-G1: Create an integrated multi-modal transportation system that fosters livable, walkable communities around the stations, and supports increased rail ridership.

MB-G2: Prioritize pedestrian, bicycle and bus transit access to the rail stations through strategic improvements.

MB-G3: Design transportation infrastructure as an integrated component of the neighborhoods and greater public realm of streets, landscaping, plazas, and parks.

MB-G4: Prioritize pedestrian and bicycle safety, including for students going to and from local schools.

MB-G5: Accommodate existing and future on- and off-street parking demand through a coherent parking management strategy that includes support for alternative travel modes.

POLICIES

MB-P1: Implement major mobility improvements described in Table 3-4 in coordination with developers, property owners, and transportation agencies.

MB-P2: Require large developments within the TOD Zone to prepare a Transportation Management Plan (TMP) to identify TDM strategies that minimize the number of vehicle trips generated by the proposed development; and, subsequently and if necessary, a Traffic Impact Analysis Report (TIAR), based upon the reduced number of vehicle trips and projected modal distribution of person trips identified in the TMP.

Street Network

MB-P3: Create a well-connected network of streets and pedestrian routes to improve access for all modes to the stations and to new and existing destinations within the station areas.

- Develop new mauka-makai and ewa-diamond head streets in the Iwilei station area to increase walkability in the new mixed-use district generally, in accordance with the overall pattern shown on Figure 3-5: Circulation Diagram. Provide flexibility with the actual street layout, while ensuring that block sizes are, on average, generally no larger than 350 feet in any direction, particularly mauka of Iwilei Road. Where possible, create through streets by extending and connecting existing street segments.
- Improve mauka-makai connections through sidewalk improvements, Green Street improvements, crossing improvements, promenades, and new street connections (see Figure 3-5: Circulation Diagram and Figure 4-4: Open Space Diagram).
- In the redevelopment of Mayor Wright Homes, extend Desha Lane through to North Vineyard Boulevard in order to reduce block sizes and enhance accessibility for neighborhood residents.

MB-P4: Require that all improvements to rights-of-way be consistent with the City and County of Honolulu Complete Streets ordinance, passed in May, 2012.

MB-P5: Accommodate and sign truck traffic on Nimitz Highway. Through truck traffic is discouraged within the rest of the ½-mile area.

MB-P6: Work with state and city transportation departments and the Honolulu Authority for Rapid Transportation (HART) to mitigate potential traffic hot spots and delays, especially on Dillingham Boulevard and Nimitz Highway where travel lanes and left-turn lanes are expected to be redesigned. Educate motorists about construction activities and street design changes.

MB-P7: Enforce regular maintenance and cleaning of city streets and code enforcement related to parking and abandoned cars.

Station Access Design

MB-P8: Work with HART to design station entrance areas that are integrated with surroundings, create a welcoming environment, serve as a hub of activity, and enable self-policing:

- Ticket windows, restrooms and any other amenities should be clearly marked, well-lit, and face public streets.
- Rail stations and bus stops should be safe, clean, well-maintained, and patrolled to ensure the safety and security of passengers.

- Station entrances should minimize adverse effects to adjacent historic properties.
- Sidewalks near stations and station entrances shoud be improved as needed.
- Wayfinding signs should be visible, coherent, and direct on- and off-boarding passengers to surrounding streets and major destinations, such as Aloha Tower, Dole Cannery, and the financial district.

MB-P9: Coordinate bus schedules, routes, and fares to enable timed-transfers within short walking distance.

MB-P10: At Chinatown station, foster the development of the surface parking lot adjacent to the station into an integrated rail stop and transit station with basic services and amenities such as a café and an information kiosk.

Pedestrian Facilities

(Also see policies on streetscape improvements and block size in Chapter 4)

MB-P11: Develop a fine-grained network of streets and pedestrian routes, as illustrated in Figure 3-5: Circulation Diagram. Provide incentives for private developers to develop streets in tandem with new transit-oriented development to ensure safe and direct pedestrian connections.

- Extend the pedestrian-only segment of Kekaulike Mall to Nimitz Highway, while allowing for commercial loading during set hours.
- Develop a pedestrian/bicycle path as part of a linear park under the rail guideway between the Iwilei station and Iwilei Road, to contribute to a more direct route between Iwilei and Chinatown/Downtown and the waterfront promenade.

MB-P12: Construct sidewalks where they are currently missing to create continuous pedestrian walkways:

- Design new sidewalks to be at least eight feet wide.
- As shown in Figure 3-5, prioritize sidewalk construction and improvements on Dillingham Boulevard ewa of the Iwilei station and on Nimitz Highway along the Iwilei waterfront.

MB-P13: Prioritize street crossing improvements at key intersections where heavy pedestrian movement is anticipated across busy and/or wide intersections, as shown in Figure 3-5.

- Improvements may include, but are not limited to: reducing the effective width of the crossing through pedestrian refuges or corner bulb-outs; installing wide striped crosswalks or ones with flashing and light-emitting diode (LED) beacons; disallowing or removing free-right turn lanes, and/or other means of slowing traffic or alerting drivers to the presence of pedestrians.
- Support pedestrian safety through education and marketing of the State's Walk Wise Hawaii program.

MB-P14: Prioritize pedestrian bridges over waterways and highways where pedestrian safety measures and accessibility improvements are needed, as shown in Figure 3-5:

- Construct a pedestrian/bicycle bridge across Nuuanu Stream to Aala Park to better connect the park directly to Chinatown.
- Coordinate with HART to utilize the Downtown station concourse as a pedestrian bridge over Nimitz Highway to Aloha Tower and proposed promenade.

MB-P15: Design safe, well-lit promenades along the harborfront and both sides of Nuuanu Stream to enable continuous pedestrian and bicycle travel. Explore using the canal for local transit, such as water taxis, and for small boat recreation.

Bicycle Facilities

MB-P16: Design a cohesive bicycle network that provides safe and convenient routes between stations and major destinations, as shown on Figure 3-6: Bicycle Network.

MB-P17: Design new bicycle lanes (Class II) to be at least five feet wide and buffered from vehicular traffic by parking lanes or striping, where possible.

MB-P18: Design new bicycle routes (Class III) to be

painted with "sharrows" and marked with roadside signage that reminds motorists to share the road with cyclists.

MB-P19: Use strategies defined in the Oahu Bike Plan to support education about bicycling safety; to encourage a culture of bike riding among children and adults; to create mutual awareness between cyclists and motorists; and to encourage employers to support cycling through the provision of showers, bike racks/lockers, and other amenities and incentives.

MB-P20: Continue to coordinate with HART to support bicycle facilities at the stations:

- Ensure that racks and/or secure lockers are provided at all stations for bicycles and other varieties of personal mobility devices (e.g., Segways and motor scooters).
- Implement a bike sharing program. Prioritize bike sharing "pods" or access locations around each rail station to improve access to and from the stations.

Bus and Ferry Transit

MB-P21: Continue to coordinate with HART and the Department of Transportation Services (TheBus) to create an integrated transit system. Assess schedule and route needs for community circulators or shuttle services (including on-demand services) to bring transit riders to rail stations from upland areas and to connect to key destinations.

MB-P22: Support development of a ferry/water taxi terminal at or near Aloha Tower to provide inter- and intra-island ferry and water taxi service.

Parking

MB-P23: Manage on- and off-street parking in the Downtown and Chinatown station areas to ensure the viability of businesses. Coordinate with Urban Core Parking Master Plan to define strategies for parking management. These may include demand-responsive parking pricing, real time electronic parking availability information signage, and websites/mobile applications.

MB-P24: Allow on-street parking on new streets, where feasible, to provide convenient parking for customers, to slow traffic, and to provide a buffer between moving vehicles and pedestrians on the sidewalk.

MB-P25: Design off-street loading zones to avoid conflicts with pedestrian and bicycle movement by limiting curb cuts, installing signs, and regulating hours of delivery.

MB-P26: Design safe, well-lit drop-off, loading, and taxi-stand areas.

MB-P27: Reduce the land area devoted to parking by supporting innovative technologies, such as parking lifts and automated parking.

MB-P28: Develop a shared parking plan among uses with different peak parking demand times within close proximity of the station.

MB-P29: Allow for flexibility in parking requirements within the TOD Zone in order to encourage transit use, lower construction costs on new projects, and encourage reuse of nonconforming and historic properties.

MB-P30: Allow exemptions from parking minimums in the area outlined in Figure 3-7: Exemption from Parking Minimum, and explore strategies for establishing parking maximums.

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4 URBAN DESIGN

The Downtown Neighborhood TOD Plan sets the framework for vibrant and livable mixed-use districts centered around the three area rail stations. The urban design of these areas is integral to this framework and will ultimately determine the character, feel, and livability of the area. Urban design addresses physical elements such as buildings, blocks, and streets, as well as the activities and pace of life that they accommodate. It also includes the location, orientation and design of open space, the pedestrian realm, and landscaping elements.

This chapter describes the desired character of the station areas in terms of urban design, public open space, and public improvements. Specific policies address elements such as site planning, building massing and articulation, streetscapes, and signage in an effort to encourage vibrancy, beauty, and accessibility as expressed in the community vision. Safety, crime, and homelessness, which are central issues identified by community members, are also addressed through policies related to community design.

Birds-eye view of buildout of the Downtown station areas, looking mauka. The Iwilei station area (left) is transformed into a new mixed-use high-intensity district, while revitalization of Chinatown and Downtown is largely infill and conforms to the existing heights and massing.

4.1 Station Area Character

The Downtown, Chinatown, and Iwilei station areas each have distinct characters which the Plan seeks to build on and enhance to create true transit-oriented communities and destinations. Illustrative renderings show how the urban qualities of the area could be enhanced and new development accommodated.

Downtown Station Area

Downtown, which includes Honolulu's financial and professional office hub as well as the Aloha Tower waterfront area, contains a mix of historically and culturally significant buildings alongside well-designed contemporary buildings that together communicate the city's history, culture, and values. The area has a bustling daytime population and is also home to the state harbor operations, which handle most imports and cruise ships entering the state. The TOD Plan seeks to expand the range of day and evening uses to create a walkable regional destination, with waterfront activities, a revitalized Aloha Tower and Fort Street Mall, and new development on the HECO site.

Streetscape improvements, wayfinding signage, lighting and safe crossings should improve the comfort and accessibility of the area, particularly across Nimitz Highway where crossing on foot is difficult due to the width of the roadway and speed of traffic. A promenade along the waterfront should link key open spaces and recreation activities, connecting to Chinatown and Iwilei with a multi-use path (walking, biking, and jogging). Irwin Park, which serves as a gateway to into Downtown, should be reinstated as a key open space along the waterfront promenade.

Chinatown Station Area

Honolulu's Chinatown is one of the oldest Chinatowns in the United States. It has supported a diverse community and served as a gateway for new immigrants for over 100 years. The district is also on the National Register of Historic Places. Its markets, shops, restaurants, First Friday art walks, and other events continue to be destinations for local residents and visitors. It is, therefore, critical to allow existing uses to grow and expand in a way that is consistent with the district's character, and in accordance with Chinatown Special District regulations.

The TOD Plan identifies strategies for improving the district's walkability and attractiveness; protecting its viewsheds; and ensuring its vibrancy at all times of the day and week. These strategies include redevelopment of surface parking lot sites along Nimitz Highway, streetscape improvements, and the widening of sidewalks where feasible to alleviate overcrowding of pedestrians and sidewalk vendors. Nuuanu Stream and the surrounding walkways create an essential mauka-makai connection through Chinatown between Foster Botanic Gardens, Aala Park, and the proposed waterfront promenade. Finally, adequate refuse containers, lighting, and maintenance would help to keep streets and sidewalks clean and safe.

Iwilei Station Area

Across Nuuanu Stream from Chinatown, the Iwilei neighborhood lies near the often-congested intersection of two large streets—King Street and Dillingham Boulevard—and hosts an assortment of commercial and industrial businesses, as well as harbor activities. Large parcels, few through streets, and missing sidewalks make the area inhospitable for pedestrians. The low intensity and value of existing development, easy access to the waterfront and Aala Park, and proximity to Chinatown and Downtown—with Chinatown a few minutes away and the heart of Downtown a short walk away from the new station—make the area ripe for reuse and intensification.

While harbor activities and some industrial uses may remain for the foreseeable future, the TOD Plan envisions a vibrant and walkable new district around the station that combines high-density mixed-use development with a variety of commercial, residential, retail, restaurant, and entertainment uses. New streets would form a network that better connects the area to the waterfront and to Downtown. Average block lengths should be reduced to about 350 feet, and new streets built on existing rights-of-way and parcel lines, while facilitating access to the Iwilei rail station, Dillingham Boulevard, King Street, and Nimitz Highway. Within the new smaller blocks, existing big-box stores should be redesigned and redeveloped into more attractive and intensely utilized retail destinations with a vertical mix of uses, or with structured parking, which would free up land for other uses.

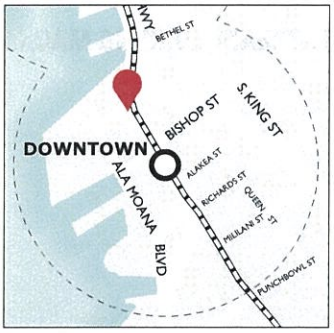
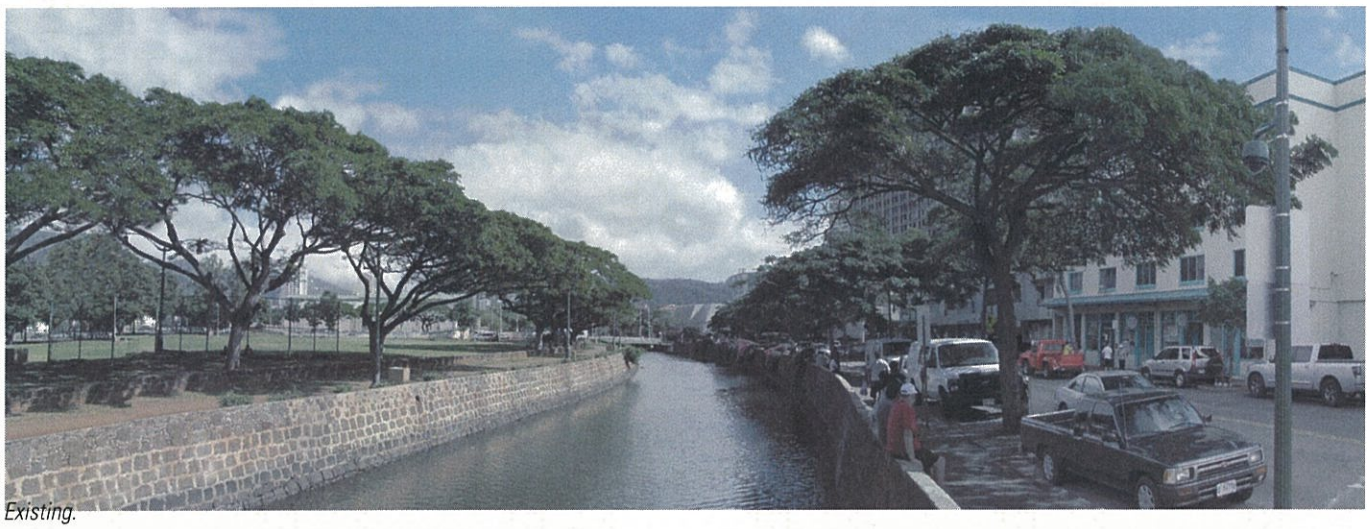


FIGURE 4-1:
ILLUSTRATIVE VIEW OF DOWNTOWN, LOOKING MAKAI FROM NIMITZ HIGHWAY TOWARD ALOHA TOWER

Existing.

Conceptual illustration of an improved Irwin Park, serving as gathering place for Downtown workers, HPU students, and nearby residents, and a gateway marking the arrival to Downtown for transit riders and cruise ship passengers. Redevelopment of the HECO site provides an opportunity for new iconic towers immediately adjacent to the station. Illustration is conceptual and intended only to illustrate vision; actual development may not match the illustration.

FIGURE 4-2:
ILLUSTRATIVE VIEW OF CHINATOWN AND NUUANU STREAM, LOOKING MAUKA FROM THE HOTEL STREET BRIDGE



Existing.

Conceptual illustration of a revitalized Nuuanu Stream with improved landscaping, access to the waterway, a Chinese tea house and garden in Aala Park, and a new footbridge to Aala Park, adding activities and lighting to create a more active street life.

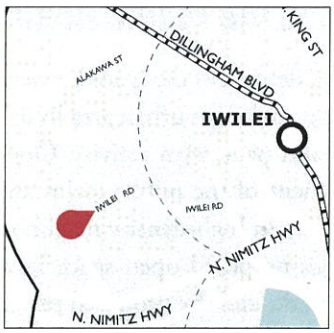


FIGURE 4-3:
ILLUSTRATIVE VIEW OF IWILEI DISTRICT, LOOKING MAUKA ALONG IWILEI ROAD

Existing.

Conceptual illustration of a new mixed-use community in Iwilei, with high-density housing and parks and improved access to existing destinations, including the Dole Cannery. Illustration is conceptual and intended only to illustrate vision; actual development may not match the illustration.

Sidewalks should be wide enough to accommodate the high levels of pedestrian activity anticipated with a clear pedestrian pathway. Landscaping and street furniture can provide a safety buffer between pedestrian and vehicle traffic, and streets lined with active uses and windows help create vibrant districts.

4.2 Open Space and the Public Realm

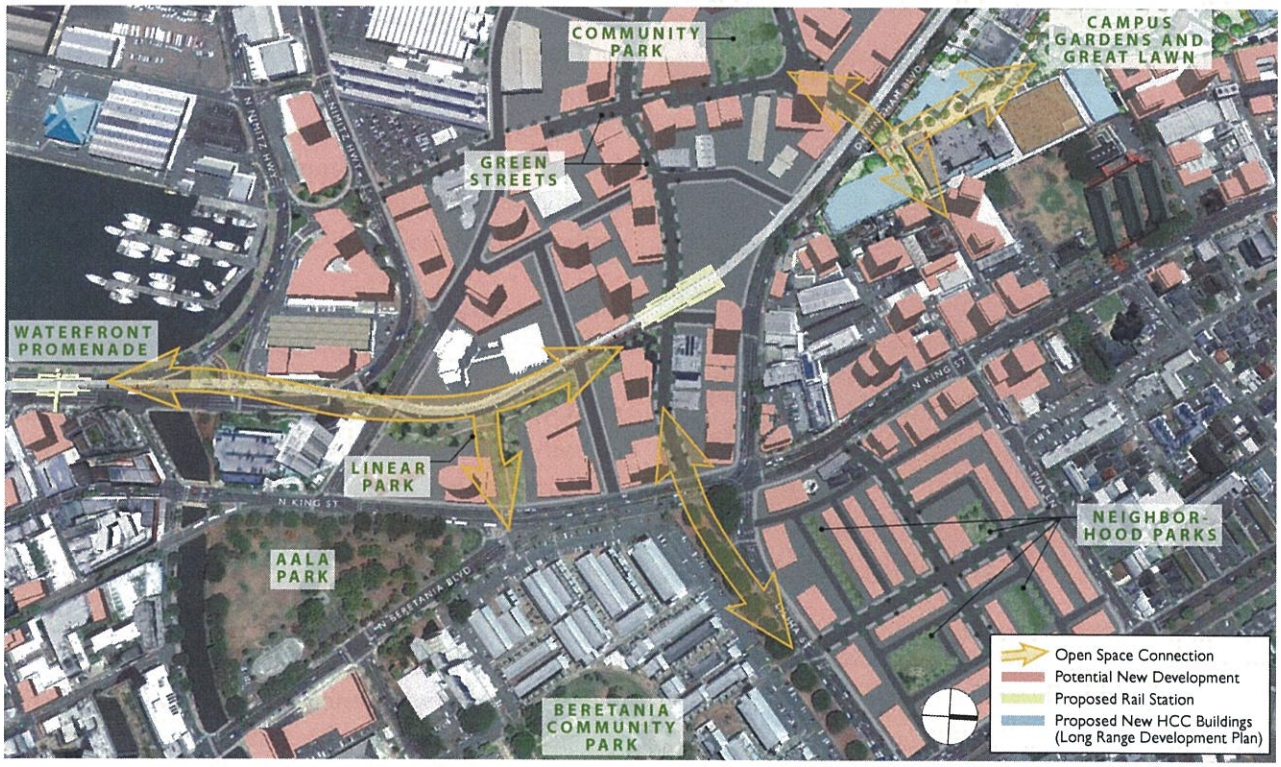
A high-quality public realm, defined as the space between buildings and the street edge, makes an urban area livable by supporting walkability and pedestrian activity. Open spaces are a central component of the public realm and critical to supporting livability in high-density neighborhoods. This section outlines proposed open space locations and types, including parks and the proposed promenade. It also addresses other key elements of the public realm, including plazas and pathways, which will help to form a cohesive network of public space. The policies section describes best practices to provide comfortable, safe, and high-quality spaces.

Public Realm

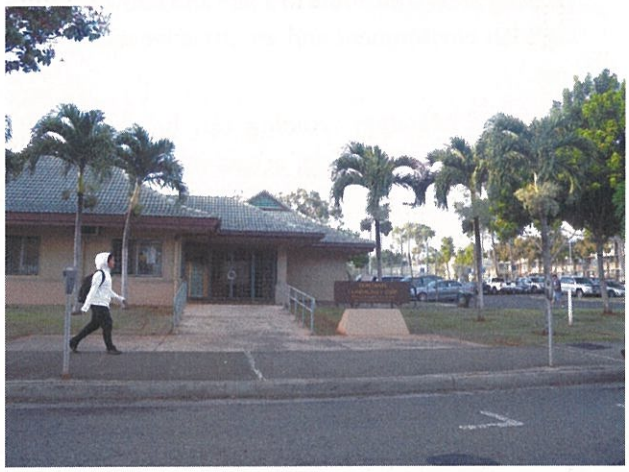
The public realm is an integral part of an urban area's character and helps to define the experience of all users, including those on foot, bicycles, and in vehicles. A well-defined and well-designed sidewalk supports active uses such as retail and community services by enhancing attractiveness and accessibility. The siting, orientation, and design of new development can also enhance the quality of the built environment, help create a pedestrian-scaled experience and invite activity along the sidewalk. Figure 2-5: Active Ground-Floor Frontage and Pedestrian-Oriented Design, presented in Chapter 2, indicates the areas in which pedestrian-orientation is required of building design. Key aspects of pedestrian-orientation and the public realm are discussed below:

- **Sidewalk Improvements:** Sidewalk improvements should focus on creating wide and comfortable pedestrian spaces that allow people to comfortably walk and stop along Honolulu Harbor and access activities along the promenade. New streets, pedestrian and bike paths, and bridges should serve to break up larger blocks around the Iwilei station and create a more navigable public realm.
- **Block Size:** Block length is a central factor in determining the walkability of an area. Human-scaled block sizes shorten trip lengths, provide more opportunities for street crossing, and increase route choices. Increased connectivity is needed around the Iwilei station, which currently has large blocks.

- **Street Interface:** The relationship between the building and the street helps shape a district's identity and contributes to the overall pedestrian experience. A cohesive street frontage with well-designed building facades creates an attractive and identifiable character and allows people to walk, shop, and dine comfortably.
- **Streetscape and Façade Improvements:** Streetscape improvements along key streets should enhance the pedestrian and bicycle environment and provide identity and thematic continuity to districts. Streetscapes should have a well-defined palette of street trees, plantings, paving materials, and signage to create a cohesive identity for the public realm. Likewise, façade improvements can serve to provide identity along existing pedestrian and bike paths as well as along major corridors.
- **Directional Signs:** Signage can help enhance a district's identity if it is carefully designed to be integrated into the public realm. Signage can also be used to indicate appropriate routes to transit and other community destinations; for example, it can encourage and direct cruise ship passengers to walk from the waterfront to Downtown or Chinatown.
- **Site Planning:** Site design includes the overall orientation of buildings and open spaces and their interface with adjacent streets and development. Careful site planning can support walkability at the street level and result in a space that can be easily navigated. The strategic location of buildings and parking can enhance visual interest and increase pedestrian safety.
- **Parking Design:** Innovative siting and design of parking areas contribute to a safe and convenient pedestrian environment and an attractive street frontage.
- **Building Massing:** Massing can be designed to ensure compatible scale, access to sunlight, and a visually interesting skyline. Bulky buildings, on the other hand, can obstruct light and views, and contribute to an unpleasant public realm.



Overhead view of conceptual buildout of the Iwilei station area. Integrating open spaces, open space connections, and public realm improvements into the development program and designing private public spaces that respond to streets and neighborhoods ensure that high-density urban areas are livable and provide a high quality of life.



The largest open spaces in the planning area are concentrated mauka of the Chinatown and Iwilei stations, including Aala Park (top), Beretania Community Park (middle) and Foster Botanic Garden (bottom). The TOD Plan seeks to improve on the distribution of parks, particularly as the districts become more dense.

Open Space

Existing Parks and Open Space

Open spaces and parks are currently limited around the Downtown stations—just over 16 acres serve the entire ½-mile area, as shown in Table 4-2 and Figure 4-4. This equates to just 1.1 acres of park per 1,000 residents, based on current average household size. Still, these facilities provide green space and gathering space for residents and the swell of daytime workers, and they will continue to be important amenities for new populations.

Aala Park represents the largest park in the corridor, providing recreation space for basketball and skateboarding, picnic tables and a playground. However, the park is not well used by residents due to the presence of homeless in and around the park and the perception of compromised safety. Beretania Park is, anecdotally, more successful—its ball fields are better utilized and the park is perceived as safe. Unlike Aala Park, which is surrounded on all sides by streets, Beretania Park is integrated into the Kukui Gardens housing development and also has visibility from Aala Street.

In addition to the parks in Table 4-2, which are operated by the Department of Parks and Recreation and/or Hawaii public schools, hardscaped or landscaped public/private plazas (e.g., Bishop Square) and linear open spaces (e.g., Fort Street Mall) also provide spaces for gathering and sitting outside. These spaces are often more viable in an urban context like Downtown due to limited land availability and the need for durability.

The City categorizes parks into several categories. The following types may be appropriate in Downtown:

- **Community Parks,** typically up to 10 acres and serving a one-mile radius of residents, which may have a variety of amenities including ball fields and basketball courts;
- **Neighborhood Parks,** typically about 4-6 acres and serving a ½-mile radius of residents;
- **Mini Parks,** small parks serving a ½-mile radius of residents, with benches, tables, landscaping, and perhaps a children's play area;
- **Urban Parks,** small plazas or parks with landscaping, typically produced as part of development projects for public and/or private use; and

- **Linkages,** which represent the bikeways, pedestrian paths, and other connections between destinations, including the transit stations and open spaces.
- **Public Views.** Unavoidably, the rail line will change some views, particularly mauka of Nimitz Highway. However, new public spaces, wider sidewalks, and the introduction of the promenade will create new views from public places.

TABLE 4-1: EXISTING PARKS

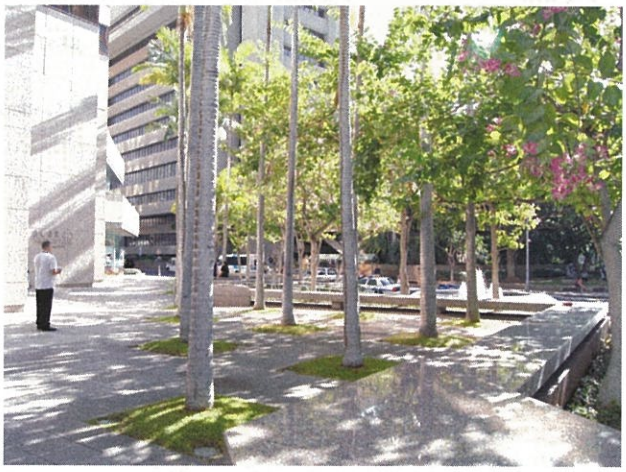
NAME	TYPE	ACRES
Aala Park	Urban Park	6.7
Beretania Community Park	Community Park	5.4
Kauluwela Community Park	Community Park	2.4
Smith-Beretania Urban Park	Urban Park	1.3
Dr. Sun Yat-sen Memorial Park	Urban Park	0.4
Walker Park	Urban Park	
TOTAL		**16.2**

Source: City and County of Honolulu, Department of Parks & Recreation and Department of Planning & Permitting, 2011.

Existing Standards and Policies

The City's Department of Parks and Recreation's Standards and Design Precepts for Future Park Development (2004) provides recommendations and standards for size, amenities, parking, and access, by various park types (e.g., two acres of neighborhood parkland per 1,000 residents). It contains policies for promoting the joint use of facilities and park financing strategies through exactions, incentives, zoning, and streamlining the park dedication ordinance. Downtown is constrained by a lack of available land, but there are a few strategies proposed for expanding open space access, including: sharing facilities with the Nuuanu YMCA; consolidating management of Aala Park and Beretania Community Park to enhance linkages and improve access; and improving existing resources by adding outdoor seating, play areas, and places for small community events.

The City's Subdivision Ordinance specifies that park space in residential developments can either be accessible to the occupants of lots or units, by the public, or both. The regulation applies to land being subdivided into two or more lots and to the construction of multifamily developments. The regulation stipulates the land area required for parks for various residential designations and districts. For example, in special districts (e.g.,



Community gardens (outside Foster Botanic Gardens, top), small plazas (Downtown, middle), and linear connections, such as Fort Street Mall (bottom), provide essential opportunities for gathering and relaxation. Park dedication requirements will help develop open space coincident with new development.

Chinatown Special District), multi-family dwellings require parkland that totals 10 percent of the maximum permitted floor area or 110 square feet per unit (whichever is less). The same standard is applied to apartment buildings in mixed-use districts. In lieu fees may also be acceptable in meeting the park dedication requirement.

Open Space Framework

The Plan proposes several new parks and open spaces and recommends green connections between them, including new or improved public promenades along the harbor waterfront and Nuuanu Stream. Existing parks should be improved and additional open spaces strategically developed as the station areas intensify to provide amenities and encourage people to live in urban areas.

The TOD Plan integrates new parks, open spaces, and pathways with new residential development, particularly around the Iwilei station. Parks, open spaces, and street trees will help to balance the density of development. Amenities such as seating and play structures provide opportunities for gathering, exercise, and relaxation. These parks should come in many forms, including small hardscaped plazas at well-traveled corners, pocket parks in high-density areas, linear parks that connect destinations, and at least one large community park to serve the growing population. Regardless of the park type, safety and accessibility are paramount.

Figure 4-4 illustrates existing and proposed open spaces. Key improvements include:

- One new large **Community Park** (at least five acres) serving the existing and new population in the Iwilei district with recreation opportunities, such as ball fields, picnic areas, seating, and potentially a community center that can support programs and services. The exact location will need to be sited but has been shown conceptually makai of Dillingham, near the extended Summer Street, providing good access from the new residential neighborhoods.
- Small **Urban Parks and Plazas** including public/private spaces developed as part of new development projects' open space requirements would provide space for rest and shade near transit stops and active pedestrian areas. These may also be in the form of accessible rooftop open spaces and community gardens within new or redeveloped residential or commercial development, as long as designs demonstrate that security, safety, tenant privacy, and maintenance can be upheld. While some of these smaller parks and plazas are shown conceptually on the map, most will need to be identified by the City and during the development process.
- **"Green Streets"** are proposed along Bishop Street, Alakawa Street, and a new extended Kaamahu Place, Kaaahi Street, and Summer Street. These streets connect existing and planned open spaces to create an open space network, improve walkability and livability, facilitate access to the waterfront promenade, and create mauka-makai connections (e.g., along Nuuanu Stream) that highlight views. Green Streets are characterized by a regular spacing of large shade-providing street trees on both sides of the street. Tree species should be consistent along the length of each Green Street.
- A **Promenade** along the harborfront and along Nuuanu Stream. The waterfront promenade is one of the key features of the open space network, providing an opportunity to walk, bike, and sit along the harbor, while also connecting destinations with the rail stations. Included as part of the waterfront promenade are improved crosswalks across Nimitz Highway (and through the rail station) that enhance pedestrian comfort and safety. Enhancements to the walkways along Nuuanu Stream—including widening the pathway, providing more opportunities for seating and shade, and a new pedestrian crossing to Aala Park seek to improve access to and the quality of this important mauka-makai connection.

Together, this proposed network of open spaces provides guidance for how new development can improve recreational opportunities in Downtown and how it should relate to adjacent street edges. It also lends an identity to the area which will see the most redevelopment over the near-term. The TOD Plan includes over 24 acres of open space: 2.2 acres per 1,000 new residents, not including promenades and Green Streets. This potential increase in parks and open space could result in almost 41 total acres of parkland throughout the ½-mile area and improve the ratio of park acreage per 1,000 residents to 1.6.

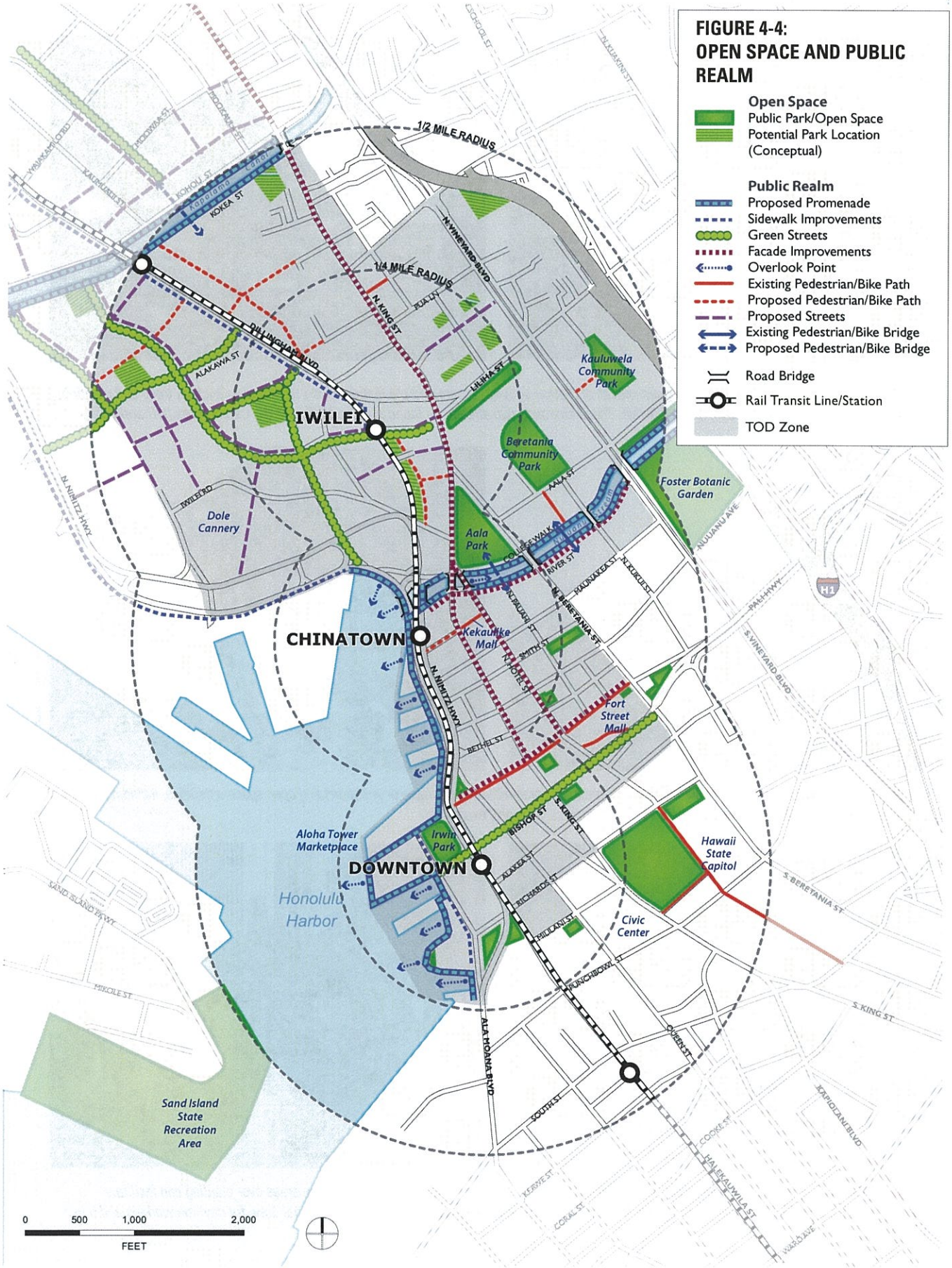


FIGURE 4-4:
OPEN SPACE AND PUBLIC REALM
Open Space
Public Park/Open Space
Potential Park Location (Conceptual)
Public Realm
Proposed Promenade
Sidewalk Improvements
Green Streets
Facade Improvements
Overlook Point
Existing Pedestrian/Bike Path
Proposed Pedestrian/Bike Path
Proposed Streets
Existing Pedestrian/Bike Bridge
Proposed Pedestrian/Bike Bridge
Road Bridge
Rail Transit Line/Station
TOD Zone
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Kauluwela Community Park
Beretania Community Park
Foster Botanic Garden
Dole Cannery
Aala Park
Kekaulike Mall
Fort Street Mall
Aloha Tower Marketplace
Irwin Park
Honolulu Harbor
Hawaii State Capitol
Civic Center
Sand Island State Recreation Area
N. VINEYARD BLVD
N. KING ST
DILLINGHAM BLVD
ALAKAWA ST
KOKEA ST
LILIHA ST
AALA ST
RIVER ST
HAUNAKEA ST
N. KUKUI ST
N. BERETANIA ST
N. NIMITZ HWY
BETHEL ST
BISHOP ST
S. KING ST
ALAKEA ST
RICHARDS ST
BILLIARD ST
BUNCHBOWL ST
QUEEN ST
SOUTH ST
ALA MOANA BLVD
S. BERETANIA ST
S. VINEYARD BLVD
PALI HWY
KAPIOLANI BLVD
HALEKAUWILA ST
COOKE ST
KERWE ST
CORAL ST
WARD AVE
SAND ISLAND PKWY
MIKOLE ST
0 500 1,000 2,000
FEET

Green Streets provide connections between open spaces and other activity centers and are distinguished by elements such as trees and plantings, wide sidewalks, pedestrian pathways, and public art. These elements can already be found in Downtown and the Capital area (left and right).

DYETT & BHATIA

The waterfront can come alive as a vital community hub through a combination of desirable destinations and open space amenities, including food and seating, as shown in these Baltimore, MD (left) and San Francisco, CA (right) examples.

Given the high-density nature of the Downtown station area (left), parks are essential. Prioritizing hardscape areas over planting can facilitate maintenance, while providing seating, opportunities for shade, signage, and event space that can provide a real draw for daytime workers and other users (Chicago, IL, right).

4.3 Safety and Community Health

The physical environment influences community health in many ways, including access to housing, jobs, transit, and health services; the ability to walk and exercise in one's community; air quality and noise impacts from vehicles traveling on freeways and major streets; and the prevalence of crime and violence.

Safety

Community members have expressed concern about crime and homelessness around all three stations, particularly how these issues affect community health, the safety and cleanliness of streets, the viability of rail, and potential development opportunities. The design of the public realm can help deter crime, lead to increased safety, and improve quality of life. Adding "eyes on the street" through housing with stoops or balconies and maximizing windows and transparency can also help create a greater sense of community and facilitate neighbor interaction.

Crime prevention through environmental design can help reduce actual and perceived crime. The policies below discuss maximizing visibility and natural surveillance and controlling access through differentiation between public and private space. Although these considerations are part of larger problems that the TOD Plan alone cannot solve, policies identified in this plan seek to integrate social services while improving the overall appearance and safety of the station areas.

Community Health

Honolulu's mild year-round climate and the relatively flat topography of the Downtown corridor make it an ideal place for true urban living—to walk to jobs and stores, take the train to a football game, or jog along the waterfront. The Plan seeks to promote active living by creating complete neighborhoods with a variety of commercial amenities to serve everyday needs, improving access to the train stations and between neighborhoods, and creating a lively, engaging public realm that invites walking, biking, and strolling. Improving non-automobile travel is particularly important for children, seniors, and low-income families—groups that typically do not drive or own cars. Making recreation facilities more accessible—dispersing them throughout the community and making programs affordable to low-income residents—will also increase the likelihood that all residents will incorporate healthy activity into their daily lives.

Furthermore, the construction, operation, and demolition of buildings and landscapes should be accomplished sustainably through natural resource conservation and energy efficiency, to ultimately increase economic vitality and improve the health of employees and residents.

DYETT & BHATIA

The promenades are envisioned as shared spaces for pedestrians, joggers, and bicycles to promote community health and recreation (Ala Wai Boulevard in Waikiki, left, and San Francisco, CA, right). This vision is feasible even along a busy street like Nimitz Highway, as long as the sidewalk is adequately sized and pedestrian safety measures are in place (e.g., lighting, crosswalks, fencing, on-street parking).

4.4 Goals and Policies

GOALS

Station Area Character

UD-G1: Promote station area environments that are clean, safe, and attractive, and that have a range of amenities, such as personal services and cafés, that will attract transit users.

UD-G2: Improve linkages—for pedestrians, bicyclists and buses—between the stations and the surrounding areas.

Public Realm and Design

UD-G3: Create memorable and livable streets and streetscapes that promote identity and enhance pedestrian comfort and safety.

UD-G4: Enable high-quality architecture and site plans that are well-integrated with public streets and enhance the livability of the districts.

UD-G5: Establish an integrated framework for the public realm, including a unified street tree scheme, pedestrian amenities, and publicly accessible private open spaces, to achieve the vibrant district expressed in the community vision.

Open Space

UD-G6: Provide an open space of at least one-quarter acre within a five-minute walking distance of all residential development within the TOD Zone. This may be either public or publicly accessible private open space.

UD-G7: Integrate parks and plazas throughout new development along pedestrian and bike paths to create a cohesive and connected open space network.

UD-G8: Design open spaces to be well-lit, visible from public streets, and thoughtfully programmed to encourage use during the day by families, seniors, and workers on break and in the evenings by professionals and recreational sports teams.

Safety and Community Health

UD-G9: Design high-quality open spaces and a public realm that is safe, accessible, and integrated into the existing community, balancing new high-density development.

UD-G10: Improve access to a variety of transportation modes and opportunities for physical activity that enhances health and supports community members of all ages, lifestyles, incomes, and abilities.

POLICIES

Station Area Character

UD-P1: Support the development of stations as destinations in and of themselves by inviting private investment and integrating stations with a variety of uses:

- Develop partnerships with local businesses to provide basic amenities at each station, such as public restrooms, cafés, personal services, banks, and day care centers.
- Consider integrating access to stations with adjacent developments at the platform level.

UD-P2: Work with Honolulu Authority for Rapid Transportation (HART) to implement technology that provides real time information about departure and arrival times of trains (e.g., through a cell phone application and information screens at street locations and nearby businesses), and provide wireless internet access in and around stations.

UD-P3: Support connections to key transit stops from surrounding neighborhoods with visible and coherent directional signs, and street lights that complement the streetscape.

UD-P4: Design wayfinding and other signs with features, materials, and colors that are consistent with the scale and character of the district in which they are located.

- Locate directional signage at key locations to indicate routes to transit, the waterfront, the promenade, Downtown, Chinatown public spaces, and major destinations such as Aloha Tower, Fort Street Mall, and Kekaulike Mall.
- Mark pedestrian connections with clear signage that acknowledges that the space is for public use.
- Provide signage in English and Chinese or other languages, as appropriate.

Public Realm and Design

STREETSCAPES, SIDEWALKS, AND THE STREET INTERFACE

(Also see Chapter 3 policies on street design)

UD-P5: Design sidewalks to include an unobstructed path for travel, separate from street landscaping and street furniture areas.

- Reserve the area closest to the curb for street trees, landscaping, street lights, bus stops, street signs, trash/recycle bins, bicycle parking and street furniture.
- Provide continuous sidewalks on both sides of Nimitz Highway and Ala Moana Boulevard with an emphasis on pedestrian connectivity to the promenade and well-defined, safe crossings.

UD-P6: Create walkable blocks of approximately 350 feet in length around Iwilei station. Provide mid-block pedestrian connections on longer blocks that maintain sight lines from one end to another.

UD-P7: Scale development along pedestrian-oriented retail streets and pedestrian connections with fine-grained, highly articulated facades, changes in materials, ample fenestration, and visible entryways. Equip pedestrian paths with shade trees, seating, kiosks, lighting and other amenities.

UD-P8: Retain historic curb stones wherever they currently exist, and restore them in areas where they were used historically.

UD-P9: Work with community members and groups to create a historic trail or install special sidewalk pavers to identify the Chinatown historic district.

UD-P10: Establish a consistent streetscape design along each right-of-way or within each district, as appropriate. In particular, Nimitz Highway and Ala Moana Boulevard should exhibit a continuous identity.

UD-P11: Maintain pedestrian safety and the health of trees by planting street trees with non-agressive root systems and allowing adequate tree planting area to avoid uplift of pavement.

UD-P12: Maintain a continuous street wall along public streets. Articulate building facades with three-dimensional elements that create a visual play of light and shadow, including balconies, recesses, reveals, and brackets:

- Maximize transparency of ground floor non-residential uses through large windows and architectural features.
- On blocks where active street frontage is required, limit the length of blank walls to 20 feet. Where active frontages are allowed, limit the length of blank walls to 60 feet. Use murals, public art, living walls, and landscaping where windows and articulation are not feasible.
- Provide awnings, overhangs over the sidewalk, and arcades to enhance pedestrian comfort.
- Orient public entrances to face a public street or open space and ensure that they are visible and accessible from the street.
- Develop a façade improvement program to assist business owners with improvements that enhance the pedestrian quality of key corridors, including King Street and Dillingham Boulevard, and that complement the character of the district or neighborhood.

SITE PLANNING AND BUILDING MASSING

All Stations

UD-P13: Locate buildings close to the sidewalk in order to define the public realm and provide active uses next to the sidewalk. Buildings may be set back to allow for outdoor dining, plazas, or other active public spaces.

UD-P14: Maximize physical and visual access to the waterfront.

UD-P15: Employ passive cooling methods in building design. This may include natural ventilation; ground-level, roof-level, and terrace-level shading structures; evaporative cooling; and high thermal mass of building materials.

UD-P16: Encourage variation and articulation through changes in building height and massing:

- In areas where building heights transition, step back upper levels of building to transition to adjacent lower building heights.

- Design towers to be slender and stagger them to minimize shadows and maximize waterfront views.

UD-P17: Design parking areas that contribute to a safe, convenient pedestrian environment and permit active street frontage:

- Limit curb cuts and driveway entrances to reduce conflicts with pedestrians. Locate driveway entrances on side streets and access drives whenever possible.
- Locate parking to the side or rear of buildings, underground, in structures wrapped with active uses at the ground level, or behind decorative architectural elements.
- Provide direct pedestrian connections between buildings, parking areas, public sidewalks, and transit. Design walkways to be adequate in width and differentiated from parking and driveway areas.
- Avoid large, contiguously paved parking lots.
- Encourage the use of pervious paving for parking areas.
- Design loading areas to be off the public right-of-way and screened from the sidewalk.
- Provide secure bicycle parking near building entrances and exits.

Iwilei Station

UD-P18: Where industrial or warehouse uses abut residential buildings, provide transitions and buffers from noise and unsightly uses. Buffers may involve decorative screening or natural landscape materials such as trees, shrubs, vines, or livings walls (e.g., concrete wall with green creeping vines).

Chinatown Station

UD-P19: Improve perceived safety at all times with the use of transparent storefronts, street-oriented entries, and well-lit sidewalks.

UD-P20: Maintain the existing scale in Chinatown by designing floors, windows and bays that match the rhythm of surrounding buildings.

UD-P21: Orient new buildings along Nimitz Highway to maximize waterfront views and access from the rest of the district.

Downtown Station

UD-P22: On the HECO site, encourage site design that incorporates a mid-block pedestrian connection from Alakea Street to the waterfront and convenient access to the Downtown station.

Open Space

UD-P23: Prepare a public facilities plan to create a detailed program for park locations; acquisition and development; and funding (for capital improvements and maintenance).

UD-P24: Develop at least one large park (of at least five acres) within ½-mile of the Iwilei station. Large parks should provide recreational facilities such as community centers, basketball courts, ball fields, children's play areas, picnic areas, and restrooms.

UD-P25: In Downtown and Chinatown where space is limited, provide open space in the form of plazas and rooftop gardens. Provide active uses along or within these spaces as well as amenities such as seating, shade, and landscaping. Clearly indicate access to rooftop gardens through signage that is visible from the public street.

UD-P26: Require a minimum dimension of eight feet for all open spaces (publicly accessible as well as private).

UD-P27: Relocate the existing surface parking at historic Irwin Park and integrate the new park as a true recreation facility. Coordinate with the State Historic Preservation Division in the rehabilitation of historic parks.

UD-P28: Revitalize Aala Park in collaboration with the community with new programming and uses, such as recreation, a community center, community garden, or Chinese garden. Develop a new pedestrian bridge from River Street to Aala Park to improve park access.

UD-P29: Provide a diverse range of amenities in park spaces, including benches, trees, restrooms, lighting, drinking fountains, and trash receptacles. Provide a mix of landscaped and hardscape areas that provide opportunities for resting and shade, outdoor eating, and other activities.

UD-P30: Design promenades to create a sense of continuity and cohesiveness, with opportunities for walking and biking along the waterfront, lingering at overlook points, and visiting multiple destinations:

- Provide a continuous boardwalk promenade at least 20 feet in width along the makai side of Nimitz Highway. The promenade should display a unified urban design scheme, with amenities such as benches, art, landscaping, lighting, banners, textured paving, and spaces for vendors and public functions.
- Install signature plantings along the promenade at all Nimitz Highway and Ala Moana Boulevard crossings to enhance the visibility of both the promenade and crosswalk.
- Widen the existing bicycle lane and narrow the roadway dedicated to vehicle travel and parking.
- Remove or lower fencing adjacent to the harbor along Nimitz Highway to improve visual access to the water.
- Foster the Nuuanu Stream pedestrian pathway, River Street, and College Walk, as promenades and key maukamakai linkages and view corridors between the waterfront, Aala Park, and Foster Botanic Garden.

UD-P31: Emphasize visibility and access to open spaces from abutting streets or promenades, by providing seating and opportunities for shade along open space edges.

UD-P32: Where possible, orient private open spaces, such as courtyards, balconies, and building entrances, toward open spaces to provide a transition between private and public activities and to increase safety.

UD-P33: Maximize the efficiency of open spaces through joint usage and alternating time-of-day uses. Joint (co-located) uses may include schools and rooftop gardens; parks and child care facilities; and subterranean or tuck-under parking below new parks and plazas.

Safety and Community Health

UD-P34: Engage merchants, the Police Department, mental health and social service providers, homeless advocates, and other stakeholders in defining critical issues and actions.

UD-P35: Ensure that community members can access communication services, such as emergency phone kiosks, during emergencies.

UD-P36: Encourage consistent and longer hours of business operation to attract patrons during the day and evening.

UD-P37: Provide safe and durable 24-hour public toilets with clear signage, and provide for their ongoing maintenance, security, and frequent cleaning.

UD-P38: Provide adequate cleaning and maintenance of sidewalks and street furniture to support and attract pedestrian activity.

UD-P39: Ensure that buildings are oriented to streets and open spaces, and enhance community safety through a variety of design techniques, including:

- Orient windows and balconies towards the public street, open spaces, and parking areas.
- Ensure that building entrances and parking areas are well-lit and that clear visibility can be maintained from inside the building to the street and sidewalk.
- Maintain low-growing landscaping to provide good visibility to neighboring areas and enhance the sense of place.
- Design and locate lighting to illuminate buildings and walkways so that they are visible from afar. Incorporate decorative and pedestrian-scaled lighting.
- Emphasize sight lines and access to public spaces, parks, the waterfront, and promenades via pedestrian connections, landscaping, and signage.
- Involve residents in neighborhood improvement efforts, including issues concerning safety, neighborhood character, planning, and revitalization.

UD-P40: Develop a program of community and recreational activities and events to activate key parks, with an emphasis on evening and weekend activities.

- Work with interested community members and organizations to plan and develop an exercise circuit that takes advantage of existing parks, and other pedestrian infrastructure. The course should be clearly marked and contain simple stations and diagrams for self-guided training.

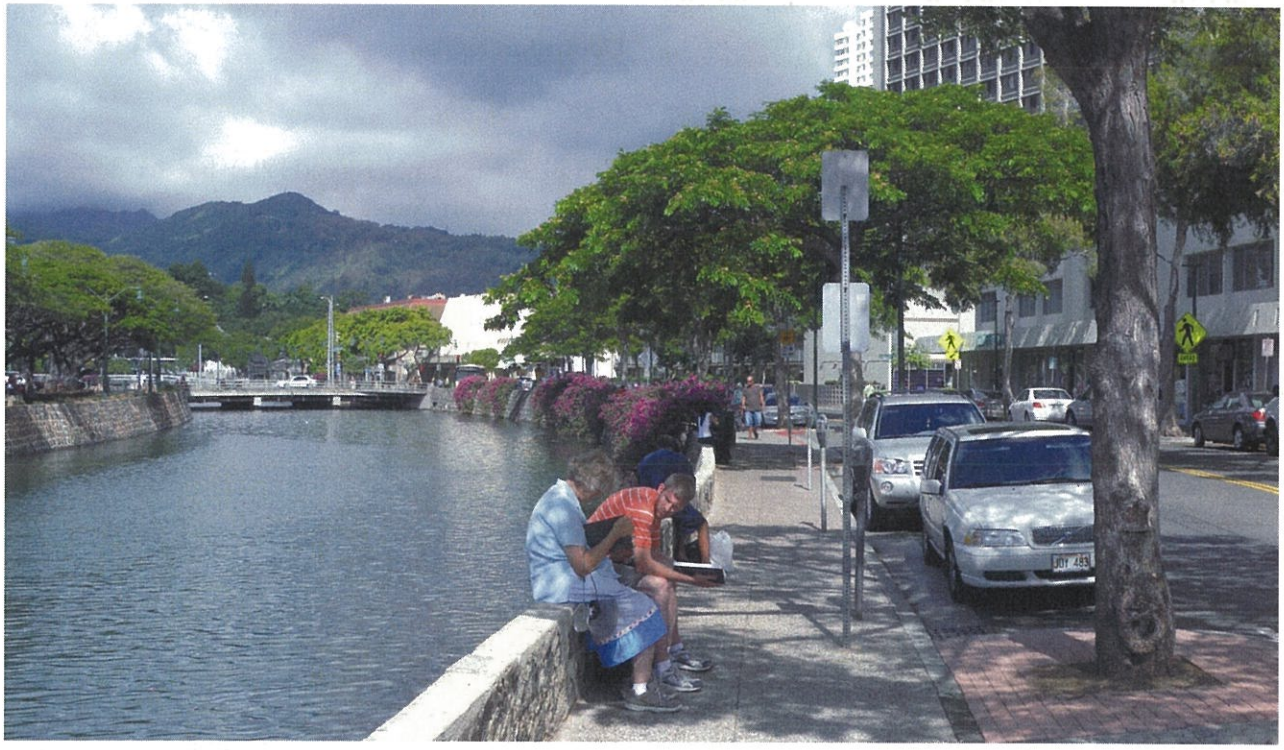
UD-P41: Support clean fuel vehicles in order to reduce energy use, energy costs, air pollution, and greenhouse gas emissions by residents, businesses, and city government activities.

UD-P42: Continue to pursue Safe Routes to School funding and infrastructure development opportunities to improve students' opportunities for safe walking and bicycling to and from schools and to improve the overall health and well-being of children.

UD-P43: Assess the feasibility of starting a farmers' market in Aloha Tower, Aala Park, or Chinatown to provide access to fresh produce and support Chinatown's role as central fruit and vegetable provider. Steps may include: identifying demand; connecting with potential participating farmers and purveyors; and determining a strategic location served by transit.

5 PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE

This chapter outlines strategies to maintain and improve the public and quasi-public facilities, services, and infrastructure that are essential parts of a livable and sustainable community. Public facilities and services, including affordable housing, social services (particularly for seniors and homeless individuals), police and fire service, schools, and other institutions, contribute to the identity and social equity of the community, while infrastructure improvements—including wastewater, water supply, and drainage—ensure that growth and development are responsibly managed and accommodated. Streets, sidewalks, parks and open space are addressed separately in Chapters 3 and 4.



The Downtown Neighborhood TOD Plan supports the development of public facilities and services in concert with new development to ensure sustainable and livable communities.

Educational institutions, including K-12 schools and Hawaii Pacific University, serve as important community centers and integral components of the Downtown neighborhood.

5.1 Public/Quasi-Public Facilities and Services

Police and Fire Facilities

The Honolulu Police and Fire Departments manage public safety in the city. The Honolulu Police Department headquarters is located near Downtown at 801 South Beretania Street, as shown on Figure 5-1. The Honolulu Fire Department headquarters is located at 636 South Street, diamond head of the Downtown station.

As growth and development occur in the corridor, fire and police capacity will have to be evaluated to ensure that station locations and staffing levels are adequate to maintain acceptable levels of service.

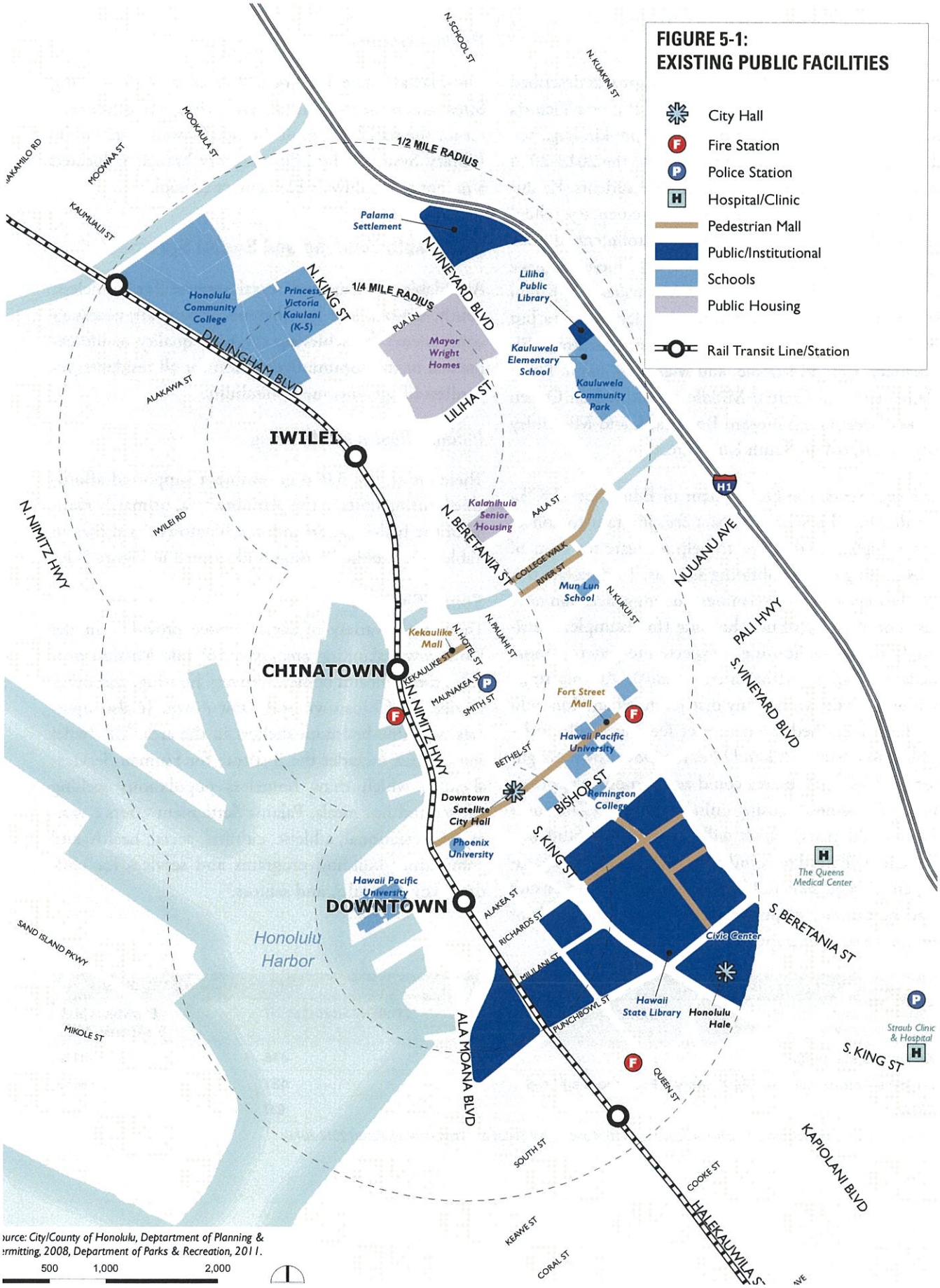
Education and Library Services

Education and youth development are primarily undertaken by local K-12 schools and higher education institutions, such as Hawaii Pacific University. These schools primarily serve students and their families, but they also serve as centers of community activity for Downtown residents.

Higher Education

Hawaii Pacific University (HPU) has its downtown campus on Fort Street Mall. HPU is a private, nonprofit university offering more than 50 undergraduate degrees and 13 graduate programs to approximately 8,500 students. A strategic plan was recently prepared to increase the faculty and staff population by 150 and student population by 2,000, and to construct dorms and new facilities Downtown, including at Aloha Tower, and on other campuses.

Remington College and University of Phoenix are two other private colleges located Downtown. Remington College offers Bachelor's, Associate's and Diploma programs at its location at Bishop and Hotel Streets. University of Phoenix is located at the foot of Fort Street Mall at Nimitz Highway, just a block from the Downtown station. Honolulu Community College is located closer to the Kapalama station and is discussed in more detail in the Kalihi Neighborhood TOD Plan.



Source: City/County of Honolulu, Department of Planning & Permitting, 2008, Department of Parks & Recreation, 2011.

K-12 Schools

There are several schools in the ½-mile area, as described in Table 5-1 and shown in Figure 5-1. Princess Victoria Kaiulani Elementary serves students in pre-kindergarten through fifth grade and currently (as of the 2013-2014 school year) has an enrollment of 421 students. Kauluwela Elementary School is another elementary school in the planning area with similar enrollment at 416. In addition, the Mun Lun School, a Chinese language school, is located at the corner of Maunakea and Kukui Streets. Other schools that serve the planning area but are located outside the ½-mile area include Royal Elementary, Central Middle, and McKinley High. Royal Elementary and Central Middle are located on Queen Emma Street near Vineyard Boulevard, and MicKinley High is located on South King Street.

In recent years, the Department of Education (DOE) has developed a school impact fee program to collect fees in high-growth areas to help mitigate the costs of constructing or rehabilitating schools. To calculate this fee, the department determines student generation rates based on the type of new housing (for example, multi-family affordable housing is expected to generate more students than resort-oriented condos). At this time, neither Downtown nor any district in urban Honolulu has been identified as an impact fee area. Still, as described in Chapter 2: Land Use, the Downtown Neighborhood TOD Plan area could accommodate approximately 6,500 new housing units in the TOD Zone over the next 20 years, which will generate new students. The City will need to coordinate with the DOE regarding anticipated new residential development to ensure that the capacity of public schools meets the needs of the future student population.

Public Libraries

The Hawaii State Library is located at 478 S. King Street and is the main library and primary resource center for the six-island, multi-branch Hawaii State Public Library System. The Liliha Library branch is located adjacent to Kauluwela Elementary School.

Affordable Housing and Social Services

Affordable housing and social services for homeless, youth, seniors, and low-income persons are necessary components for achieving the high quality of life expressed in the community's vision for all residents, regardless of age, income or disability.

Income-Restricted Housing

There are nearly 3,000 government supported affordable housing units in the planning area, primarily mauka of the Iwilei station and in Chinatown, as shown in Table 5-2. (Public housing is illustrated in Figure 5-1.)

Social Services

There are a variety of social service providers in the Downtown planning area. River of Life Mission provides meals, health clinics, recovery housing, and other services in Chinatown and Downtown. It also operates two nine-bedroom shelters in the area. The Iwilei station area includes the Institute for Human Services shelters, which draw homeless populations seeking shelter and hot meals. Palama Settlement offers a variety of recreational, athletic, cultural, social, health, and community building programs and services for children, youth, adults, and seniors.

TABLE 5-1: CHARACTERISTICS OF PUBLIC SCHOOLS IN THE DOWNTOWN ½-MILE AREA

	GRADES	STUDENT ENROLLMENT	ECONOMICALLY DISADVANTAGED
Kauluwela Elementary	K-5	416	81%
Princess Victoria Kaiulani Elementary	Pre-school and K-5	421	89%
TOTAL		**837**	

Source: Hawaii Public Schools, Enrollment Report 2013-2014 and School Status and Improvements Report 2012-2013).

TABLE 5-2: INCOME-RESTRICTED HOUSING

NAME	UNITS	TARGET INCOME (% AMI)[1]	TYPE
Chinatown Gateway	200	<80	Family
Chinatown Manor	90	<80	Family
Hale Pauahi	396	<80	Family
Kalanihuia	151	<50	Senior
Kauluwela #1	126	<80	Family
Kauluwela #2	84	<80	Family
Kukui Gardens Makai	389	<60	Family
Kukui Gardens Mauka	468	<95	Family
Kukui Plaza	908	no data	Family
Kukui Towers	380	<60	Family
Mayor Wright Homes	364	<80	Family
River Pauahi Apartments	49	<50	Family
Smith-Beretania Apartments	164	<50	Family
Winston Hale	93	<80	Family
TOTAL	**3,862**		

1. For income limits, see http://hawaii.gov/dbedt/hhfdc/resources/2012 HUD Income Limits - Honolulu.pdf.

Source: Hawaii Housing Finance and Development Corporation, Affordable Housing Inventory, January 2001. <http://hawaii.gov/dbedt/hhfdc/resources/Affordable-Housing-Inventory.pdf> Accessed March 17, 2011.

Future Needs

Based on discussions with residents, developers, property managers, and other stakeholders, community members and affordable housing providers lament that the demand for affordable housing far exceeds the supply, especially given the high cost of housing and the lack of rental housing being produced in Honolulu. Additional housing options are needed for a range of income levels, including: temporary shelters and permanent housing solutions for homeless individuals and families; family and senior low-income housing; moderate-income housing; and market-rate rental housing. Mixed-income housing can help to ensure diversity in family and household types.

Supporting the non-profit providers described above and continuing to collocate affordable housing and social services can make strides in improving people's health and general welfare. The types of uses appropriate for TOD, such as housing, inexpensive eateries, and basic services such as pharmacies and grocery stores, as

The Chinatown and Iwilei station areas have a concentration of affordable housing and services.

well as the availability of jobs, can support the needs and desires of all residents, regardless of income. Affordable housing within walking distance of transit provides access to high-quality, low-cost transportation and job opportunities throughout the rail corridor. Given the large population of seniors, particularly around the Chinatown station, services (e.g., health, social, and recreational), pedestrian amenities, and housing are essential to ensuring a high quality of life for residents.

The design and maintenance of affordable housing and homeless and other services are important for instilling pride in tenants and users. For example, the men's and women's homeless service centers (which include shelter programs) that the Institute for Human Services operates in Iwilei provide an oasis-like presence in industrial areas with edible garden landscaping and urban agriculture training programs doing double duty as workforce development and transformative urban landscapes.

5.2 Infrastructure

This section provides an overview of the wastewater, water supply, and drainage implications of TOD in the Downtown ½-mile area.

Wastewater

The City and County of Honolulu Department of Environmental Services provides sewer service in the Downtown corridor. Wastewater treatment and transmission capacity is already constrained citywide and a potential hindrance to development since property owners and developers—particularly the first applicants in a constrained area—may need to make costly improvements (e.g., to trunk lines and pumps) to satisfy projected capacity.

Corridor Analysis

Estimates of existing and potential future wastewater generation as a result of implementation of the TOD Plan are shown in Table 5-3. Although the TOD Plan does not exceed projections already anticipated under current zoning, its proposed growth cannot be accommodated under existing conditions given the constraints and capacity limits on the current infrastructure system. Existing wastewater infrastructure is in need of upgrades to the collection, as well as transmission, systems to support TOD and other development.

To ameliorate current deficiencies, the Department of Environmental Services (ENV) is undertaking a number of actions. It is updating its Sewer I/I Assessment and the InfoWorks flow model to provide a more current evaluation of existing conditions, projected needs, and necessary improvements. Ongoing Capital Improvement Program (CIP) projects are being done in order to comply with the U.S. Department of Environmental Protection's mandated Consent Decree, which will also provide TOD capacity. Finally, ENV is also working to implement its Sand Island Wastewater Treatment Plan (WWTP) Facilities Plan; this facility serves all of urban Honolulu, and upgrades are crucial in order for long-term TOD to move forward.

Station-Level Analysis

The projected needs for new development in the corridor are described by station below and shown in Table 5-3. All sewage generated will be treated at the Sand Island Wastewater Treatment Plant (WWTP).

- The Iwilei station area has existing sewer infrastructure that connects to the Awa Street Pump Station. The Iwilei station area net increase in average daily wastewater generation is projected to be the largest of the three Downtown station areas at 0.83 millions of gallons per day (MGD). The increased population will generate wastewater flows of approximately 2,595 equivalent single-family residences (ESDU) and $16.3 million in Wastewater System Facility Charges (2013/14 rate) for wastewater system expansion through the Plan's buildout.
- The Chinatown station area has existing sewer infrastructure that connects to the Ala Moana Pump Station via the Nimitz Highway Interceptor. Some of the sewers are older than 100 years. The Chinatown station area net increase in average daily wastewater generation is projected to be the lowest of all three stations, at 0.39 MGD. The increased population will generate wastewater flows approximately equal to 1,220 ESDU and generate $7.6 million in Wastewater System Facility Charges.

TABLE 5-3: WASTEWATER DEMAND RESULTING FROM TOD PLAN BUILDOUT

STATION AREA	WASTEWATER GENERATION - COMMERCIAL/ INDUSTRIAL [1] (MGD)	WASTEWATER GENERATION - DWELLING UNITS [2] (MGD)	TOTAL WASTEWATER GENERATION (MGD)
Iwilei Station Area			
Existing Uses	0.39	0.65	1.04
Future with TOD Plan	0.46	1.41	1.87
Net Increase			*0.83*
Chinatown Station Area			
Existing Uses	0.37	0.91	1.27
Future with TOD Plan	0.43	1.23	1.66
Net Increase			*0.39*
Downtown Station Area			
Existing Uses	2.10	0.42	2.52
Future with TOD Plan	2.25	0.80	3.05
Net Increase			*0.53*
TOTAL			
Existing Uses	**2.85**	**1.98**	**4.83**
Furure with TOD Plan	**3.14**	**3.45**	**6.58**
Net Increase			***1.75***

1. Based on 1 person per 150 Sq. Ft. and 25 gallons per capita per day (gpcd)
2. Based on 2.8 persons per unit and 80 gpcd

Source: Bills Engineering, 2012.

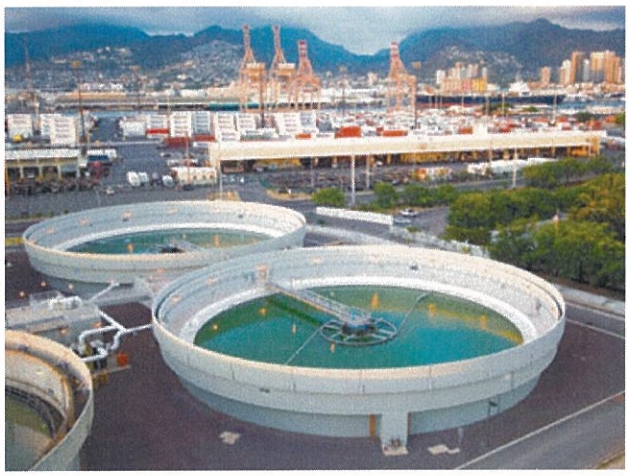
- The Downtown station area has existing sewer infrastructure that connects to the Ala Moana Pump Station. The Downtown station area net increase in average daily wastewater generation is projected to be 0.53 MGD. The increased population will generate wastewater flows approximately equal to 1,655 ESDU and generate $10.4 million in Wastewater System Facility Charges.

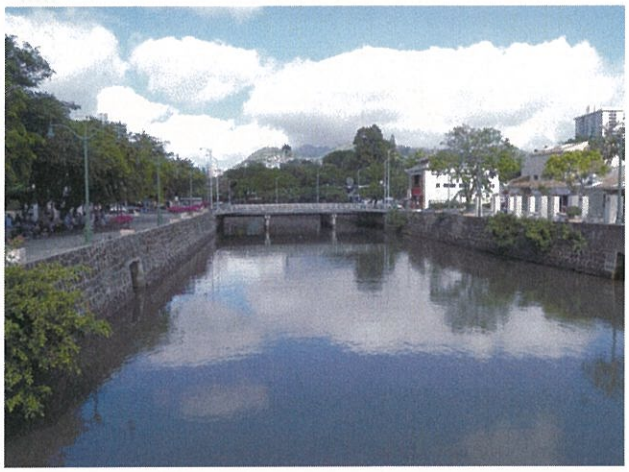
Implementation

Updated analysis and physical upgrade efforts are underway to the Sand Island WWTP and Collection System to guide implementation of sewer-related improvements.

At the time TOD projects start moving forward with the entitlement process, one of three developer conditions will exist (based on existing funding rules/mechanisms):

1. Adequate Sewer Condition;
2. Inadequate Sewer Condition with City-Initiated Project with Budget and Schedule: The TOD project would have to schedule Certificates of Occupancy to coincide with the completion of the relief sewer project(s) affecting the TOD project; or
3. Inadequate Sewer Condition with no Budgeted Funding or Schedule: The TOD project would have to commit to replacing the inadequate sewers prior to the issuance of any Certificate of Occupancy. The TOD project would be able to get reimbursement for sewer improvement work up to the level matching the project's Wastewater Facility Charge. Subsequent TOD projects (or other projects) would get the benefit of the improvement and not have to share in the sewer upgrade costs.





Improvements to infrastructure systems must be made in tandem with new development. While some improvements must be coordinated at the regional level, others—such as stormwater management—may be undertaken at the project level. The bioswale pictured (bottom) is located in Portland, OR.

Water Supply

The Board of Water Supply (BWS) provides water service to the Downtown ½-mile area. The water system contains three components: source, storage and transmission. Water conservation measures, increased water usage fees, and leak repairs have resulted in a decrease in water demand and improved efficiency over the last 20 years despite an increase in population. Although additional water supply and storage opportunities may be needed to accommodate future growth (resulting from the TOD Plan, as well as other development and population growth outside Downtown), it is possible that additional supply may not be needed if present conservation and reduced consumption trends continue. Thus, water availability is not seen as a constraint to buildout of the TOD Plan.

Corridor Analysis

The commercial and residential development projections for the TOD Plan fall below the maximum floor area ratios (FAR) allowed by the current zoning for the areas, so TOD will not produce population growth beyond that previously used for regional water utility master planning purposes. Estimates of existing water demands, proposed water demands, and net increases are shown in Table 5-4 within ½-mile of the three stations.

The predominant existing land uses and proposed TOD land uses for all three station areas require a fire flow of 2,000 gallons per minute (GPM). The station areas currently contain pipe sizes (mainly 12-inch) that are capable of accommodating this fire-flow requirement. Therefore, it is anticipated that the backbone transmission system is generally adequate to support the projected development. Existing streets within the ½-mile area, in general, have water lines with adequate sizes. It is anticipated that additional source and storage will be provided by existing BWS wells and reservoirs.

Station-Level Analysis

One of the infrastructure implications of any new development is that additional water source and storage components must be provided. The Iwilei station area has the largest projected increase in water usage for the three station areas. The additional source requirement is estimated to be 1.40 MGD and must match the maximum day flow (average daily flow x 1.5) of 2.10 MGD. The Chinatown station area has the lowest projected increase: additional source requirement is estimated to be 0.62 MGD and must match the maximum day flow of 0.93 MGD. Similarly, the Downtown station area also has a moderate projected increase of 0.76 MGD and must match the maximum day flow of 1.15 MGD.

The BWS assesses Water System Facility Charges (WSFC) for all new development requiring water service. The charges are assessed to allow the Board to develop new source, storage and transmission elements to serve new development. The increased water usage converted to equivalent multi-family dwelling units will generate approximately $19 million in WSFC for replenishment of the BWS water system in the Iwilei station area, $8.4 million in the Chinatown station area, and $10.4 million in the Downtown station through the TOD Plan buildout. The Board would generally replenish source and storage components and apply the revenues to those components. TOD projects would be responsible for localized distribution system upgrades and additions (8-inch and 12-inch lines), if required.

Implementation

BWS source, storage and major off-site regional transmission requirements for TOD projects will be paid for directly by individual projects by means of payment of the applicable portion of the Board's Water Service Facility Charges. The Board will, in turn, use fees to upgrade its facilities on a regional basis.

Individual TOD projects with new roadway and water system infrastructure will be required to submit a Water Master Plan (WMP). Projects will also be required to include, as a part of project construction, localized water distribution and transmission system upgrades,

TABLE 5-4: WATER DEMAND RESULTING FROM TOD PLAN BUILDOUT

STATION	WATER REQUIREMENT - COMMERCIAL/ INDUSTRIAL [1] (MGD)	WATER REQUIREMENT - DWELLING UNITS [2] (MGD)	TOTAL WATER REQUIREMENT (MGD)
Iwilei Station Area			
Existing Uses	0.23	1.17	1.40
TOD Plan	0.28	2.52	2.80
Net Increase			*1.40*
Chinatown Station Area			
Existing Uses	0.22	1.62	1.84
TOD Plan	0.26	2.20	2.46
Net Increase			*0.62*
Downtown Station Area			
Existing Uses	1.26	0.75	2.01
TOD Plan	1.35	1.42	2.77
Net Increase			*0.76*
TOTAL CORRIDOR			
Existing Uses	**1.71**	**3.54**	**5.25**
TOD Plan	**1.88**	**6.15**	**8.03**
Net Increase			***2.78***

1. Based on 100 gallons per 1,000 Sq. Ft.
2. Based on 400 gallons per Dwelling Unit. This assumption represents a conservative estimate that may overstate the amount of water consumption for the TOD areas in the absence of detailed projections of housing types.

Source: Bills Engineering, 2012.

as determined by BWS, when individual TOD projects are identified. These distribution system and transmission system upgrades will be primarily aimed at increasing pipe sizes serving the individual projects with connection(s) to the existing BWS system to provide the required fire flow.

The BWS does not anticipate undertaking any BWS-sponsored pipe system improvement projects at the "local" level to upgrade fire protection in advance of projects coming on-line since the backbone transmission systems in the area appear adequate.

Drainage

The City and County of Honolulu Department of Planning and Permitting Civil Engineering Branch is responsible for reviewing plans for compliance with the City's drainage standards. The "Rules Relating to Storm Drainage Standards" (January 2000, as amended), which articulate these standards, have two components:

1. Drainage system sizing for proper conveyance of stormwater: This includes hydrologic and hydraulic studies to ensure that drainage systems are adequate to accommodate storms with 10-year, 50-year, and 100-year recurrence intervals.
2. Stormwater quality related to the Federal Clean Water Act and the City's MS4 National Pollutant Discharge Elimination System (NPDES) Permit: In general, applicable development and redevelopment projects must address stormwater quality through the use of low impact development (LID) site design strategies, source control of best management practices (BMPs), post-construction BMPs, LID treatment control BMPs, and other post-construction treatment control BMPs. Applicable development and redevelopment projects include ones that disturb at least one acre of land (and are not required to obtain a separate industrial NPDES permit from the State Department of Health), as well as certain projects (retail gasoline outlets, automotive repair shops, restaurants, and parking lots) with at least 10,000 square feet of total impervious area.

Corridor Analysis

With respect to the hydraulic capacity analysis section of the rules, the Downtown corridor should not be significantly affected. For all practical purposes the three stations are in almost completely urbanized settings dominated by hard surfaces, and existing drainage systems are already in place to convey stormwater. TOD redevelopment is actually an opportunity to soften the amount of hardscape. This, in turn, would allow a small amount of stormwater runoff to infiltrate into landscape planter areas and reduce the sheet flow in the City drainage systems.

Implementation

In June of 2013, the City and County of Honolulu implemented rule changes that emphasize "Low Impact Development" (LID)-based stormwater drainage regulations and standards, including post-construction BMPs.

Individual TOD projects will likely require the submittal of a drainage report. Each project shall comply with the City and County's prevailing stormwater quality requirements and the adopted LID requirements. Localized improvements borne at the expense of the developer should be anticipated within all Downtown areas.

5.3 Goals and Policies

GOALS

Public Facilities and Services

POLICE AND FIRE FACILITIES

PF-G1: Provide public facilities—including police and fire services—commensurate with the needs of existing and future community members.

EDUCATION AND LIBRARY SERVICES

PF-G2: Support efforts to provide high-quality public and private educational opportunities for all segments of the community.

AFFORDABLE HOUSING AND SOCIAL SERVICES

PF-G3: Foster adequate provision of social and health services, such as housing and re-integration services for homeless; youth activities; and senior programs.

PF-G4: Support maintenance of existing and development of new affordable housing units and associated services for low- and very low-income households.

PF-G5: Encourage mixed-income housing and distribute affordable housing throughout the planning area. Mitigate potential for gentrification and avoid displacing low- and moderate-income residents.

Infrastructure

PF-G6: Facilitate development of infrastructure—including wastewater, water, drainage, and high-speed broadband internet systems—that is designed and timed to be consistent with project capacity requirements and development occupancy.

PF-G7: Promote conservation of natural resources in order to reduce the load on existing planned infrastructure capacity and to preserve environmental resources.

POLICIES

Public Facilities and Services

POLICE AND FIRE FACILITIES

PF-P1: Coordinate with Police and Fire Departments to maintain sufficient personnel and facilities to ensure maintenance of acceptable levels of service.

EDUCATION AND LIBRARY SERVICES

PF-P2: Coordinate with the Department of Education to monitor housing, population, and enrollment trends as development projects emerge; determine potential need for a school impact fee district; and evaluate effects of projected school enrollment on future school facility needs.

PF-P3: Promote the health, safety and welfare of youth by expanding recreation and other youth-oriented services.

- Work in partnership with community organizations and institutions such as the local K-12 schools and higher education institutions to provide counseling, career planning, job training/placement, mentoring, healthful activities, and other beneficial services for teens and young adults.
- Support initiatives where teens and young adults can contribute to the community through internships and civic activities.
- Encourage new retailers to participate in job training programs.

AFFORDABLE HOUSING AND SOCIAL SERVICES

PF-P4: Within ¼-mile of the stations, invest public affordable housing funds and encourage affordable housing development through implementation and expansion of the City's inclusionary housing rule, incentives for TOD housing, and participation in the Housing Choices Voucher and Section 8 programs.

PF-P5: Coordinate with the Hawaii Public Housing Authority to encourage renovation of Mayor Wright Homes to upgrade the housing units:

- Redesign the superblock into smaller blocks to improve walking and biking access, and support rail transit ridership.

- Add open space in a medium- to high-rise setting, as illustrated in Figure 4-4 and the 3D model renderings.
- Ensure a one-to-one replacement of affordable housing, but also seek to add mixed-income housing through an increase in housing density. The project should also incorporate supportive commercial uses.

PF-P6: Encourage housing and social service providers to serve seniors with recreation and programs that encourage their health, safety and welfare. Work in partnership with community organizations and institutions to maintain the availability of appropriate senior and medical services.

PF-P7: Strengthen and pursue beneficial relationships with stakeholder groups, including public agencies, community organizations, businesses, and property owners. Connect with established business organizations and support new organizations for communities that lack community-based nonprofits.

PF-P8: Support development of permanent affordable housing services, especially for homeless individuals and families:

- Encourage the provision of appropriate supportive services for tenants at all functional levels.
- Encourage the creation of single-room occupancy (SRO) or efficiency units that can meet the housing needs of individuals, seniors, immigrants, formerly homeless, students, and single parents with a child.
- Review development standards, which currently permit group living facilities as a conditionally permitted use in most residential and mixed-use districts, to identify obstacles to the creation of SROs or efficiency units, and consider whether such obstacles should be removed or altered.
- In order to meet the needs of extremely low-income individuals and households, identify sites and long-term funding to support the development and ongoing provision of services for new affordable housing.

PF-P9: Maintain and enhance prompt access to social services for residents and transient populations. Coordinate with the Department of Community Services to understand existing and future social service needs and opportunities, both citywide and in the Downtown corridor.

Infrastructure

PF-P10: Prepare a comprehensive infrastructure master plan for the Iwilei/Kapalama station areas. This plan should include details on water, wastewater, and drainage systems layout, as well as more precise alignment of new streets, and a financing plan that ensures that improvements will be realized and not become a constraint to development.

PF-P11: The City should partner with the private sector to provide high-speed broadband internet service in the station areas to facilitate high-tech economic development.

PF-P12: Require development and redevelopment projects to comply with best practices for low impact development-based stormwater management.

6 IMPLEMENTATION

This chapter summarizes major improvements from the preceding chapters and describes key actions for their implementation, including general responsibilities of various public departments, phasing and timing of improvements, next steps for developing detailed infrastructure and public facilities plans, and financing mechanisms to enable development consistent with the TOD Plan.

Section 6.1 summarizes key policies/improvements and responsibilities. A primary public sector implementation tool for the land use proposals in the plan will be administration of the TOD Special District in the Land Use Ordinance; recommendations for the Special District are discussed in Section 6.2. Section 6.3 describes appropriate phasing of improvements and potential catalyst projects to ensure that adequate public facilities are in place to support rail access and TOD. Lastly, financing strategies are described in Section 6.4. Public improvements should be prioritized through the Capital Improvement Program, subdivision permit requirements, impact fees, and the collective initiative of project applicants where district-level improvements are necessary.

Coordinated public improvements, including the development of infrastructure, new streets and parks, will be essential to the development of a new mixed-use district in Iwilei.

RESPONSIBLE AGENCIES

Implementing the Downtown Neighborhood TOD Plan will involve a number of City departments and decision-makers, in addition to private developers and non-profit service providers. The City also will need to consult with state and federal agencies about proposals that affect their respective areas of jurisdiction. The principal responsibilities for Plan implementation are briefly summarized below.

City Council

The City Council is the lawmaking body of the City and County of Honolulu. It sets citywide policies relating to government programs and services, including parks and recreation, zoning, affordable and special-needs housing, and public transportation. The Council also initiates new municipal programs or improvements to existing programs and services, adopts measures to balance the budget including the setting of the annual real property tax rate, and sets development fees.

Planning Commission

The Planning Commission is a nine-member board responsible for reviewing changes to the General Plan, development plans, and the Land Use Ordinance. The Planning Commission has the charge to recommend approval or approval with changes, and advise the City Council on many critical actions related to the TOD Plan, including implementation through the Land Use Ordinance.

Downtown Neighborhood Board

The City's Neighborhood Board system is the mechanism through which citizens and communities communicate their needs and desires. Activities include study and review of capital improvement projects and major zoning concerns. The boundaries of the Downtown Neighborhood Board extend from River Street to South Street and from H-1 to the harbor. The Kalihi/Palama Neighborhood Board covers portions of the Iwilei station area.

Department of Planning & Permitting

The Department of Planning and Permitting (DPP) is responsible for processing applications for land use approvals, zoning and land use permits, construction and building permits, and engineering and subdivision permits, as well as developing long-term goals and policies that address the physical, social, economic, and environmental concerns of Honolulu's communities. DPP staff work with project applicants to help them meet the policies and standards adopted by the City Council. DPP will have primary responsibility for implementing the vision of the TOD Plan.

Department of Transportation Services

The Department of Transportation Services (DTS) consists of several divisions. The Traffic Engineering Division provides for the safe and efficient operation of streets and intersections. The Transportation Planning Division performs citywide transportation planning required by the federal transportation-funding program and determines the City's transportation projects to be eligible for federal highway and transit funds.

The Public Transit Division oversees the contractor operating the City's public transit system and will be responsible for coordination with the Honolulu Authority for Rapid Transportation (HART). The Department also constructs and operates bus transit centers; and installs and maintains bus stops and shelters. DTS will be involved with the development of new streets, crossings, and transit connections.

Department of Environmental Services

The Department of Environmental Services (ENV) manages the City's wastewater, storm-

water and solid waste disposal operations and facilities. Given the wastewater capacity constraints anticipated, planning by and coordination with ENV will be essential to ensure adequate sewer capacity to enable TOD. To that end, ENV is currently updating facility plans and implementing system upgrades.

Department of Design and Construction

The Department of Design and Construction (DDC) is the central agency responsible for the planning, design, and construction management of the City's Capital Improvement Program. Working in conjunction with other City departments, DDC administers the planning, development, and implementation of capital improvements for most City agencies. These include development of infrastructure and facilities for many of the subjects addressed by the TOD Plan: wastewater, roads and drainage, parks, fire, police, and emergency services. Additionally, DDC performs land acquisition in support of all City agencies.

Department of Parks and Recreation

The Department of Parks and Recreation manages, maintains, and operates all parks and recreational facilities of the City; develops and implements programs for cultural and recreational activities; and beautifies the public streets of the city. Although acquisition of new publicly owned parkland may occur through the DDC, the Department of Park and Recreation would be responsible for operations and programming.

Department of Community Services

The Department of Community Services (DCS) implements programs to assist seniors, low-income households, and homeless persons. DCS provides rental assistance to eligible low-income families and works in partnership with the private for-profit and non-profit sectors and other government agencies to address affordable and special needs housing, as well as shelter and supportive services for people in need.

The DCS's WorkHawaii Division, which provides direct services to both businesses and job seekers, is overseen by the Oahu Workforce Investment Board through a partnership with the Mayor. In addition, the Mayor's Office of Housing addresses homelessness, through plans and programs relating to affordable housing, senior housing and special needs housing.

Honolulu Authority for Rapid Transportation (HART)

In November 2010, Honolulu voters approved a charter amendment to create a semi-autonomous public transit authority to oversee the planning, construction and operation of the rail system, including the design of the rail stations. HART has a 10-member volunteer Board of Directors that includes three members appointed by the Mayor, three members selected by the Honolulu City Council, the city and state transportation directors, the DPP Director and a community member.

Board of Water Supply

A semi-autonomous agency, the Board of Water Supply (BWS) manages Oahu's municipal water resources and distribution system, including demand and supply projections for future customers. BWS also provides education and programs in conservation, water recycling, and other best practices.

Department of Facility Maintenance

The Honolulu Department of Facility Maintenance is in charge of maintaining city roads, traffic signs, streetlights, bridges and streams, buildings, and facilities for parks. The department is made up of three divisions: the Division of Road Maintenance, the Public Building and Electrical Maintenance Division, and the Division of Automotive Equipment Service.

6.1 Summary of Improvements and Responsibilities

Table 6-1 summarizes the programs and improvements described in the preceding chapters. The matrix identifies a course of action, assigns agencies responsible for implementation, and determines a general timeframe for development and completion.

TABLE 6-1: IMPLEMENTATION ACTIONS AND RESPONSIBILITIES

IMPROVEMENT/ REGULATION	ACTION	RESPONSIBLE AGENCIES	TIMEFRAME
LAND USE PLANNING AND ZONING (CHAPTER 2: LAND USE)			
Codify TOD Plan Land Use & Development Policies	Amend Land Use Ordinance and Zoning Map to bring zoning into conformance with the land use designations, building densities, and height maximums in the Plan. Prepare and adopt TOD Special District in the Land Use Ordinance to regulate: land uses; active frontage requirements; maximum density, and heights; and other development standards.	• DPP • City Council	Within 3 years of adoption of the TOD Plan
Communicate with Business and Property Owners to Facilitate Redevelopment and "Catalyst" Projects	Communicate with small and large property owners about redevelopment and zoning changes: • Encourage revitalization efforts by Hawaii Department of Transportation - Harbors Division, Hawaii Community Development Authority, and Hawaii Pacific University to support the community vision of the Downtown TOD Plan. • Communicate with the Hawaii Electric Company about the future of the Aloha Tower substation and the feasibility of relocation. • Encourage property owners of surface parking lots along Nimitz Highway to develop TOD projects. • Communicate with big-box retailers about opportunities for mixed-use development integrated with large-format retail in the Iwilei station area.	• DPP	Ongoing
Amend Primary Urban Development Center Plan	Update the Primary Urban Development Center Plan to reflect the community vision and land use designations expressed in the Plan.	• DPP	At next scheduled PUCDP update
Amend Chinatown Special District	Amend the Chinatown Special District height map to bring the makai precinct into conformance with the maximum building heights expressed in Figure 2-7.	• DPP	Within 3 years of adoption of the TOD Plan
Revitalize Mayor Wright Housing	Partner with the Hawaii Public Housing Authority to support the revitalization of Mayor Wright Homes and adjacent neighborhoods. Efforts should encourage active mixes of uses along the North Vineyard Corridor and improved connectivity through the Mayor Wright block.	• DPP • HPHA	Within 5 years of adoption of the TOD Plan
PARKS AND RECREATION (CHAPTER 2: LAND USE AND CHAPTER 4: URBAN DESIGN)			
Identify Park Locations and Funding	Identify park locations and funding mechanisms as part of a Downtown Infrastructure Facilities and Financing Plan. Open space types include: • Community parks (at least five acres each) in Kapalama and Iwilei station areas; • Urban parks and plazas at the stations and associated with new development; • Green Streets connecting open spaces; • Waterfront promenade in the Downtown and Chinatown station areas and along Nuuanu Stream, with community input and in coordination with the Hawaii Department of Transportation; and • A revitalized Aala Park with new uses, such as a community center or ethnic garden attraction. In addition to identifying park locations, the infrastructure pPlan should also include: • Mechanisms for acquisition or dedication (e.g., through incentives, land swaps, and easements); • A needs assessment;	• DPR • DPP • DDC • DTS	Develop plan within 5 years of adoption of the TOD Plan

IMPROVEMENT/ REGULATION	ACTION	RESPONSIBLE AGENCIES	TIMEFRAME
	• Capital and maintenance costs and proposed revenues; • Revision of park impact fees to provide a nexus with the needs assessment; and • Modification of the exiting open space bonus program, as appropriate.		
STREETS AND CIRCULATION (CHAPTER 3: MOBILITY)			
Create a Cohesive Street Network	Identify locations for new streets, as illustrated conceptually in the Circulation Diagram (Figure 3-4), and a financing strategy as part of a Downtown Infrastructure Facilities and Financing Plan to implement: • New street connections and pedestrian bridges in the Iwilei and Chinatown station areas consistent with the intention and character of the street network defined in the Circulation Diagram; • Block lengths no longer than 350 feet that should generally follow parcel boundaries so that land and the costs of new streets can be shared among property owners.	• DPP • DTS • DDC	Develop plan within 5 years of adoption of the TOD Plan
Improve Sidewalks, Crossings, and Streets where Missing or Inadequate	Develop a streetscape and street deficiency plan to design and implement the Circulation Diagram (Figure 3-4), including: • Sidewalk improvements to increase safety and accessibility to rail transit along Dillingham and Ala Moana Boulevards and Aloha Tower Drive, and key transit connection streets; and • Crossing improvements to enhance safety along Nimitz Highway/Ala Moana Boulevard and Nuuanu Stream.	• DTS • DDC • HDOT	Develop plan within 3 years of adoption of the TOD Plan. Complete priority projects to coincide with beginning of rail operations.
Amend Oahu Bike Plan and Construct Bicycle Network	Update Oahu Bike Plan to reflect additional bicycle facilities as shown in Figure 3-5: Bicycle Network.	• DTS	Plan ongoing. Complete priority projects to coincide with beginning of rail operations.
Manage Parking Supply	Develop a coordinated strategy to manage on- and off-street parking efficiently based on the Plan and the Urban Core Parking Master Plan.	• DTS	Ongoing
AFFORDABLE HOUSING (CHAPTER 5: PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE)			
Codify Affordable Housing Policies	Prepare and adopt a policy to codify an inclusionary housing requirement.	• DPP • DCS • City Council	Within 6 months of adoption of the TOD Plan
Identify Funding for Affordable Housing Development	Target public and private financial resources for the production of affordable housing in the TOD Zone. Utilize the existing HUD reporting requirements to identify sources.	• DPP • Mayor's Office of Housing	Ongoing
INFRASTRUCTURE (CHAPTER 5: PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE)			
Maintain Funding for Water System	Reassess Water System Facility Charges as needed.	• BWS	Ongoing
Address Wastewater Capacity	Continue to monitor system capacity and implement necessary treatment and collection system upgrades.	• ENV • DDC	Ongoing
Fund Wastewater Infrastructure Improvements	Define a financing strategy in a Downtown Infrastructure Facilities and Financing Plan. Reassess Wastewater System Facility Charges as needed.	• ENV • DPP	Within 3 years of adoption of the TOD Plan
Maintain Best Practices for Drainage	Implement Low Impact Development (LID) strategies and standards. Continue to require drainage reports for individual projects where appropriate, and require that reports address sea level rise.	• ENV • DPP, Civil Engineering Branch • Hawaii State Department of Health	Ongoing

6.2 Zoning and Land Use

The City's zoning and land use regulations will translate plan policies into specific use regulations, development standards, and performance criteria that will govern development on individual properties. The TOD Plan establishes the policy framework, while the Land Use Ordinance prescribes standards, rules, and procedures for development. The Zoning Map will provide more detail than the Land Use Diagram (Figure 2-4).

Zoning Districts

Land use designations proposed for Downtown are illustrated and described in Chapter 2: Land Use (see Table 2-3 and Figure 2-4). Following adoption of the TOD Plan, the LUO and Zoning Map will be updated to reflect the land use designations described herein. The land use designations are generally comparable to the City's existing zoning districts, as specified in Table 6-2. However, as described in Chapter 2, building heights, FAR values, and residential densities are proposed to be regulated independent of the zoning district regulations (unlike most areas outside of the TOD Zone).

TOD Zone

The following recommendations will be codified in the TOD Special District.

District Boundaries

As described in Chapter 2: Land Use, the TOD Zone establishes the area where Special District regulations apply. The TOD Zone encompasses sites that have the most potential to support transit ridership, take advantage of transit proximity, and redevelop in the next 20 years. Sites within the TOD Zone can generally be accessed from a station on foot in fewer than ten minutes. (Sites outside this boundary may also redevelop as a result of rail, but likely over a longer time frame.)

Applicability

The regulations applicable to the TOD Zone shall be in addition to the underlying (base) zoning district and, if applicable, other special district regulations, and they may supplement and/or modify the underlying regulations (e.g., in the case of the maximum FAR or residential density allowed as described below). Where a transit station is located within or adjacent to an existing special district, the TOD Zone provisions may be incorporated in the existing special district provisions. If any regulation pertaining to a TOD Zone conflicts with any existing special district regulation, the regulation applicable to the special district should take precedence.

Building Height and Building Intensity

Maximum building intensity and building height limitations are illustrated and described in the maps in Chapter 2: Land Use (see Figure 2-6 and 2-7, respectively).

Building intensity and height maximums are independent of land use designations to enable flexibility and intensification closest to transit stations and tapering down of heights and massing toward the waterfront, away from the stations, and within historically low-intensity areas. The tallest heights and highest intensities are anticipated around the Iwilei station and mauka of the Downtown station. Tall, high-intensity buildings are also anticipated along Nimitz Highway in the Chinatown station area, but lower heights and intensities are anticipated in the historic Chinatown core, consistent with the Chinatown Special District regulations and to ensure compatibility with the existing neighborhood. Proposed building heights that meet the criteria for notification described in CFR Part 77 must be coordinated with the FAA before project approval.

Land Use

The station areas should contain a mix of complementary uses that enable the community vision of "a livable urban community with a range of uses, reflecting the area's central location, rich cultural heritage, and transit access." Complementary land uses are those that offer goods and services at different times of the day and week and provide a balance of employment, residential, and recreational uses in close proximity to one another.

Specific uses that are inconsistent with the vision for transit-oriented development, such as auto-oriented drive-through establishments, should be prohibited in certain areas. Restricting such uses will improve pedestrian safety and comfort by limiting uses that prioritize automobile use and require substantial curb cuts. Industrial and harbor activities that continue should still be designed to support pedestrian, bicycle, and transit rider mobility and safety.

TOD Special District zoning regulations should specifically address existing nonconforming uses in a way that encourages property investment, upkeep and upgrades. Within the TOD Special District, permitted and prohibited uses in each land use designation illustrated and described in Chapter 2: Land Use (see Table 2-3 and Figure 2-4) are generally proposed to be consistent with the comparable base zoning district, but with a few exceptions, as defined in Table 6-2.

Parking

Appropriate parking regulations are essential in making the most efficient use of land and in meeting broader community planning objectives. In the areas closest to the rail stations—particularly the Downtown and Chinatown stations—the small parcel size, high densities, and exceptional public transit levels provide the right conditions for significant reductions in parking requirements. In fact, the Plan recommends eliminating parking requirements in high-density areas, as shown in Figure 3-7: Proposed Exemption From Parking Minimum, though developers may continue to provide parking at levels consistent with market demand.

In moderate and lower-density areas closer to Iwilei and Kapalama station areas, parking requirements will continue to be in effect, as identified in Table 6-2. However, reductions and exemptions should be permitted in the TOD Zone where warranted and consistent with the following recommendations:

- **Expand the use of parking reductions.** Allow for reductions in parking where special conditions exist—such as the nature of the proposed operation, proximity to the rail station, or the characteristics of persons residing, working, or visiting there—or where elements (e.g., transportation demand management such as free transit passes and bike sharing) are provided that would reduce parking demand. Parking reductions should continue to be provided for mixed-use developments with varying peak parking demand periods for individual uses.
- **Exempt small retail establishments from parking requirements.** Provide an across-the-board exemption from the off-street parking requirement for retail businesses under a certain size (e.g., 1,500 square feet of floor area).
- **Establish a framework for in-lieu fees.** Establish a framework and nexus for the payment of a fee in-lieu of providing parking on-site to develop public parking areas.
- **Allow alternative parking configurations that provide for efficient use of space.** Allow on-street parking spaces on public and private streets to count toward required on-site parking for non-residential uses and residential guest parking. Additionally, allow motorcycle/scooter/other personal non-vehicular transportation parking to substitute for a portion of required automobile parking.
- **Require bicycle parking.** Consistent with the Oahu Bike Plan, bicycle parking (short- and long-term, as appropriate) should be required at popular destinations, including transit hubs, government buildings, community centers, parks, schools, and shopping centers. It is recommended that development in all land use designations provide bicycle parking areas holding the equivalent of ten percent of the required auto parking.
- **Exemption for Redevelopment within the Medium Density Residential Land Use Designation.** Where a use with a legal nonconforming parking deficiency is located in the Medium Density Residential land use designation and is replaced with use and development consistent with all other applicable standards, the non-conforming parking may remain as is. This will help encourage redevelopment and renovation of existing properties in disrepair that could not otherwise meet parking standards.

TABLE 6-2: ZONING, LAND USE & PARKING REQUIREMENTS

LAND USE DESIGNATION	COMPARABLE ZONING DISTRICT(S)	EXCEPTIONS TO PERMITTED USES (FROM COMPARABLE ZONING DISTRICT)	PARKING REQUIREMENTS
Medium Density Residential	• Medium-Density Apartment Mixed-Use (AMX-2) where ground-floor commercial uses are permitted or required—see Figure 2-5	None	• Dwellings, multi-family – 0-1 per dwelling unit, depending on size • All other uses – consistent with existing regulations for uses permitted in base zoning district (AMX-2)
High Density Residential	• High-Density Apartment Mixed-Use (AMX-3) where ground-floor commercial uses are permitted or required—see Figure 2-5	Duplexes and detached dwellings are not allowed.	• Commercial parking lots and garages should be located at least 300 feet from a station. • Dwellings, multi-family – 0-1 per dwelling unit, depending on size • All other uses – consistent with existing regulations for uses permitted in base zoning district (AMX-3)
Urban Mixed Use-Medium	• Community Business Mixed Use (BMX-3)	Duplexes, detached dwellings, automobile service stations, and car washes are not allowed.	• No minimum parking requirements for sites located within the Exemption Zone in Figure 3-7 • Outside of Exemption Zone - all uses consistent with existing regulations for uses permitted in base zoning district (BMX-4) • Commercial parking lots and garages should be located at least 300 feet from a station.
Urban Mixed Use-High	• Community Business Mixed Use (BMX-3) *(However, Urban Mixed Use High typically corresponds to more building intensity and higher building height compared to Urban Mixed Use-Medium and what would typically be permitted in the BMX-3 district.)*	Duplexes, detached dwellings, automobile service stations, and car washes are not allowed.	• No minimum parking requirements for sites located within the Exemption Zone in Figure 3-7 • Outside of Exemption Zone - all uses consistent with existing regulations for uses permitted in base zoning district (BMX-4) • Commercial parking lots and garages should be located at least 300 feet from a station.
Downtown Mixed Use	• Central Business Mixed Use (BMX-4)	Automobile service stations are not allowed.	• No minimum parking requirements for sites located within the Exemption Zone in Figure 3-7 • Outside of Exemption Zone - all uses consistent with existing regulations for uses permitted in base zoning district (BMX-4) • Commercial parking lots and garages should be located at least 300 feet from a station.
Commercial Office	• Community Business (B-2)	Outdoor amusement facilities, automobile service stations, and car washes are not allowed.	• No minimum parking requirements for sites located within the Exemption Zone in Figure 3-7
Industrial	• Waterfront Industrial (I-3)	None	• No minimum parking requirements for sites located within the Exemption Zone in Figure 3-7
Public/ Quasi-Public	• Generally permitted within any of the City's zoning districts	None	• All uses consistent with existing regulations for uses permitted in base zoning district
Public Park	• General Preservation (P-2)	None	• All uses consistent with existing regulations for uses permitted in base zoning district (P-2)

Yards

Yards in the TOD Zone should contribute to an active, pedestrian-oriented mixed-use environment. Yards should be sensitive to adjoining residential uses, while also supportive of active ground floor uses. As described below, minimum yard standards allow for public and common open space, while maximum yard standards ensure that visibility and accessibility of active uses are prioritized.

- **Establish minimum yard requirements**. Where sidewalks are narrow and high pedestrian volumes are anticipated, require minimum front yards so that the yard can become an effective extension of the public sidewalk area.
- **Establish maximum street frontage setback requirements**. To encourage the development of a street wall, front yards should be no greater than 200 percent of the required minimum, in areas where active ground floor frontage is required.
- **Establish requirements for front yards of active uses to include pedestrian amenities.** Retail, restaurants, and other uses along designated active streets should offer pedestrian amenities such as outdoor dining, pedestrian seating areas, paved pathways, entry walks, and landscaping.
- **Encourage parking in the side or rear.** Buildings should be placed as close as possible to the street, or public plaza or open space provided along street, in compliance with the required setback, with parking located either in a garage, behind a building, or on the interior or rear of the site.
- **Incorporate buffers for yards adjacent to residential uses.** When a side or rear yard adjoins a residential district, landscaping buffers five feet in width should be incorporated into the required minimum yards.

Publicly Accessible Open Space

The Downtown TOD Plan proposes a connected network of open space throughout the planning area. This network, diagrammed in Figure 4-4: Open Space and Public Realm, includes parks, plazas, and green connections. In addition, privately owned publicly accessible open spaces within planned developments are an integral part of the open space network.

All publicly accessible open spaces should be designed to be visible from the public right-of-way, accessible, and safe. Standards for open space and landscaping within the TOD Zone should be consistent with the recommendations below:

- **Establish minimum open space requirements.** Instead of the parks and playgrounds requirements pursuant to Section 22-7.5 of the Subdivision Ordinance, new residential, office, or mixed-use development should be required to dedicate a percentage of the developable area to publicly accessible open space.
- **Exemptions**. Sites less than 20,000 square feet in area should be exempt from the open space requirement.
- **Allow for open space requirements to be met through on- or off-site dedication and/or payment of in-lieu fees.** The required open space for any residential, mixed-use, or office development may be met with dedication or developer contribution to the City's Park Dedication Fund. If land is dedicated, it should be in a visible location accessible to the broader community. If an in-lieu fee is paid, the contribution should be applied to the design and construction of a community park within the same station area or a station area adjacent to that of the proposed development.
- **Allow a Range of Open Space Types.** Open space may include all public, semi-public, or common open space areas with a minimum dimension of eight feet on any side, whether at the ground, lobby, podium, or roof level. Open space could also be provided off-site, in the form of pocket parks, trails, public plazas, or other configuration consistent with City goals and policies. For example, development sites along Nimitz Highway could contribute to the waterfront promenade.
- **Require developments to contribute to and/or enhance the "Green Street" network.** For sites located along a "Green Street," as identified in Figure

4-4, any on-site open space should be located adjacent to the right-of-way. In addition, the open space should include features that complement the Green Street scheme (i.e., signage, pedestrian amenities, additional landscaping).

- **Encourage a balance of active and passive recreational uses.** Taken together, the small parks and large community parks located within a station area should offer an array of recreational uses, including active sports and athletic opportunities, as well as passive areas for relaxation and contemplation. Require programming of open space appropriate to the district's needs.

Architectural Elements

Built form within the TOD Zone is expected to contribute to an active and vibrant pedestrian experience. The architectural elements of all buildings should enhance the pedestrian experience, but pedestrian-oriented design is particularly important in the areas closest to rail transit which will host the highest rates of pedestrian travel. Figure 2-5 illustrates where Pedestrian-Oriented Design is required; the guidelines below should be adhered to in these areas.

- **Require buildings to be oriented to the pedestrian realm.** Building facades should be parallel to the right-of-way and should open directly onto the sidewalk or onto a pedestrian walkway within the front yard. Buildings should include at least one entryway for each street-facing façade, and all entryways should be clearly visible as such.
- **Require articulated entries for residential uses.** Facades of residential uses should incorporate porches, stoops, porticoes, bay windows, and/or other architectural features that provide a sense of entry and visual interest from the public realm.
- **Encourage articulated building massing and facades.** Encourage developments that provide varied front yard depths within a narrow range; recessed or otherwise articulated entries; a variety of colors, materials and/or textures; varied roof forms; and building form and fenestration that communicates overall building organization.
- **Require transparency of active uses.** Ground-level facades of buildings with active uses should have a high degree of transparency with storefront windows and/or glass doors. Blank walls should be limited to 40 feet in length within the TOD Zone and 20 feet along an active ground-floor frontage, per Figure 2-5.

Historic Preservation

Preservation and rehabilitation of historic buildings and structures should be promoted within the TOD Zone. Incentives may include streamlined permitting, tax credits or reductions, additional use allowances, transfer of development rights, and the removal of regulatory constraints to preservation.

Lot Consolidation

In some areas where the Plan anticipates tall heights and intense development, lot consolidation may be necessary to ensure that sites can accommodate the permitted height and FAR limits. The TOD zoning regulations should establish minimum lot size thresholds appropriate to the intensity of development allowed.

Affordable Housing

Maintaining and producing affordable housing in the Downtown corridor is a central component of the community's vision for TOD. The TOD Plan recommends an affordable housing policy as follows for residential or residential mixed-use projects with 10 or more units where there is no zone change:

- A percentage of the total number of dwelling units should be sold or rented to low and moderate-income households.
  - Family-friendly housing with higher bedroom counts and tot lots is encouraged through a weighted calculation. The actual final percentage depends on the mix of unit types—units with two or more bedrooms should be given more weight than studio and one-bedroom units and SROs.

- Units should be affordable to households earning at or below 80 percent of area median income (AMI) and to households earning between 80 and 120 percent of AMI.
- Emphasis should be placed on the production of rental housing units rather than for-sale units.

- In-lieu fees may be paid and banked in an Affordable Housing Fund to satisfy the affordable housing requirement. These funds should be used to develop affordable housing within the Downtown corridor to the extent feasible.
- Incentives should be provided to offer relief from parking, park dedication and other requirements in order to ensure project feasibility.

Community Benefits Bonus

Entitlement bonuses up to the maximum allowed height or FAR may be granted in exchange for the provision of additional community benefits (public open space, streetscape improvements, affordable housing, etc.) beyond what is required.

6.3 Phasing

The TOD Plan seeks to maintain a high quality of life and adequate public facilities as rail is constructed and new development ensues in the Downtown corridor. Establishing a clear direction for infrastructure and public facilities planning is essential to ensuring that new development can proceed without constraints and that the timing and costs of improvements are logical and feasible.

Phasing of improvements and projects will be based on development cost, market factors, available financing, and infrastructure improvements. A potential sequencing of improvements is described below:

1. The TOD Special District zoning will be adopted following adoption of the Downtown Neighborhood TOD Plan. A Downtown Infrastructure Facilities and Financing Plan should be prepared to definitively lay out the future street network, identify park locations, and document any necessary utility upgrades. In addition, essential wastewater capacity planning should be completed and improvements prioritized to ensure that development can proceed in subsequent phases. As the rail line is being constructed and utilities are placed underground, there could be opportunities to coordinate sidewalk and streetscape improvements.

   Some redevelopment projects may be initiated in the short term, such as vacant or for-lease sites with limited or no environmental hazards or infrastructure constraints. Any development projects undertaken by the State, Hawaii Pacific University or other entities or property owners with a major presence Downtown could be "catalyst" projects, helping to fund and construct critical public facilities and bring new activities, residents, students, and services to support rail ridership and enhance the Downtown neighborhood.

2. The first major public construction phase will likely be marked by the construction and opening of the three Downtown rail stations, anticipated by 2019. In the second phase—which could occur concurrently with the first phase—critical street network

improvements should be implemented, consistent with a Downtown Infrastructure Facilities and Financing Plan.

Priority projects, such as installing crosswalks, lighting, and new street segments will ensure that stations can be safely and conveniently accessed. This will be most important around the Iwilei station which currently lacks adequate sidewalks and access routes.

3. In the third phase, as the rail system matures and infrastructure and public amenities have been installed, the next phase of city building will ensue. Once the initial projects are developed and new neighborhoods emerge, other properties and developers will take an interest in redevelopment. New development near the Iwilei station could set a foundation for new mixed-use activity and the revitalization of the Aloha Tower area (including, potentially, the relocation of the HECO substation and redevelopment of the site) could bring new day and nighttime activities to Downtown.

6.4 Financing Strategies

There are a variety of mechanisms available to the City for collecting funds and implementing public capital improvements. Selection of the appropriate mechanism depends on the nature of the improvement. For example, development impact fees place the burden on developers (and ultimately the occupant of the home or business being constructed); whereas assessment districts place the financial burden on existing and future property owners; and funding through the Capital Improvement Program (CIP) distributes the burden citywide. The City must determine who benefits most from the improvement in order to determine appropriate funding streams.

A matrix of potential strategies for the major improvements in the Downtown TOD Plan are highlighted in Table 6-3 and explained in more detail in the sidebar.

TABLE 6-3: FINANCING STRATEGIES FOR MAJOR IMPROVEMENTS AND CAPITAL PROJECTS

PROJECT COMPONENTS	IMPACT FEES	PUBLIC/PRIVATE PARTNERSHIPS AND DEVELOPER CONTRIBUTIONS[1]	SPECIAL FUNDING DISTRICTS	CIP	TAX INCREMENT FINANCING	GRANTS & LOANS
LAND USE PLANNING AND ZONING (CHAPTER 2: LAND USE)						
Catalyst Project Development		√ Incentives may include forgiveness of real property taxes for a certain number of years (e.g., 5-10 years)	√			
PARKS AND RECREATION (CHAPTER 2: LAND USE AND CHAPTER 4: URBAN DESIGN)						
Park Acquisition and Development (including promenades)	√ Park Dedication Fund, user fees	√ Incentives: density bonus, land swaps	√	√	√	√
STREETS AND CIRCULATION (CHAPTER 3: MOBILITY)						
New Streets	√	√	√	√	√	√
Sidewalks, Crossings, and Streetscape Improvements	√	√	√	√	√	√ (e.g., federal grants)
Parking Improvements (e.g., Centralized Facilities, Shuttles)	√ Parking Permit Fees	√	√		√	
AFFORDABLE HOUSING (CHAPTER 5: PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE)						
Affordable Housing Development	√ Affordable Housing Fund	√		√		√ (e.g., HUD)
INFRASTRUCTURE (CHAPTER 5: PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE)						
Water System Operations	√ Water System Facility Charges	√	√		√	
Wastewater Infrastructure Improvements	√ Wastewater System Facility Charges	√	√		√	

1 Includes possible land dedications

CAPITAL IMPROVEMENTS FINANCING STRATEGIES

Capital Improvement Program

The CIP is the discretionary infrastructure funding plan for the City. It includes a list of public works projects that the City intends to design and construct in upcoming years. As a capital program, the CIP represents one-time expenditures, as opposed to ongoing funding for operations and maintenance expenses. The City Council reviews and adjusts the CIP to reflect changes in priority, funding availability and need, and the general economy. DDC has the lead role in carrying out the capital improvements.

Impact Fees

The City collects impact fees on development projects for certain capital improvements. These funds are levied for wastewater services, water, and parks and recreation facilities. Hawaii has enacted impact fee legislation that, by virtue of broad authorizing language, would permit the use of impact fees for transit access and TOD. For example, the City of San Francisco has a transit impact development fee to cover the estimated costs incurred by the transit agency to meet demand for public transit resulting from new development. Revenues may be used for capital costs, route expansions, operations, maintenance, among other needs.

The Ewa Highway Impact Fee Program (ROH Chapter 33A) provides another precedent, establishing an impact fee collected on each building permit for residential or non-residential construction to provide additional funding resources for roadway and traffic improvements only in the Ewa region.

Additional fees could be collected for a variety of services; storm drain and street improvements; police and fire facilities; and general City facilities. However, it is important that impact fees be appropriately set to mitigate development impacts, while not overburdening project applicants. The City should streamline fees and permit costs on new development within the planning area and consider lowering fees, if appropriate, to provide an incentive for development.

Special Funding Districts

Individuals and businesses can cooperate to create special districts in which they tax themselves or contribute fees in order to fund specific benefits, such as landscaping, infrastructure improvements, and parking facilities.

Assessment Districts

The Revised Ordinances of Honolulu (ROH) (Chapter 14, Article 23 to 29) allow for the establishment of assessment districts for a variety of purposes including: sewer, storm drain, and water system construction; street lighting and sidewalk construction; acquisition of property for pedestrian malls and off-street parking facilities; and parks and other public facilities. The City may issue and sell bonds to provide the funds for such improvements. However, this tool has not been often used in Honolulu; the most recent assessment district was adopted decades ago.

Improvement Districts

The ROH (Chapter 36) also allows for the establishment of improvement districts (often called Business Improvement Districts or BIDs) to provide for and finance additional maintenance, security or other services required for the enjoyment and protection of the public and the promotion and enhancement of the neighborhood or district. Special improvement district bonds are issued to finance the cost of supplemental improvements or to reimburse the cost previously paid. Costs could include payment for additional security, landscaping,

sanitation services, promotional and advertising activities, marketing for businesses, decorations and lighting for seasonal and holiday purposes. For example, the Waikiki Business Improvement District funds streetscape maintenance and hospitality programs through an assessment on all commercial and non-residential properties.

A BID may be established to provide and finance, to the extent permitted by law, supplemental physical improvements located within the city or the district which will promote business activity including construction of lighting, security systems, pedestrian overpasses, sidewalks and pedestrian malls, parking facilities, plazas, and streetscape improvements (e.g., benches, bus stop shelters, kiosks, signage); as well as narrowing/closing existing streets, rehabilitation or removal of structures, and relocation of utilities. Currently, there are two BIDs in the city: Waikiki and Fort Street Mall.

Parking District and In-Lieu Fee

Through the assessment or improvement districts described above, property owners may form a district to finance parking-related activities, including acquisition of land for parking facilities, construction of parking lots and garages, and operating costs, and to issue bonds to fund similar activities. The majority of affected property owners would have to vote to assess their properties in order to establish such a district.

Another possible approach to funding is imposition of an in-lieu fee, whereby developers pay the fee (e.g., a uniform fee per space) instead of providing on-site parking, thereby reducing the cost of development and potentially increasing the efficient use of development sites. The City could, in turn, develop a shared parking structure.

Community Facilities Districts

The ROH (Chapter 34) also allows for the establishment of community facilities districts (CFDs) to finance the acquisition, planning, design, construction, installation, improvement, or rehabilitation of any real property or structure. This could include street improvements, (e.g., sidewalks, bikeways, and pedestrian malls); public parking facilities; park, recreation, and open-space facilities; water, wastewater, storm drainage, sewage removal or treatment, solid waste disposal, and recycling or resource recovery systems or facilities; and transit or transportation systems.

A CFD may be initiated by the City Council or by petition signed by the owners of at least 25 percent of the land in the proposed district (unrelated to the value of the property) and is funded through a special tax.

CFDs have been used sparingly in Hawaii; the first one was established to help finance a 1,200-unit workforce housing development, Kamakoa at Waikoloa, on Hawaii Island.

Tax Increment Financing

Tax increment financing offers a financial tool that could allow the City to designate target areas for special investment in order to stimulate development.

Tax increment financing allows the City to issue bonds against the future property tax revenue expected to be generated, in order to finance public investment. The City obtains the additional "increment" of property tax growth, which typically increases as the public improvements are put in place and initial investments are made from the public and private sectors. Funds may be used to pay for affordable housing, parks, schools, utility upgrades, and other public facilities. Hawaii has adopted enabling legislation, but the City has not yet utilized this tool.

For example, a recent study in Honolulu projected that a vacant lot that currently pays nearly $300,000 per year in property taxes would pay $8 million per year as a high-density TOD project. The $7.7 difference (or increment) represents the expected property tax gain that the City can bond against and a funding source with which the City can pay off the bond debt.

Public-Private and Joint Partnerships

The City can facilitate public-private partnerships wherein private developers contribute to public improvements in return for assistance with land assembly, financing, and the benefit of transit over time. While the cost and responsibility for construction may be assigned to the property owners, this burden could be shared between multiple properties and/or reimbursed over time. The City should consider the use of tax credits, and other financing tools, to allow investment in public infrastructure and increase the financial feasibility of TOD, but only to the extent that private development cannot support itself.

Property Tax Incentives

The City can expand the menu of real property tax incentives including property tax deferment, abatement, and tax holidays. It can also adjust the current program that allows limited Real Property Tax Exemptions for production of new affordable housing. This could include a time limit on TOD-related exemptions (and maximum amount available), with exemptions/credits issued on a first-come, first-served basis for qualified projects to signify urgency (as was done with the prior 7-year exemptions in Waikiki).

Development Agreements

Development agreements (regulated in ROH Chapter 33) are a typical way that public-private partnerships are codified. Developers enter into a contract with the City voluntarily, providing a flexible and case-by-case method to negotiate the project and community benefits. Development agreements are particularly appropriate for phased projects that will be built out over a period of years during which applicable regulations may be subject to change. In this way, these agreements can have the advantage of providing more certainty for developers in the approval process, but the process may be time-consuming for staff and decision-makers, and lack transparency for community members.

Developer Contributions

Developer contributions are payments made in addition to normal impact fees as part of the development approval process for specific projects; these most often apply to larger developments with significant associated impacts. Contributions fund infrastructure and improvements such as dedications of right-of-way for streets and utilities, and the provision of open space, parks or landscape improvements beyond minimum project requirements. Where developers provide public parks as part of their developments, they could be exempted from or given credit against park dedication fees at the discretion of the City.

Grants and Loans

A sampling of federal and state grants and loans that may be appropriate in the Downtown corridor are described below.

Community Development Block Grant

The Community Development Block Grant (CDBG) program is a long-running U.S. Department of Housing and Urban Development (HUD) initiative to fund local community development activities such as affordable housing, anti-poverty programs, and infrastructure development. Some or all of the City's annual allotment of CDBG funds from the federal government could be capitalized into a Section 108 loan, to increase the immediate ability to fund improvements. HUD's Section 108 Loan Guarantee Program provides communities with

a source of financing for economic development, housing rehabilitation, public facilities, and large-scale physical development projects.

CDBG funds may be challenging to use for public improvements since the grants are competitive and the City may have competing priorities for these funds. The Department of Community Services and Department of Budget and Fiscal Services prepare the request to HUD through the Consolidated Plan process.

HART Funding

The Honolulu Authority for Rapid Transportation will administer, through a Historic Preservation Committee, $2 million in funds for exterior improvements to historic properties within the rail project's area of potential effects.

Federal Transportation Funding

Federal transportation funds are available through a variety of programs and legislation. For example, the City already takes advantage of federal funds, such as Safe Routes to School infrastructure grants to improve pedestrian safety, the American Recovery and Reinvestment Act of 2009, as well as funding for the rail system itself. To qualify for funding, improvements must be identified in the appropriate transportation documents such as the Oahu MPO Regional Transportation Plan, the Oahu MPO Transportation Improvement Program and/or the City's Capital Improvement Program.

In June 2012, the new federal surface transportation bill was signed into law: "Moving Ahead for Progress in the 21st Century Act" (MAP–21). The law provides $105 billion in funding for essential highway and public transportation programs, most of which are in the form of formula-based allocations that direct money automatically to states and metropolitan areas. (Approximately 80 percent of funds are allocated to highways/roads and 20 percent to transit.)

Funds do exist for projects that support TOD through the "Transportation Alternatives" program, which could provide funding for a variety of improvements including bike and pedestrian facilities, traffic calming, lighting and other safety infrastructure. Hawaii was allocated approximately $7 million over two years for this program.

Federal Smart Growth Funding

Several other federal agencies also have grant programs that could be appropriate for the Downtown corridor. In particular, the Downtown station is close to Hawaii's capital and some TOD implementation projects may be eligible for the Greening America's Capitals grant program which seeks to protect the environment, promote equitable development, and help address the challenges of climate change. The program will fund a team of designers to visit the city for up to three days to produce schematic designs for streets and public spaces and exciting illustrations intended to catalyze or complement a larger planning process for the pilot neighborhood.

Brownfields Cleanup Revolving Loan Fund

The Hawaii State Office of Planning offers low and no interest loans to clean up brownfield (contaminated) properties. The applicant prepares a report documenting the contamination found and an analysis of cleanup options and cost estimates, with recommendations as to the preferred response action. The cleanup action must be completed within 12 months of the date activities begin on site.

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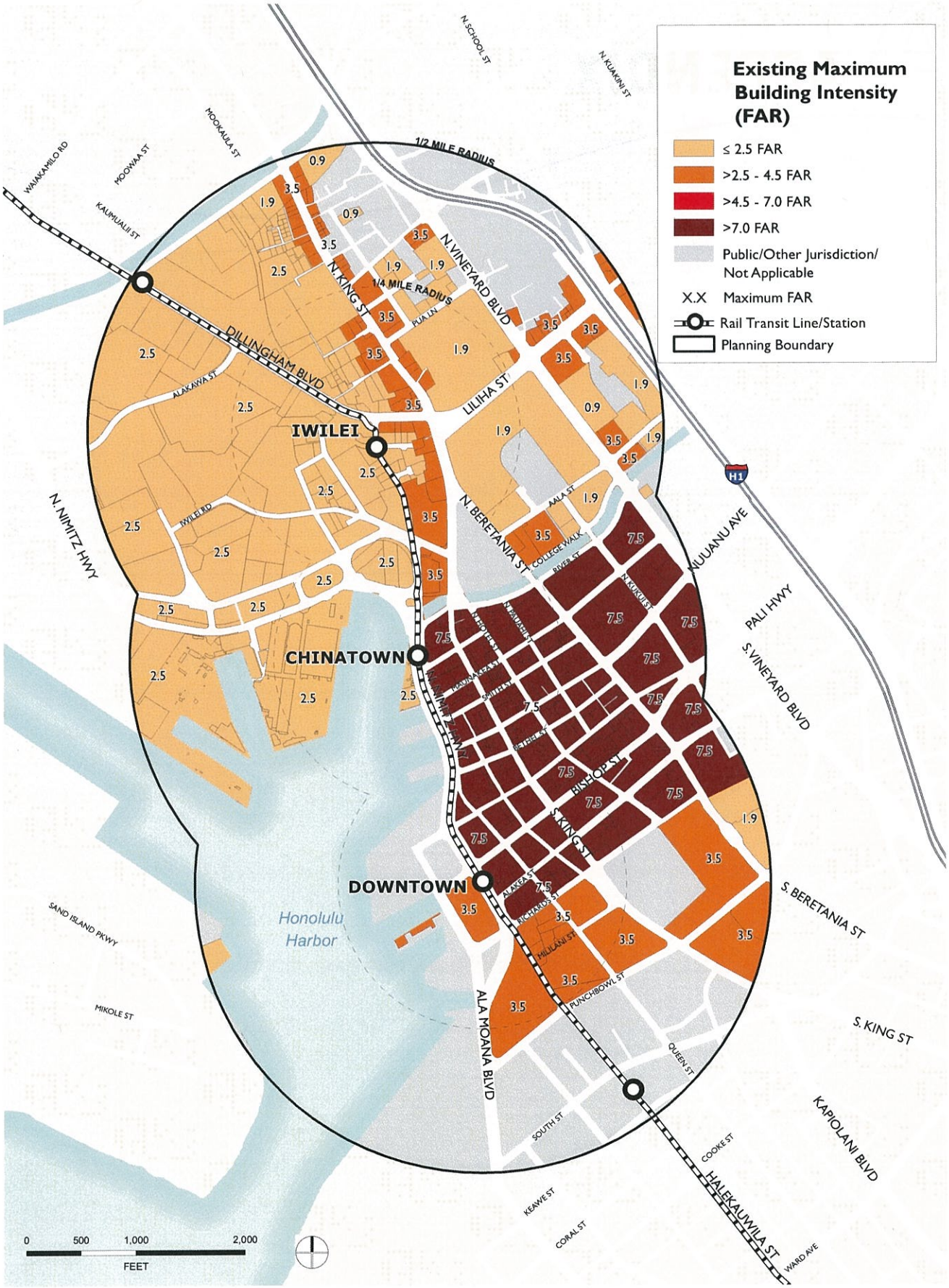
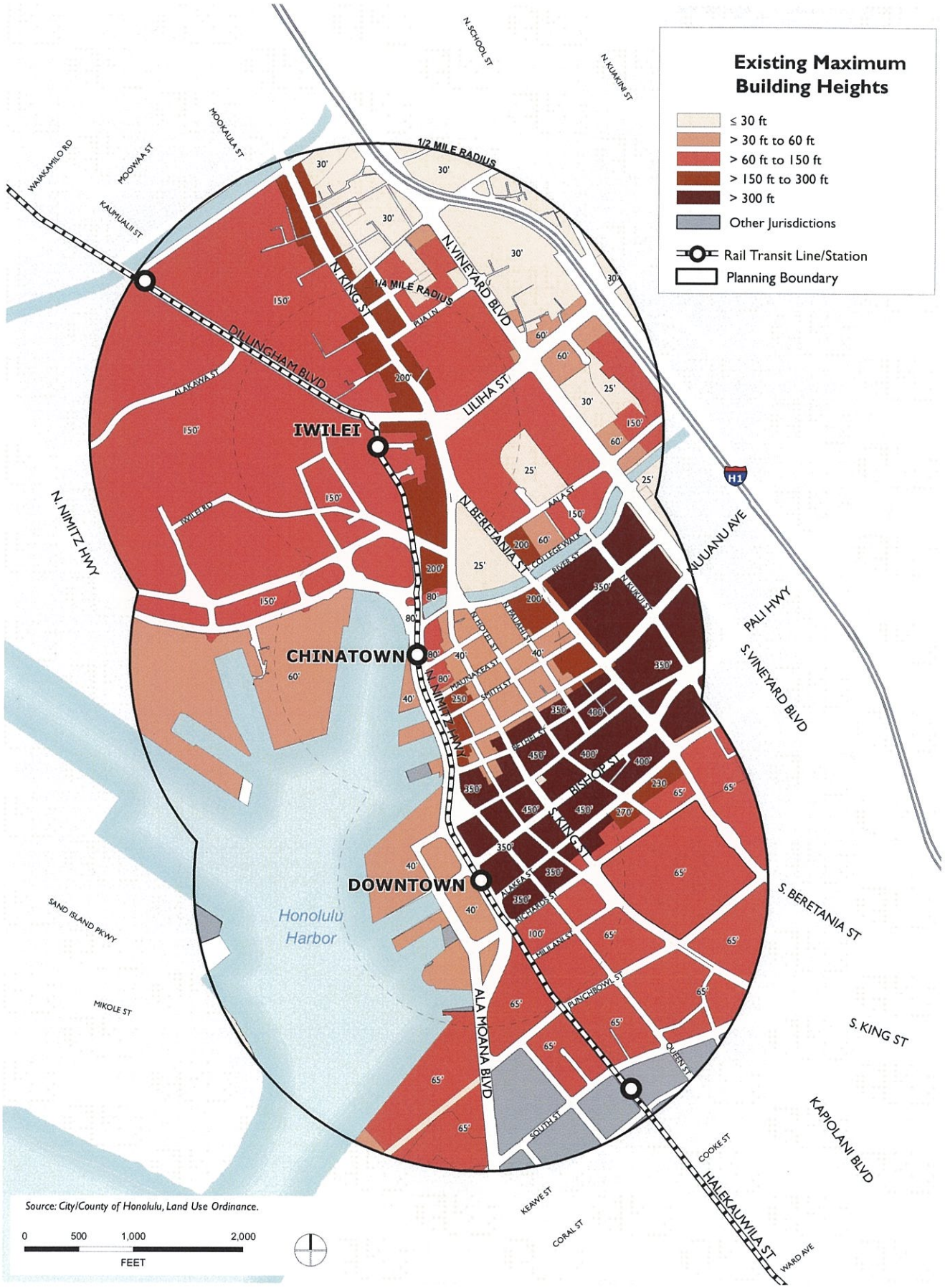
A APPENDIX


Existing Maximum Building Intensity (FAR)
≤ 2.5 FAR
>2.5 - 4.5 FAR
>4.5 - 7.0 FAR
>7.0 FAR
Public/Other Jurisdiction/ Not Applicable
X.X Maximum FAR
Rail Transit Line/Station
Planning Boundary
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Honolulu Harbor
N. SCHOOL ST
N. KUAKINI ST
WAIAKAMILO RD
MOOWAA ST
MOOKAULA ST
KAUMUALII ST
N. KING ST
N. VINEYARD BLVD
PUA LN
DILLINGHAM BLVD
ALAKAWA ST
LILIHA ST
IWILEI RD
N. NIMITZ HWY
N. BERETANIA ST
AALA ST
COLLEGE WALK
RIVER ST
N. KUKUI ST
NUUANU AVE
PALI HWY
S. VINEYARD BLVD
BISHOP ST
S. KING ST
S. BERETANIA ST
ALAKEA ST
RICHARDS ST
HILULANI ST
PUNCHBOWL ST
ALA MOANA BLVD
QUEEN ST
SOUTH ST
COOKE ST
HALEKAUWILA ST
KAPIOLANI BLVD
WARD AVE
CORAL ST
KEAWE ST
SAND ISLAND PKWY
MIKOLE ST
H1
0 500 1,000 2,000
FEET


Existing Maximum Building Heights
≤ 30 ft
> 30 ft to 60 ft
> 60 ft to 150 ft
> 150 ft to 300 ft
> 300 ft
Other Jurisdictions
Rail Transit Line/Station
Planning Boundary
1/2 MILE RADIUS
1/4 MILE RADIUS
IWILEI
CHINATOWN
DOWNTOWN
Honolulu Harbor
N. SCHOOL ST
N. KUAKINI ST
WAIAKAMILO RD
MOOWAA ST
MOOKAULA ST
KAUMUALII ST
DILLINGHAM BLVD
ALAKAWA ST
N. KING ST
PUAINI ST
N. VINEYARD BLVD
LILIHA ST
N. NIMITZ HWY
N. BERETANIA ST
COLLEGE WALK
RIVER ST
KUJUANU AVE
PALI HWY
S. VINEYARD BLVD
S. BERETANIA ST
S. KING ST
KAPIOLANI BLVD
HALEKAUWILA ST
WARD AVE
COOKE ST
KEAWE ST
CORAL ST
SOUTH ST
QUEEN ST
PUNCHBOWL ST
ALA MOANA BLVD
BISHOP ST
SAND ISLAND PKWY
MIKOLE ST
Source: City/County of Honolulu, Land Use Ordinance.
0 500 1,000 2,000
FEET

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B APPENDIX

TABLE B-1: ORGANIZATIONS REPRESENTED ON PROJECT ADVISORY COMMITTEE
AFFILIATION
AARP
Arts District Merchants Association
C. Q. Yee Hop Realty
Castle & Cooke Homes Hawaii, Inc.
Chinatown Improvement District
Chinese Chamber of Commerce
City and County of Honolulu, Department of Community Services
City and County of Honolulu, Department of Transportation Services
CORE Realty
CTMS, Inc.
Downtown Neighborhood Board No. 13
EAH, Inc.
Faith Action for Community Equity (FACE) Hawaii
Family Promise of Hawaii
Fort Street Mall Business Improvement District Association
Hawaii Community Development Authority
Hawaii Heritage Center
Hawaii Pacific University
Honolulu City Council
Institute for Human Services
LT Services
Lum Yip Kee, Ltd.
Lyon Associates
Oahu Market
River of Life Mission
State of Hawaii, Department of Business, Economic Development and Tourism, Office of Planning
State of Hawaii, Department of Human Services, Homeless Programs Office
State of Hawaii, Department of Transportation - Harbors Division
State of Hawaii, Hawaii Public Housing Authority
State of Hawaii, House of Representatives
United Chinese Coalition

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