



## RESOLUTION

---

**APPROVING THE HALAWA AREA 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 TOD; 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 a station along Kamehameha Highway to serve the Aloha Stadium and surrounding area; and

WHEREAS, the Department of Planning and Permitting (DPP) and its consultant, CallisonRTKL Planning and Urban Design Studio, have prepared the Halawa Area TOD Plan (July 2017) to serve as the basis for the creation of a TOD zone around the Aloha Stadium rail transit station; and

WHEREAS, the process of creating the Halawa Area 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 Halawa Area 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 Halawa Area TOD Plan; now, therefore,



**RESOLUTION**

---

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 Halawa Area TOD Plan (July 2017) 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 Aloha Stadium rail transit stations, and the TOD development regulations applicable thereto; and

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

INTRODUCED BY:

*[Handwritten Signature]*  
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DATE OF INTRODUCTION:

**SEP 20 2019**

\_\_\_\_\_  
Honolulu, Hawaii

\_\_\_\_\_  
Councilmembers



# HALAWA AREA

Transit-Oriented Development (TOD) Plan

DRAFT FINAL PLAN

JULY 2017

EXHIBIT A



# HALAWA AREA

## Transit-Oriented Development (TOD) Plan

### DRAFT FINAL PLAN



Prepared for the *City and County of Honolulu* by:

*CallisonRTKL*

Los Angeles - Planning and Urban Design Studio

In collaboration with:

*Belt Collins Hawaii*

*Fehr & Peers*

*Keyser Marston Associates*

# TABLE OF CONTENTS

---

## EXECUTIVE SUMMARY

Overview	1
Planning Process	2
Vision Statement	3
The Plan	5
Proposed Zoning	6
Document Structure	6
Next Steps	7

## 1. PLANNING BACKGROUND

<b>1.1 The Halawa Area</b>	<b>9</b>
1.1.1 The Halawa Area Within The Primary Urban Center	9
1.1.2 Site Context	10
1.1.3 Land Use	12
1.1.4 Zoning	14
1.1.5 Community Facilities and Establishments	16
1.1.6 Historic / Cultural sites	18
1.1.7 Station Area Characteristics	20
1.1.8 Property Ownership	22
1.1.9 Transit and Circulation	24
1.1.10 Flood Zones	26
1.1.11 Existing Plans and Ordinances	28
<b>1.2 Demographic Summary</b>	<b>30</b>
<b>1.3 Common Themes</b>	<b>32</b>
<b>1.4 Opportunities and Constraints</b>	<b>34</b>
1.4.1 Opportunities	34
1.4.2 Constraints	35
1.4.3 Market Assumptions	35

## 2. VISION AND PRINCIPLES

2.1 Vision Statement	37
2.2 Principles and Policies	38

---

## 3. DEVELOPMENT FRAMEWORK

<b>3.1 Overall Structure</b>	<b>43</b>
3.1.1 Framework Concept	43
3.1.2 The Plan's Key Characteristics	48
3.1.3 Planning Area Sub-Districts	52
<b>3.2 Urban Design Elements</b>	<b>56</b>
3.2.1 Concept	56
3.2.2 Design Elements	56
3.2.3 Important Views and Vistas	58
3.2.4 Other Considerations	58
<b>3.3 Connectivity</b>	<b>60</b>
3.3.1 Concept	60
3.3.2 Transit Connections	60
3.3.3 Vehicular Circulation	60
3.3.4 Pedestrian Connectivity	62
3.3.5 Bicycle Network	64
3.3.6 Stadium-Station Connection	66
3.3.7 Complete Streets	68
3.3.8 Parking Strategy	72
<b>3.4 Open Space</b>	<b>75</b>
3.4.1 Concept	75
3.4.2 Open Space Network	75

## 4. TOD ZONING

<b>4.1 Halawa Area Special District</b>	<b>81</b>
4.1.1 TOD Special Districts	81
4.1.2 District Boundaries	82
4.1.3 Land Uses	82
<b>4.2 Zoning Districts</b>	<b>84</b>
4.2.1 Intent	84
4.2.2 Zoning Designations	84
4.2.3 Permitted Uses	84
<b>4.3 Building Envelope Standards</b>	<b>86</b>
4.3.1 Intent	86
4.3.2 Height And Density	86
4.3.3 Urban Form	86
4.3.4 Maximum Community Benefits	88
4.3.5 Ensure Neighborhood Compatibility	88
4.3.6 Respect Historical Landmarks	88
4.3.7 Ensure Interaction with Adjacent Buildings	88
4.3.8 Building Orientation to Street and Public Spaces	89
4.3.9 Provide Pedestrian-Oriented Streetscape	89

# TABLE OF CONTENTS

---

4.3.10	Reduce Visual Impact of Parking	89
4.3.11	Screen/Buffer Service and Loading Facilities From Public Streets	89
4.3.12	Avoid Blank Walls	89
4.3.13	Underground Utilities	90
4.3.14	Outdoor Street and Building Lighting	90
4.3.15	Noise and Excess Light Mitigation	90
4.3.16	Environmental Justice	90
<b>4.4</b>	<b>Tower Guidelines</b>	<b>91</b>
4.4.1	Intent	91
4.4.2	Tower Massing	91
4.4.3	Promote Natural Air Circulation and Ventilation While Minimizing Adverse Wind Conditions	91
4.4.4	Provide Proper Setbacks For Towers	91
4.4.5	Orient Towers To Optimize View Corridors	91
<b>4.5</b>	<b>Parking Standards</b>	<b>92</b>
4.5.1	Intent	92
4.5.2	Parking Ratios	92
4.5.3	Parking Management	92
4.5.4	On-Street Parking	92
4.5.5	Bicycle Parking	92
4.5.6	Transportation Demand Management (TDM)	92
<b>4.6</b>	<b>On-Site Open Space</b>	<b>93</b>
4.6.1	Intent	93
4.6.2	Design Standards	93
4.6.3	Amenity Space Requirements	93
<b>4.7</b>	<b>Community Benefits Bonus</b>	<b>94</b>
4.7.1	Intent	94
4.7.2	Summary Process	94
4.7.3	Potential Community Benefits Implementation	94
<b>4.8</b>	<b>Affordable Housing</b>	<b>95</b>
4.8.1	Intent	95
4.8.2	Existing and New Standards	95
<b>5.</b>	<b>DEVELOPMENT IMPLEMENTATION</b>	
<b>5.1</b>	<b>Overall Structure</b>	<b>97</b>
<b>5.2</b>	<b>Infrastructure</b>	<b>97</b>
5.2.1	Intent	97
5.2.2	Transportation Infrastructure	98
5.2.3	Water Utility System	100
5.2.4	Storm Water Utility System	100
5.2.5	Waste Water Utility System	101
5.2.6	Other Infrastructure	102
5.2.7	Total Infrastructure Costs	102

# TABLE OF CONTENTS

---

<b>5.3</b>	<b>Infrastructure Funding Sources</b>	<b>103</b>
5.3.1	Intent	103
5.3.2	Funding Sources	103
<b>5.4</b>	<b>Development Phasing</b>	<b>104</b>
5.4.1	Intent	104
5.4.2	Phase 1: Aloha Stadium Station	104
5.4.3	Phase 2: Aloha Stadium	106
5.4.4	Phase 3: Gathering Place	106
5.4.5	Phase 4: Mixed-Use Core	107
5.4.6	Phase 5: Stadium Site Infill	107
5.4.7	Phase 6: Other Development Sites	107
<b>5.5</b>	<b>Responsible Agencies and Strategic Partners</b>	<b>108</b>
5.5.1	Intent	108
5.5.2	Federal Agencies	108
5.5.3	State Agencies	108
5.5.4	City Agencies	109
5.5.5	Private Developers	110
5.5.6	Landowners and Businesses	110
5.5.7	Residents and Community Groups	110
<b>5.6</b>	<b>Halawa Area TOD Action Plan</b>	<b>111</b>
5.6.1	Intent	111
5.6.2	Policy Initiatives	111
5.6.3	Administrative Programs	111
5.6.4	Capital Investments	111

# LIST OF FIGURES

---

## EXECUTIVE SUMMARY

### 1. PLANNING BACKGROUND

Figure 1-1:	Location on Oahu	9
Figure 1-2:	Halawa Area Context	11
Figure 1-3:	Existing Land Use	13
Figure 1-4:	Zoning Designations	15
Figure 1-5:	Community Facilities	17
Figure 1-6:	Historic / Cultural Sites	19
Figure 1-7:	Station Area Characteristics	21
Figure 1-8:	Property Ownership (Public/Private)	23
Figure 1-9:	Transit Network	25
Figure 1-10:	Flood Zones	27
Figure 1-11:	Demographics of the Halawa Area	31

# LIST OF FIGURES

---

## 2. VISION AND PRINCIPLES

### 3. DEVELOPMENT FRAMEWORK

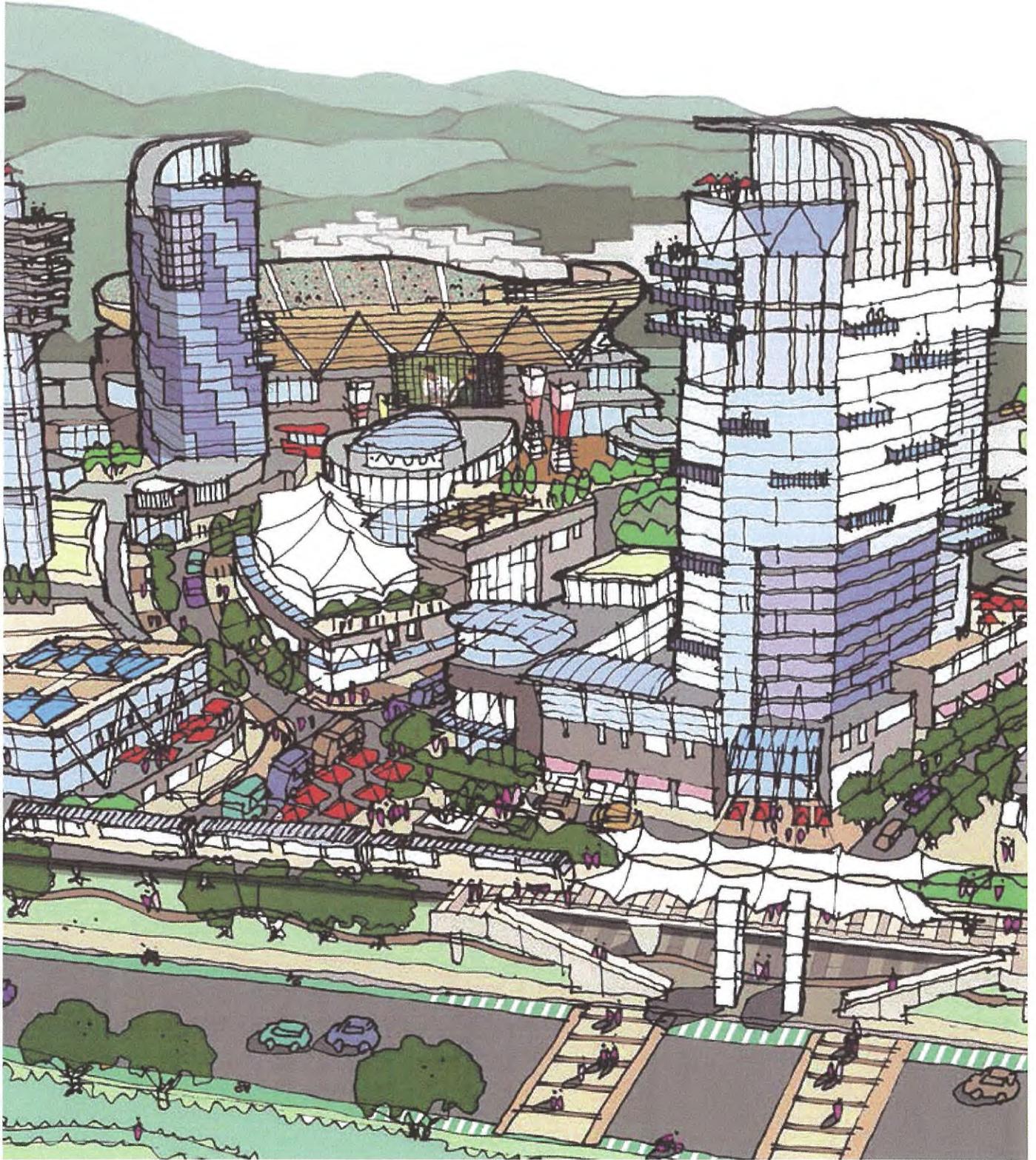
Figure 3-1: Stadium Site Organization Concept	43
Figure 3-2: Scenario A: The Grid	44
Figure 3-3: Scenario B: The Crescent	45
Figure 3-4: Scenario C: Corridors	46
Figure 3-5: Other Development Sites	47
Figure 3-6: Illustrative Plan	49
Figure 3-7: Halawa Area TOD Plan Yield Summary	50
Figure 3-8: Land Use Distribution	51
Figure 3-9: Planning Area Sub-districts	53
Figure 3-10: Urban Design Elements	57
Figure 3-11: Important Views and Vistas	59
Figure 3-12: Vehicular Circulation	61
Figure 3-13: Pedestrian Connectivity	63
Figure 3-14: Proposed Bicycle Circulation	65
Figure 3-15: Stadium-Station Connection and Gathering Place	66
Figure 3-16: Kamehameha Hwy - Section of Potential Enhancements	68
Figure 3-17: Kamehameha Hwy (Mauka View) - TOD Vision	68
Figure 3-18: Salt Lake Blvd - Section of Potential Enhancements	69
Figure 3-19: Salt Lake Blvd (Ewa View) - TOD Vision	69
Figure 3-20: Residential Street - Section of Potential Enhancements	70
Figure 3-21: Typical Residential Street - TOD Vision	70
Figure 3-22: Stadium Loop Road - Section of Potential Enhancements	71
Figure 3-23: Stadium Loop Road (Ewa View) - TOD Vision	71
Figure 3-24: Proposed Parking Yields and Typologies	73
Figure 3-25: Conceptual Parking Yields	74
Figure 3-26: Proposed Open Space Network (Public and Semi-Public Spaces)	77
Figure 3-27: Freeway Underpass Park	79

### 4. TOD ZONING

Figure 4-1: Proposed TOD Special District	83
Figure 4-2: Proposed Zoning Designations	85
Figure 4-3: Building Maximum with Community Benefits	87

### 5. DEVELOPMENT IMPLEMENTATION

Figure 5-1: Proposed Transportation Infrastructure	99
Figure 5-2: Halawa Area TOD Phasing	105



*Aloha Stadium and its adjacent rail station are the primary drivers for transit-oriented development in the Halawa area.*

# EXECUTIVE SUMMARY

---

*The Aloha Stadium Station is a critical component of the Honolulu Rail Transit Project currently under construction. The Halawa area's needs are unique and its future opportunities can be of significance if the major landowners and primary governmental entities work together toward common goals.*

## OVERVIEW

The City and County of Honolulu (the City), in partnership with the Federal Transit Administration, is building the Honolulu Rail Transit (HRT) project that will bring rail transit service to the island of Oahu. The overall project goals are to improve corridor mobility and reliability, increase access to existing and planned development, and promote transportation equity.

The Halawa Area Transit-Oriented Development Plan (the Plan) presents a community vision for the neighborhoods surrounding the Aloha Stadium Station. One of 21 planned rail stations along the rail corridor, the Aloha Stadium Station is ¼-mile away from Aloha Stadium. It provides a unique, one-of-a-kind opportunity in Honolulu to create a synergy between the rail station, Hawaii's largest sports venue, and the top visitor attraction, Pearl Harbor/Arizona Memorial. The Plan will be a keystone to the State's efforts to better position Aloha Stadium as a world-class sports and entertainment venue, as well as assisting the National Park Service in accommodating the growing number of visitors to the Memorial complex.

Transit-oriented development (TOD) can transform the Halawa area into a vibrant community full of new, mixed-use development, expanded job and housing opportunities, as well as, visitor amenities, all within walking distance of the rail station. Thus, this pattern of compact, mixed-use development in proximity to rail and bus transit at the

Aloha Stadium Station furthers state and city goals and policies by accommodating projected future population growth; potentially increasing the supply of affordable housing; to help reduce the high cost of living; reducing sprawl and land consumption, dependence on fossil fuels, traffic congestion, and greenhouse emissions; and thereby improving the overall health and quality of life for area residents and visitors by minimizing the overall human and environmental impacts upon the island.

The goal of the Plan is to create more diverse, more compact livable communities that take full advantage of the benefits of transit – specifically creating new transportation options while encouraging economic growth and attractive redevelopment. The Plan creates the overall framework for growth and a guide for public improvements and private investment. While conceptual in nature, the Plan recommends the general form for land development and outlines needed improvements on both public and private property.

The Halawa Area TOD Plan implements and conforms to Ordinance #09-04 mandating neighborhood TOD Plans.

## PLANNING PROCESS

The Halawa Area TOD Plan has been developed through an inclusive community-based planning effort that sought the goals and ideas of area stakeholders. This process, shown on the preceding page, included community workshops, a resident survey, stakeholder interviews, local business outreach, and Project Advisory Committee (PAC) meetings. The PAC, comprised of representatives from a broad range of governmental agencies, local businesses, residents, and various other interested stakeholders, serves as a sounding board for the project, providing essential guidance and encouraging community participation.

Beginning in March 2015, the planning process included identification of issues, examination of opportunities and constraints, creation and refinement of alternatives, and development of a “preferred” station area plan.

Beginning with a “vision” for the Halawa area founded on eight (8) core TOD principles, three alternate development scenarios were formulated. Using a variety of performance measures related to land use, urban design, infrastructure, transportation/circulation and economic considerations, each alternative was evaluated against how

it met each of the core principles. One scenario (Scenario C – Corridors), scored the highest in land use and urban design, transportation/circulation, economic criteria and provides built-in flexibility to the continuing City’s TOD planning process as well as to the State’s efforts to better position Aloha Stadium as a world-class sports and entertainment venue. However, Scenario C scored lower in infrastructure feasibility, suitability as a working district and a community gathering place. Scenario C eventually evolved into the preferred alternative (and ultimately becoming the Plan), through various tweaks of recommended improvements added to make it a more well rounded TOD scenario. This final scenario exemplifying the final “build-out” potential for the area as it relates to land use, circulation, open space, infrastructure, and physical design is the recommended Halawa area TOD Plan (the “Plan”).

The Plan also includes recommendations on phasing, implementation, and revisions to the Land Use Ordinance (LUO), including TOD Special District regulations for the area around the Aloha Stadium Station.



Halawa Area TOD Plan Outreach Process

## VISION STATEMENT

With the new Aloha Stadium Station, the Halawa area can become one of Oahu's most interesting and livable transit communities, combining mixed-uses around compact, walkable blocks and community-oriented open spaces. The Halawa area will embody the Aloha spirit and become a place with state-wide attractions as well as providing a setting for thriving, diverse residential lifestyles and work environment.

There are eight (8) guiding principles that set the framework for the Halawa Area TOD Plan:

### CONNECTIVITY



**Stadium and Station** –  
*Make a Strong Connection*



**Accessibility** –  
*Comfortable Multimodal Access*

### LAND USE



**Retail and Entertainment** – *Create a Destination*



**Residential and Housing Diversity** – *Reflects A Variety of Lifestyles*



**Working District** – *Encourages More Visitation*



**Sustainability** – *Efficiency and Economy*

### OPEN SPACE

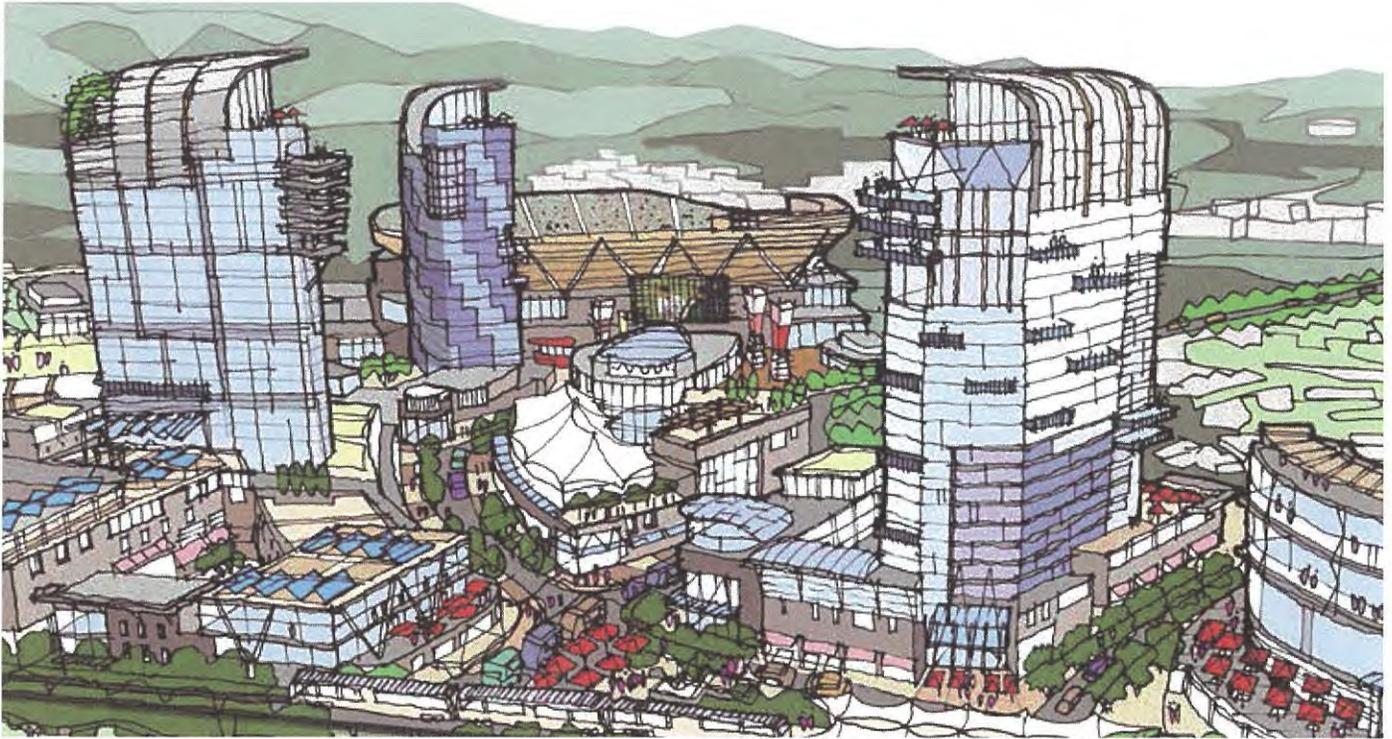


**Community Gathering** –  
*Cultural Programs and Public Events*



**Green Network** –  
*Active, Open, Community Spaces*

*Eight Guiding Principles*



*The goal of the TOD Plan is to create more diverse, more compact livable communities that take full advantage of the benefits of transit.*



*The TOD Plan provides a unique opportunity to create a synergy between Aloha Stadium, its future rail station and Pearl Harbor.*

## THE PLAN

The Plan embodies a bold vision for redeveloping the stadium site (100 acres) into a mixed-use community surrounding a downsized (30,000-40,000 seat) but state-of-the-art stadium relocated on-site. Leveraged by the increased mobility rail transit provides, TOD surrounding the Aloha Stadium Station has considerable potential to transform the area into a more urban environment with a vibrant mix of land uses, exciting street vitality, and safe, secure connections that link the rail station with the major destinations and activity centers in the area. Collectively, these measures will promote efficient land use, encourage transit ridership and create a dynamic destination attractive for both day and nighttime activities. A market analysis justified 5.2 million square feet of potential new development at full build-out consisting of a mixture of residential, commercial, office, sports medical, sports entertainment, and cultural uses surrounding a new Aloha Stadium.

Significant infrastructure improvements (estimated at \$700 million) are needed to support this transformation. Using Complete Streets principles will enhance pedestrian/bicycle mobility and safety. Modifications to existing intersections and a new internal street network will support

development at the stadium site and surrounding sites. New bridges and elevated crossings will improve access and connectivity. The capacity of water, storm and waste water systems are generally sufficient now but will have to be expanded to accommodate growth in the area.

No funding source has been identified to cover these costs but it likely will take a combination of public and private investment. Beyond the stadium site at the nearby Puuwai Momi Public Housing and the Aiea Elementary School site, TOD offers an opportunity to increase density and provide a vibrant mix of uses. Changes to the existing zoning will be necessary to allow for increased density and the mix of uses envisioned in the Plan, and to secure community benefits that reinforce TOD and enhance neighborhood livability in exchange for more development rights.

This TOD Plan is the starting point for consideration of redevelopment of the stadium site and surrounding areas. Numerous factors and variables affecting real estate, funding sources, and market dynamics could cause landowners and developers to consider alternate land uses and patterns. At that point, it may be necessary to consider a re-evaluation or update of the Plan.



*The TOD Plan promotes mixed-use development adjacent to Aloha Stadium with streetscape and public space improvements.*

## PROPOSED ZONING

The Plan recommends changes to existing development standards in order to support a more intensive land use pattern. Using market constraints; maximum development levels were projected. To encourage and realize this level of development, Community Business Mixed-Use District BMX-3, or similar mixed-use zoning, is proposed for the stadium site. This includes Stadium Mall and Marketplace as well. To support redevelopment and upgrades to the Puuwai Momi and the Aiea Elementary District, a combination of mixed apartment zoning districts Medium Density Apartment Mixed-Use District AMX-2 and High Density Apartment Mixed-Use District AMX-3 is envisioned. All other existing districts maintain their current zoning. The zone changes will provide the greatest opportunity to create a critical mass of activities that take advantage of transit.

In addition to changes to zoning, the Plan recommends providing additional bonuses to developers that participate in providing community benefits. A community benefits bonus leverages a project's development potential to incentivize improvements that meet community needs, goals, and objectives. It may also help to pay for much needed infrastructure improvements.

The Plan reflects the community's preference and is not intended to be rigid in nature. The Plan also makes general recommendations regarding the phasing of development. This phasing will be crucial in synchronizing development with the continued use of the existing stadium, as well as its renovation or replacement.

## DOCUMENT STRUCTURE

This Halawa Area TOD Plan is comprised of five chapters that illustrate the full potential of the areas surrounding the Aloha Stadium Station:

- **Chapter 1** provides background, existing conditions summary, opportunities and constraints and market assumptions of the TOD Plan.
- **Chapter 2** outlines the eight principles that should guide future growth in the Halawa area. Principles range from expanding land use diversity, Complete Streets concepts, and promoting community interaction.
- **Chapter 3** identifies the development concepts vital to creating an integrated TOD community. It proposes opportunities to expand land uses, roadway, bicycle, and pedestrian networks, parking districts, and open spaces. It also provides development guidelines for built character, solar access, view sheds, etc. It discusses infrastructure issues in relation to future development, as well as best practices to conserve resources.
- **Chapter 4** proposes amendments to the existing zoning code and introduces the community benefits process. The amendments address zoning designations, building envelope standards, and on-site amenity space requirements.
- **Chapter 5** discusses implementation strategies to achieve the goals outlined in the TOD Plan. The implementation chapter identifies infrastructure costs, potential development phasing, funding sources, strategic partnerships, and recommends an action plan, which is necessary to make redevelopment viable in the short- and long-term.

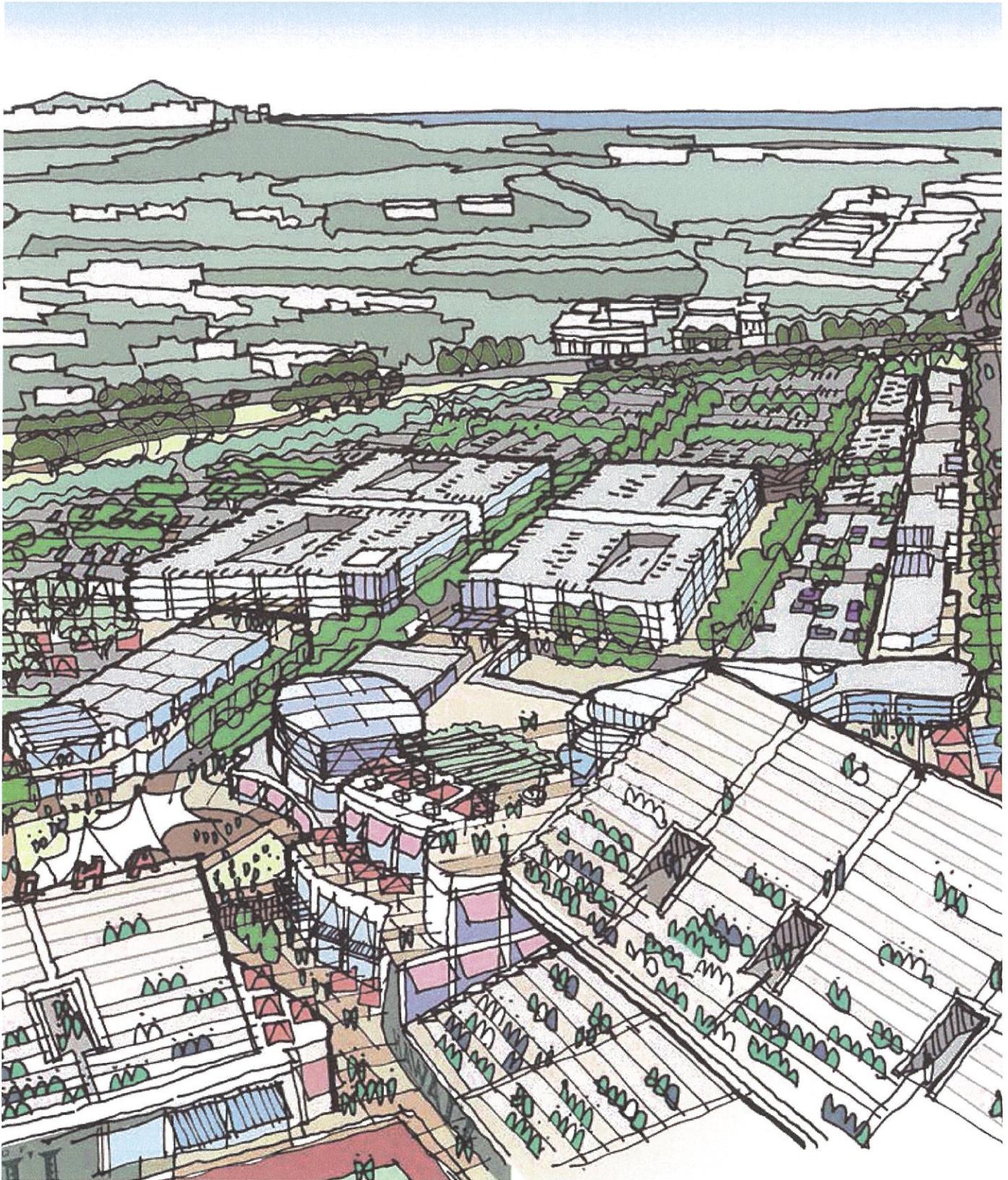
## NEXT STEPS

The following steps should be taken in the near-term to move the Halawa Area TOD Plan into action and to ensure that future TOD and area improvements follow the vision and principles defined by the community.

- Recommend approval of the Halawa Area TOD plan (Honolulu Planning Commission).
- Adopt the Halawa Area TOD Plan (Honolulu City Council).
- Adopt the Halawa Area TOD Special District zoning regulations.
- Identify incentives and funding sources at the City, State, and Federal levels.
- Partner with property owners interested in redeveloping according to the Plan.
- Identify and advance of short-term (3-5 years) public improvement projects in the TOD District.

The Plan is long-term in nature, therefore may take several decades (20-40 years) to implement. The phasing structure in Chapter 5 foresees implementation of the Plan over this time horizon and is largely driven by market forces and possibly influenced by public policy and investments.

The City has worked closely with the Stadium Authority, their consultants, and other State agencies throughout development of the Halawa Area TOD Plan. The City encouraged the Stadium Authority to build on the TOD Plan concepts and principles, and there is significant flexibility within the TOD framework to adjust the location and design of the Stadium, housing and commercial development. This is also a ease for most other new developments and public improvements within the planning area.



*Aloha Stadium is located at a critical junction of Oahu, and is adjacent to significant transportation, military, and tourist sites.*

# 1. PLANNING BACKGROUND

*The Aloha Stadium Station is a critical component of the Honolulu Rail Transit Project currently under construction. The Halawa area's needs are unique and its future opportunities can be of significance if the major landowners and primary governmental entities work together toward common goals.*

## 1.1 THE HALAWA AREA

This chapter provides an overview of applicable public plans and policies that guided the development of the Plan. This chapter also profiles existing conditions in the Halawa area and summarizes planning opportunities and constraints for the Aloha Stadium Station area.

### 1.1.1 THE HALAWA AREA WITHIN THE PRIMARY URBAN CENTER

The Aloha Stadium Station is approximately mid-way along the 20-mile length of the Honolulu Rail Transit (HRT)

project. This station will serve the lower Halawa area and is strategically situated between the communities of Aiea and Aliamanu on the western (ewa) edge of the Primary Urban Center (PUC), the designation given to the densely populated urban core of Oahu. Inland (mauka) is Halawa Valley within the Koolau Mountain Range while seaward (makai) is the Joint Base Pearl Harbor-Hickam (JBPHH) and historic sites (see Figure 1-1).



**FIGURE 1-1: LOCATION ON OAHU**

## 1.1.2 SITE CONTEXT

Figure 1-2 depicts the Aloha Stadium Station in its context. Much of the island of Oahu's highway system (H-1, H-2, H-201, and H-3) crisscrosses the area. The station is located near these major freeways that reach across the island to urban Honolulu, Koolau Poko, Ewa, and central Oahu, with interchanges less than 1-mile from the station.

Immediately north of the rail station is Aloha Stadium. To the south is the Puuwai Momi Public Housing and the Halawa Valley Estates single-family subdivision. The Pearl Harbor Visitor Center and Historic Sites complex receives up to two (2) million visitors per year, and is located to the south. The Stadium Marketplace commercial center is within the ½-mile radius of the station to the east. Halawa Stream empties its watershed into East Loch of Pearl Harbor.

Beyond a ½-mile radius from the station, considered the outer limit of ideal walking conditions in TOD neighborhoods, lies Joint Base Pearl Harbor-Hickam, a major military installation and employment center, and the surrounding communities of Aiea, Aliamanu, and Foster Village. Within them, there is a mixture of single and multi-family residential developments as well as regional commercial centers. Stadium Mall is nearby and includes the Ice Palace, the only skating rink in Hawaii.

State highways and local arterial streets link the various nodes of activity throughout the area. Kamehameha Highway is the major link between Pearl City, Aiea and the Mapunapuna/Airport areas. Salt Lake Boulevard is significant as the main tie between Aliamanu and Foster Village and the Aloha Stadium. Kahuapaani Street connects the mauka Halawa Valley area to this neighborhood, while Moanalua Road is a primary connection into Aiea.



*Pearl Harbor Visitor Center*



*Aloha Stadium*



*Aloha Stadium Swap Meet & Marketplace*

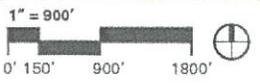


*The Puuwai Momi Public Housing*



FIGURE 1-2: HALAWA AREA CONTEXT

-  Honolulu Rail Transit Rail Stations
-  Fixed Guideway



### 1.1.3 LAND USE

The Halawa area is located at the edges of Oahu's densest urban fabric. It features a balance of commercial, residential, and military uses, as shown on Figure 1-3. The site is highlighted by major and minor shopping centers, but also characterized by low intensity, underutilized commercial corridors. There are a variety of neighborhoods throughout the study area, and most residents have a range of shopping and services that meet day-to-day needs.

- **Residential Use** is concentrated mauka, ewa, and diamond head of the station area. Low-density neighborhoods (typically consist of parcels with lot sizes between 3,500 and 10,000 square feet) within 1-mile of the Station include Salt Lake, Foster Village, Halawa Heights, Aiea, and Waimalu. High density housing, typically characterized by apartment complexes and mid to high-rise multifamily units, are located near the Pearlridge Center and in Halawa Valley. Smaller concentrations of multi-family uses are found in Aiea and in the Crosspointe community. Military housing is located on federally owned land throughout the area, and is typically gated.
- **Commercial Use:** The most significant concentration of commercial use is the Pearlridge Center, near the Pearlridge Center Station, located just about 1-mile from the Aloha Stadium Station. As Hawaii's second largest shopping center, it encompasses over 1.1 million square feet. Tenants consist of national retailers, specialty shops, local retail and services, and a movie theater. As one of the largest economic drivers in the area, its users are primarily local. Adjacent to Pearlridge Center are several regional retail establishments. Located primarily along Kamehameha Highway, most of these are either in the strip mall or big box center format. There are also several office buildings located in this area. A shopping node, located at the H-1/Salt Lake Boulevard overcrossing, consists of the Stadium Mall strip mall and the Stadium Marketplace retail center. There is a traditional neighborhood center located in the center of Aiea, approximately ½-mile mauka and Ewa of the station. This node includes primarily strip mall retail, as well as office use. A mixed-use center located at Salt Lake Boulevard and Bougainville Road consists of light industrial and big box retail.

- **Military Use** within the study area include: 1) the Joint Base Pearl Harbor-Hickam. The proposed Joint Base Pearl Harbor-Hickam rail station, approximately 1-mile from Aloha Stadium Station, is located at Makalapa Gate, the primary entrance into the base. 2) Camp Smith: A Marine facility, home of the United States Pacific Command (PACOM), located just over 1-mile from the station in the heights of Halawa.



*Aiea Neighborhood Center*



*Military Housing in Halawa*

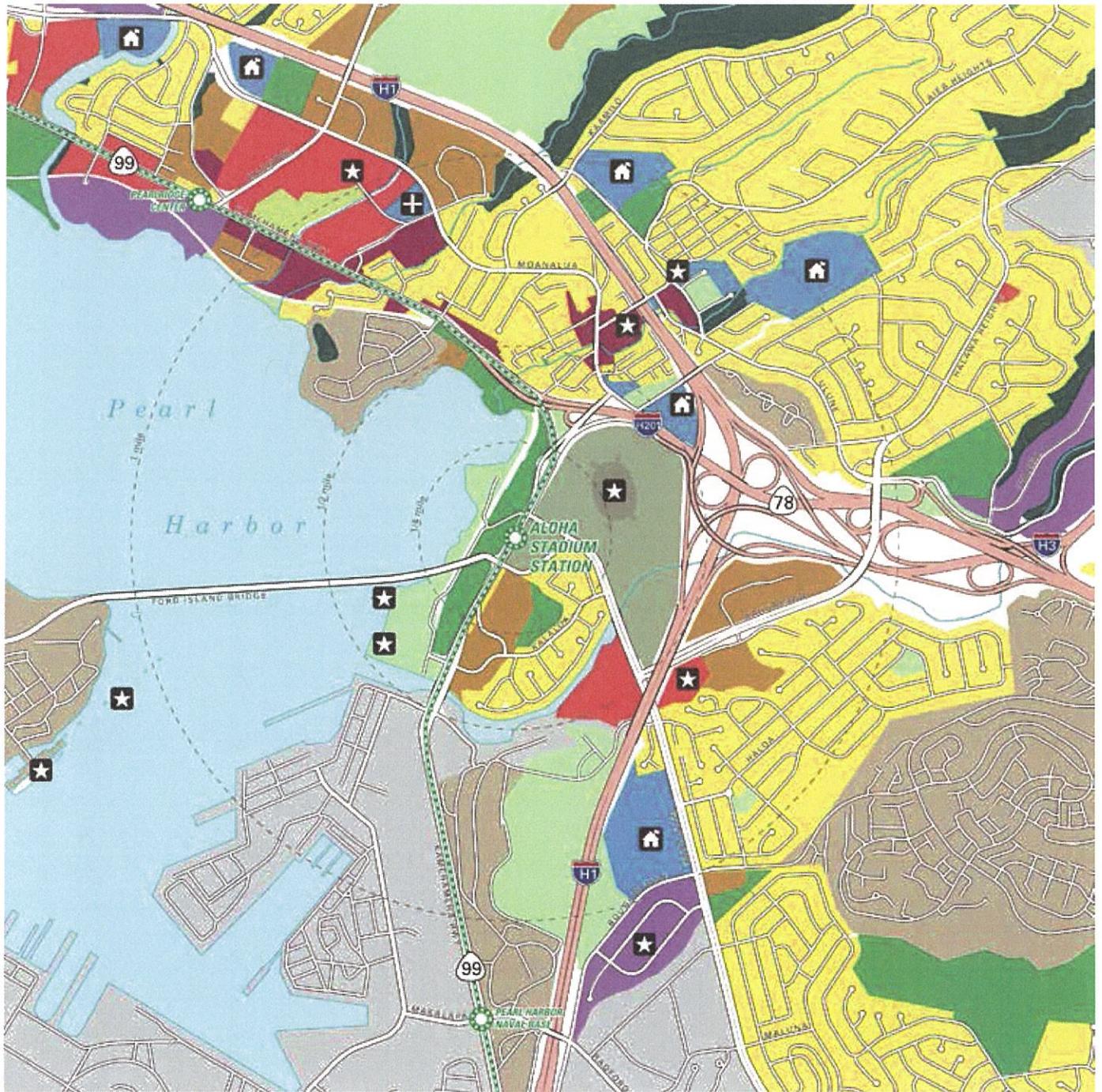
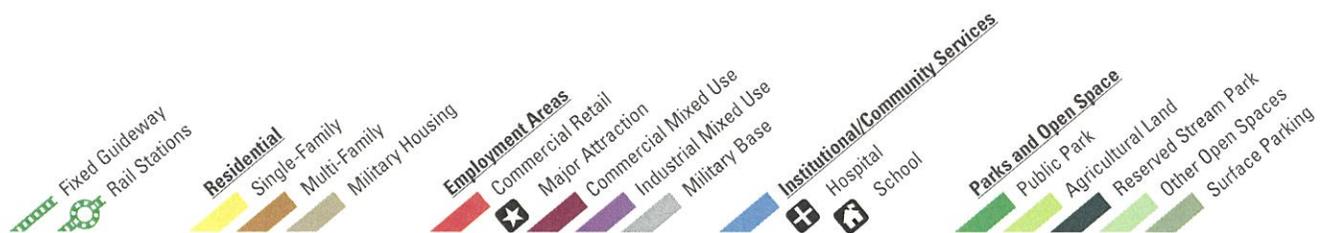


FIGURE 1-3: EXISTING LAND USE



Source: Dept of Planning & Permitting; Honolulu Land Information System

### 1.1.4 ZONING

Figure 1-4 shows the existing zoning designations in the Halawa area. The majority of the planning area is zoned for low-density residential (R-5) and military uses (F-1: Federally owned properties are not subject to City zoning controls). Commercial zoning for mixed-retail and community-wide business area located at the intersection of Salt Lake Boulevard and Kahuapaani Street. Low- to medium-density apartment zoning comprises other development fronting major arterial corridors.

The intent and requirements of each applicable zoning designation are further summarized as follows:

- **Residential District (R-3.5, R-5, R-7.5):** These designations are designed to provide low-density housing for urban residential development. In addition to detached single-family dwellings, detached two-family dwellings and duplexes are permitted. Residential District (R-3.5) is based on a minimum 3,500 square feet lot area, Residential District (R-5) is based on a minimum 5,000 square feet lot area, and Residential District (R-7.5) is based on a minimum 7,500 square feet lot area.
- **Residential District (R-10)** is based on a minimum 10,000 square feet lot area. These are designed to provide areas for large lot developments, typically located on the fringes of urban area, and act as a transitional designation between natural/agricultural areas and urban districts. Detached two-family dwellings and duplexes are permitted.
- **Low-Density Apartment District (A-1)** provides for lower density multi-family dwellings. This designation is designed to act as a buffer between single-family neighborhoods and more significant development. FAR requirements for the district are based on lot area with a maximum FAR of 0.9.
- **Medium-Density Apartment District (A-2)** provides for medium-density, multi-family dwellings within concentrated urban areas. Floor area ratio (FAR) requirements for the district are based on lot area with a maximum FAR of 1.9.
- **Restricted Agricultural (AG-1)** allows for conservation of farmlands, especially land that contains prime or unique soil. This designation, limited to parcels larger than five acres in size, only permits accessory units such as limited retail that complement the agricultural land.
- **Neighborhood Business District (B-1)** provides for the daily basic retail needs of the surrounding population, and as such, are typically located between residential neighborhoods. These are not commonly located along major corridors, though automobile service stations are permitted. FAR requirements for the district are based on lot area with a maximum FAR of 1.0.
- **Community Business District (B-2)** provides for community-wide business establishments, those serving several neighborhoods and offering a wide range of uses. Typically this zone is applied along major streets and in centrally located urban areas. The maximum FAR permitted within the district is 2.5; an open space bonus may increase the FAR to 3.5.
- **Federal and Military Preservation District (F-1)** allows for the full range of military and federal government usage; any type of military and federal structures are permitted and are not subject to City zonings' controls.
- **Industrial Mixed-Use (IMX-1)** promotes a mix of commercial and industrial uses. Therefore, it allows some light industrial (ones that do not create unsafe conditions) land uses mixed with other businesses and employment activities. The maximum FAR permitted within this designation is between 1.5-2.5.
- **Intensive Industrial (I-2)** allows for a full range of industrial uses, and are commonly located along corridors with adequate utility and transportation infrastructure. Typical land uses include manufacturing, refining, sorting, processing and storage, but commercial use is also permitted. Intensive Industrial is to be located a distance away from residential communities. The maximum FAR permitted within this designation is 2.5.
- **Restricted Preservation (P-1)** typically refers to open spaces, and are specifically properties located within a State conservation district. All uses and standards within the P-1 designation are determined by State agencies.
- **General Preservation District (P-2)** is assigned to lands designated urban by the State, but well suited as outdoor space for the public's use and enjoyment. This zoning designation is applied to most public parks within the Halawa area.

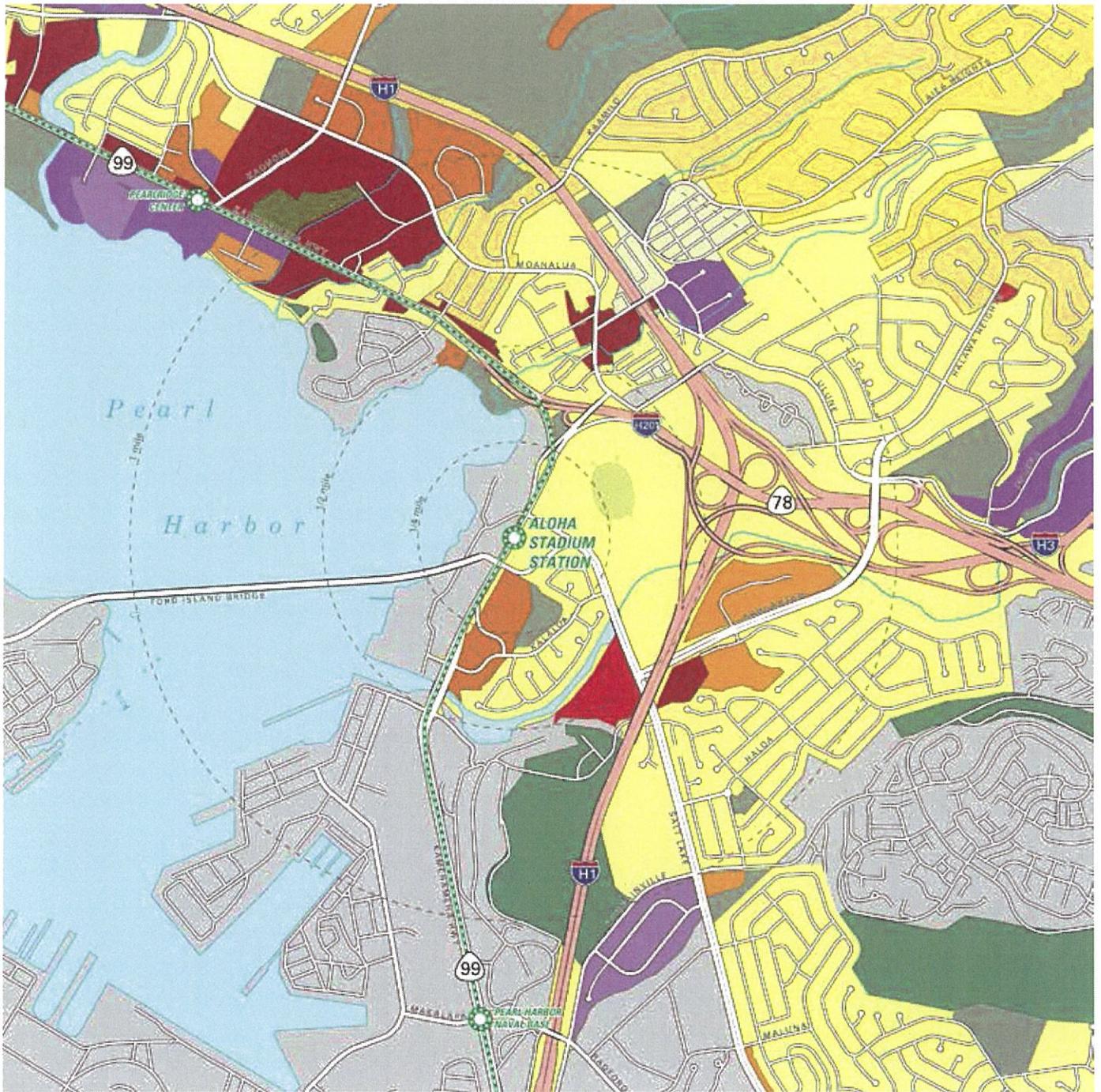


FIGURE 1-4: ZONING DESIGNATIONS



- Fixed Guideway
- Rail Stations
- R-3.5 - Residential
- R-5 - Residential
- R-7.5 - Residential
- R-10 - Residential
- A-1 - Low-Density Apartment
- A-2 - Medium-Density Apartment
- AG1 - Restricted Agricultural
- B1 - Neighborhood Business
- B2 - Community Business
- F1 - Federal and Military Preservation
- IMX-1 - Intensive Mixed Use
- I-2 - Intensive Industrial
- P-1 - Restricted Preservation
- P-2 - General Preservation

Source: Dept of Planning & Permitting; Honolulu Land Information System

### 1.1.5 COMMUNITY FACILITIES AND ESTABLISHMENTS

Figure 1-5 depicts an array of civic and community based facilities and establishments serve the Halawa area. While some of these institutions cater to a wide audience, including tourists, most serve a local clientele; this is a key factor in attracting residents to the area as they are able to meet many of their day-to-day needs.

- **Community Grocery Stores and Supermarkets:** The closest supermarket to Aloha Stadium Station is located approximately ¼-mile away in Stadium Marketplace.
- **Primary and Secondary Schools** are public schools found within or near the 1-mile radius from the station. These facilities include: 1) Radford High School serves 1,200 students. Since many students are the children of military personnel, this school suffers from a high turnover rate. 2) Aiea High School serves 1,300 students and is located adjacent to the Aiea neighborhood center. 3) Aiea Intermediate School serves approximately 600 students.
- **Elementary Schools:** Aiea Elementary School located within the ½-mile from the station, is one of the earliest public schools on Oahu, serves kindergarten to sixth grade with a total enrollment of 356 students. The vast majority of the student body comes from the Puuwai Momi Public Housing.
- **Higher Education:** There are no major colleges or university campuses located within or immediately adjacent to 1-mile radius from the station, although there are some adult education establishments found in Aiea and Pearlridge. The Joint Base Pearl Harbor-Hickam has numerous education facilities for its personnel.
- **Medical Facilities:** The major, full service medical facility within the 1-mile radius is the Pali Momi Medical Center. In addition, there is a clinic-level medical facility located within an office building adjacent to the Pearlridge Center. A private physician practices out of Stadium Mall.

- **Parks and Recreation Facilities:** Richardson Field and Makalapa Park as federally owned open spaces, are contributing properties to the United States Naval Base, Pearl Harbor National Historic Landmark. These parks have limited access and are periodically opened to the public for events such as remembrances of the attack and for tailgating events at Aloha Stadium. Aiea District Park and Halawa District Park are important state-owned open spaces located within 1-mile of the station area. They features athletic fields, recreational programming and a dedicated multipurpose community center.



*Halawa District Park*



*Halawa Community Center*

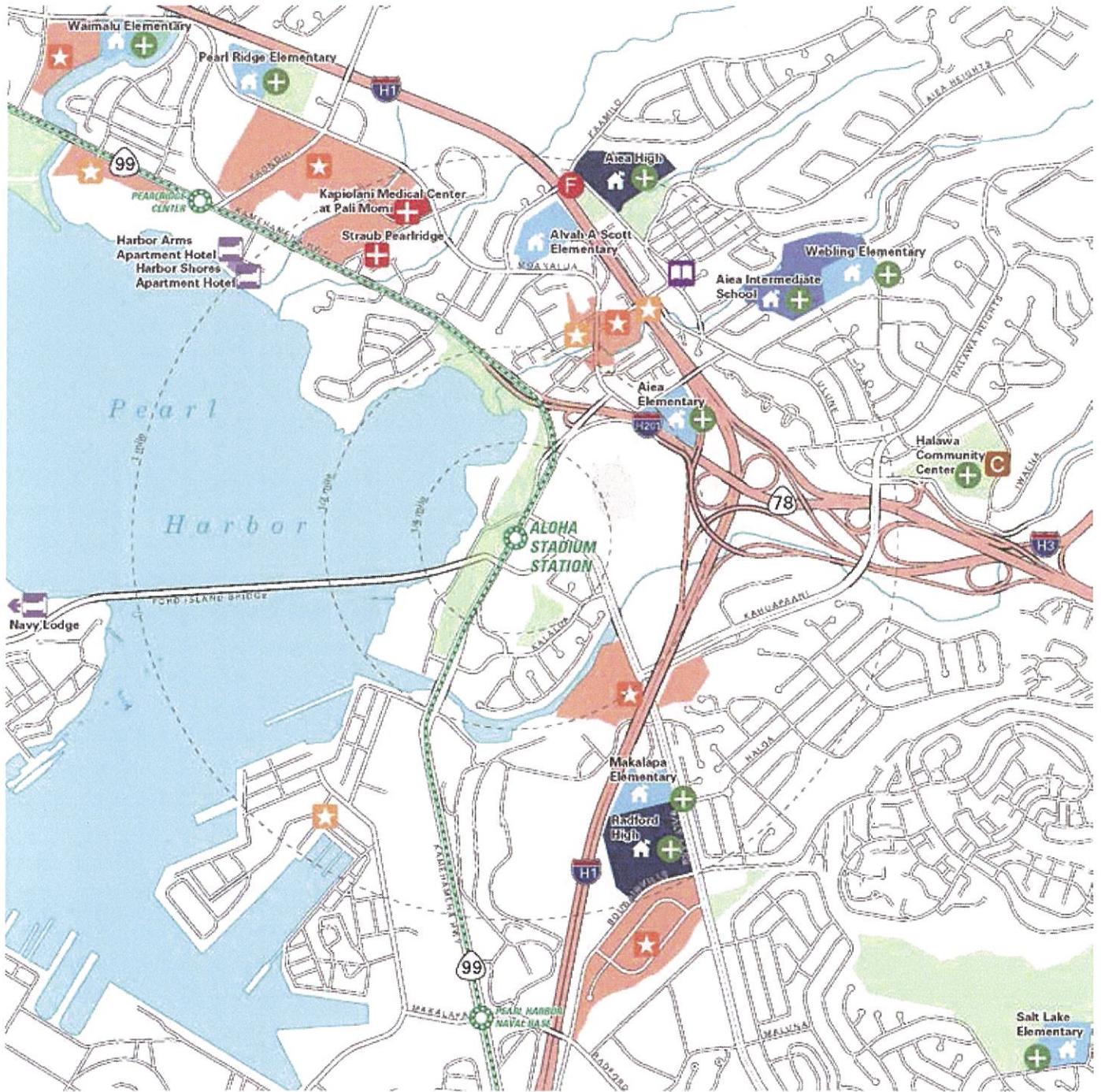


FIGURE 1-5: COMMUNITY FACILITIES



- Fixed Guideway
- Rail Stations
- Community Facilities**
  - Community Grocery Store
  - Community Super Market
  - Public Elementary School
  - Public Intermediate School
  - Public High School
  - Library
  - Lodging
- Health / Emergency Services**
  - Emergency Shelter
  - Fire Station
  - Hospital / Clinic
  - Community Center
  - Commercial Area
  - Public Parks

Source: Dept of Planning & Permitting; Honolulu Land Information System

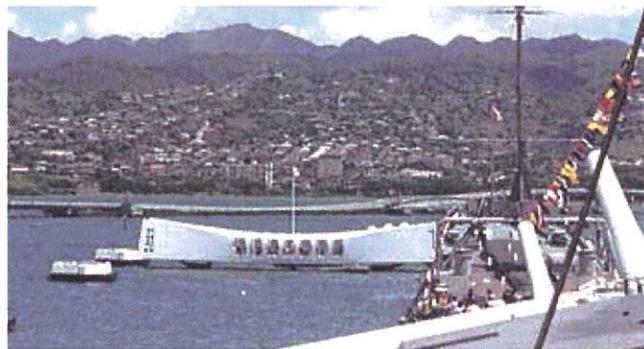
### 1.1.6 HISTORIC / CULTURAL SITES

There are a number of historic, scenic and culturally significant resources are found in the study area, as shown in Figure 1-6. The development of the Plan as well as future projects must respect their presence, and moreover, respond favorably to local history and culture, such as,

- Within the ½-mile radius of the Aloha Stadium station the only site on the national and state Register of Historic Places is the USS Bowfin.
- Within the 1-mile radius of the station, there is the Honolulu Plantation Manager's Residence, Forty-Niner Restaurant and the northern extremity of the USS Arizona Memorial and the Joint Base Pearl Harbor-Hickam historic sites. While not listed on these registers, St. Elizabeth's Church in the Aiea Elementary School Site was built in 1920 and the remainder of the Japanese cemetery exists in the loop from the Aiea Access Road to eastbound Moanalua freeway (H201).
- According to the Primary Urban Center Development Plan (PUC DP), significant scenic panoramic views near Aloha Stadium include the Pearl Harbor Historic Trail and waterfront as well as limited views along the waterfront and the harbor toward the Waianae Mountains. The PUC DP goes on to say that stream corridors such as the Halawa and Aiea Stream (also near Aloha Stadium) should provide mauka-makai access serving both as a natural and recreational use and are to be regarded as priority developable recreation segments.



*USS Bowfin Museum and Regulus I cruise missile*



*USS Arizona Memorial and wreck of the USS Arizona*

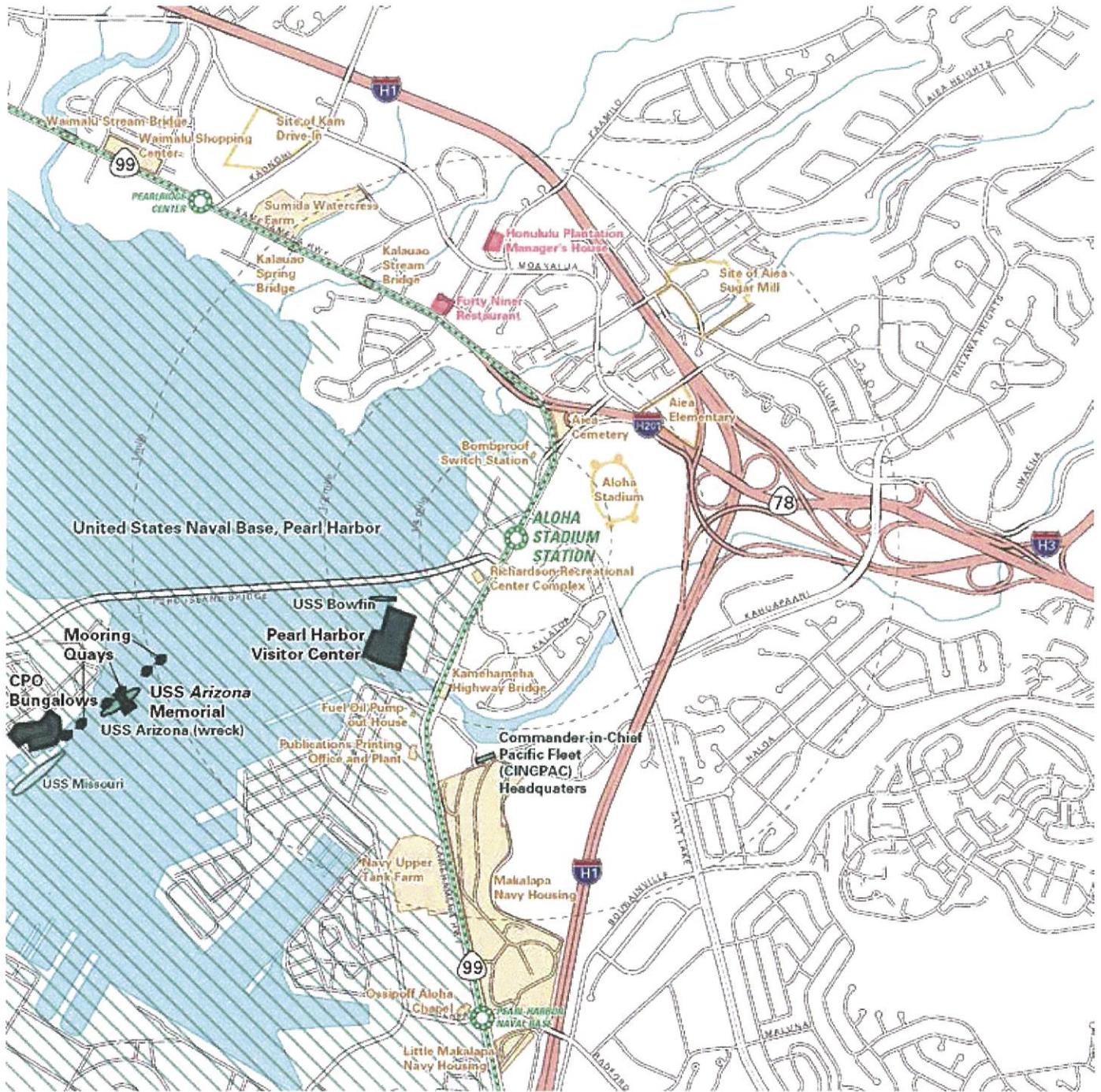


FIGURE 1-6: HISTORIC / CULTURAL SITES

- Fixed Guideway
- Rail Stations
- Valor in the Pacific National Monument
- National Historic Landmark
- United States Naval Base, Pearl Harbor (National Historic Landmark)
- Listed on National Register of Historic Places
- Hawaii Register of Historic Places
- Eligible for Listing on National or State Register
- Other Resources

Source: Honolulu Rail Transit Historic Properties; National Park Service; Historic Hawaii Foundation

### 1.1.7 STATION AREA CHARACTERISTICS

This section examines the key characteristics found within a ½-mile radius of the planned rail transit station (the general area of the planning study), and will be most affected by the introduction of TOD in the Halawa Area. These sites are also depicted on Figure 1-7.

#### STADIUM SITE

- 1 **Aloha Stadium Station:** Within the Halawa area, the fixed guideway will be located diamond head of Kamehameha Highway. In addition to the concourse, the station related improvements will consist of a bus transfer station, a HandiVan drop-off, a kiss-and-ride, and 600 park-and-ride spaces. The configuration of the station and its parking facilities are likely to be modified with additional development.
- 2 **Aloha Stadium:** The facility celebrated 40 years of operation in 2015. The stadium and its grounds hold up to 300 events a year; however the State of Hawaii is looking towards significantly modifying or replacing Aloha Stadium in the future. Issues with the stadium include:
  - \* **Building Capacity:** At 50,000 seats, it is commonly accepted that Aloha Stadium is too large a venue, and that capacity should be reduced to 30,000-40,000 seats to be suitable for a wider range of entertainment and sports events.
  - \* **Deferred Maintenance:** The age of the building means that minor improvements and ongoing maintenance have become more expensive.
  - \* **Lack of Modern Facilities:** Though it remains the most significant sports venue in Hawaii, Aloha Stadium suffers from outdated seating, athlete facilities, poor sightlines, a lack of club facilities, and few food and beverage venues. Because of this, it has become more difficult for Aloha Stadium to attract major events.
- 3 **Aloha Stadium Parking Lot:** Currently consisting of 7,476 spaces, the parking lot radiates from Aloha Stadium, extending diamond head across Halawa Stream along Salt Lake Boulevard. In addition to the Swap Meet, the parking lot hosts other events, such as the Hawaii State Fair, car shows, and auto/motorcycle racing. Other considerations include: pedestrians traveling to the stadium face poor conditions within the parking lot and along and across nearby arterials and highways, and one pedestrian connection across Interstate H-201 is only open during game days.

#### 4 **Aloha Stadium Swap Meet and Marketplace:**

Located within the concentric drive aisles of the Aloha Stadium parking lot, the Swap Meet is a major source of revenue for Aloha Stadium. Transit-oriented development in the Halawa area may affect the future configuration and operation of the Swap Meet.

#### OTHER SITES

- 5 **Puuwai Momi Site:** This public housing development consists of 260 units ranging from one to four bedrooms. This complex, built in 1969, is approaching the end of its useful life, and has been prioritized by the Hawaii Public Housing Authority (HPHA) for conversion into a mixed-use development. Redevelopment may take place in the short- to medium-term, and should be coordinated with TOD planning in the Halawa area.
- 6 **Aiea Elementary School Site:** Thirteen-acre Aiea Elementary School, mauka of the stadium site, may be greatly influenced by TOD. Redevelopment of this site could accomplish two goals. With the increase in population that TOD may bring, it could be reconfigured for a higher capacity school while accommodating additional land uses.
- 7 **Stadium Mall:** Built in 1982, the Stadium Mall is the home to the Ice Palace. This 7-acre privately owned site could be reconfigured to incorporate residential as well as retail in the longer term.
- 8 **Stadium Marketplace:** Serving the needs of area residents, this relatively new, 17-acre privately owned retail complex may be considered for more intensive uses to reinforce retailing in the longer term. A consistent street frontage along Salt Lake Boulevard and an interface with Halawa Stream would better activate the street and neighborhood creating more inviting and attractive options for shopping, strolling along the Boulevard as well as to enjoy passive recreational opportunities along the stream in the Halawa area.
- **Underutilized Open Spaces:** Three open spaces appear underutilized due to their lack of amenities, programs and activities. The introduction of TOD may stimulate greater use, however, Richardson Field is a contributing property to the Pearl Harbor National Historic Landmark and thus not likely to be made available to the public.
  - 9 **Richardson Field**
  - 10 **Makalapa Neighborhood Park**
  - 11 **Halawa Stream**

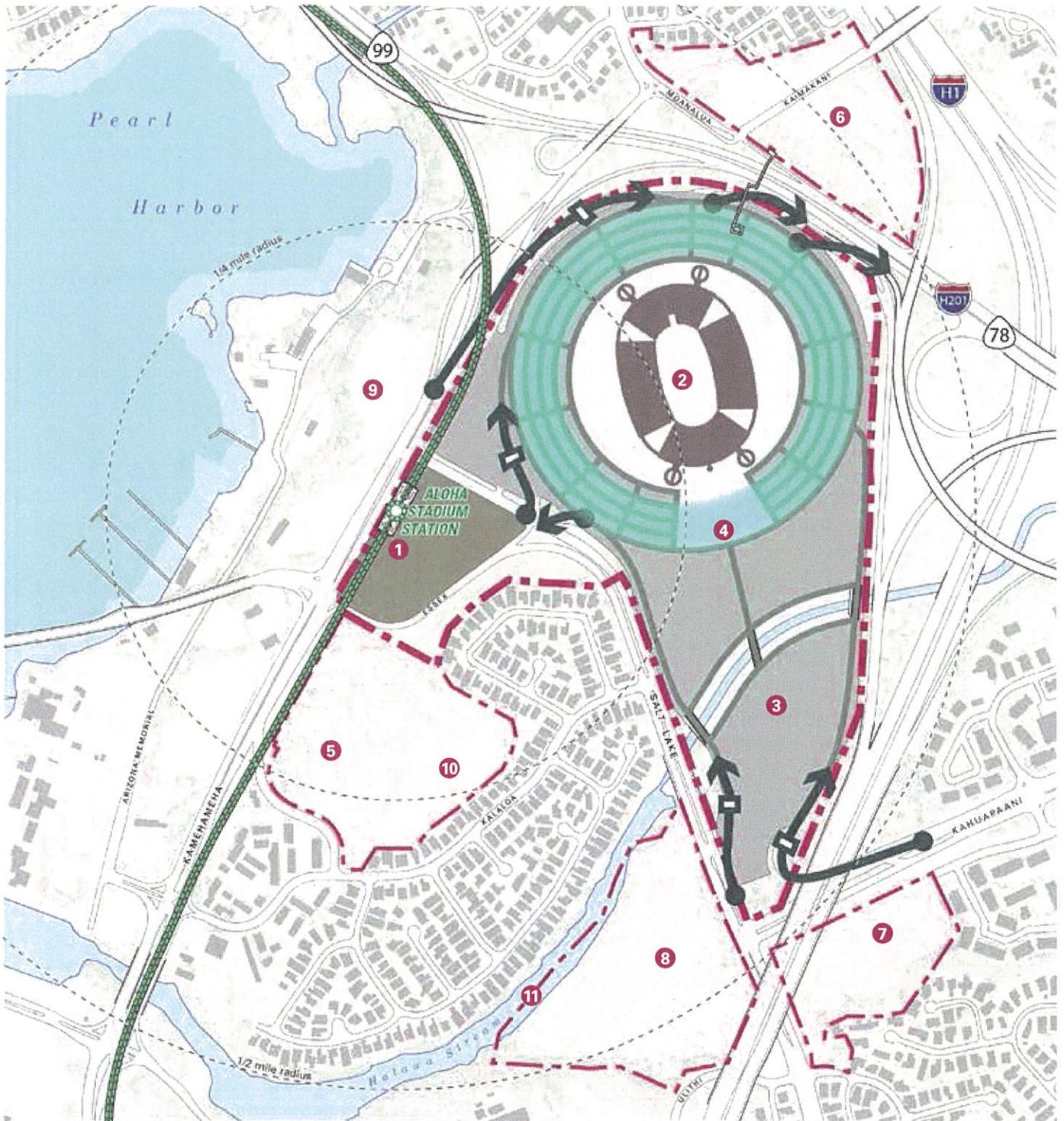


FIGURE 1-7: STATION AREA CHARACTERISTICS

- |                                                                                     |                                               |                                                                                     |                            |
|-------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------|----------------------------|
|  | Stadium Parking Lots                          |  | Stadium Site               |
|  | Station Park & Ride                           |  | Other Sites                |
|  | Swap Meet Footprint                           |  | Aloha Stadium Rail Station |
|  | Stadium Internal Circulation                  |  | Fixed Guideway             |
|  | Stadium Ingress/Egress<br>See text on Page 10 |                                                                                     |                            |



*Navy warships and auxiliaries dock at federally owned land near the station*



*Aloha Stadium and its parking lot is located on State-owned land*

### 1.1.8 PROPERTY OWNERSHIP

Figure 1-8 shows public and private ownership within the Halawa area. The majority of land within ½-mile of the rail station is owned by the State and federal governments. The State owns the most significant property for transit-oriented development including the site for the rail station and Aloha Stadium. Relief of long-standing deed restrictions that limit use of the Stadium land to public recreational use by the federal and county government should free up the site for full TOD potential. Other State holdings include Aiea Elementary School and Puuwai Momi Public Housing south of the rail station.

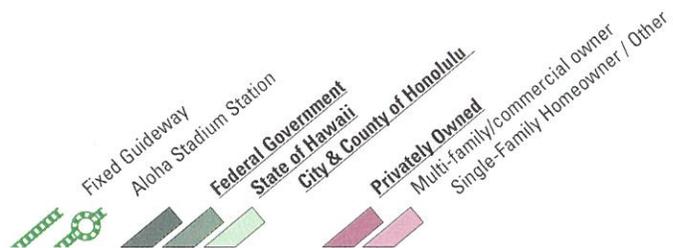
Federally owned lands primarily consist of nearby Pearl Harbor Visitor Center attractions within the confines of Joint Base Pearl Harbor-Hickam (JBPHH). Their ownership includes the military communities of McGrew Point, Makalapa, and the multi-family Halawa development.

City-owned lands within ½-mile of the rail station include Makalapa Neighborhood Park as well as large portions of Halawa Stream makai of Salt Lake Boulevard.

The private land owners include multi-family condominium associations such as Crosspointe and commercial properties such as Stadium Mall while the remainder of privately owned land is in the possession of single-family homeowners.



FIGURE 1-8: PROPERTY OWNERSHIP (PUBLIC/PRIVATE)



Source: Dept of Planning & Permitting; Honolulu Land Information System

## 1.1.9 TRANSIT AND CIRCULATION

Figure 1-9 shows the rail stations and bus routes in the Halawa area. They are summarized below:

- **Honolulu Rail Transit (HRT):** Transit options will greatly expand with the introduction of rail service. The automated fixed guideway rail system will connect urban Oahu's main employment and residential centers between East Kapolei and Ala Moana.
- **The Aloha Stadium Station** is to be located at the intersection of Kamehameha Highway and Salt Lake Boulevard, within walking distance of Aloha Stadium. The station is projected to have between 1,000 and 2,000 daily boardings and alightings on normal days once fully operational.
- **The Bus:** Honolulu's "The Bus" network, with routes covering most of the area's major thoroughfares, allows frequent service to local employment centers such as Pearlridge and Joint Base Pearl Harbor-Hickam and more distant employment areas such as Downtown and Waikiki. Bus routes serve local and regional attractions and residential communities. Existing bus services are being reviewed by the City to determine how to make transfers seamless between bus and rail and redundant bus routes may be converted to feeder routes, providing expanded service in a mauka-makai direction, perpendicular to the predominantly ewa-diamond head direction of the rail line.
- **NEX Shuttle:** This service, operated by the Navy Exchange, is a complementary shuttle service for military personnel and families. Routes connect important facilities to housing areas within Joint Base Pearl Harbor-Hickam, as well service to the massive Navy Exchange complex just diamond head of the study area. Shuttle routes may be adjusted upon completion of the HRT system.
- **The extent and quality of existing pedestrian and bicycle infrastructure** varies by location within the Halawa area. However, these facilities are generally inadequate or underserved to support multi-modal traffic associated with a rail station.



*Fixed Guideway under construction in Waipahu*



*Future location of Aloha Stadium HRT Station*



*Students walking home from school in Aiea*



FIGURE 1-9: TRANSIT NETWORK



Source: The Bus; Dept of Planning & Permitting; Honolulu Land Information System; Navy Installations Command

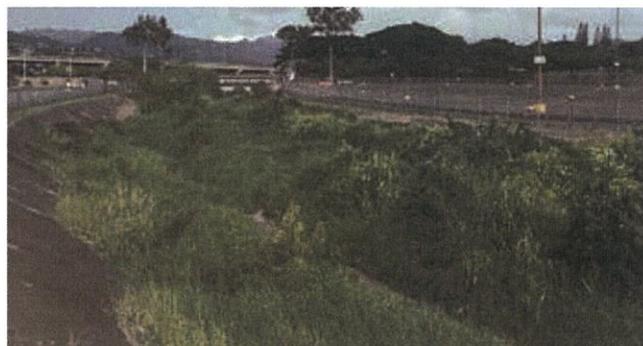
### 1.1.10 FLOOD ZONES

As shown in Figure 1-10, portions of the study area are located in flood hazard areas as identified by the Federal Emergency Management Agency (FEMA) November 5, 2014, Flood Insurance Rate Maps (FIRMs) adopted by the City and County of Honolulu (City).

- The Aloha Stadium Station parcel and adjacent parcels were identified as being in Zone D, defined as “areas in which flood hazards are undetermined, but possible.”
- Portions of the study area within the ½-mile of the station are located in identified flood plains, including Zones VE and AE requiring floodproofing if developed. Purchase of flood insurance may be required, depending on lease or lending/mortgage terms. Zone VE encompasses parcels adjacent to the coastline and is defined as a coastal flood zone with velocity hazard (wave action) with a Base Flood Elevation (BFE) that has been determined. Within the study area, the Zone VE BFE was determined to be 3 feet. Zone AE encompasses parcels adjacent to Aiea Stream and Halawa Stream, where BFEs range from 2 feet near the mouths of Halawa and Aiea Streams to 40 feet at the study area boundary adjacent to Aiea Stream.
- Parcels adjacent to Zone AE are classified as Zone X, which are areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood. All other parcels within the study area are classified as Zone X, which are areas determined to be outside the 0.2% annual chance flood and do not require purchase of flood insurance or floodproofing.
- Portions of the study area are located within a special management area (SMA), which is defined as land extending inland from the shoreline as delineated on maps established by the City and pursuant to Hawaii Revised Statutes Section 205A-23. Within the study area, lands that are makai of Kamehameha Highway, which includes Richardson Field and Aiea Bay State Recreation Area, are located within the SMA as shown on Figure 1-8. The SMA was created to manage development on or near coastal lands in order to protect coastal resources under the Coastal Zone Management law. Development in this area requires permits obtained from the City’s Department of Planning and Permitting (DPP).



*View of Pearl Harbor from Arizona Memorial Place*



*Halawa Stream is channelized as it bisects the Aloha Stadium parking lot*

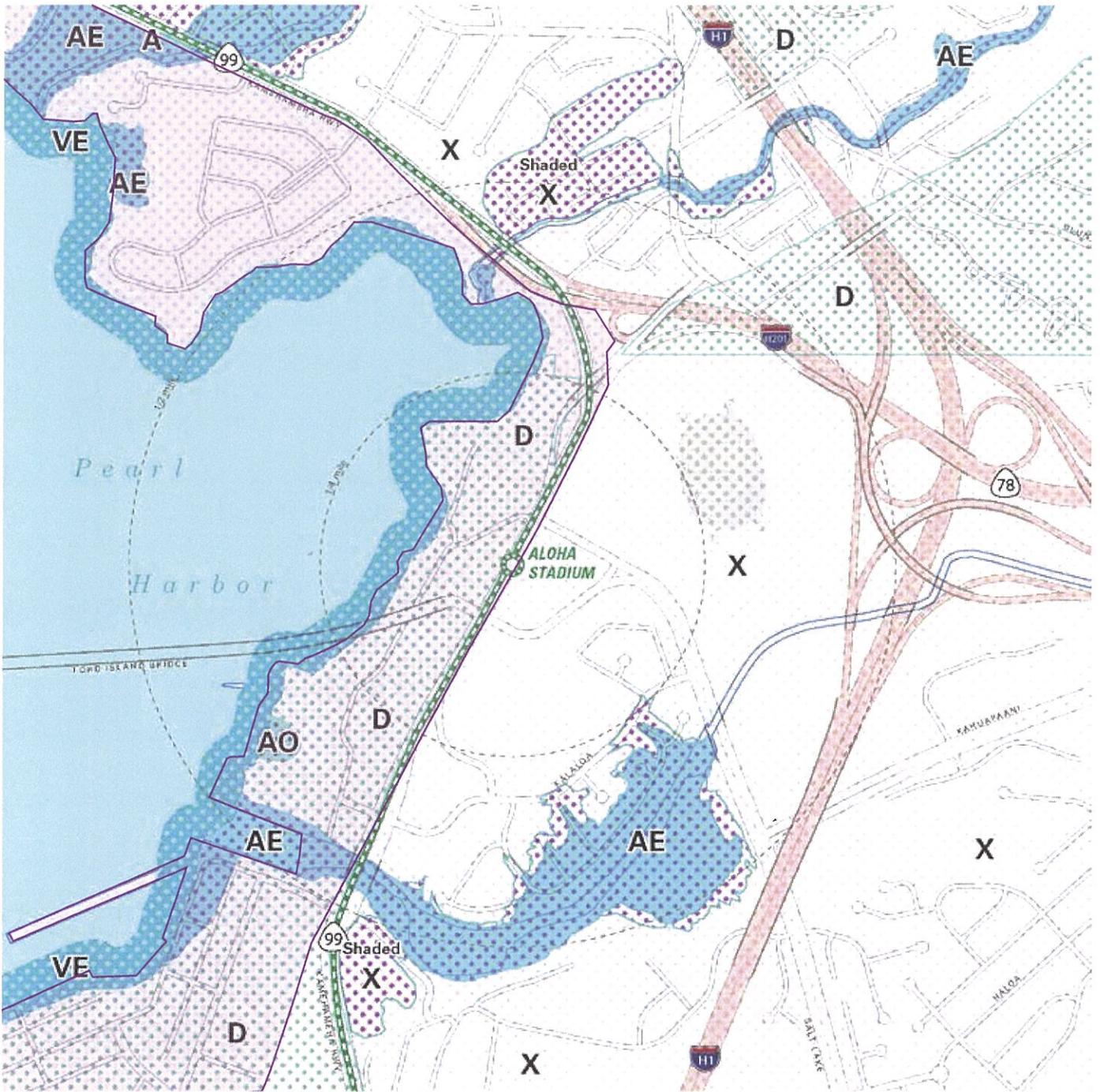
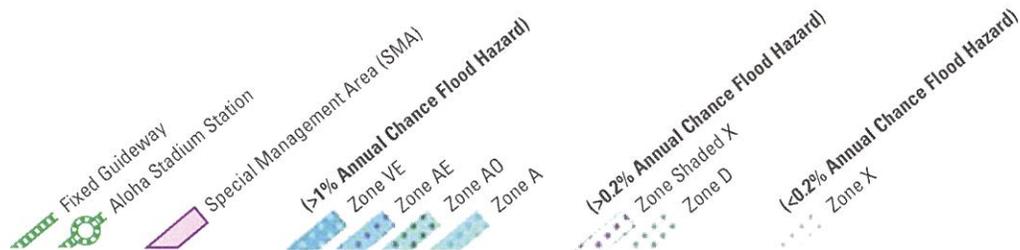


FIGURE 1-10: FLOOD ZONES



Source: Dept of Planning & Permitting; Honolulu Land Information System; State of Hawaii Flood Hazard Assessment Tool

### 1.1.11 EXISTING PLANS AND ORDINANCES

During development of the Plan, a number of City and State of Hawaii (State) plans and policies were considered, including many that promote and support transit-related development. The City uses a tiered approach to planning and regulation of land use. The first tier (the broadest level) is the Oahu General Plan, which establishes objectives and policies guiding island-wide development. The next tier includes the Development Plan (DP) and Sustainable Community Plan (SCP), which focus on eight specific geographic regions of Oahu. The third tier includes the City's Land Use Ordinance (LUO), which specifies zoning regulations to guide development.

#### *OAHU GENERAL PLAN*

The Oahu General Plan, last revised in 2002, is a comprehensive statement of objectives and policies for the future of Oahu, and presents the strategies and actions required to achieve them. The General Plan outlines the City's general policies on a variety of subjects, including growth and development issues. An update to the General Plan is currently underway that will add more focus on TOD and sustainability. The Oahu General Plan and the Primary Urban Center Development Plan support TOD.

#### *PRIMARY URBAN CENTER DEVELOPMENT PLAN*

The Aloha Stadium Station is located within the Primary Urban Center Development Plan (PUC DP) region, which extends from Pearl City west of Aloha Stadium to Kahala in east Honolulu. The PUC is Oahu's most populous region an area where future population and economic growth will be concentrated. The PUC DP, adopted in 2004, includes specific policies and guidelines for land use and infrastructure decisions over a 20- to 25-year period. The PUC DP promotes rapid transit and supports TOD. Among other things, the PUC DP land use map describes land uses in the vicinity of Aloha Stadium as institutional (stadium) commercial, military, lower and medium and higher density residential, and open space. More specifically, the PUC DP envisions a mixed use center referred to as Halawa Town Center which approximates the parcels that make up the station site and Aloha Stadium.

#### *LAND USE ORDINANCE*

The Land Use Ordinance (LUO) is the City's zoning code. The LUO regulates land use and facilitates orderly development in accordance with adopted land use policies, including the Oahu General Plan, the PUC DP, and other applicable planning documents. The LUO provides development and design standards for the location, height, massing, and size of structures, yard areas, off-street parking facilities, and open spaces.

#### *TRANSIT-ORIENTED DEVELOPMENT ORDINANCE*

The City has adopted provisions in the LUO to allow for the establishment of TOD Special District regulations and design standards to foster and encourage TOD and redevelopment. The ordinance also calls for the preparation of neighborhood TOD plans to serve as the basis for the creation or amendment of a TOD zone and TOD regulations.

TOD plans, like this Plan for the Halawa area, must address the following:

- Encompass overall economic revitalization, neighborhood character, and unique community, historic and other design themes.
- Recommend parcels and key streets to be included in the TOD Special District, accounting for natural topographic barriers, market interest in redevelopment, and the benefits of TOD, including the potential to increase transit ridership.
- Recommend zoning controls, including architectural and community design principles, open space requirements, parking standards, and other modifications to existing zoning requirements, or establish new zoning precincts, as appropriate, including density incentives.
- Preserve existing affordable housing and potential opportunities for new affordable housing, and as appropriate, with supportive services.
- Avoid gentrification of the community.
- Provide an implementation plan for recommendations, including the phasing, timing, and approximate cost of recommendations, as appropriate, and identify new financing opportunities that should be pursued.
- Foster convenient access to healthcare providers and services by providing the City's residences with a transportation alternative, particularly for those who frequently use healthcare services.

### *PUBLIC INFRASTRUCTURE MAPS*

The Public Infrastructure Map (PIM) for each of the eight Oahu DP/SCP regions shows proposed major public infrastructure projects for that region, including roads, waste water, and potable water facilities. The projects on the PIM represent both immediate priority projects and desired long-term investments. The PIM for the PUC shows the proposed Honolulu Rail Transit Project (H RTP) corridor through the Halawa area. Some projects recommended in the Plan may be appropriate to incorporate into the PIM.

### *OAHU BIKE PLAN*

The 2012 Oahu Bike Plan guides the City Department of Transportation Services' (DTS) bikeway planning for the entire island of Oahu. The Bike Plan includes provisions to integrate the proposed rail transit stations into the regional bikeway network. Goals of the Bike Plan include:

- Increase bicycle trips.
- Enhance compatibility between roadway users.
- Encourage and promote bicycling as a safe, convenient, and pleasurable means of travel.

### *BIKE PLAN HAWAII MASTER PLAN*

Bike Plan Hawaii 2003 outlines how the State intends to accommodate and promote bicycling through existing and future facilities, policies, and programs to ensure a successful bicycle network. Bike Plan Hawaii contains the following types of information:

- Objectives and implementing actions.
- Inventory of existing bicycle facilities.
- Maps of proposed bicycle facility improvements.
- Indications of preferred facility type for the various routes, such as signed shared roadways, bike lanes, and shared use paths.
- Prioritization of projects.
- Strategies for implementation, including potential funding sources.
- Documentation of public involvement activities.
- References to additional resources.

### *STATEWIDE PEDESTRIAN MASTER PLAN*

The 2013 Statewide Pedestrian Master Plan provides a comprehensive approach focused on improving pedestrian safety and enhancing pedestrian mobility and accessibility to help create a multi-modal transportation system. The Plan also prioritizes pedestrian infrastructure improvements and programs, promotes the Complete Streets vision for the State, and fulfills federal requirements for multi-modal planning. This Plan identifies ways to improve pedestrian safety through:

- Engineering of infrastructure changes.
- Education of pedestrians and drivers.
- Encouragement of better pedestrian and driver awareness.
- Enforcement of existing pedestrian laws.
- Evaluation and planning of new projects and programs.
- Equity in serving the diverse needs of pedestrians.

### *HONOLULU COMPLETE STREETS DESIGN MANUAL*

The September 2016 Honolulu Complete Streets Design Manual provides guidance on planning and designing City streets to adhere to the legal framework established in the 2009 State complete streets legislation and subsequent City ordinances signed into law in 2012. The Manual applies to all projects that impact the public right-of-way along City streets and improvements to new streets. The Manual covers the following items:

- Background, legal framework, and policies
- Street classifications
- Street cross sections
- Intersection design
- Pedestrian crossings
- People on bicycles in the road network.
- Universally accessible pedestrian environments.
- Transit in the street network.
- Natural design elements in the transportation system.
- Equity in serving the diverse needs of pedestrians.

## 1.2 DEMOGRAPHIC SUMMARY

The Halawa area and its environs are known for their attractions of state-wide and national significance, including the Aloha Stadium, the Pearl Harbor Visitor Center, and the USS Arizona Memorial. However, the Halawa area can also be characterized as heavily residential, featuring several stable single-family neighborhoods. Other areas adjacent to the Halawa area remain in flux from a demographic standpoint. Joint Base Pearl Harbor-Hickam features a transient population of servicemen, servicewomen, and their families. Though many of these individuals needs are met by on-base facilities, many also utilize housing and services found outside the base and within the surrounding area.

For the purposes of the Plan, census tracts that were located within a 1-mile radius of the rail transit station were examined. Some key demographic findings derived from the summary of census data in Figure 1-11 are as follows:

- The Halawa area is very similar in the percentage of residents over 65 years of age and those under 18 years of age. It reflects the island median age and has roughly the same racial composition as the general population of Oahu.
- The median income is approximately 10% higher than the island average, indicating a middle class population.
- Households within the study area features a slightly larger family size compared to the island-wide average, though the proportion of those under 18 matches the Oahu average.
- To commute to work, two-thirds (2/3) of the area's employed residents drive alone and 15% carpool. Only 12% of employed residents walk or utilize transit.
- The racial/ethnic distribution of the planning area is generally comparable to the rest of the island, with people of primarily Asian descent making up almost a majority of the population.
- More households own their own homes rather than rent in the Halawa area. The percentage of renter-occupied units is lower than the island-wide average, indicating the presence of well-established single-family neighborhoods.

**FIGURE 1-11: DEMOGRAPHICS OF THE HALAWA AREA**

(Census tracts 74, 75.03, 75.04, 75.05, 77.01 and 77.02)

The following data was acquired from the 2010 Census Data and 2008-2012 American Community Survey 5-Year Estimates. It highlights different characteristics of the planning study area in comparison to Oahu (the City and County of Honolulu) in general.

<b>Characteristic</b>	<b>Halawa Area</b> <i>(~1-mile from Station)</i>	<b>Oahu</b>
<b>Population</b>	26,988	953,207
<b>Age (Median)</b>	39	38
Population under 18 years old	22%	22%
Population over 65 years old	16%	14%
Male/Female	51%/49%	50%/ 50%
<b>Race</b>		
Asian	48%	45%
Japanese	19%	17%
Filipino	17%	15%
Chinese	4%	6%
Korean	2%	2%
Other	6%	5%
White	21%	21%
2 or more	19%	22%
Native Hawaiian and Pacific Islander	8%	9%
Black	2%	2%
American Indian/Alaska Native & Other	2%	1%
Language spoken other than English	25%	28%
<b>Median Household Income</b>	\$79,639	\$72,292
<b>Workers 16 years &amp; over</b>	14,328	476,354
<b>Housing</b>		
Renter occupied	37%	45%
Average persons per household (Owned/Rented)	3.42 / 3.14	3.1 / 2.7
<b>Education Attainment</b>		
% High school graduate or higher	91	90
% Bachelor's degree or higher	31	31
<b>Transportation</b>		
Mean travel time to work (minutes)	24	27
<b>Commute to Work</b>		
Drove alone	66%	64%
Carpool	15%	15%
Public transportation	6%	8%
Walked	6%	5%
Bicycle	1%	1%
Other means/worked at home	6%	7%

Note: The above data on Native Hawaiian and Pacific Islander populations comes from the US Census Bureau, and thus adheres to their methodology.

## 1.3 COMMON THEMES

Throughout the community outreach process, there have been consistent themes that key stakeholders and members of the public have responded favorably to. The following themes were discussed at several outreach events, and are intended to be addressed in this document and in future planning efforts.

### *BUILDING HEIGHTS*

The heights of proposed residential towers should be moderate to minimize blocking views of Pearl Harbor from those who live in mauka communities, and to be contextually sensitive to nearby single-family neighborhoods. In addition, these higher densities could be perceived as causing greater congestion throughout the Halawa area.



*Tall towers over 300-feet, such as these in Kakaako, should be avoided.*

### *PEARL HARBOR HISTORIC TRAIL*

The discontinuity of the Pearl Harbor Historic Trail at the Admiral's Boathouse interrupts an otherwise continuous trail around the harbor. The Navy, the National Park Service and the City's Department of Transportation Services are studying alternate alignments that may allow the trail to take advantage of proximity to the future Aloha Stadium Station.



*The Historic Trail should connect to Pearl Harbor Visitor Center and beyond.*

### *KAMEHAMEHA HIGHWAY/SALT LAKE BOULEVARD*

The character of these two primary arterials will undoubtedly change with transit-oriented development (TOD). Participants have been unsure of whether TOD will affect its current levels of service, contributing to the congestion that is characteristic in the Halawa area. On the other hand, participants are interested in seeing positive changes that TOD will bring to create complete streets, with greater tree canopy and safer pedestrian features.



*Conditions along arterials should be improved for pedestrians and bicyclists.*

### *HALAWA STREAM*

How the Halawa Stream will be treated with the introduction of TOD varies. Some members of the public dismiss the stream as merely a functional conduit for storm drainage, while others see it as an underutilized resource that could be appreciated by members of the community. In all the development scenarios considered, Halawa Stream is regarded as an asset that could act as an open space resource as well as a connection that facilitates mauka-makai pedestrian and bicycle movement.



*Halawa Stream should incorporate a community trail.*



*A clear strategy for community benefits should be explained.*



*Aloha Stadium should continue as a focus and community resource.*



*Pedestrian connectivity should be improved near the Stadium/Station.*



*An entertainment or cultural venue could play off of area attractions.*



*Development sites should be clearly identified in planning efforts.*

*COMMUNITY BENEFITS*

Some participants at community workshops expressed concern on who will pay for public realm improvements, and how developers will be attracted to the Halawa area. The Plan should discuss how to leverage private investment and contributions towards completing and expanding necessary public infrastructure upgrades or improvements. Such community benefits may be exchanged for development bonuses.

*ALOHA STADIUM*

Participants in public outreach events are curious about how Aloha Stadium will be affected by TOD. State organizations, such as the Stadium Authority and the Department of Accounting and General Services (DAGS) have led the discussions during the planning process about the future of the stadium, and their leadership was helpful for public outreach and the development scenarios. The State will ultimately determine the future redevelopment of the stadium site.

*ADDITIONAL PEDESTRIAN CONNECTIONS*

To increase overall connectivity within the Halawa area, it has been suggested by stakeholders and by members of the public that additional pedestrian connections be considered through and around the Stadium/Station area. These include connections to central Aiea, permanently opening the pedestrian bridge over Interstate 201, access to Halawa Stream, and providing an alternate pedestrian connection from Aloha Stadium Station to the Pearl Harbor Visitor Center.

*ENTERTAINMENT/CULTURAL VENUES*

Some thought has been given by the public on what types of venues could act as a complement to Aloha Stadium. Examples include an outdoor amphitheater, a relocated Ice Palace, a museum honoring prominent citizens and residents of Hawaii, entertainment venues that may cater to visiting military personnel and other attractions or museums that may play off of synergies between the Pearl Harbor Visitor Center and Aloha Stadium.

*DEVELOPMENT SITES*

Members of the public are curious on the impact that TOD will have on the largely single-family communities that make up the Halawa area. It should be made clear in this document and in future planning efforts where development is likely to occur.

## 1.4 OPPORTUNITIES AND CONSTRAINTS

An overview of the Halawa area's opportunities and constraints, as well as market assumptions, is provided in this section. For further detail on opportunities and constraints, please refer to the Existing Conditions Report.

### 1.4.1 OPPORTUNITIES

Within the ½-mile planning area, many opportunities can attract transit-oriented development (TOD):

- Central location along the south shore of Oahu between the dense, urban area of Honolulu and the growing areas of Kapolei and central Oahu. Also, it is at the mid-point on the rail line.
- A higher elevation along the shoreline to withstand projected rises in future sea levels.
- Proximity to military facilities but also service personnel housing and younger families.
- Confluence of major federal and state highway networks.
- With these advantages and the possibility of stadium redevelopment, the new rail line, and potential new uses, the stadium site presents a huge opportunity to transform the Halawa area into a complete TOD neighborhood as well as a major destination for visitors and residents.
- The Halawa area offers a broad range of attractions serving both residents and visitors, including major regional draws and economic drivers (Aloha Stadium, the Pearl Harbor Visitor Center, and farther afield, Pearlridge Center), as well as vital neighborhood destinations (Stadium Mall and Stadium Marketplace, Aiea Town Center, and Aiea Library) that will attract new development opportunities built on TOD concepts.
- Certain districts within or adjacent to the planning area have a strong identity, such as Aiea Town Center, Pearl Harbor Visitor Center, and Stadium Mall. These and other districts such as Puuwai Momi and Stadium Marketplace may be strengthened by improved multimodal connections.
- Bicycle and pedestrian connections are limited in the Halawa area and not surprisingly, a resident survey revealed that over 2/3 of those surveyed in the Halawa area drove their car to shop or go to work or school. Existing significant facilities include the partially completed Pearl Harbor Historic Trail. Additional bicycle and pedestrian facilities should better connect area attractions and interface with the rail station and Aloha Stadium.
- TOD opportunity sites refer to areas with vacant, underdeveloped, or other parcels adjacent to the rail station that may be suitable for transit-oriented development. These sites are further explained in Section 3.1.3.
- Additionally, with the introduction of TOD, the site's existing open spaces have the opportunity to be activated and reprogrammed into publicly accessible multifunctional space.
- With potential development sites identified, wayfinding signage and gateways can be utilized to better reinforce the identity of the planning area. A wayfinding system connecting Stadium Mall/ Marketplace and Pearl Harbor Visitor Center, with the rail station and Aloha Stadium in the center, may act as a pedestrian spine.

### 1.4.2 CONSTRAINTS

The Halawa area presents multiple constraints, primarily related to vehicular circulation and environmental issues.

- As much as the confluence of state and federal highways provide exceptional accessibility to and for the Halawa area, these wide, vehicular corridors can act as barriers to non-vehicular travel and create a threatening environment for pedestrian-scale movement. This is also especially true of the major intersections in the planning area.
- The Pearl Harbor waterfront is generally disconnected from the rest of the planning area. This is due to both current security considerations, as well as the potential danger in crossing Kamehameha Highway.
- Further interruptions in connectivity are due to gates that prevent access to restricted areas, including the main campus of Joint Base Pearl Harbor-Hickam and McGrew Point military housing.
- Infrastructure upgrades and expansion of capacity, particularly sewer capacity, is inadequate to support a greater density of redevelopment. Increased capacity will have to be absorbed into future projects.
- An existing military fuel pipeline is aligned with/under Kamehameha Highway and should be taken into consideration in the design of future projects.
- Environmental monitoring as a result of a former dry cleaning establishments on Navy property mauka of the stadium continues and should be taken into consideration in the design of the projects. Ground monitoring wells on stadium property is part of an ongoing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirement to detect for any potential contamination.

### 1.4.3 MARKET ASSUMPTIONS

The following findings and assumptions from the market study have been instrumental in creating the development scenarios.

- The Halawa area is well-situated to capitalize on future growth in Honolulu due to its central location and the presence of the planned rail transit station.
- A new, slightly smaller, state-of-the-art sports facility to replace the current Aloha Stadium would attract new events, increase attendance, and create the central draw for a new mixed-use sports and entertainment district near Aloha Stadium Station.
- A sports and entertainment district would be the first of its kind in Hawaii.
- Most residential growth on Oahu is planned to occur in areas close to the new rail line.
- Results from an area needs survey in 2015, revealed that demand for additional coffee shops and restaurants, convenience retail and personal services such as groceries, pharmacies, beauty salons, and banks would be supported by new residential development in the area. Market opportunity for additional retail, personal services and themed establishments such as sports bars will increase with more residential development in the area.
- The synergies created by proximity to Pearl Harbor as a major employment center and visitor attraction will support significant TOD on the stadium site.
- The Halawa area can capitalize on future office employment growth in the greater area.
- Long-term growth will create new demand for hotel rooms as well as provide support for entertainment and cultural facilities.
- Using a Value Capture Strategy, the City can leverage public investment in the rail system and subsequent increase in property values to contribute to providing community benefits and improvements in the built environment of the Halawa area.



*The primary mixed-use development on the stadium site should provide a central multifunctional open space.*

## 2. VISION AND PRINCIPLES

---



### 2.1 VISION STATEMENT

With the new Aloha Stadium Station, the Halawa area will become one of Oahu's most interesting and livable transit communities, combining dense, mixed-uses around compact, walkable blocks and community-oriented open spaces. It will complement the anchor uses of Aloha Stadium, Pearl Harbor Visitors Center, nearby Joint Base Pearl Harbor-Hickam, as well as the surrounding neighborhoods of Aiea, Foster Village, and Halawa.

New uses will appeal to residents and visitors alike, including:

- *A mix of housing types;*
- *Community-oriented retail and amenities;*
- *Food, entertainment, and cultural uses, that support the stadium and community;*
- *Other complementary commercial activities that create activity, such as a hotel; and*
- *Event programming that appeals to residents, visitors, and workers.*

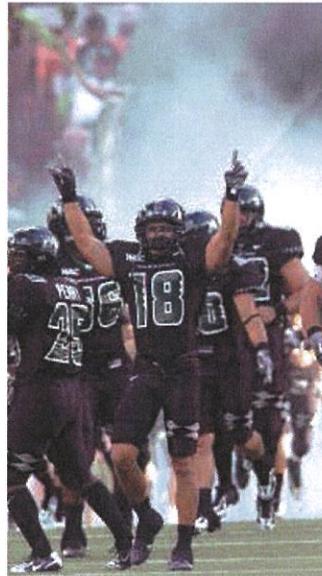
Office, residential, retail, restaurant, and entertainment uses will activate the area with "round the clock" activity. Vehicular and pedestrian movement will be augmented by improved transit services, dedicated and shared parking, expanded bikeways, and wide, pedestrian-oriented sidewalks.

Open spaces will include a multifunctional "great lawn", tree lined streets, trails, vista points, and improved mauka/makai and ewa/diamond head connections. Expanded events will preserve and augment the highly successful Aloha Stadium Swap Meet and Marketplace, UH football games, and provide other much needed community amenities such as pre-and post-game day activities, market days, performances, and movies in the park.

*The Halawa area will embody the Aloha spirit and become a place where people from all walks of life can live, work, visit, and connect.*

## 2.2 PRINCIPLES AND POLICIES

# CONNECTIVITY



## 1. STADIUM AND STATION

*Make a strong connection between a revamped Aloha Stadium and the rail station, by means of a pedestrian-oriented corridor along with a mix of land uses that will extend the stadium’s fan experience and facilitate “round the clock” activity. The fan experience should be complemented by a system of way-finding and ample public spaces. Maintain and improve the existing Aloha Stadium Swap Meet and Marketplace, as well as opportunities for tailgating on game days.*



## 2. ACCESSIBILITY

*Improve multimodal access to and within the Halawa area to support the rail station, Aloha Stadium, and surrounding community. This will be supported by bike- and car-share as well as shuttle services. Improve pedestrian linkages along and across major arterials such as Kamehameha Highway, Moanalua Freeway, and Salt Lake Boulevard. Create a neighborhood grid of connected pedestrian-friendly, tree lined streets that accommodate vehicles, transit, bicycles, and pedestrians.*

## LAND USE



### 3. RETAIL AND ENTERTAINMENT

*Retail uses that service the basic needs of tourists, commuters, and residents. Street retail uses might include grocery stores, bakeries, convenience stores, and personal services such as banks, dry cleaners, and hair salons. Day care as well as medical offices would serve commuters and residents alike. Restaurants with outdoor dining would further contribute to an active streetscape. Entertainment uses could include theaters, health clubs, a museum, or other uses that support game day and non-game day activity.*



### 4. DIVERSE HOUSING

*Provide a variety of housing types that appeal to a diversity of lifestyles, including transit-oriented young families, empty nesters, and singles. A mix of affordable, for-sale and rental housing should incorporate design features that promote street orientation and pedestrian scale. Site and building design should take advantage of mountain and coastal views and prevailing breezes, including courtyards and rooftop amenities.*

LAND USE



## 5. WORKING DISTRICT

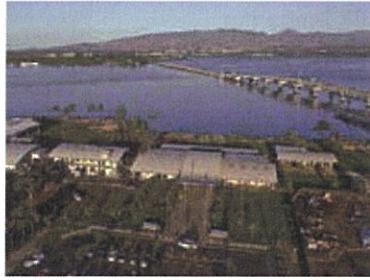
*Build transit ridership near the rail station, via Class A and creative office space, institutional and campus-related uses, continuing education, athletic training, and sports medicine facilities, in conjunction with a business hotel. Daytime conveniences, transportation options and amenities will be important to support these uses.*



## 6. SUSTAINABILITY

*Provide a sustainable approach to the way the district is designed and managed in terms of energy, water and waste. Harness natural energy sources such as wind, rain, and sun, and maintain tree canopy to reduce the heat island effect. Minimize use of fresh water; reuse grey water, and plant appropriately. Maintain the monkey-pod trees if possible. Reduce waste and recycle or use as energy source when practical.*

# OPEN SPACE



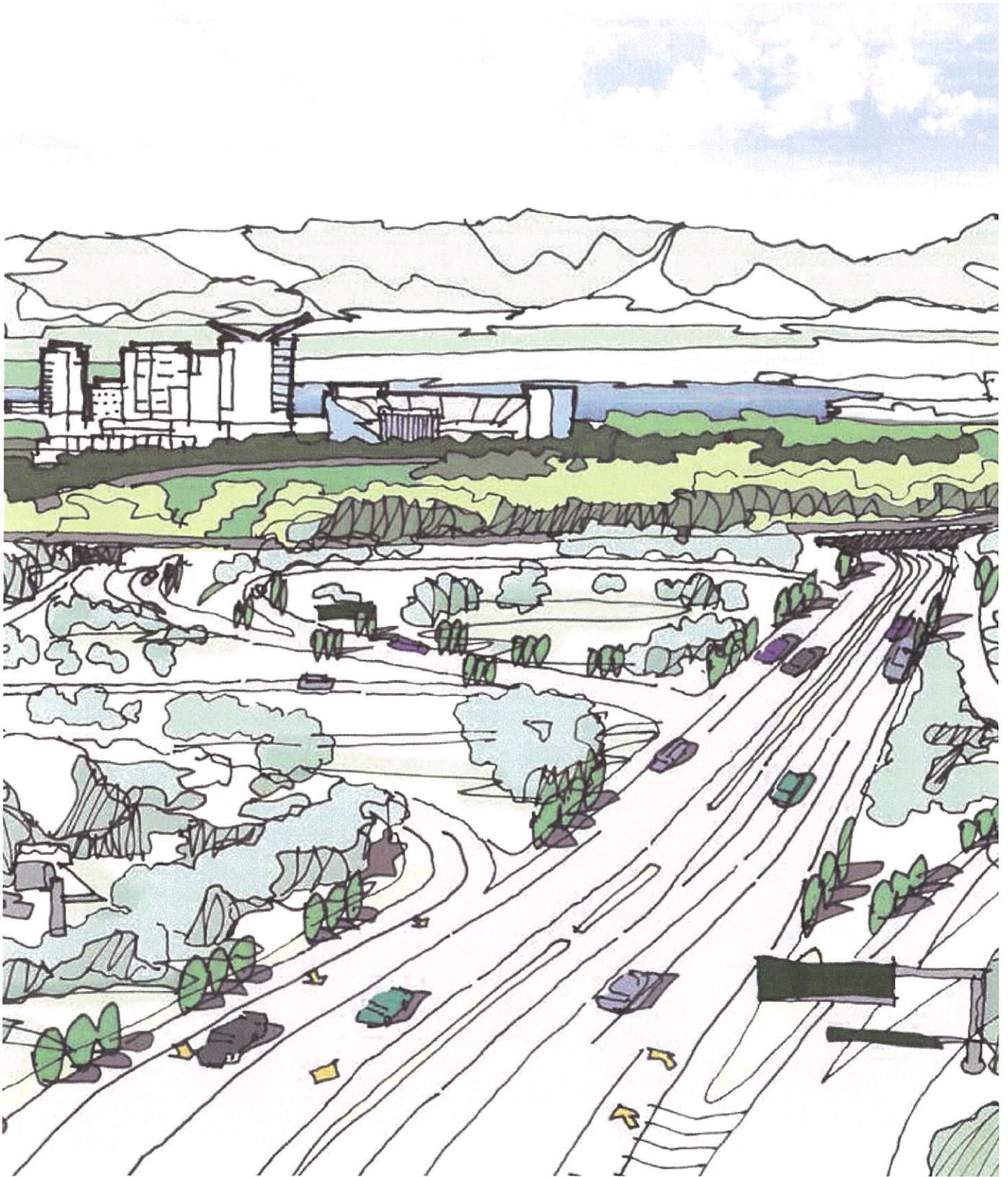
## 7. GREEN NETWORK

*Create a “gathering place” that serves as the heart of the community, programmable for local events as well as for game days. Provide a network of passive and active open spaces connected to each neighborhood by green ways, trails and tree lined streets. Develop hike and bike trails along nearby streams and enhance the existing Pearl Harbor Historic Trail.*



## 8. COMMUNITY GATHERING

*Create more reasons for the community to come together. Combine and support the attractions of Pearl Harbor and Aloha Stadium with community-oriented events and services in the heart of the Halawa area. Concerts, farmers markets, cultural celebrations, fun runs, and other community gatherings could complement the already successful swap meet and football season and fill out the annual event calendar.*



*At full build-out, the site has the potential to become a gateway to central Oahu.*

# 3. DEVELOPMENT FRAMEWORK

Over the course of the public outreach and planning process, three sets of development alternatives were reviewed, examined and vetted with the community and stakeholders to gauge the appropriateness of the different intensities of transit-oriented development and the returns/value each brings to the area. This framework concerns land use, connectivity, and open space, as well as other urban design elements. The framework is also intended as a tool to inform the public, policy makers, and developers to visualize the impact of transit-oriented development in the Halawa area.

## 3.1 OVERALL STRUCTURE

### 3.1.1 FRAMEWORK CONCEPT

The Halawa Area TOD Plan guides public investment and targets redevelopment activities in the area surrounding the Aloha Stadium Station. Redevelopment of the parcels that comprise Aloha Stadium Station and its parking lot will most greatly improve the character of the Halawa area, and will also help to maintain the existing character of surrounding neighborhoods. The creation of a TOD-oriented sports and entertainment district that plays off of synergies created by Aloha Stadium and the rail station should be a primary goal. Nearby underdeveloped or underperforming sites along arterial roadways (other development sites) should also be developed as a medium- to long-term strategy.

#### STADIUM SITE ALTERNATIVES

Developed from public review of three alternatives: Scenario A – The Grid; Scenario B – The Crescent; and Scenario C – Corridors; the Plan optimizes “value capture” while ensuring community benefits occur in conjunction with new development. Recommendations were made about zoning designations, land use, circulation, open space, urban design, and infrastructure.

A common theme through all scenarios is vehicular, pedestrian, or visual connection between the rail station and stadium which acts as a central organizing element as

depicted in Figure 3-1. Also present in the three scenarios is a mixed-use core, an open space or plaza fronting the stadium that acts a "gathering place," and secondary connections to stadium parking. A summary of potential development and resulting analysis for each scenario follows (Figures 3-2, 3-3, and 3-4).

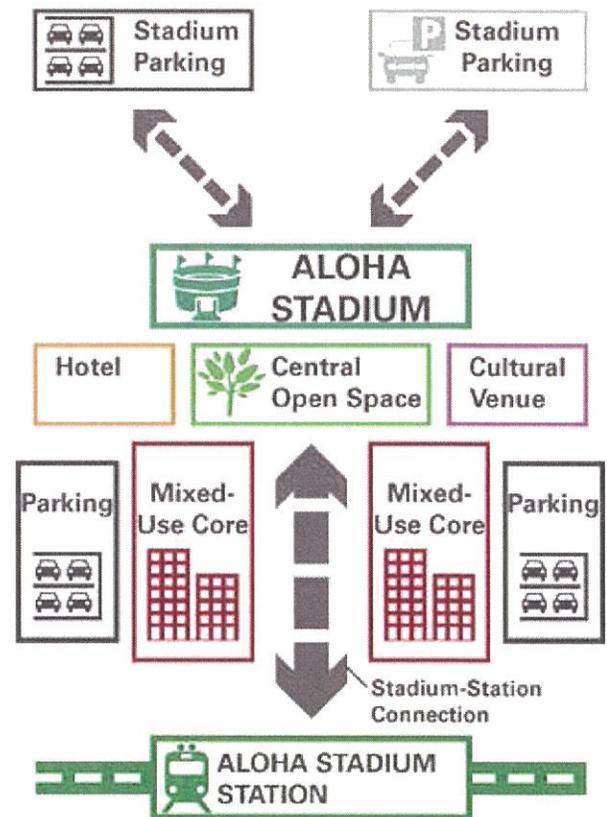


FIGURE 3-1: STADIUM SITE ORGANIZATION CONCEPT



### SCENARIO A: THE GRID

This scenario utilizes base land use assumptions. The location of Aloha Stadium remains the same, and a rectangular grid of streets has been placed throughout the stadium site that increases vehicular and pedestrian/bicycle connectivity. The Stadium/Station connection is facilitated by a direct pedestrian path fronted by ground floor retail, dining and cultural/entertainment venues. The primary open space is a multifunctional "town square" that fronts the stadium. The scenario also maintains a generous amount of surface parking lots dedicated to the use of Aloha Stadium.

Stadium Site: ~2.3 million square feet of potential development

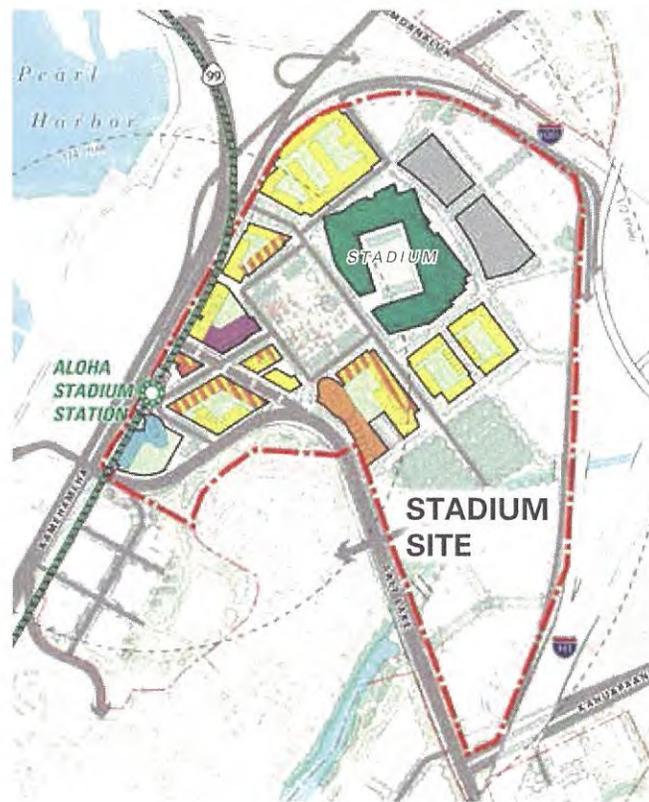


FIGURE 3-2: SCENARIO A: THE GRID



### SCENARIO B: THE CRESCENT

This scenario provides more office space and retail and a slightly lower amount of residential units than Scenario A. Aloha Stadium has been relocated adjacent to Halawa Stream, further away from the rail station. This lengthens the pedestrian connection from the station to Aloha Stadium, and a larger mixed-use core as a result. Instead of high-rises, residential units are located in mid-rise towers and podium residential blocks. Office/institutional uses are provided in creative office format and in an office campus, fronting a large, passive open space that marks the former location of Aloha Stadium.

Stadium Site: ~2.4 million square feet of potential development

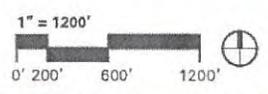
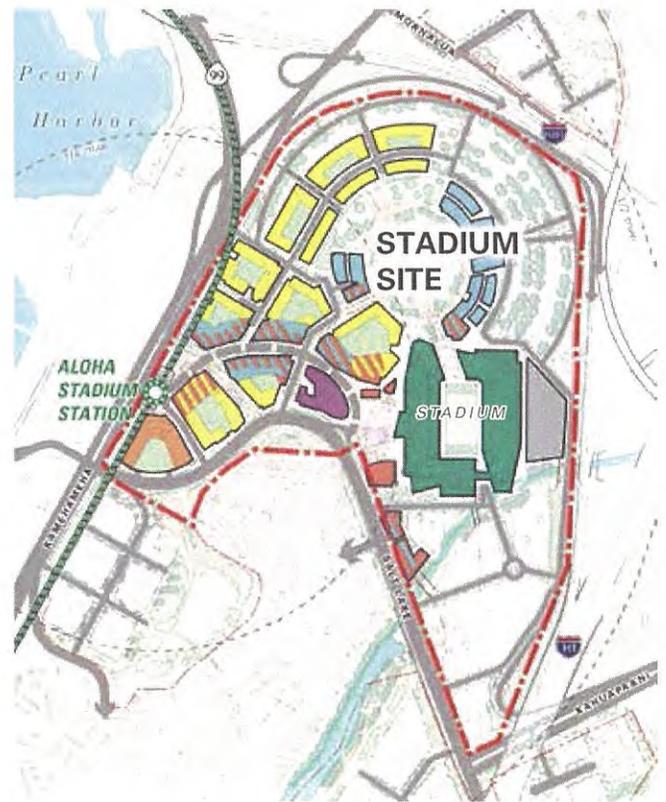


FIGURE 3-3: SCENARIO B: THE CRESCENT



### SCENARIO C: CORRIDORS

The central open space acts as a hub of pedestrian and vehicular connections. Of the three development scenarios, this option assumes the highest densities and provides additional dedicated parking for Aloha Stadium. In order to do this, Aloha Stadium has been moved to a location along Kamehameha Highway. This creates the most compact mixed-use core of any of the development scenarios, where residential units are provided largely in high-rise and mid-rise formats. Also, it provides a larger area for dedicated stadium parking. In addition, retail is provided on Salt Lake Boulevard and an institutional campus is provided mauka of the stadium.

Stadium Site: ~2.6 million square feet of potential development

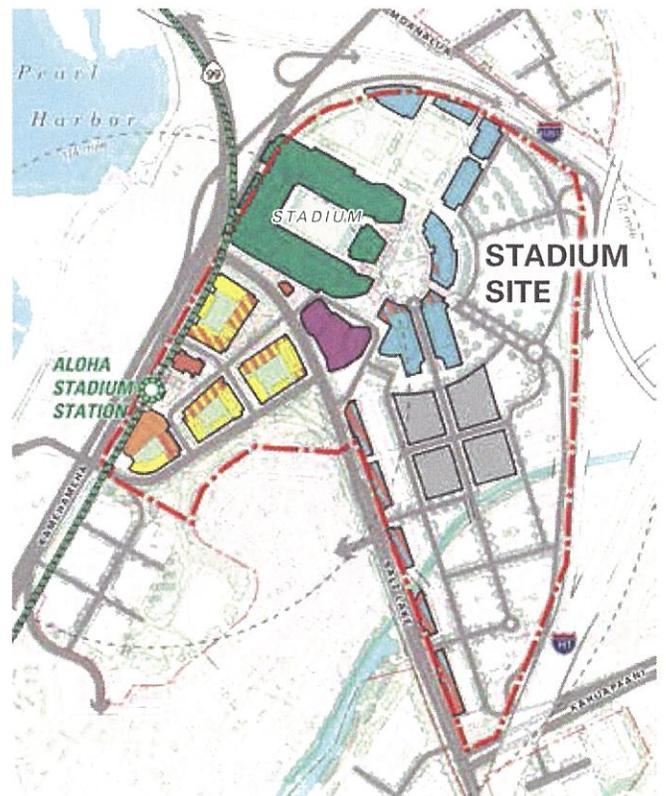


FIGURE 3-4: SCENARIO C: CORRIDORS

*OTHER DEVELOPMENT SITES*

In addition to the stadium site options depicted in the previous section, the Plan Framework identifies four development sites identified that may be influenced by TOD between the short- and long-term.

Typically, these sites may feature lower intensities of development, as their proximity from the rail station differentiates them from true TOD. All sites are made up of large parcels, owned by the State of Hawaii or private owners. The assumptions for the development of these sites typically include a mix of residential and retail uses.

Figure 3-5 illustrates a potential land use yield for these development sites that is consistent with TOD.

*SELECTION OF THE PLAN*

Of the three development scenarios, Scenario C – Corridors scored the highest in land use, urban design, transportation/circulation and economic criteria and garnered community and stakeholder support at Community Workshop #2 for its circulation system,

central open space, and compact mixed-use core. To maximize its benefit, Scenario C- Corridors was tweaked further with other recommended features and improvements to come up with a well-rounded TOD scenario.

Tailoring the Corridors scenario to meet the specific needs of the area may not be an exclusively market supported solution but it exemplifies a possible full build-out potential that provides flexibility to the ongoing City’s TOD process as well as the State’s efforts to better position Aloha Stadium as a world class sports and entertainment venue. Therefore, it is recommended as the Halawa Area TOD Plan (“the Plan”).

It is understood that with the State’s ongoing efforts in addressing the stadium site, the City will cooperate with the State in promoting transit-oriented development in the Halawa area. It is also understood that any potential developer(s) of the stadium lands or other state property in the area may follow this Plan or choose a completely different configuration depending on market conditions at the time.



**Aiea Elementary School Site - 13 acres**

- Existing school could be reconstructed to allow for larger student body
- Mix of uses proposed for school



**Puuwai Momi Site - 12 acres**

- Owned by Hawaii Public Housing Authority
- Transition existing 260 units into mixed-use, mixed-income format



**Stadium Marketplace Site - 17 acres**

- Integrate additional retail as well as residential units
- Potential pedestrian connections to Halawa Stream, a new “blue corridor”



**Stadium Mall Site - 7 acres**

- Mix of retail and residential units
- Ice Palace may maintain location or be relocated
- Integrate open space along H-1 overpass



**FIGURE 3-5: OTHER DEVELOPMENT SITES**

### 3.1.2 THE PLAN'S KEY CHARACTERISTICS

The Halawa Area TOD Plan's key characteristics and specific advantages are depicted in Figure 3-6. They include:

#### LAND USE SUMMARY- PLAN COMPONENTS

- **Relocate Aloha Stadium** ewa of the current location as a new 30,000-40,000 seat stadium. This frees up developable land in the center of the stadium site. Phasing of the relocation so as to maintain use of the existing stadium while constructing the new one is an important criterion.
- **Create an Appealing Gateway** of mixed-use and entertainment uses from the transit station to stadium. Establishing a strong visual and aesthetic core and connection between station and the stadium.
- **Enhance and Balance the Energy of the District** by creating both daytime and nighttime activities. The maximum development of retail and office space (up to 2.6 million GSF) on the stadium site will provide a critical mass of activities to take advantage of transit, populate the site during non-game days, and improve safety and walkability of the area for residents.
- **Establish a Single 200-300 Room Hotel** for military, business, and sports travelers.
- **Establish an Office/Institutional Campus** appropriately located on the mauka side of stadium. An athletic theme would provide natural synergies with the stadium and the sports and entertainment district. For flexibility, "creative office" uses could substitute or add diversity to a sports and fitness institute.
- **Concentrate Most of the Ground Floor Retail Space** appropriately along the mixed-use corridor and around central open spaces.
- **Encourage High-Density Residential Mixed-Use** close to station area. Density projections of housing assumes 2,000 new residential units over the entire 100 acre Stadium Site. A density of 20 dwelling units per acre will be within the PUC transit-oriented preferred densities or between 13 to 140 dwelling units per acre. High density residential, not to exceed 250 feet to minimize blocking important views, will help with financial feasibility.
- **Line Salt Lake Boulevard with Street-level Retail** to serve the convenience needs of new residential units above and for the surrounding neighborhoods. This

mixed-use district would be no higher than 4 floors above street level, where an eclectic mix and variety of stores and shopping opportunities creates its own engaging street vibe and appeal.

- **Provide Office Uses**, such as uses with different operating hours from retail use. This presents opportunities for shared parking with a variety of parking structures quite dissimilar from the existing expanse of surface parking. A parking management program can allow Aloha Stadium to manage its parking needs.
- **Consider High-Density Mixed-Use Redevelopment** at Puuwai Momi, and medium-density, longer term development at Stadium Mall, Stadium Marketplace, and Aiea Elementary School sites.
- **Establish Cultural Facilities** in addition to entertainment usage such as sports hall of fame to showcase notable athletes from Hawaii in professional and amateur national or international sports. In addition, as suggested by one community member, a hall of fame or museum showcasing political, cultural, and scientific leaders and innovators from Hawaii would be ideal in the Corridors plan.

#### OPEN SPACE IMPROVEMENTS

- **Provide a Multi-functional Landscaped or Hardscaped Open Space** fronting of Aloha Stadium designed as an outdoor amphitheater for multi-functional events.
- **Extend Pedestrian and Bicycle Improvements** to adjoining development areas from the station-stadium area, including Stadium Marketplace, Stadium Mall, Aiea Elementary School, and Puuwai Momi Public Housing. Integrate Halawa Stream with pedestrian and bicycle networks to facilitate connections to adjacent development sites and complete the overall open space network.
- **Provide a Gathering Place** below H-1 at Stadium Mall.

#### TRANSPORTATION IMPROVEMENTS

- **Provide an Outer, "Ring" Road** along the perimeter of the stadium site, in order to improve vehicle flow and provide access to the office/institutional campus mauka of the stadium.
- **Provide an Intersection at Kamehameha Highway** mauka of Salt Lake Boulevard.

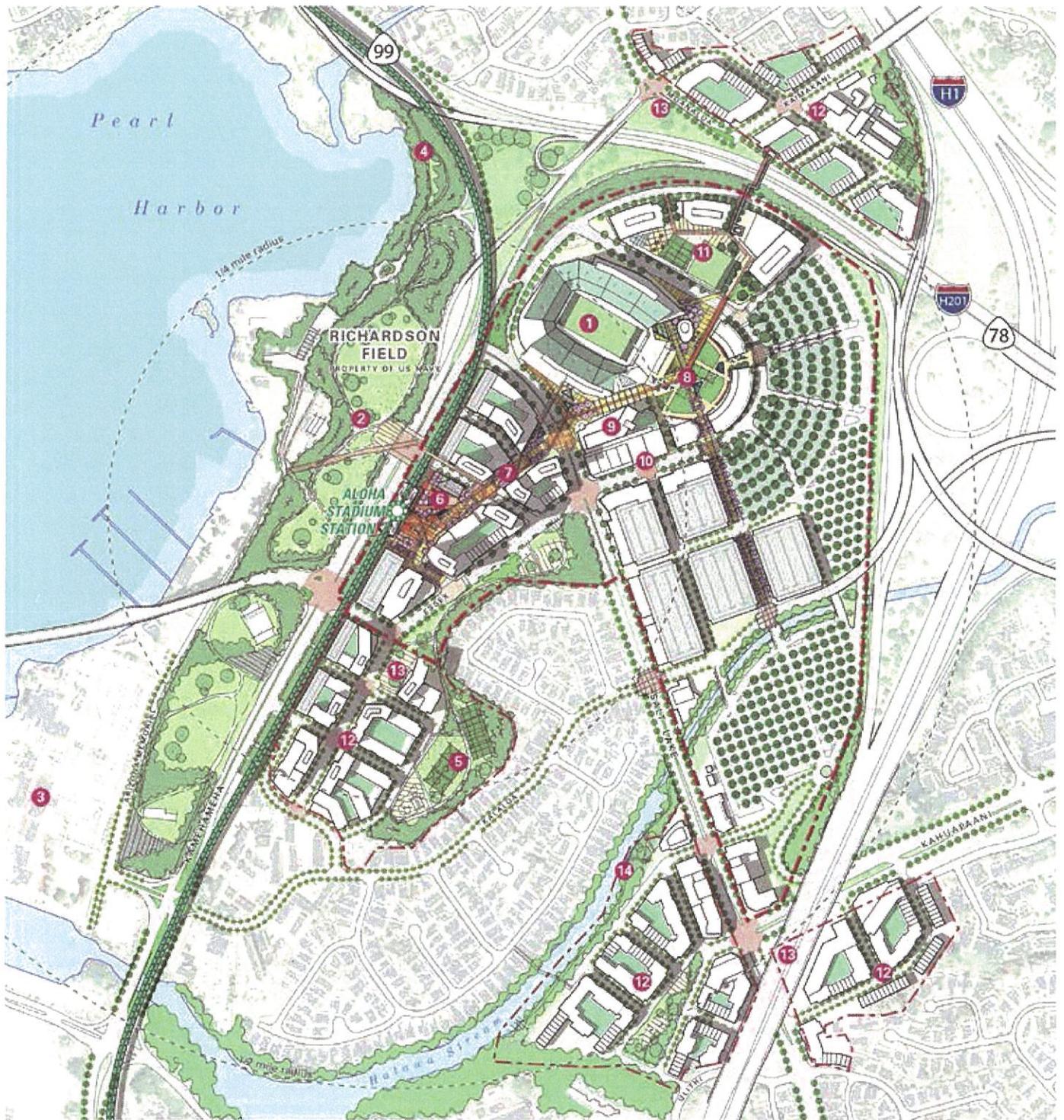


FIGURE 3-6: ILLUSTRATIVE PLAN

- EXISTING DESTINATIONS*
- 1 Aloha Stadium
  - 2 Richardson Field
  - 3 Pearl Harbor Visitor Center
  - 4 Pearl Harbor Historic Trail
  - 5 Makalapa Neighborhood Park

- PROPOSED DESTINATIONS*
- 6 Station Plaza, "Halls of Fame"
  - 7 Mixed-Use Core
  - 8 Gathering Place
  - 9 Hotel
  - 10 Entertainment Venue
  - 11 Office/Institutional Campus
  - 12 Mixed-Use Neighborhood

- 13 Other Open Space
- 14 Halawa Stream
- - - Stadium Site
- - - Other Development Sites
- ⊙ Aloha Stadium Rail Station
- ▬ Fixed Guideway



- **Improve Access for Eastbound H-1 and H-201 to Stadium Activities with a Direct Slip-Ramp** off the travel lanes diamond head of the stadium into the stadium property. On-site stacking and flow into the property should be maximized to prevent any traffic back-ups during game days.
- **Reconfigure the Alignment of Salt Lake Boulevard** as it intersects with Kamehameha Highway in the mauka direction. Realigning it will increase developable lands for the mixed-use core area adjacent to the station.

*POTENTIAL DEVELOPMENT YIELD*

A summary of the yield from a build-out of the Plan is provided in Figure 3-7, Halawa Area TOD Plan Yield Summary. For an illustration of land use distribution, see Figure 3-8, Land Use Distribution.

The yield summary for the Halawa Area TOD Plan is provided for illustrative purposes only and assumes a highest and best buildout. It is anticipated that the added density in this Plan will provide for a wide range of community needs, including comprehensive streetscape improvements and an upgraded and expanded open space network.

TOTAL YIELD SUMMARY OF HALAWA AREA TOD PLAN

Stadium Site: ~3.0 million SF of development



Other Development Sites: ~2.2 million SF of development



CONCEPTUAL YIELD: ~5.2 million SF of development

FIGURE 3-7: HALAWA AREA TOD PLAN YIELD SUMMARY

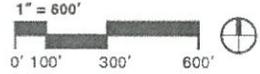
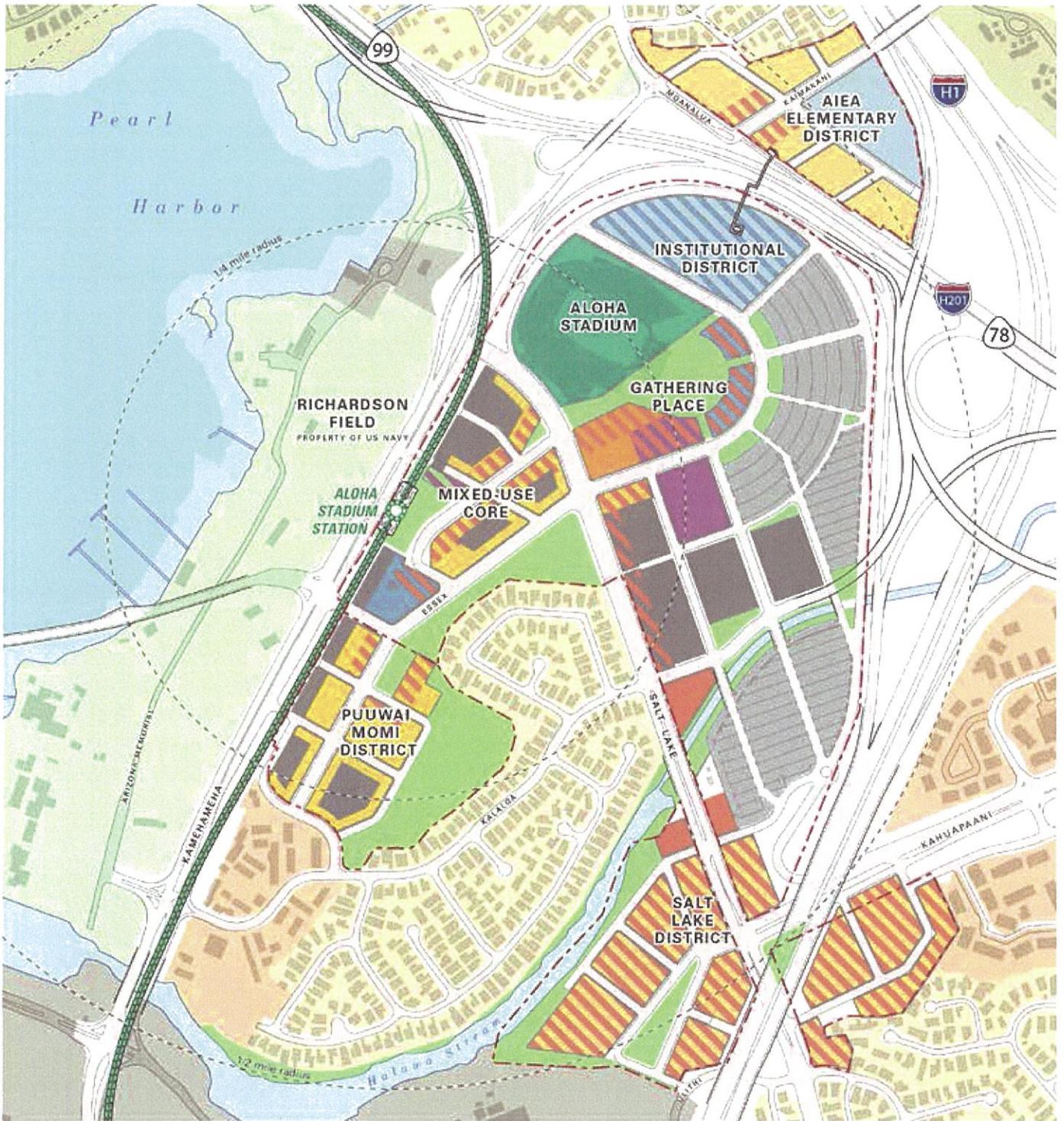


FIGURE 3-8: LAND USE DISTRIBUTION

<i>PROPOSED DESIGNATIONS</i>		Parks & Open Space
Aloha Stadium	Structured/Podium Parking	Major Parks & Open Space
High-Density Residential	Surface Parking	Development Sites
Medium-Density Residential	<i>EXISTING DESIGNATIONS (OFFSITE)</i>	Aloha Stadium Rail Station
Retail/Restaurant	Single Family	Fixed Guideway
Office/Institutional	Multi-family	
School	Military Housing	
Hotel		
Entertainment/Cultural		
		Military Base

### 3.1.3 PLANNING AREA SUB-DISTRICTS

Each sub-district provides an idea of the preferred land use character of its specific locale in the Corridors scenario. The characteristics of each sub-district are described and explained as to how they compliment the vision, contribute to potential opportunities, and fulfill the goals of transit-oriented development. Figure 3-9 provides a depiction of sub-district boundaries.

#### *MIXED-USE CORE*

The area immediately adjacent to the rail station is characterized as a high-density, high-intensity urban mix of uses. The mixed-use core is also intended to serve as the "front door" to the Halawa area. The mixed-use core should utilize the stadium-station connection as its central organizing element. Opportunities may include:

- Multi-modal transit linkages and accommodation of the rail station's park-and-ride function.
- Potential to incorporate an entertainment or cultural use, such as a tourist information center or museum.
- Usage of wayfinding elements to assist tourists and stadium goers.
- Ability to accommodate large amounts of parking via a below grade parking mezzanine or structured garage.
- Accommodation of a community retail anchor to serve residents and transit riders.

#### *ALOHA STADIUM*

A rebuilt Aloha Stadium located closer to Pearl Harbor along Kamehameha Highway opens up land for other purposes. Other opportunities include:

- Incorporation of retail, dining, and other venues common in NFL stadiums.
- A hall of fame for all Hawaii sports.
- Configuration of the stadium to maximize views.
- Create an appropriate sense of arrival.

#### *INSTITUTIONAL DISTRICT*

An office or institutional campus (e.g., sports performance, exercise science, physical/occupational therapy) located adjacent to the stadium would provide natural synergies with the nearby stadium and mixed-use development district, and could incorporate athletic fields. A cluster of office buildings around centralized green space also offers an attractive opportunity for a large campus-style office development that is in close proximity to the district's amenities, while maintaining a critical mass that office users will desire. Opportunities include:

- Utilization of open spaces/athletic fields for public use.
- Designation of a surface pedestrian right-of-way to better connect Aloha Stadium to the Aiea Elementary School District.

#### *THE GATHERING PLACE*

The "Gathering Place", is an active, open space fronting Aloha Stadium. It acts as the hub of pedestrian connections and is surrounded by a reserve of Monkeypod Trees. The Gathering Place is intended to be a flexible multifunctional landscaped or hardscaped open space which could be the setting for community events such as the Great Aloha Fun Run, football rally nights, auto shows, farmers markets and the Swap Meet and Marketplace.



*Mixed-Use Core*



*Open Central Space*

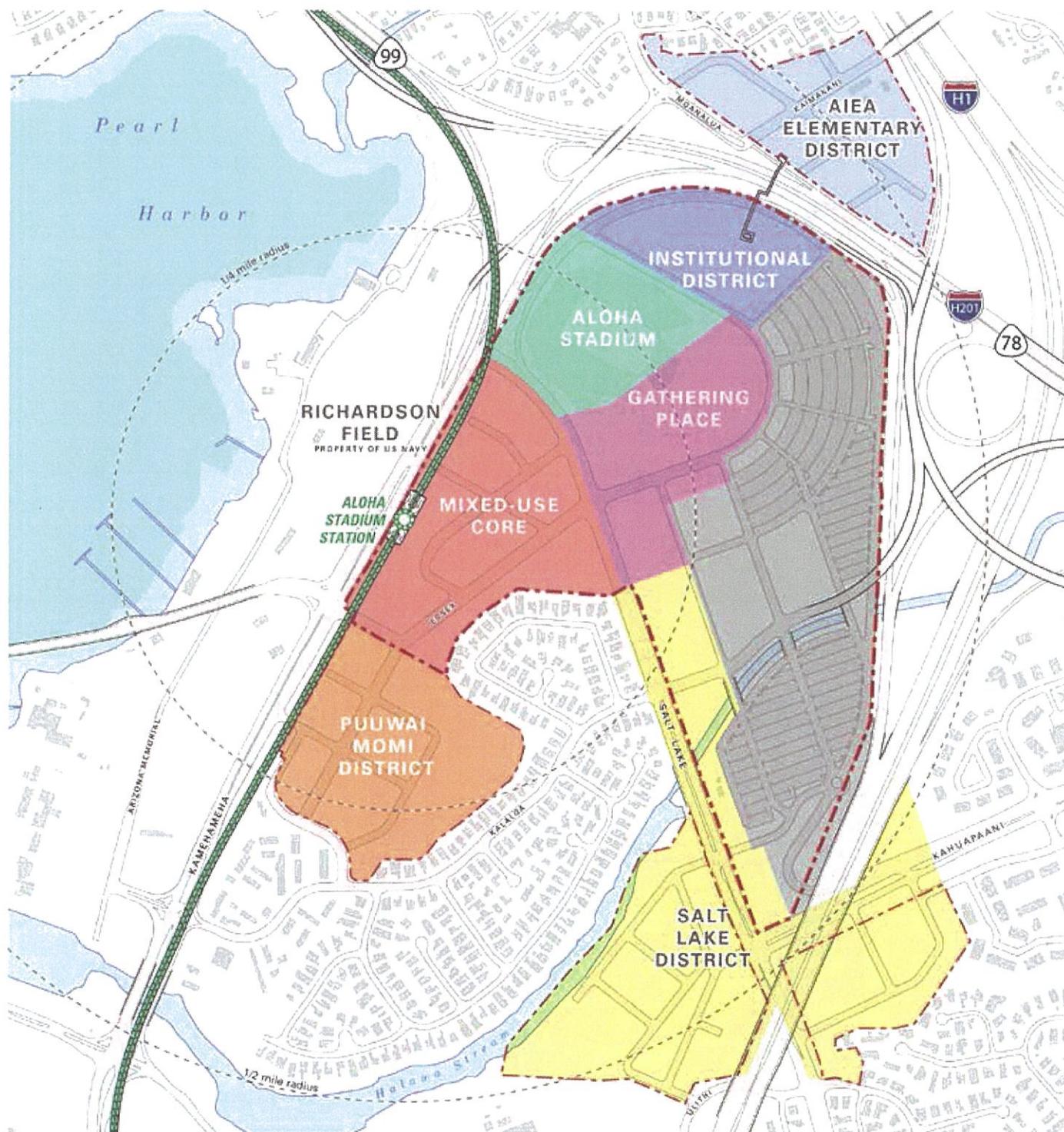
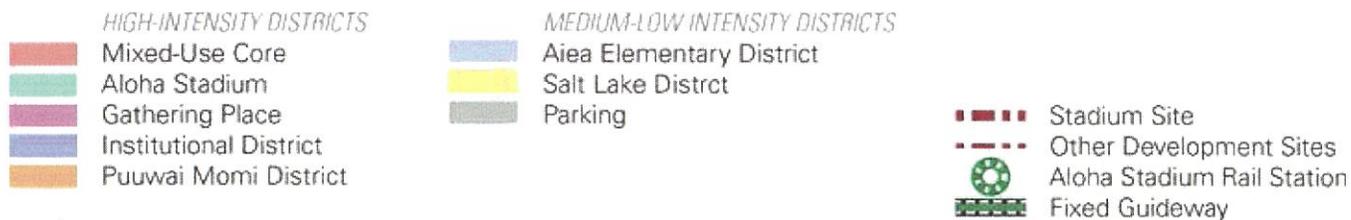


FIGURE 3-9: PLANNING AREA SUB-DISTRICTS





*Puuwai Momi District*

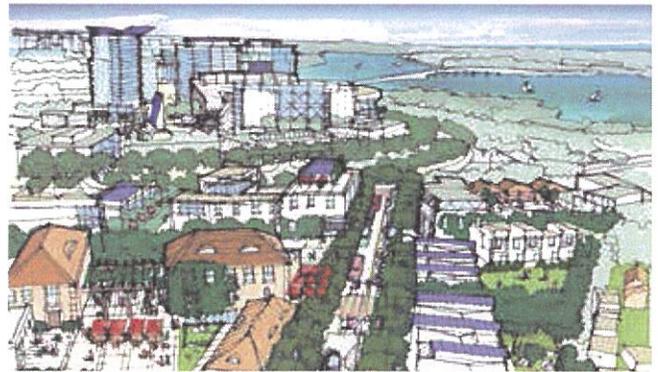
Supporting land uses, such as retail, entertainment, office, and residential, will allow the Gathering Place to maintain a critical mass of activity when Aloha Stadium is not utilized. Other opportunities include:

- Pedestrian wayfinding and connections to stadium parking, rail station, and mauka destinations.
- Incorporation of an amphitheater or outdoor performance space.
- Outdoor dining facing the central open space.

#### *PUUWAI MOMI DISTRICT*

The Puuwai Momi Public Housing complex is owned by the State of Hawaii Public Housing Authority (HPHA). This complex, built in 1969, is approaching the end of its useful life, and has been prioritized by HPHA for conversion in the short- to medium-term into an intensive mixed-use, mixed-income development. Redevelopment by HPHA should be coordinated with TOD planning in the Halawa area. Some opportunities include:

- Revitalization of adjacent Makalapa Neighborhood Park.
- Incorporation of convenience retail facing a central open space or street.
- Connectivity to the stadium site and rail station.
- Potential for a new elementary school (not depicted in the Corridors scenario) to reduce capacity pressures on Aiea Elementary School.



*Aiea Elementary School District*

#### *AIEA ELEMENTARY SCHOOL DISTRICT*

Aiea Elementary School, just mauka of Moanalua Road, may be greatly influenced by TOD. Redevelopment of the school property and adjacent vacant or underutilized properties should be considered to accommodate a mix of uses. With the increase in population that TOD may bring, the school could be reconfigured to accommodate a higher capacity and designed in a compact manner to accommodate additional land uses, primarily medium-density residential. Other opportunities include:

- Incorporation of community retail.
- Rehabilitation of historic Aiea Elementary School classroom buildings.
- Good pedestrian/bicycle connectivity to the rail station, stadium site and Aiea community.
- Increase landscaping areas and open space.



*Salt Lake District*

### *SALT LAKE DISTRICT*

This sub-district is composed of the Stadium Marketplace and Stadium Mall sites, as well as the portions of the stadium site that front Salt Lake Boulevard. New development should focus on Salt Lake Boulevard as a central organizing element, creating a consistent street wall and a more attractive street condition. It is assumed that more intensive development of the Salt Lake District would take place in the longer term. Opportunities include:

- Reconfiguration of existing big box retail to a more urban, mixed-use format.
- Utilization of the H-1 freeway underpass as a unique open space.
- Rehabilitation of the Halawa Stream as a pedestrian amenity.
- Potential retention and rehabilitation of the Ice Palace as an important community destination.



*Surface and Structured Parking On-Site*

### *RICHARDSON FIELD*

Located on the makai side of Kamehameha Highway, Richardson Field is Navy property and consists of three large, grassy open spaces that are, aside from certain special events, only utilized by military personnel and their families. As part of the Navy's ongoing security concerns, access to Richardson Field must continue to be regulated by the military. Nevertheless, it could provide a vital link to connect the Pearl Harbor Historic Trail within the Aloha Stadium rail station and beyond.

### *PARKING*

A sports facility the size of Aloha Stadium, and intensive mixed-use development will inevitably generate large parking requirements. Although some of these yields will be mitigated by the presence of rail and the Aloha Stadium Station and through a shared parking strategy, it is assumed that the majority of Aloha Stadium's dedicated parking requirement will be fulfilled by a combination of surface and structured parking lots. Further discussion of Aloha Stadium's parking requirements is located in Section 3.3.7.

## 3.2 URBAN DESIGN ELEMENTS

### 3.2.1 CONCEPT

The urban design of new development within the Halawa area should emphasize community building and place-making with the intent of achieving a high design standard as necessary to make the Halawa TOD area a great place to visit or to live, work and connect. Collectively, these elements should organize the project to create a strong visual image, focusing activity on the stadium and mixed-use core; linking the development sites physically and visually to create a unified sense of place. The character of buildings, streetscapes, landscapes and signage is intended to reinforce the character and identity of the entire Halawa TOD area.

### 3.2.2 DESIGN ELEMENTS

Urban design elements are described in further detail below and depicted on Figure 3-10.

#### *GATEWAYS*

Entrance into the Halawa TOD area and its various districts will be made through a series of gateways; these may be expressed through a combination of signage and art, special landscape and lighting treatment, and/or the orientation and massing of buildings. The main project gateway, or front door, however should be located at the Aloha Stadium Station, reinforcing the connections between the station, the stadium and the Pearl Harbor destinations.

#### *COMMUNITY LINKAGES*

Project roadways, pathways, and trails will build visual and physical linkages both externally, and internally. The desired external connectivity brought on by the new rail system will be achieved through various off-site circulation improvements such as an extensive feeder bus service and the design of streets using the Complete Streets concept that support multi-modal movement.

#### *INTERNAL LINKAGES*

Internal linkages include important vehicular and pedestrian routes that will connect gateways, activity nodes and focal points, including parks. Kamehameha Highway and Salt Lake Boulevard are major vehicular corridors that will be a vital part of the arrival sequence linking the various districts into a unified whole. This will be communicated through corridor streetscape treatment that includes suitably-scaled street trees.

Pedestrian-priority streets should be identified internal to each district, receiving an appropriate level of streetscape amenity, including canopy shade trees, lighting and outdoor furniture. These streets should form a tightly gridded network with active street frontages. Meanwhile, the stadium-station connection will be the central feature of the internal linkage network within the Halawa TOD area, supporting the highest level of activity and pedestrian flows.

#### *ACTIVITY NODES*

Each district should incorporate one or more activity nodes that should function as interesting spaces or uses, which also helps orient and direct visitors.

Within the stadium site, Aloha Stadium should be the primary node, supported by a large multifunctional open space (the Gathering Place). Adjacent streets may need to be temporarily closed to support larger festivals and events.

Within each of the other development sites, a central plaza or green space can serve the function of an activity node. Additionally, certain intersections may also receive special treatment that reflects their relative importance, for example with enhanced pedestrian crossings.

#### *EDGES*

The landscaped and hardscaped edges resulting from nearby H-1 and H-201 freeways are highly visible from the planning area. Native plantings and other landscaping installed to adjacent perimeter roadways, on-ramps, and off-ramps where possible could soften these hard edges and lend to creating a more inviting environment. In addition, a generous planting of similar Hawaiian or adapted vegetation can help communicate both the design quality and create a visually attractive boundary of TOD in the Halawa area.

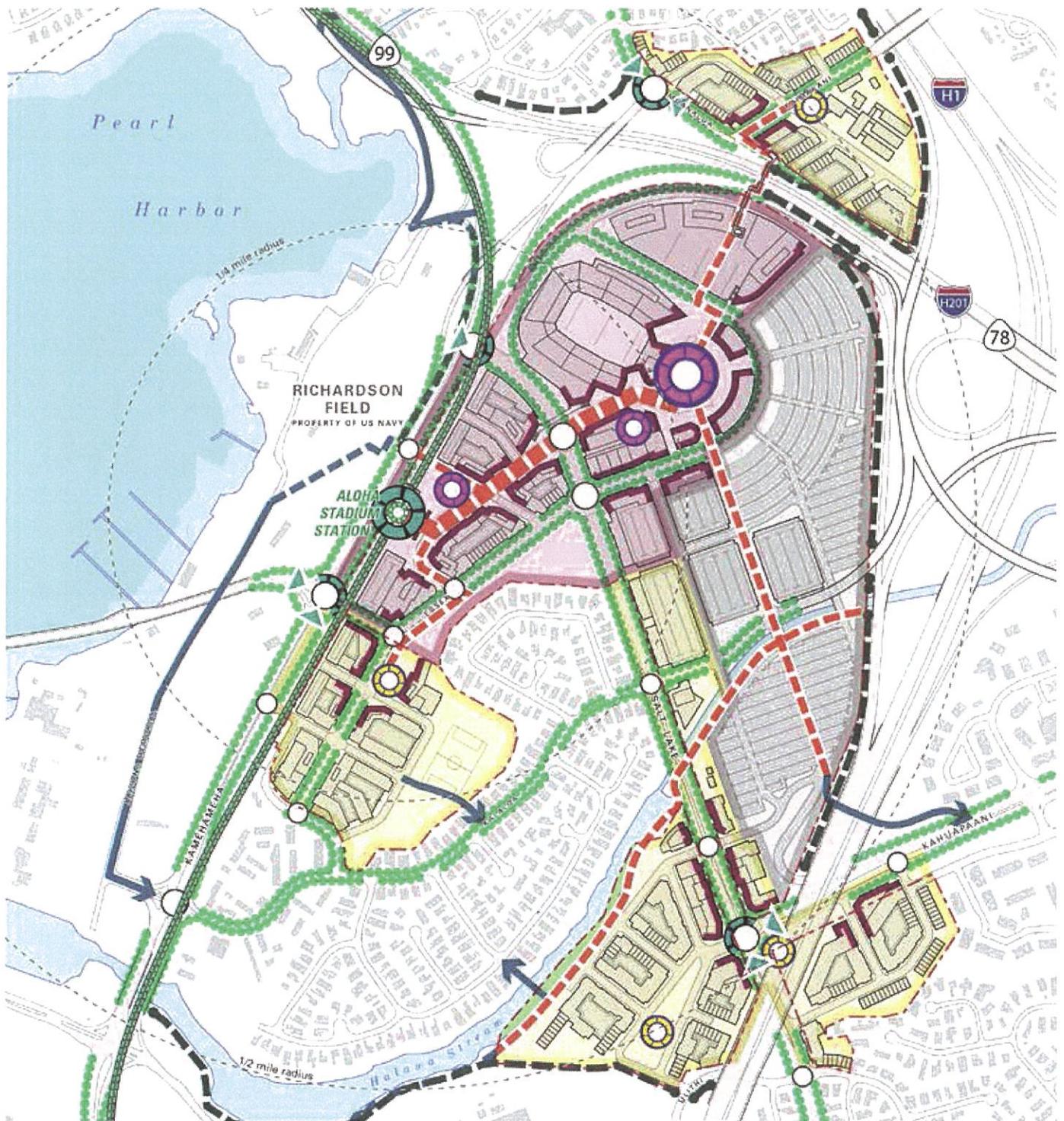


FIGURE 3-10: URBAN DESIGN ELEMENTS



- |  |                             |  |                       |  |                            |
|--|-----------------------------|--|-----------------------|--|----------------------------|
|  | Gateway                     |  | Mixed-Use Area        |  | Corridor Streetscape       |
|  | Community Linkage           |  | Residential Area      |  | Development Sites          |
|  | Internal Pedestrian Linkage |  | Parking Area          |  | Aloha Stadium Rail Station |
|  | Active Street Frontage      |  | Enhanced Intersection |  | Fixed Guideway             |
|  | Mixed-Use Activity Node     |  | Landscape Edges       |  |                            |
|  | Residential Activity Node   |  |                       |  |                            |

### 3.2.3 IMPORTANT VIEWS AND VISTAS

This TOD Plan intends to preserve panoramic views of natural landmarks and the overall skyline. Important vistas and focused views that are visible from publicly accessible spaces should be identified and preserved. Important vistas and view corridors within the planning area include the following, which are also identified in Figure 3-11:

#### *MAUKA VIEWS*

The Primary Urban Center Development Plan specifically calls out the preservation of views of the Koolau Range and their associated foothills. Views should not be significantly disrupted when looking mauka from Pearl Harbor or other makai points. In addition, Richardson Field is intended to remain in its pre-December 1941 appearance, meaning that the open space should maintain its passive character.

#### *MAKAI VIEWS*

Views looking makai from the Aiea Heights and Halawa Heights neighborhoods should not be significantly impeded by intensive development. The heights of towers should be limited, and towers should be spaced in order to preserve views of Pearl Harbor itself. Aloha Stadium itself has the opportunity to provide panoramic views of Pearl Harbor as an amenity for stadium goers.

#### *EWA VIEWS*

From the H-201 freeway, coming over Red Hill, there are panoramic views of Pearl Harbor and the Waianae Range. New development at Aloha Stadium should not significantly impact those views.

#### *DIAMOND HEAD VIEWS*

Opportunities to preserve vistas of the Salt Lake Crater and the bluffs along Halawa Stream should be considered.

#### *VIEW CORRIDOR STREETS*

Significant existing and potential streets within the planning area may have their view sheds impacted by proposed development particularly when transforming from surface parking lots to a more urban development pattern.

### 3.2.4 OTHER CONSIDERATIONS

#### *MASSING/SPATIAL DEFINITION*

Buildings within the stadium site and other development sites should be oriented and massed to reinforce the desired urban character and to establish a positive relationship between buildings and outdoor spaces. This is key to activating the outdoor gathering spaces and to creating walkable streets. Particularly in the mixed-use core, building orientation and massing should establish a consistent street wall that defines the stadium-station connection. Additionally, active uses such as retail and dining establishments should be placed along sidewalks and should line the edges of the connection.

Where plazas and other gathering places are located, buildings should frame and orient to those areas. Other considerations in the placement of buildings should include solar orientation, spacing of towers, and views to and from the buildings.

#### *PROJECT IDENTITY*

A key component of successful placemaking is to establish a clear project identity. This should be accomplished through gateways that mark major entrances to the project; a coordinated family of wayfinding signage and environmental graphics; a unified palette of streetscape amenities; and a compelling landscape character. Additional features may include landmark buildings and civic art at strategic locations. These measures should be especially applicable to Aloha Stadium and the Mixed-Use Core District as a major destination.

#### *SITE RESILIENCY*

Development in the Halawa area should incorporate sustainable design. This can be achieved through sustainable site planning, landscape and building design that aims to maximize resource efficiency, promoting economic vitality, and increasing the quality of life for the project's visitors and occupants. Among the more visible sustainable design measures should be the project's transit and pedestrian-oriented site layout; green building practices such as natural ventilation, shading and daylighting; and eco-sensitive landscapes that should stress the use of endemic and indigenous species long present and compatible with native plants, shrubs and trees.

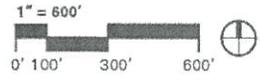
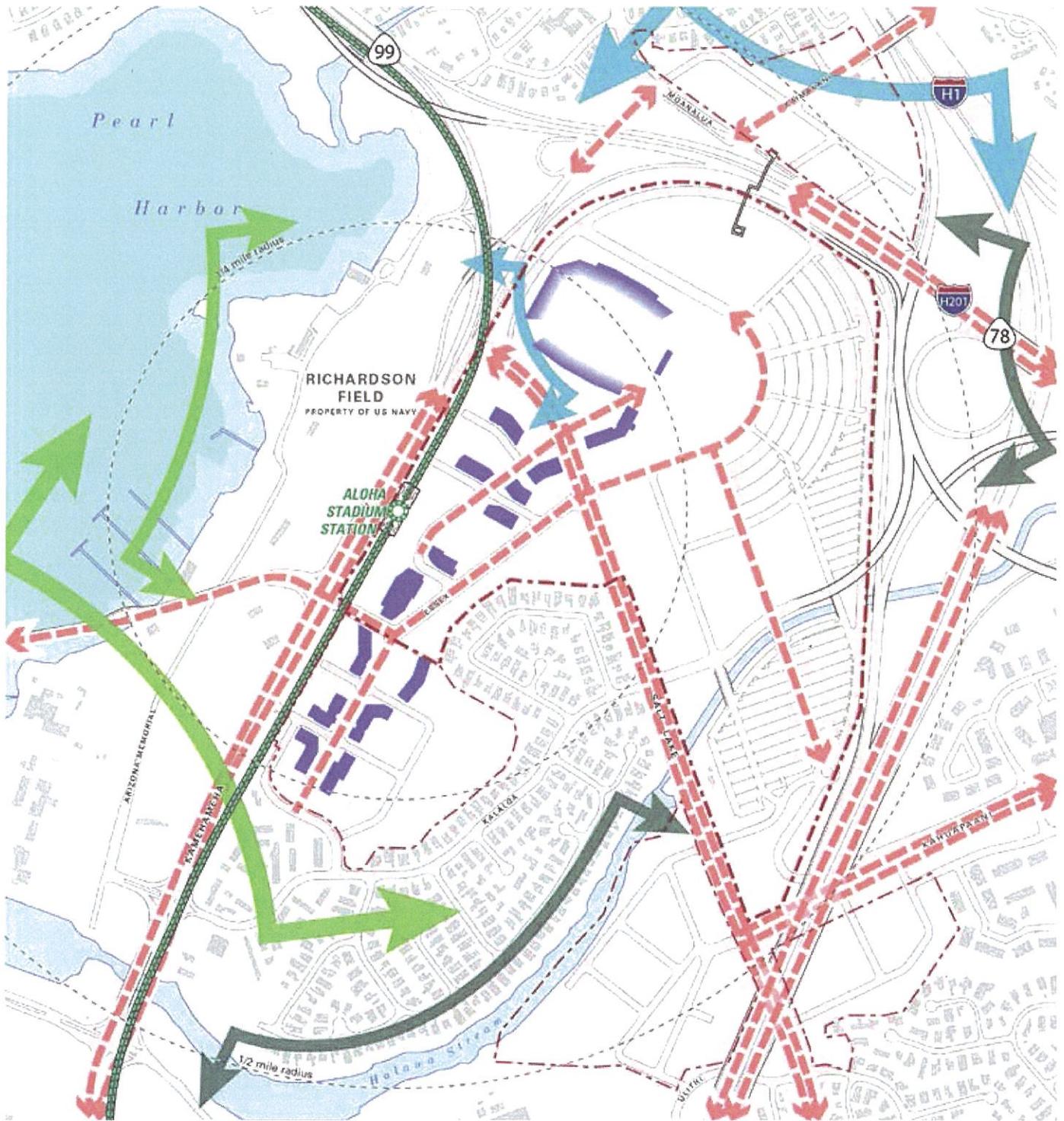


FIGURE 3-11: IMPORTANT VIEWS AND VISTAS

- |                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p> Mauka Views</p> <ul style="list-style-type: none"> <li><b>1</b> to Koolau Mountains</li> <li><b>2</b> to Richardson Field</li> </ul> | <p> Ewa / Diamond Head Views</p> <ul style="list-style-type: none"> <li><b>5</b> from H-1/Red Hill</li> <li><b>6</b> to Halawa Bluffs/Salt Lake Crater</li> </ul>                    | <ul style="list-style-type: none"> <li> Development Sites</li> <li> Aloha Stadium Rail Station</li> <li> Fixed Guideway</li> </ul> |
| <p> Makai Views</p> <ul style="list-style-type: none"> <li><b>3</b> from Halawa Heights</li> <li><b>4</b> from Aloha Stadium</li> </ul>  | <ul style="list-style-type: none"> <li> Street View Corridor</li> <li> Towers (≥ 150')</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                   |

### 3.3 CONNECTIVITY

#### 3.3.1 CONCEPT

The goal to improve connectivity and mobility in the Halawa area, in conjunction with additional development, can be accomplished by improving and accommodating all forms of transportation within the planning area. Simply walking or bike riding, augmented bus and rail transit as well as introducing Complete Streets concepts for vehicular travel will create multi-modal streets that inspire activity, create a sense of place, and enhance the identity of the Halawa area. In order to truly integrate the rail station into the district, the circulation network must:

- Connect Aloha Stadium Station to Aloha Stadium.
- Incorporate a balanced hierarchy of roadways, bikeways, and pedestrian walkways.
- Make travel by transit and other modes more convenient.
- Transform the existing streets into multi-modal corridors that connect area attractions to neighborhoods.
- Introduce a street grid into the stadium site and other development sites.
- Support the smooth operation of Aloha Stadium.
- Complete the Pearl Harbor Historic Trail.

#### 3.3.2 TRANSIT CONNECTIONS

The central hub of bus and future rail transit in the area will be the rail station. It should act as the proverbial "front door" to certainly the stadium but also to the surrounding community. Acting as the primary interface for area connections, the eventual re-routing of bus routes to serve the rail station is vital. This will involve:

- A bus transfer station, serving public and private bus lines, adjacent to the station with amenities and waiting facilities for passengers.
- The proposed park-and-ride (650 spaces) should be consolidated into structured parking, as development occurs, to allow for more compact development.
- A re-organization of existing bus routes after the completion of the station, and after initial stages of TOD are completed.
- Wayfinding elements assisting with connectivity.
- Consider future extensions of the rail system particularly along Salt Lake Boulevard. Modify the TOD Plan as necessary at that time.

#### 3.3.3 VEHICULAR CIRCULATION

Currently, the area's streets are auto-dominated and lack the amenities that are key in creating a transit-oriented district. To remain consistent with the Honolulu Complete Streets Manual, circulation should promote multimodal movement to create a balanced transportation system. Therefore the following strategies advance Complete Streets concepts as well as improve vehicular connectivity in the Halawa area.

- **Street Grid:** Create an internal grid street network within the stadium site and the other development sites to improve connectivity. The grid network also creates development parcels for TOD.
- **Ring Road:** Provide a perimeter road to provide access to the office/institutional campus mauka of the stadium. An intersection should be provided along Kamehameha Boulevard mauka of Salt Lake Boulevard.
- **Existing/New Intersections:** Provide intersection spacing that achieves signal coordination and minimizes circuitous pedestrian travel.
- **Intersection Reconfiguration:** Reconfigure intersections to accommodate modified traffic flows and be made safer for pedestrians.

The recommended roadway network is depicted in Figure 3-12. The Plan specifically:

- Realigns the existing one-way makai-bound section of Salt Lake Boulevard to intersect Kamehameha Highway mauka of Ford Island.
- Converts all sections of Salt Lake Boulevard to two-way travel to maximize connectivity and access to all uses in the area (including Aloha Stadium Station).
- Includes six new access points on both sections of Salt Lake Boulevard providing access to local streets within the stadium and Puuwai Momi sites.
- Includes a new intersection serving the Stadium Mall site located on Kahuapaani Street mauka of Salt Lake Boulevard.
- Includes construction of an off-ramp from the H-1/H-201 interchange allowing direct access to the stadium site.
- Maintains a portion of the existing radial circulation pattern within the stadium site.

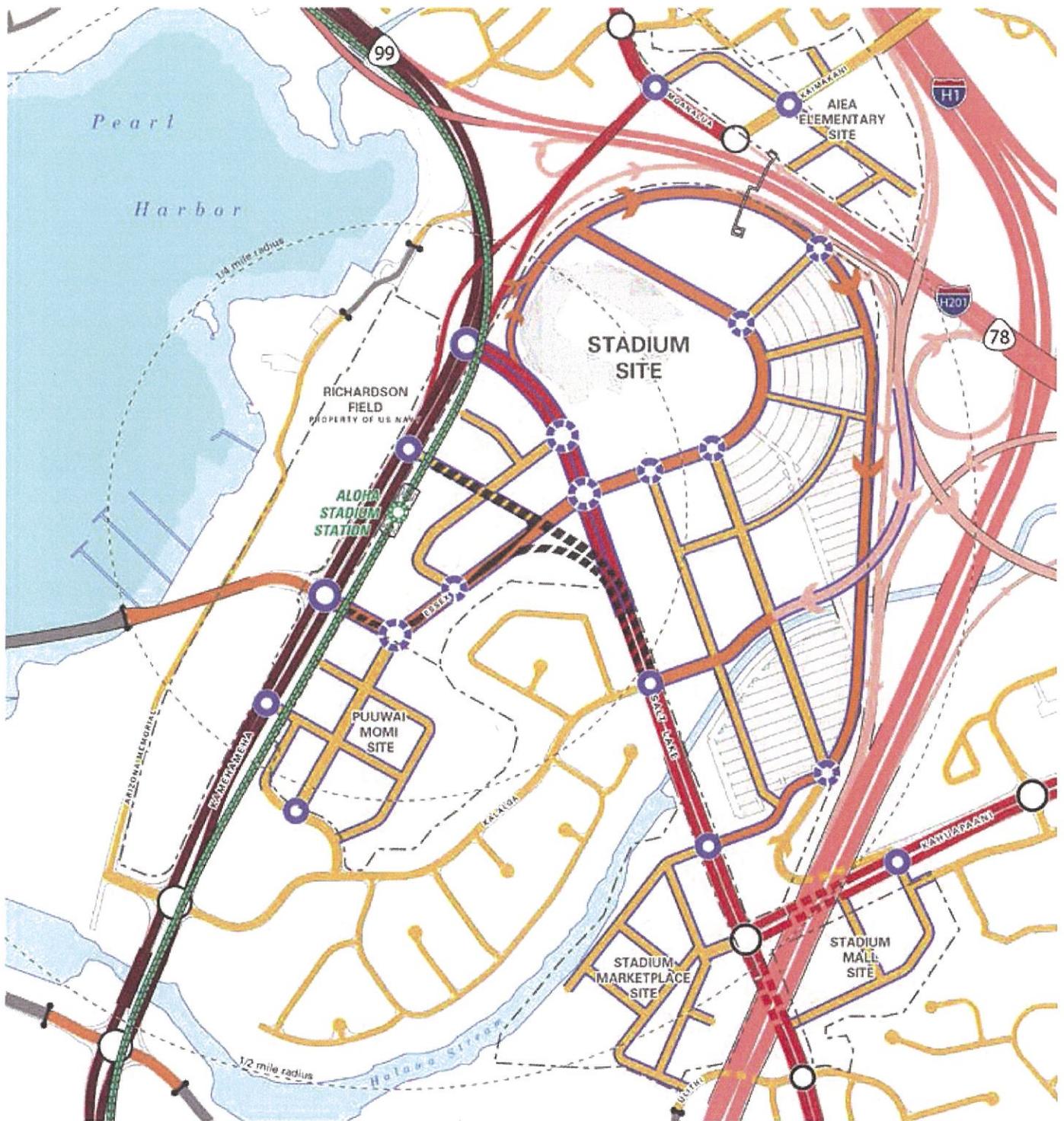


FIGURE 3-12: VEHICULAR CIRCULATION



- |  |                            |  |                                        |  |                            |
|--|----------------------------|--|----------------------------------------|--|----------------------------|
|  | Freeway (±6 lanes)         |  | Existing Salt Lake Boulevard Alignment |  | Development Sites          |
|  | Urban Arterial (±6 lanes)  |  | Existing Significant Intersection      |  | Aloha Stadium Rail Station |
|  | Urban Collector (±4 lanes) |  | Modified Significant Intersection      |  | Fixed Guideway             |
|  | Local Road (±2 lanes)      |  | New Significant Intersection           |  |                            |
|  | Restricted Road (±2 lanes) |  | Gate                                   |  |                            |
|  | Freeway Ramp (±2 lanes)    |  |                                        |  |                            |
|  | New Roads                  |  |                                        |  |                            |
|  | One Way Road               |  |                                        |  |                            |

### 3.3.4 PEDESTRIAN CONNECTIVITY

One of the community's most important goals is improving the quality and safety of the Halawa area's pedestrian realm. These improvements are crucial for short pedestrian trips, walks to school or employment, to amenities, and to improve the overall character of the neighborhood. Transit-oriented development presents great opportunities to improve conditions throughout the pedestrian realm. Strategies include:

- Provide a direct, high volume stadium-station connection that leads to the Aloha Stadium main entrance. (covered in greater detail in Section 3.3.6).
- Provide pedestrian and bicycle improvements throughout the area.
- Create new roads and small block sizes utilizing the principles of Complete Streets.
- Create paths through open spaces and adjacent to Halawa Stream.
- Create safer pedestrian connections to area schools, such as Aiea Elementary School.
- More direct access between new rail station and bridge over Moanalua freeway (H-201).
- Establish a consistent tree canopy along Kamehameha Highway, as well as other streets.
- Enhance pedestrian crossings of major streets with additional markings/signage and shorter crossing distances at intersections.
- Investigate a trail connection.
- Connectivity will be designed and approved according to the provisions in the City's Complete Streets Manual and other applicable standards and regulations.

The following pedestrian elements are recommended in the Halawa area and illustrated in Figure 3-13.

- **Stadium-Station Connection:** A high-volume, potentially partially elevated pedestrian path with wayfinding elements should connect Aloha Stadium Station to Aloha Stadium itself. Further explanation of this connection is located in Section 3.3.6.

- **Pearl Harbor Historic Trail:** May investigate a trail connection through Richardson Field in order to connect to the Pearl Harbor Historic Trail to the Pearl Harbor Visitor Center. However, any public access through Richardson Field is subject to U.S. Navy review and approval.
- **Complete Streets Improvements:** These improvements are necessary so that all modes of travel are accommodated on the road. The streets targeted for this treatment should include Kamehameha Highway, Salt Lake Boulevard and Kahuapaani Avenue as well as within the stadium site itself. Ample, ADA compliant sidewalks and enhanced amenities such as tree canopy, pedestrian-scale lighting, and furniture can accommodate pedestrian flows while enhancing commercial activity within mixed-use, multimodal arterials, and local streets. Permeable paving should be utilized to minimize storm water runoff. These improvements should be considered for all significant existing and new streets in the Halawa area.
- **Intersection Reconfiguration:** Through the reconfiguration of intersection geometry (such as reduced turning radii), intersections can experience improved pedestrian safety by decreasing vehicle speeds. Six new intersections should be considered primarily on Salt Lake Boulevard with existing and planned streets in the study area as well as the reconfigured Salt Lake Boulevard that intersects with Kamehameha Highway.
- **Elevated Pedestrian Crossings:** When reconfiguration is unable to provide pedestrian safety at the busiest intersections and above high capacity streets, grade separation may allow improved safety while maintaining high traffic flow. A new elevated crossing is recommended across Salt Lake Boulevard to connect the station to the stadium as well as a pedestrian path crossing Halawa Stream. An elevated crossing exists across Moanalua to connect the stadium site to the Aiea Elementary School District. In addition, an elevated crossing is recommended from the Station/Stadium area across Kamehameha Highway to better access the Pearl Harbor Visitor Center.

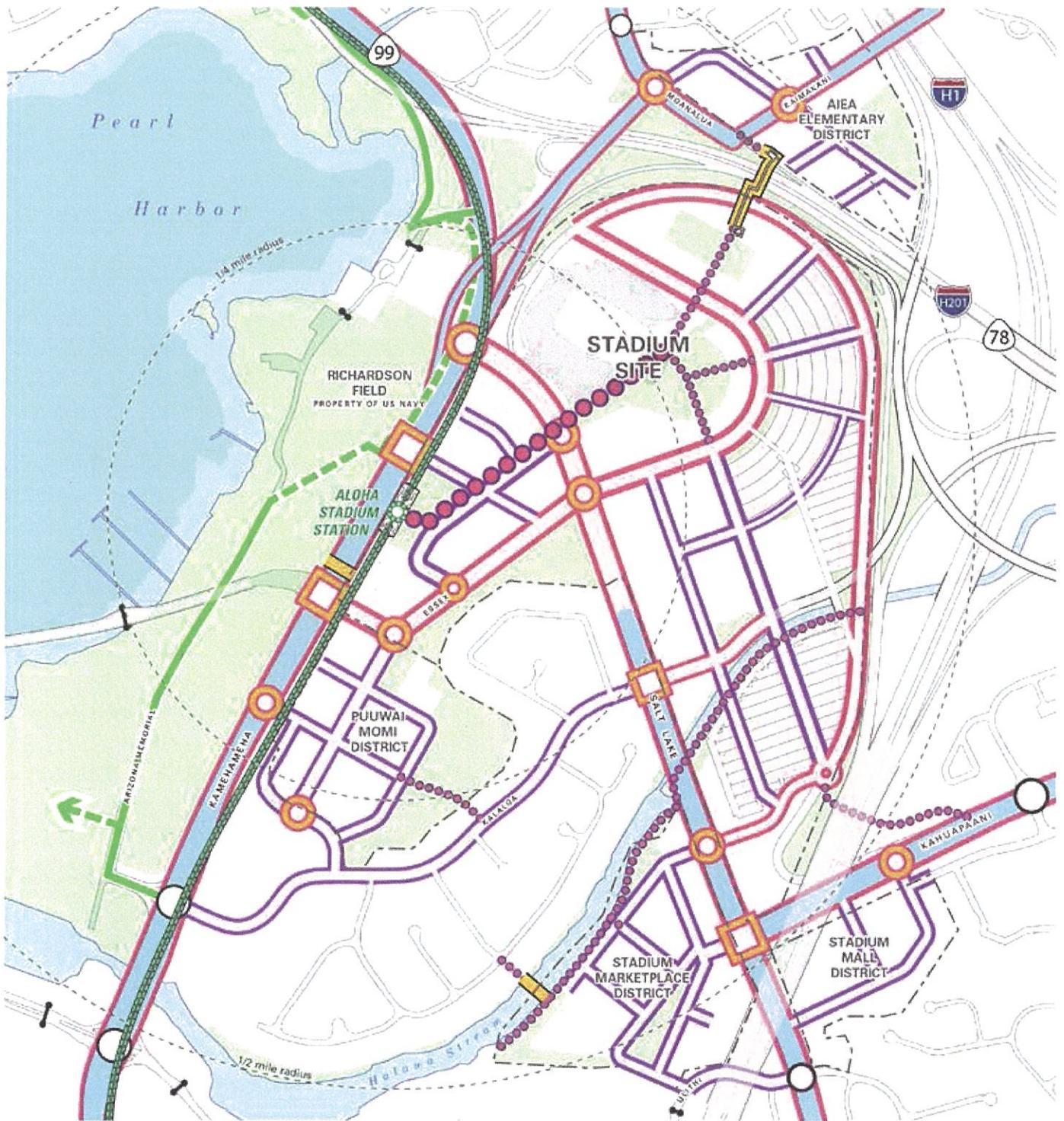
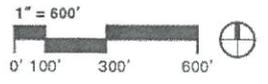


FIGURE 3-13: PEDESTRIAN CONNECTIVITY



- |  |                                                      |  |                                |
|--|------------------------------------------------------|--|--------------------------------|
|  | Stadium-Station Connection                           |  | Elevated Pedestrian Crossing   |
|  | Pearl Harbor Historic Trail                          |  | Pedestrian/Bicycle Path        |
|  | Arterial Streetscape Improvements                    |  | Intersection Reconfiguration   |
|  | New Arterial Streetscape (Complete Streets elements) |  | New Significant Intersection   |
|  | Other Streetscape (Complete Streets elements)        |  | Other Significant Intersection |
|  |                                                      |  | Parks & Open Space             |
|  |                                                      |  | Gate                           |
|  |                                                      |  | Development Sites              |
|  |                                                      |  | Ala Moana Center Rail Station  |
|  |                                                      |  | Fixed Guideway                 |

3.3.5 BICYCLE NETWORK

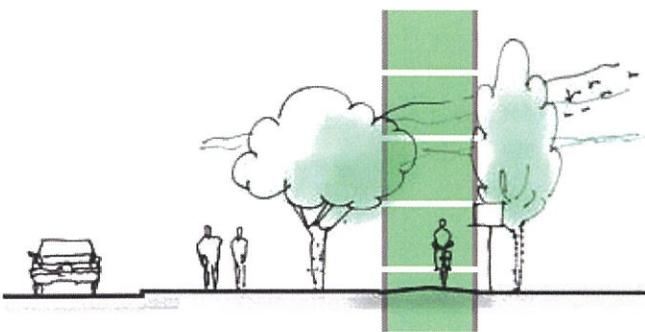
The bicycle infrastructure within the Halawa area is underdeveloped. According to the City’s Oahu Bike Plan, new bicycle lanes are planned for Kamehameha Highway and Salt Lake Boulevard.

As part of any Complete Streets design and construction, a more extensive bicycle network will eventually evolve throughout the area. This is intended to support the higher TOD densities and provide an additional form of mobility for residents, commuters, and those attending events at the events held in this neighborhood.

EXPANDED FACILITIES:

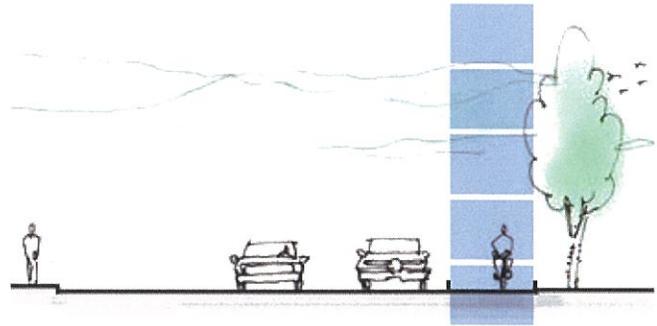
The Plan calls for expanding the bicycle network beyond the Oahu Bike Plan proposals in order to increase the number of bike-friendly streets. Figure 3-14 depicts a possible configuration of an expanded bicycle network. If Complete Streets concepts cannot be incorporated on every street or roadway within the Halawa area, the bicycle network can be expanded in other ways. These facilities could be paid for in part by the community benefits strategy. The facilities include:

- **Bike Path/Protected Lane:** Off-street or on-street facilities with physical separation from vehicular traffic is planned for the completion of the Pearl Harbor Historic Trail to the Pearl Harbor Visitor Center, the stadium-station connection, the Aiea Elementary School District and along Halawa Stream.



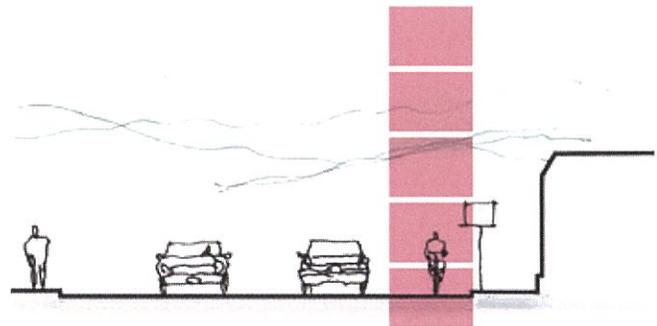
Bike Paths/Protected Lanes

- **Bike Lane:** On-street demarcation delineated by a white line, typically 5-6 feet wide with pavement stencils to signal bicycle use only are planned for Kalaloa, Kahuapaani and Kaimakani streets. Any new arterials or neighborhood connectors within the Plan area will likely be planned to have bike lanes.



Bike Lane

- **Neighborhood Bike Route:** On-street demarcation designating that the street is to be shared will generally be on neighborhood residential streets in the planning area.



Neighborhood Bike Route

It is intended that these new or existing bicycle facilities would be integrated into Complete Streets improvements. Refer to Section 3.2.8 for further discussion on Complete Streets.

BICYCLE PARKING/STORAGE FACILITIES:

Integral to supporting this expanded bicycle network are robust bicycle parking and storage facilities. A central facility is proposed adjacent to the rail station, and should include:

- Visible, well-signed bicycle parking and storage facilities/lockers at or near the rail station.
- Short-term bicycle parking facilities, such as a bicycle sharing station.

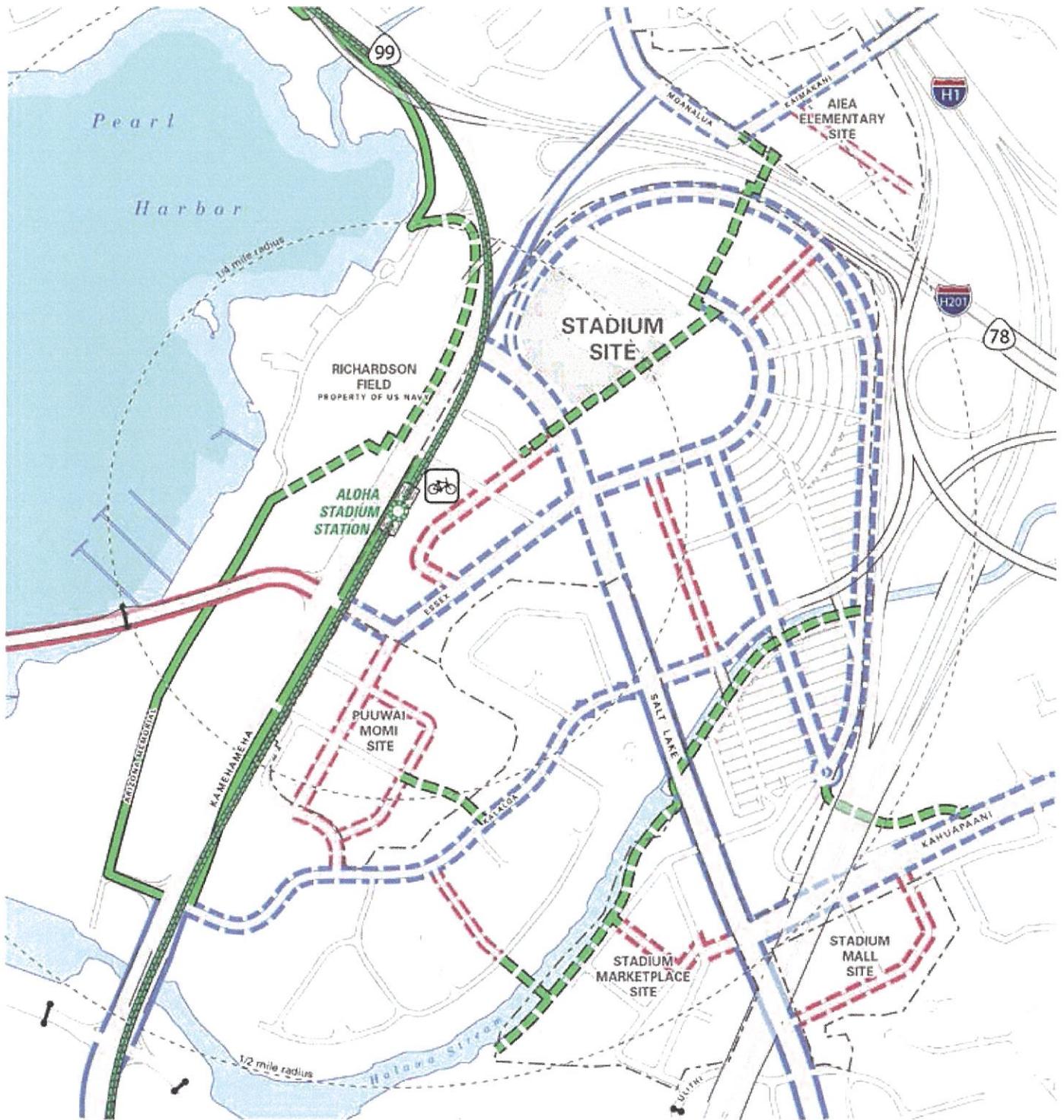
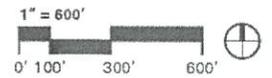


FIGURE 3-14: PROPOSED BICYCLE CIRCULATION



- |                            |                               |                                              |                            |
|----------------------------|-------------------------------|----------------------------------------------|----------------------------|
| <i>EXPANDED FACILITIES</i> |                               | <i>EXISTING OR OAHU BIKE PLAN FACILITIES</i> |                            |
|                            | Bike Path                     |                                              | Existing Path              |
|                            | Bike Lane (or Protected Lane) |                                              | Existing Lane              |
|                            | Neighborhood Bike Route       |                                              | Existing Route             |
|                            | Bike Storage Facility         |                                              | Development Sites          |
|                            |                               |                                              | Aloha Stadium Rail Station |
|                            |                               |                                              | Fixed Guideway             |

### 3.3.6 STADIUM-STATION CONNECTION

No matter what configuration the proposed mixed-use development may take within the stadium site, a clear path between the rail transit station and a renovated or reconstructed Aloha Stadium should exist.

Instead of being placed along arterials such as Kamehameha Highway and Salt Lake Boulevard, pedestrian activity passes from the station (as well as its accompanying transit plaza) through the center of an activated mixed-use core, providing opportunities for ground-floor retail, as shown in Figure 3-15. The path

crosses Salt Lake Boulevard (at an optional elevated crossing), terminating at the Gathering Place, the large multi-functional open space fronting the stadium entrance.

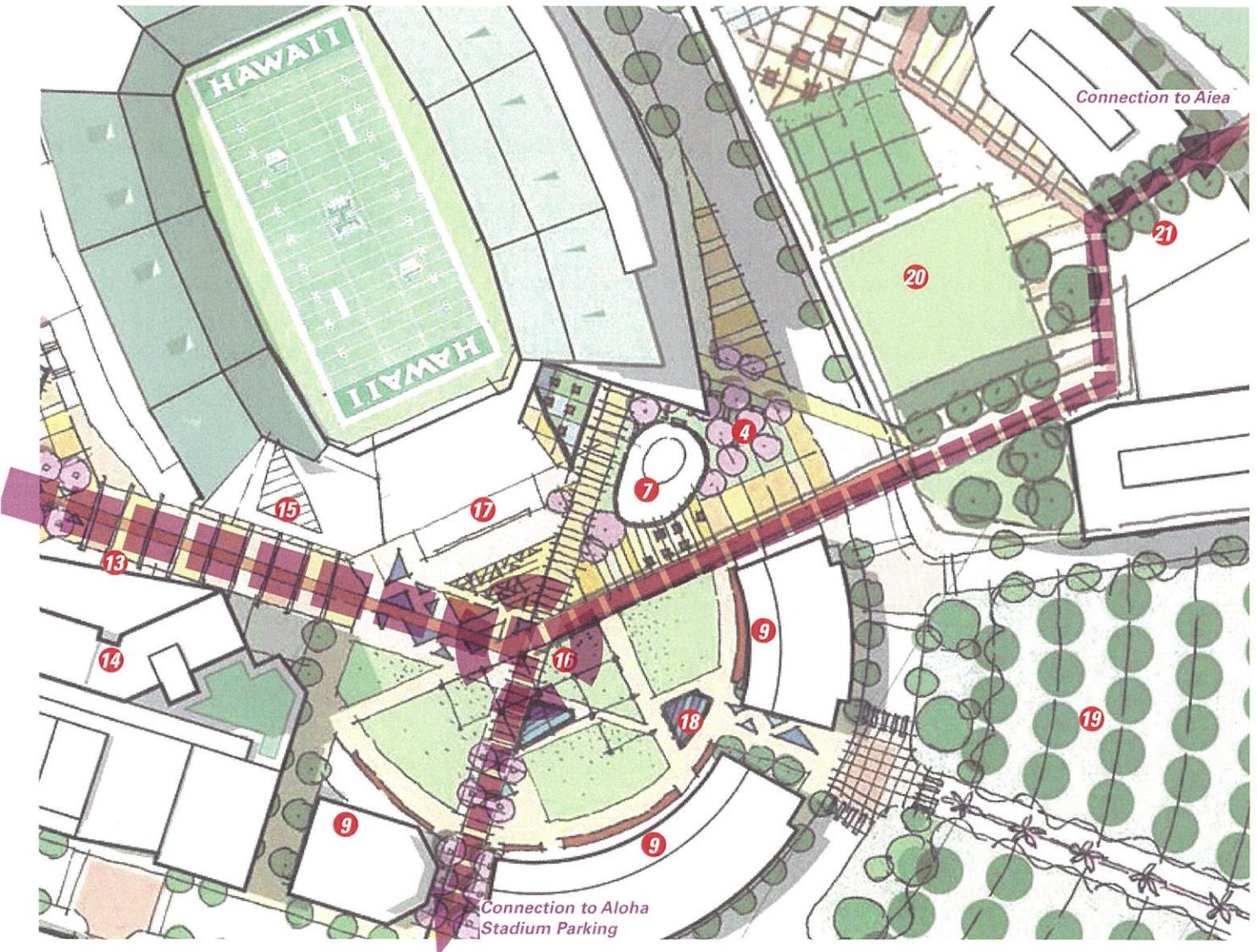
This stadium-station connection performs an additional task as the backbone of the entire pedestrian network in the Halawa area, providing links to area attractions, stadium parking, and neighborhoods.



FIGURE 3-15: STADIUM-STATION CONNECTION AND GATHERING PLACE

**KEY ELEMENTS:**

- 1 Aloha Stadium Station
- 2 Richardson Field
- 3 Station Park-and-Ride
- 4 Grove with Seating
- 5 Bus Transfer Station
- 6 Wayfinding Kiosk/Bicycle Station
- 7 Cafe with Outdoor Seating
- 8 Museum/Information Center
- 9 Retail/Restaurant Frontage
- 10 Pocket Park
- 11 Elevated Pedestrian Connection to Aloha Stadium Concourse (optional)
- 12 Events Kiosk
- 13 Paseo Connection
- 14 Hotel/Entertainment Venue
- 15 Aloha Stadium Entrance
- 16 Gathering Place
- 17 Scoreboard/Video Screen
- 18 Water Feature
- 19 Surface Parking Lot (Tailgating/Swap Meet Venue)
- 20 Athletic Field
- 21 Office Campus



3.3.7 COMPLETE STREETS

Complete Streets should balance vehicular travel with walking, biking and transit. Where possible, these concepts and related features should be incorporated in any new road design and on existing arterials and collectors when repaved.

*KAMEHAMEHA HIGHWAY*

Due to Navy requirements, Kamehameha Highway must retain its vehicular level of service. Complete Streets improvements can improve the quality of pedestrian and bicycle facilities.

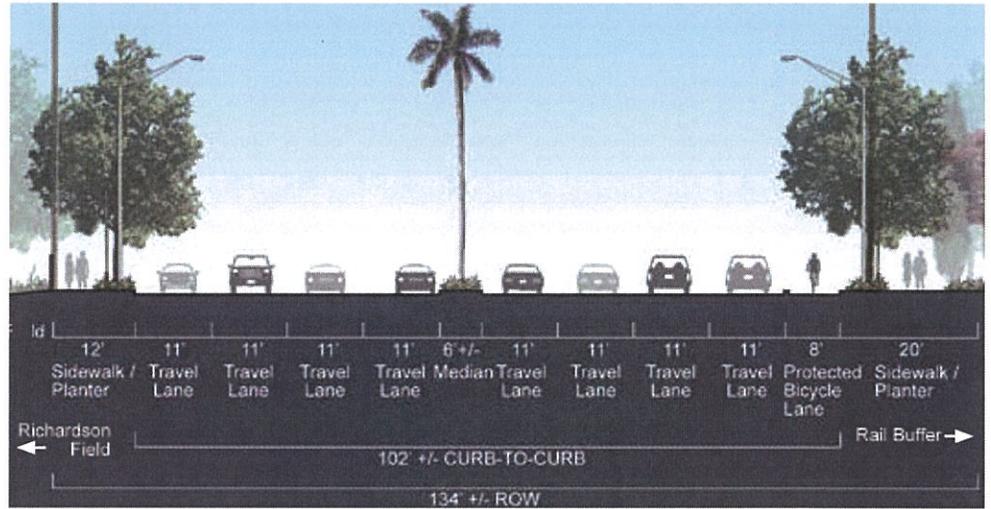


FIGURE 3-16: KAMEHAMEHA HWY - SECTION OF POTENTIAL ENHANCEMENTS



FIGURE 3-17: KAMEHAMEHA HWY (MAUKA VIEW) - TOD VISION

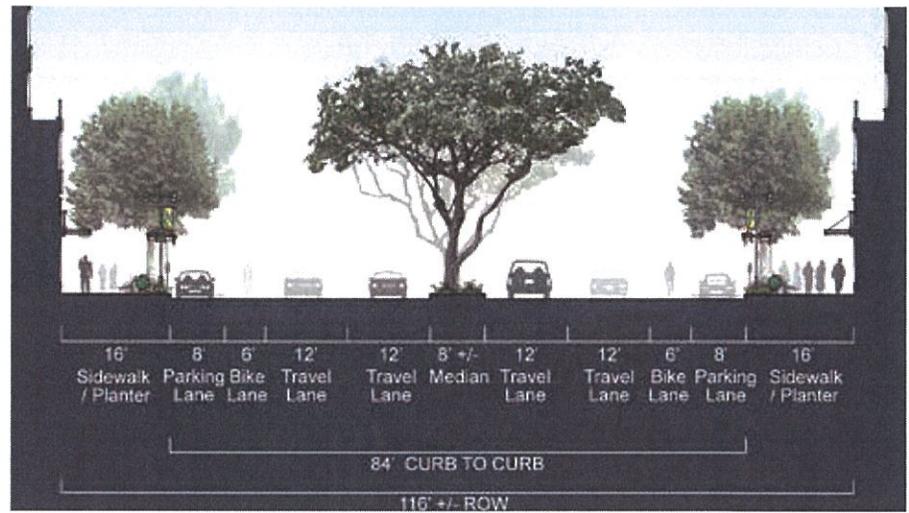


*Recommended Modifications Include:*

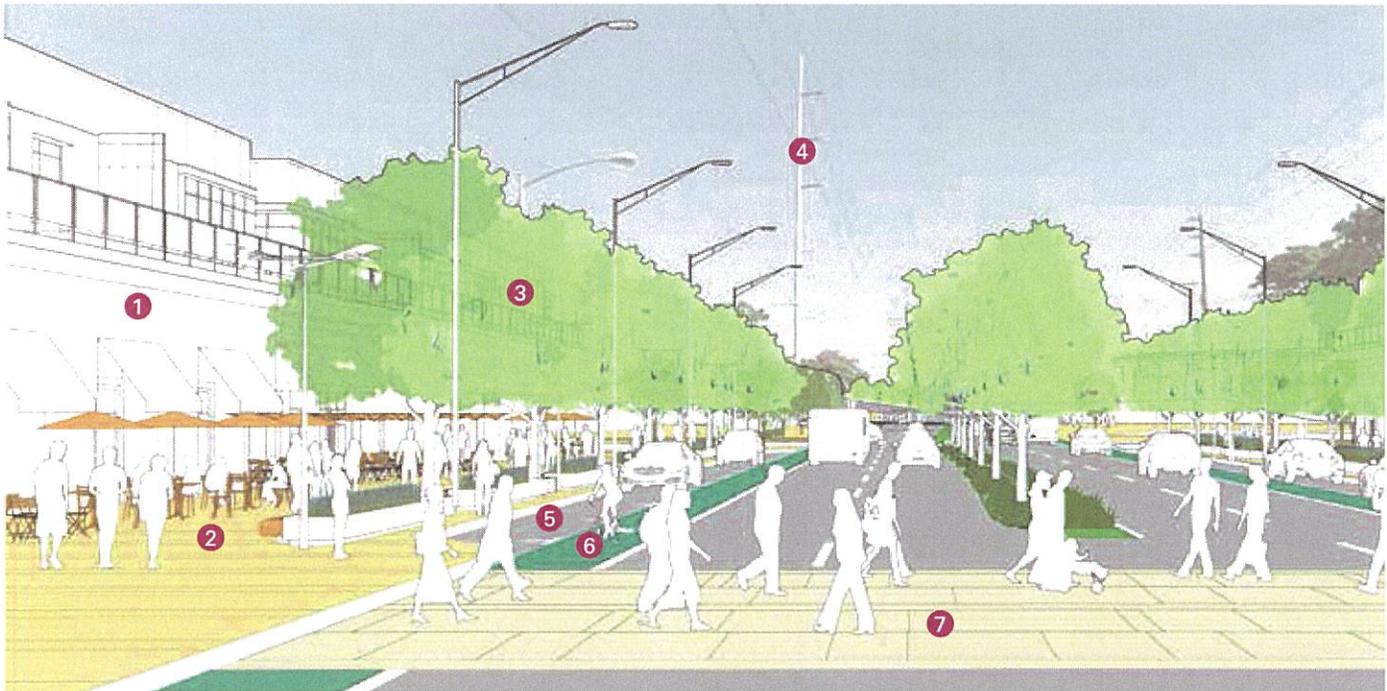
- 1 **Street Furniture:** Add trash cans, bus shelters, and wayfinding elements.
- 2 **Sidewalk:** Widen both sidewalks and add permeable paving.
- 3 **Screening:** add screening to buffer highway noise.
- 4 **Street Trees:** Provide trees for continuous shade.
- 5 **Planting:** Provide native plants in planting areas on both sides of street.
- 6 **Bicycle Facilities:** Create a dedicated, two-way protected cycle track.
- 7 **Travel Lanes:** Maintain all travel lanes.
- 8 **Rail Fixed Guideway**

**SALT LAKE BOULEVARD**

Salt Lake Boulevard passes ewa-diamond head through the center of the Halawa area. It holds much potential to serve as a mixed-use corridor, especially if development can take place on both sides of the street to form a consistent street frontage. Salt Lake Boulevard also may serve as a conduit for improved transit services in the long-term.



**FIGURE 3-18: SALT LAKE BLVD - SECTION OF POTENTIAL ENHANCEMENTS**



**FIGURE 3-19: SALT LAKE BLVD (EWA VIEW) - TOD VISION**

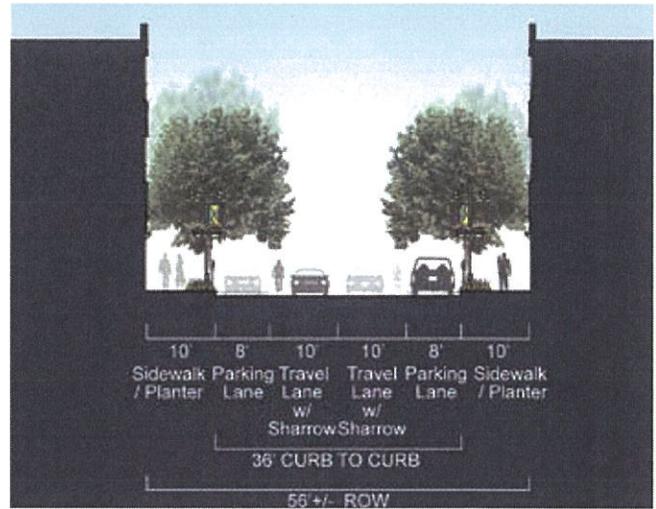


**Recommended Modifications Include:**

- 1 **Mixed-Use Development:** Residential and retail along Salt Lake can increase pedestrian activity.
- 2 **Sidewalk:** Widen both sidewalks and add permeable paving, to allow for outdoor dining.
- 3 **Street Trees:** Provide trees for continuous shade.
- 4 **Utilities:** Place underground if possible.
- 5 **Parallel Parking:** Provide parallel parking to buffer sidewalk from traffic.
- 6 **Bicycle Facilities:** Create dedicated bike lanes.
- 7 **Mid-Block Crossing:** Add mid-block crossing to facilitate pedestrian connectivity.

*RESIDENTIAL "GREEN" STREET*

A typical residential street within the TOD Plan area may provide the opportunity to introduce porous surfaces either in the form of paving or landscaped areas, mitigating storm water runoff to the ocean, as well as reducing the "heat island" effect. Sizeable rain gardens, tree canopies, planters, and permeable paving define this street typology.



**FIGURE 3-20: RESIDENTIAL STREET - SECTION OF POTENTIAL ENHANCEMENTS**



**FIGURE 3-21: TYPICAL RESIDENTIAL STREET - TOD VISION**

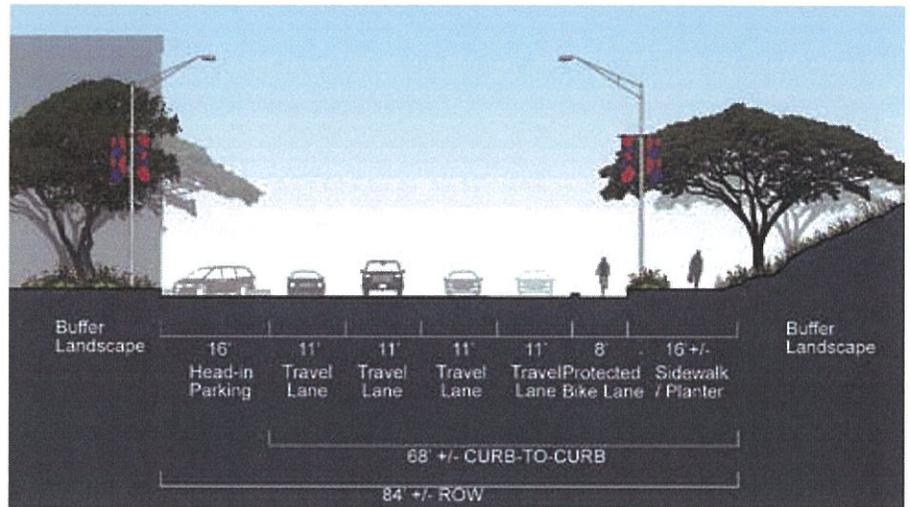


*Recommended Modifications Include:*

- 1 **Street Furniture:** Provide pedestrian-scaled lighting fixtures for added safety and appeal.
- 2 **Travel Lanes:** Provide sharrowed travel lanes
- 3 **Sidewalk:** Provide strips of permeable paving.
- 4 **Street Trees:** Achieve consistent planting of canopy trees to provide shade and comfort for pedestrians. Place trees within a planted trench to aid in stormwater capture.
- 5 **Crosswalk:** Provide special paving with pervious sections.
- 6 **Rain Garden:** Build setbacks to incorporate rain gardens where possible.

**STADIUM SITE RING ROAD**

The existing outer road along the stadium site may be modified to better facilitate stadium parking and to provide links to the nearby freeways. Bicycle and pedestrian facilities should be provided.



**FIGURE 3-22: STADIUM LOOP ROAD - SECTION OF POTENTIAL ENHANCEMENTS**



**FIGURE 3-23: STADIUM LOOP ROAD (EWA VIEW) - TOD VISION**



**Recommended Modifications Include:**

- 1 Travel Lanes:** Modify width of travel lanes to slow traffic and allow for bicycle facilities and wider sidewalks.
- 2 Crosswalk:** Provide special paving with pervious sections.
- 3 Stadium Parking:** Maintain portion of existing surface lot; provide permeable paving to reduce stormwater runoff.
- 4 Sidewalk:** Provide a sidewalk on the outer side and along areas with high pedestrian flows.
- 5 Street Trees:** Maintain existing Monkeypod trees if feasible, and add canopy trees where lacking.
- 6 Pedestrian Bridge:** Maintain existing pedestrian bridge over H-201, and provide increased public access.

3.3.8 PARKING STRATEGY

Parking is one of the most important issues in terms of balancing any potential development with the ongoing requirements of Aloha Stadium. Managing parking is a critical element of creating a walkable environment and encouraging multiple travel modes. In order to establish TOD in the Halawa area, the primacy of the automobile must be reduced. This shift can be assisted by:

- Establishing a shared parking strategy.
- Incorporation of a parking management program for Aloha Stadium.
- Reducing off-street parking requirements.
- Encouraging transit ridership.

*EXISTING PARKING CONDITIONS*

Currently, there are 7,476 surface parking spaces on the main Aloha Stadium parcel, down from a high of 7,916, due to the removal of spaces for construction of Aloha Stadium Station on the Kamehameha Highway parcel. With the completion of the rail station, 650 spaces on the parcel will be utilized for a park-and-ride.

During game days, Aloha Stadium utilizes an additional 1,600 off-site spaces at Radford High School and the former Kamehameha Drive-In. In addition, there are large parking lots for users of Stadium Mall and Stadium Marketplace.

*ALOHA STADIUM PARKING*

The State Department of Accounting and General Services (DAGS) and Aloha Stadium Authority calculate that the stadium requires approximately 8,000 parking spaces on the stadium site for any future stadium development. A parking management program would allow Aloha Stadium control of its dedicated spaces to support game-day capacity, as well as during non-game days and other events when overflow parking is necessary.

In the Plan, structured parking is provided to the east and south of the stadium, which will require parking management during events to minimize the conflicts between entering vehicles and pedestrians destined for the stadium entrance.

*SHARED PARKING*

Establishing a district-wide parking strategy can reduce the total amount of parking required, especially during days when Aloha Stadium is utilized. A unified parking strategy will also allow for better implementation of a “park once” strategy by reducing the number of vehicle trips needed to fulfill all desired activities in the area. During certain days where stadium capacity is full, it is possible that certain TOD requirements (such as retail and entertainment uses) could be shared with stadium requirements. It is assumed that approximately 2,000 flexible parking spaces could be shared between the mixed-use core and the stadium. Shared parking between specific land uses is already permitted in the City’s Land Use Ordinance.

*PARKING TYPOLOGIES AND LOCATIONS*

There are four parking typologies planned for the Halawa area: structured parking, parking podium, surface parking, and below-grade parking. Potential locations for these facilities in the Plan is depicted in Figure 3-24.



**Structured Parking**

- Single-use building
- Dedicated parking for home games and other large events

- **Structured Parking** will be a single-use building and dedicated for home games and other large events.



**Parking Podium**

- Structure is wrapped with retail, residential, or other uses
- Shared parking strategy

- **Parking Podium** is a structure that is wrapped with retail, residential or other uses. It is part of a shared parking strategy.

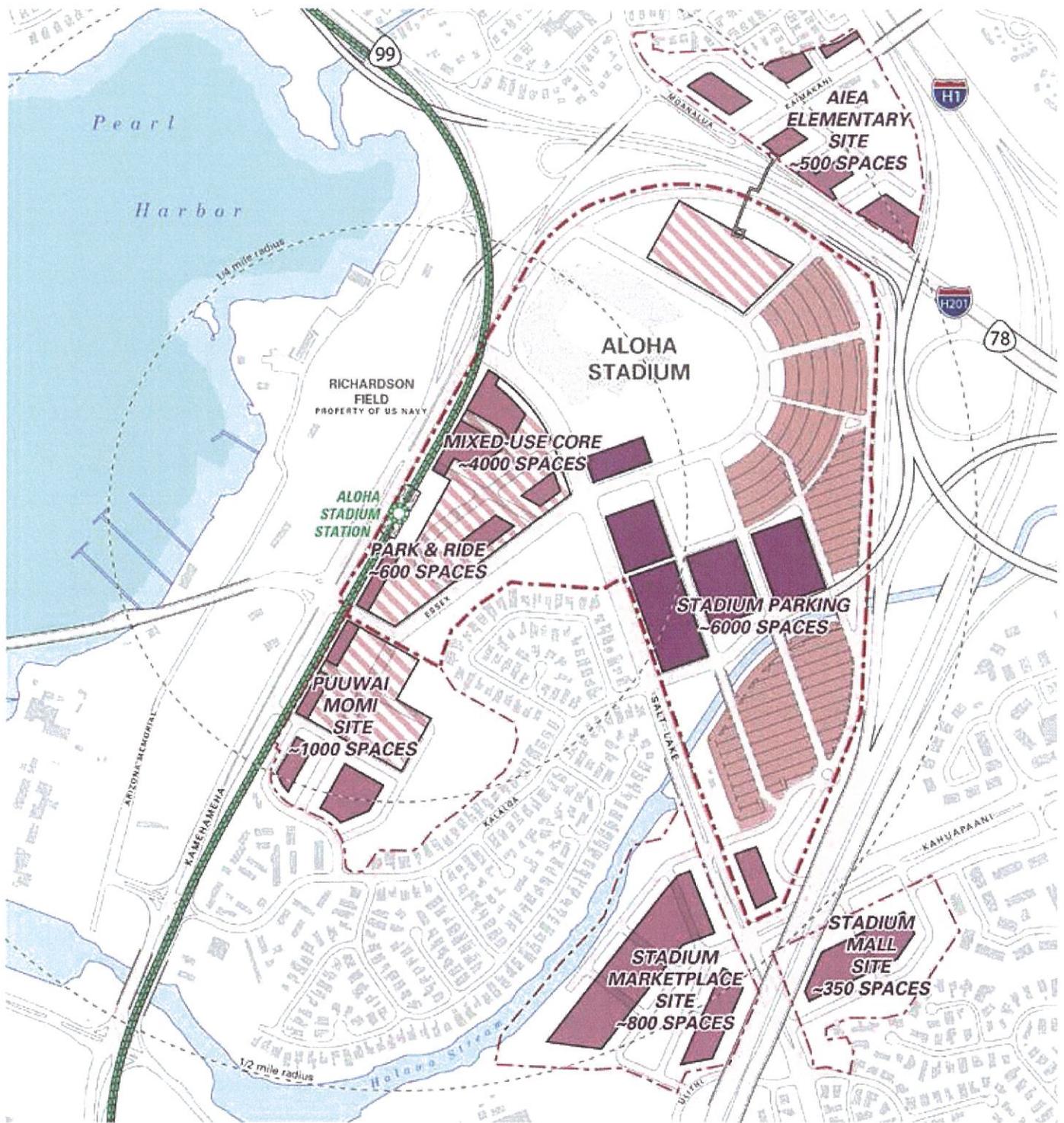
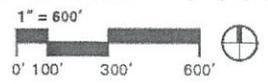
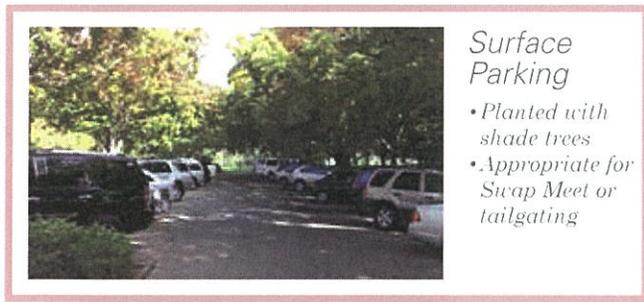


FIGURE 3-24: PROPOSED PARKING YIELDS AND TYPOLOGIES

- |                                                                                     |                     |                                                                                     |                            |
|-------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------|----------------------------|
|  | Structured Parking  |  | Stadium Site               |
|  | Podium Parking      |  | Other Development Sites    |
|  | Below-Grade Parking |  | Aloha Stadium Rail Station |
|  | Surface Parking     |  | Fixed Guideway             |





**Surface Parking**

- Planted with shade trees
- Appropriate for Swap Meet or tailgating

- **Surface Parking** is planted with shade trees and appropriate for non-game events on the stadium site such as the Swap Meet or for tailgating.



**Below-Grade Parking**

- Parking placed below regraded ground level
- Does not require significant excavation

- **Below-Grade Parking** as the name implies, is underground but can be near the surface of a regraded ground level. This would be best for the higher density developments near the rail station.

A fifth typology that is only slowly gaining popularity and acceptance is the mechanized storage of vehicles where the structure footprint is reduced. While this may reduce building size and costs, the increased capital in mechanization may be an early deterrent until at such time the costs become more feasible for this to be a viable option.

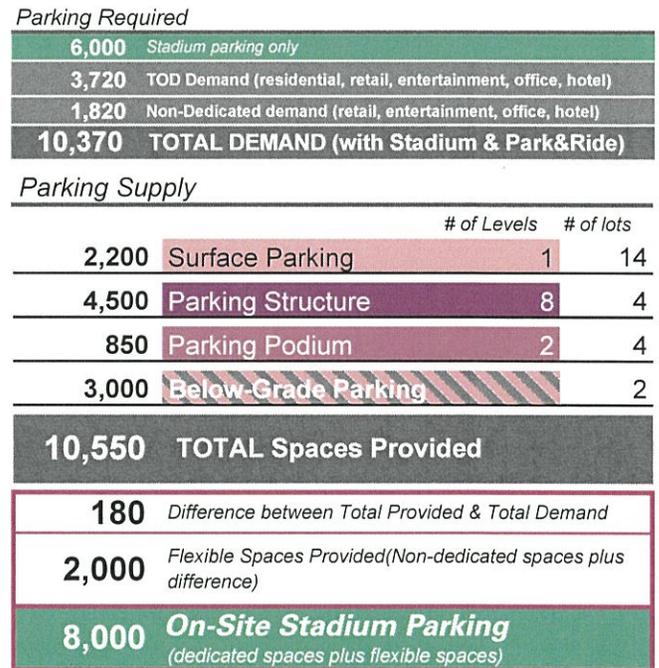
**PARKING ASSUMPTIONS:**

A further study of parking assumptions will need to take place in future development efforts. The City’s draft TOD Special District ordinance provides for significantly less parking requirements near transit stations. The following parking assumptions are provided for illustrative purposes.

- **Aloha Stadium:** Approximately 8,000 spaces required, 5000-6,000 spaces dedicated to stadium parking only.
- **Residential Parking:** 1 space per unit.
- **Retail/Restaurant:** 3 spaces per 1,000 square feet.
- **Cultural/Entertainment:** 3 spaces per 1,000 square feet.

- **Office/Institutional:** 2 spaces per 1,000 square feet.
- **Hotel:** 1 space per unit.
- **Park-and-Ride:** 650 dedicated spaces.

Figure 3-25 analyzes parking requirements and categorizes supply based on typical parking typologies. It also provides estimates for flexible spaces and a total amount of on-site stadium parking.



**FIGURE 3-25: CONCEPTUAL PARKING YIELDS**

**OTHER DEVELOPMENT SITES**

For the other development sites considered within the Halawa Area TOD Plan, they could also be considered for flexible spaces or overflow parking during stadium events.

## 3.4 OPEN SPACE

### 3.4.1 CONCEPT

At first glance, the Halawa area may appear to be well served by community parks and other recreational facilities. However, this assumption does not take into account that public access is restricted to certain open spaces, and the lack of connectivity in the Halawa area, makes travel to neighborhood parks difficult. With higher development intensities proposed when transit-oriented development (TOD) is implemented, such obstacles should be remedied.

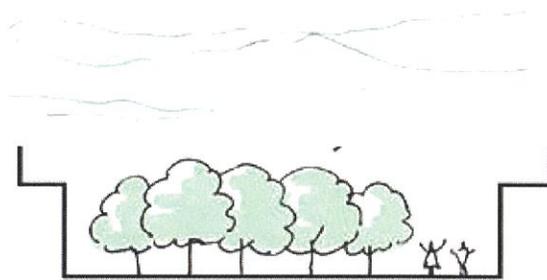
Therefore, a network of high-quality open spaces that cater to residents, tourists, and transit riders is recommended. This system should:

- Accommodate a range of activities through a diversity of open spaces, including active and passive recreation.
- Contribute to making the Halawa area an attractive place to live and a destination for locals and visitors.
- If possible native and Polynesian-introduced flora in all landscape planting should be used.
- Contribute to green solutions to storm water management.

The implementation of TOD will bring about improvements in the open space network. Those open space improvements in the public realm could be provided with development or funded in part by community benefits fees paid by developers. These improvements should also tie in to the improved connectivity, especially in concert with facilities that are located off-street in existing open spaces. What follows is an expansion on these themes with specific recommendations to enhance the experience in the open spaces throughout the Halawa area.

### 3.4.2 OPEN SPACE NETWORK

A comprehensive open space network is shown in Figure 3-26. These open spaces can be further divided into 1) public open space (public ownership), 2) semi public open space, (private ownership but publicly accessible), and private open space. The following new and improved open spaces are recommended:



#### *PUBLIC OPEN SPACE*

In the context of TOD, public open spaces in the Halawa area include existing parcels that are zoned or are currently utilized as open spaces, portions of the public right of way, and proposed spaces. These spaces include:

- **Existing Park Improvements:** There is only one public park within the TOD Plan area. Located within the Puuwai Momi district, the City-owned Makalapa Neighborhood Park suffers from underutilization and lack of recreational amenities. This could be because access is limited and the park is remote from the rest of the community. Creating better connections may prove difficult since alternate paths require going through the adjacent residential neighborhood. Consideration for improving connections and amenities could be part of the project when the Puuwai Momi complex is redeveloped.
- **Halawa Stream Buffer:** With the introduction of TOD, existing natural resources have the opportunity to be activated and reprogrammed into publicly accessible spaces. The Halawa Stream has the opportunity to be a valued community asset. Through landscape rehabilitation, clean-up, and new pedestrian trails alongside it, the stream can become a crucial part of the open space network, and further public improvements to the stream could eventually allow an alternate, natural connection to Pearl Harbor, as well as the Pearl Harbor Historic Trail.
- **Aloha Stadium Station Plaza:** A hardscaped open space is recommended on the diamond head side of the future Aloha Stadium Station. This space could serve as part of the “front door” gathering experience to the Halawa area when riders get off at the rail station with possible bus and shuttle transfers, a central bicycle sharing/storage facility, and the park-and-ride. The space could also be programmed to serve as a secondary gathering and events plaza. Supporting uses planned for the plaza could include



*A hard-scaped plaza as a "front door" gathering space to Halawa area*

an information center, a venue for cultural points of interest, and public art. With adequate wayfinding to the other attractions, points of interest, and community assets, this plaza will be the gateway to the Halawa area.

- **Stadium-Station Connection:** Should an elevated pedestrian corridor connecting Aloha Stadium Station to Aloha Stadium, it could make for a memorable pedestrian experience as visitors enjoy panoramic and iconic views from this elevated platform. In this way, it too can be a celebrated public open space.
- **Pocket Park (Public):** Pocket parks as small, open spaces within the urban environment can be created through the redevelopment of underutilized parcels or buffer spaces. New public pocket parks in the Halawa area may include utilization of empty spaces or irregularly shaped remnants of parcels unsuitable for development. The parcels identified as a public pocket parks in Figure 3-26 include the remnant parcels on the diamond head side of the Mixed-Use Core sub-district, a remnant piece of road right-of-way and under the H-1 overpass diamond head of the Salt Lake Boulevard/Kahuapaani Street intersection. As public open spaces, these planned pocket parks can serve as a welcome respite from the built environment offering rest, comfort and an opportunity for social interaction if the appropriate amenities, such as benches and shade trees are provided.
- **Aiea Cemetery:** Located within the H-201/Kamehameha Highway interchange, this cemetery represents a potential historic asset of early 20th century Japanese immigration possibly eligible for



*Halawa Stream may be utilized as a public amenity*

state or national historic recognition. Cut-off and isolated because of the high speed highway corridors surrounding it, it is underutilized as a resource and limits interaction and appreciation of its legacy. This plan recommends better accessibility but without an elevated pedestrian overpass and nearby parking, it may be difficult to convince DOT officials to intentionally slow vehicular speeds on such busy roadways and on-/off-ramps.

- **Complete Streets Improvements:** Many of the area's major roadways lack unified planting of street trees. As their sidewalks are the primary right-of-way for pedestrians, street trees are an important component for shade. Care should be taken in the selection of street trees for a non-aggressive root system, and with a reasonable height and canopy spread.
- **Pearl Harbor Historic Trail:** The path following the former historic Oahu Rail and Land (OR&L) right-of-way along the Pearl Harbor shoreline from the Admirals Boathouse through the Pearl City-Waipahu area is a tremendous asset for the area. Staging areas or trailheads in the vicinity of the rail station would allow trail users to access this tremendous open space resource. A demonstration project is planned to improve and showcase a nearby segment of the trail. The State of Hawaii has plans to extend the trail beyond Waipio Point Access Road to the Hawaii Railway Society Station in Ewa. Phase 2 of this plan, takes the trail out to Nanakuli.

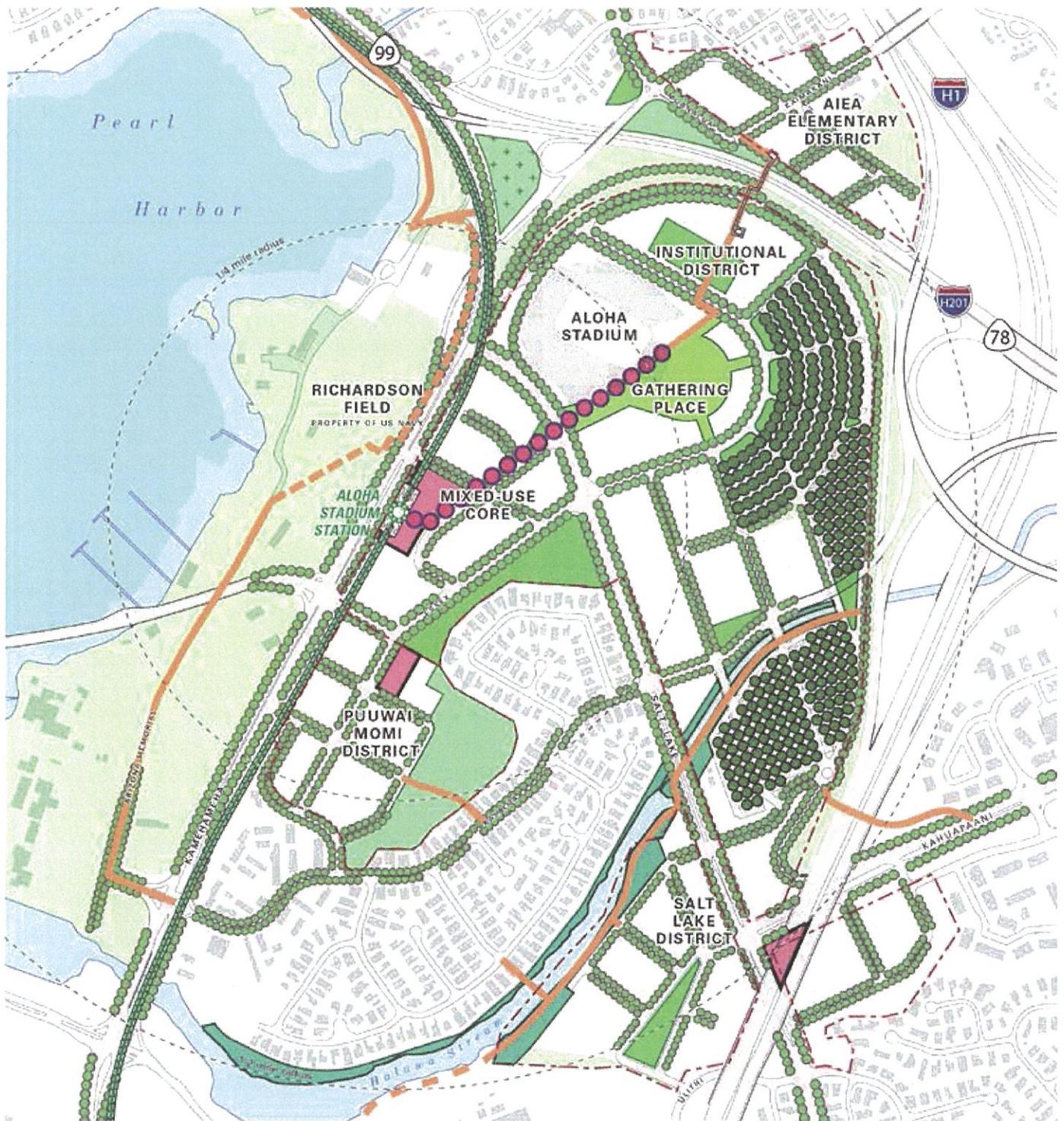
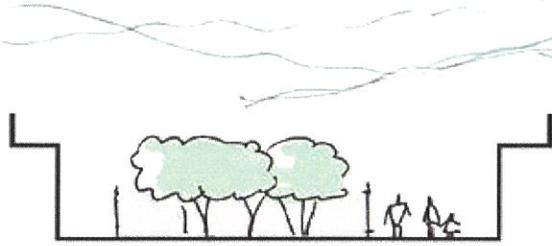


FIGURE 3-26: PROPOSED OPEN SPACE NETWORK (PUBLIC AND SEMI-PUBLIC SPACES)

- |                                                                                     |                           |                                                                                     |                            |                                                                                     |                          |                                                                                       |                            |                                                                                       |                              |                                                                                       |                   |
|-------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|-------------------|
|  | Gathering Place           |  | Stadium-Station Connection |  | Pedestrian/Bicycle Path  |    | Monkeypod Orchard          |    | Complete Street Improvements |  | Development Sites |
|  | Pocket Park               |  | Aiea Cemetary              |  | Buffer/Other Open Spaces |  | Aloha Stadium Rail Station |  | Fixed Guideway               |                                                                                       |                   |
|  | Existing Park Improvement |                                                                                     |                            |                                                                                     |                          |                                                                                       |                            |                                                                                       |                              |                                                                                       |                   |
|  | Halawa Stream Buffer      |                                                                                     |                            |                                                                                     |                          |                                                                                       |                            |                                                                                       |                              |                                                                                       |                   |
|  | Hardscaped Plaza          |                                                                                     |                            |                                                                                     |                          |                                                                                       |                            |                                                                                       |                              |                                                                                       |                   |



### SEMI-PUBLIC OPEN SPACE

Beyond publicly owned urban parks and public rights of way, TOD development can provide open spaces in the areas that are privately owned but where the public may have some access to it. It is important to ensure that while ownership may be private, it is intended to be made available for public enjoyment.

- **Gathering Place:** The community has expressed an interest in a large, urban open space where people can gather for social and cultural events throughout the year. This is sited at the entrance to a re-configured Aloha Stadium serving as a reception area and spirit-filled gathering place for any stadium event.
- **Aloha Stadium Parking Lot:** One of the greatest existing features of the stadium site parking lot is its many mature Monkeypod trees with wide canopies. The parking lot serves as the primary venue for the Aloha Stadium Swap Meet and Marketplace. The Plan preserves a portion of the radial parking lot, and encourages that other surface parking areas be planted with transplanted Monkeypod trees.
- **Pocket Park (Semi-public):** Within the development sites, pocket parks may be provided as part of the community benefits strategy. These may be realized as smaller passive landscaped (mauka side of Halawa

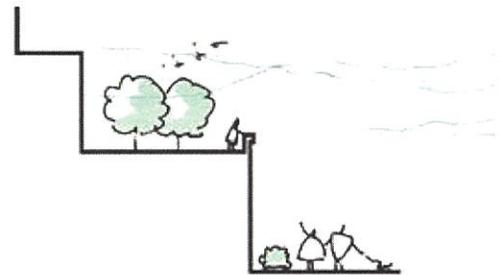
Stream within the stadium site) or hardscaped open spaces, or larger spaces (within the Salt Lake District) that could include some degree of event or recreational programming.

- **Pedestrian Passage:** Plazas or walkways for strolling, often known as “Paseos”, can be created by including setbacks that operate as an extension of the sidewalk, connecting between buildings, streets, or blocks.

### PRIVATE OPEN SPACE

Private open spaces are typically privately accessible and privately owned. These spaces include:

- **Amenity Decks:** These spaces are typically on terraces on building roofs and parking garages that occupants can utilize for recreation or private gatherings.



- **Courtyards and Lawns:** These ground-level spaces are provided for the private enjoyment of residents, hotel guests, or tenants.
- **Wide Sidewalks:** These may encroach onto privately owned space, especially along arterial streets. However, these spaces provide additional amenities such as green space or outdoor dining.

*SPECIAL OPEN SPACES*

Some public open spaces may reveal themselves in buffer areas, underutilized infrastructure, landscape buffers, or median strips, creating interesting and unique places for recreation and enjoyment. One example, as depicted in Figure 3-27, depicts an active open space being created at the H-1 underpass.



**FIGURE 3-27: FREEWAY UNDERPASS PARK**



*Recommended Modifications Include:*

- 1 **Public Access:** Provide public access to freeway underpass from arterial sidewalks.
- 2 **Active Open Space:** Provide features for recreation and enjoyment.
- 3 **Kiosk:** Provide a pavilion with convenience retail.
- 4 **Outdoor Seating:** Provide seating under umbrellas or in shaded spaces.
- 5 **Urban Farming:** Provide plots for farming or storm water capture beneath H-1.
- 6 **Paving:** Provide sections of permeable paving.
- 7 **Street Trees:** Provide trees for continuous shade.
- 8 **Existing H-1 Overpass**



*View along Salt Lake Boulevard towards Lower Aiea showing Stadium Mall and Marketplace development in foreground and Mixed-Use Core beyond.*

# 4. TOD ZONING

*Amendments to the existing zoning code on land use, building envelope standards, parking, and amenity space will ensure new development in the Halawa area is transit-oriented.*

## 4.1 HALAWA AREA SPECIAL DISTRICT

*Note: Recommendations proposed in this chapter are contingent on removal of the stadium site's deed restriction, and are subject to further analysis and discussions with major property owners.*

This chapter provides recommended strategies for implementation of the Plan. The Plan identifies opportunities for new development, orderly growth, and improved accessibility around the Aloha Stadium rail station. The recommendations are based on the underlying vision, principles, and long-term guidance for the station area.

### 4.1.1 TOD SPECIAL DISTRICTS

Following adoption of the Plan by the Honolulu City Council, the Plan recommendations will be translated into new ordinances and other implementing actions, including zone changes and the designation of a TOD Special District overlay. Coordination on the exact zoning changes once a master plan for the Stadium and immediate surroundings is approved by the State will be optimal since the State is the largest landowner in the area.

Land Use Ordinance (LUO) Section 21-9.20 explains that the purpose of a special district is "to provide a means by which certain areas in the community in need of restoration, preservation, redevelopment or rejuvenation may be designated as special districts to guide development to protect and/or enhance the physical and visual aspects of an area for the benefit of the community as a whole."

The TOD Special District would be similar to other special districts in Honolulu (e.g., Chinatown Special District, Waikiki Special District), but would be subject to TOD-specific development regulations and standards that primarily focus on building and site layout. The overall intent of the TOD Special District is to incentivize and encourage development that helps to realize the community vision, according to each neighborhood TOD plan.

#### APPLICABILITY

The TOD Special District regulations are designed to supplement or modify the underlying zoning district. Property owners would be required to follow the TOD Special District regulations to develop their property. Applicable properties will still be required to adhere to various permitted and conditional uses, as well as certain specified densities, building heights, yards (setbacks), and parking requirements. Public uses on State land such as the stadium site property may be exempted but it is assumed that private development on State lands will be subject to City zoning and building regulations. By the time redevelopment of the stadium site is underway, the standards and guidelines of the Halawa Area TOD Special District should be established in the LUO. Incentives would also be offered as part of the TOD Special District regulations. For example, higher building densities may be offered in exchange for providing community benefits. Larger projects located within the TOD Special District would be subject to a more detailed permit review process.

Coordination on the exact zoning changes once a master plan for the Stadium and immediate surroundings is approved by the State will be optimal since the State is the largest landowner in the area.

#### 4.1.2 DISTRICT BOUNDARIES

In the Plan, the TOD zone reflects the area where the TOD Special District regulations will apply. Figure 4-1, shows the delineation of the TOD zone for Aloha Stadium rail station area and surrounding potential development sites. Most of the TOD zones are within ½-mile (10- to 20-minute walk). However, these areas are adjusted based on natural and man-made barriers as well as TOD potential.

The area within ¼-mile of each station has the greatest potential for development to support transit and take advantage of the increased foot traffic through the area. Naturally, the stadium site and Puuwai Momi are the two largest State-owned properties within ¼-mile of the station and represent the greatest potential for change. The JBPHH's (Navy's) Richardson Field represents the largest federally-owned holding within a ¼ mile but due to the lack of City jurisdiction to control development at this time, it is not included in the Special District. That portion of the Halawa Valley Estates residential subdivision is not included in the TOD Special District.

As mentioned, the TOD Special District is skewed mauka because the Navy owns Richardson Field on the makai side of Kamehameha Highway. These federally owned lands are not subject to City or State land use controls-land use is at the discretion of the federal government. In deference to their wishes expressed in previous comments, they would prefer not to have Richardson Field included at this time in any future land use scenario. However, off-base JBPHH-owned land north of Moanalua at the Aiea Elementary Site is included in the TOD zone because of proximity to the Aloha Stadium Station, its development potential, and the possibility that the federal government could sell or lease its property to private development partners. While the City currently has no zoning authority over this property, the Plan identifies the land uses, building heights, and densities that would be most compatible near the future rail station.

At either end of the TOD Special District, the emphasis is placed on creating livable residential areas offering a range of in-town housing choices served by locally oriented community amenities and services and supported by a generous array of connectivity and open space amenities. This includes the retail centers of Stadium Marketplace and Stadium Mall at the southern end and the Aiea Elementary School and other nearby properties at the northern end.

#### 4.1.3 LAND USES

In general, the intent of TOD is to encourage a mix of uses within ¼- to ½-mile of the rail stations. The state-owned stadium site and Puuwai Momi site represent the two largest parcels within these spheres that are the likeliest candidates for high-density, compact development with housing, retail, entertainment, hotel, and office activities leveraged by the public investment in the coming of rail transit, a possible new stadium, and public funding to build more housing in the area. A vibrant neighborhood "town center" featuring increased density and a more diverse mix of land uses supported by these public amenities will attract and serve the local population and the large numbers of workers and visitors that pass through the Halawa area and nearby Pearl Harbor Visitor Center.

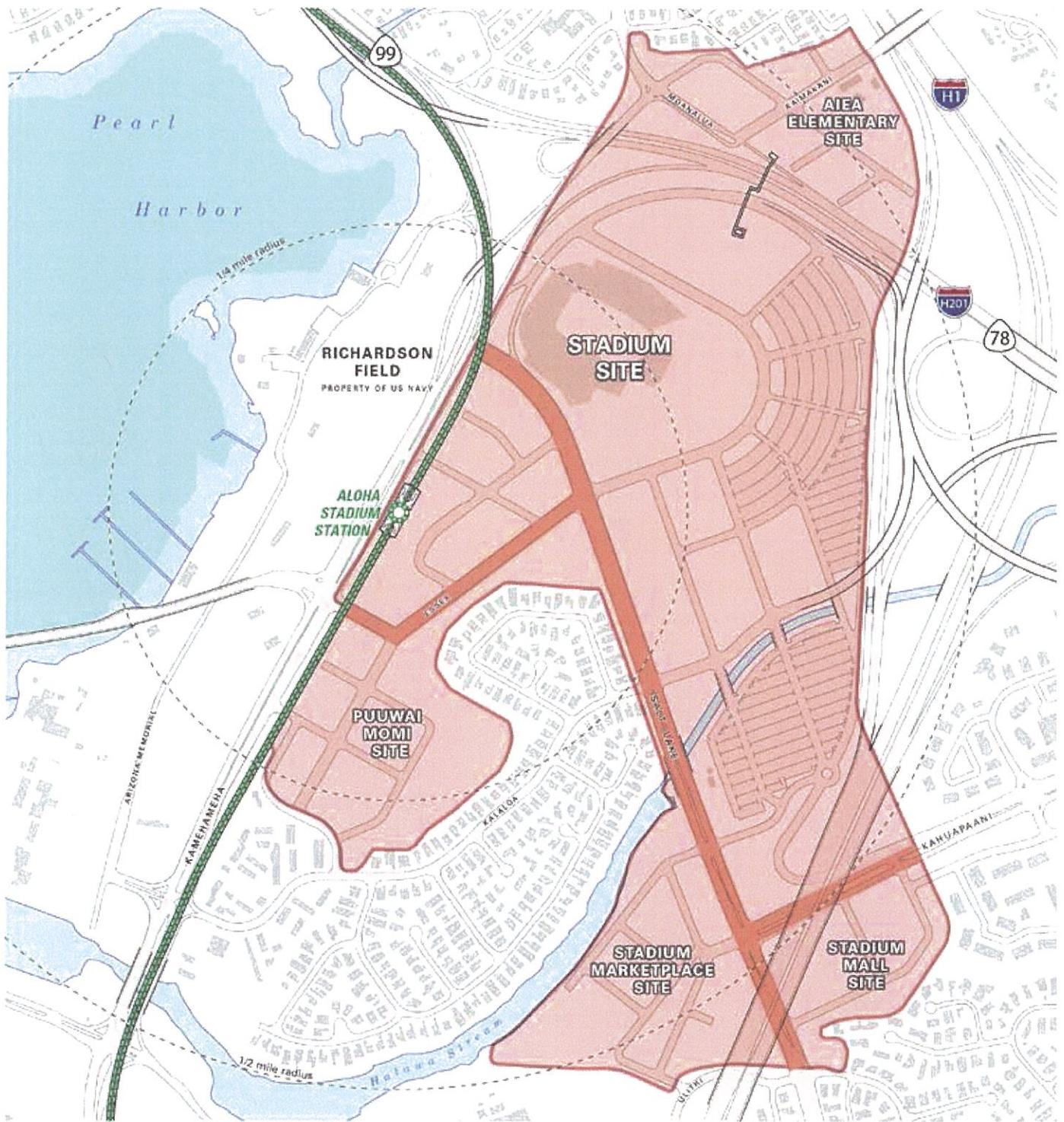


FIGURE 4-1: PROPOSED TOD SPECIAL DISTRICT

- TOD Special District Boundaries
- Key Street
- Aloha Stadium Rail Station
- Fixed Guideway



## 4.2 ZONING DISTRICTS

### 4.2.1 INTENT

The Halawa area currently features a balance of commercial, residential, and military uses, which are supported by an array of civic institutions, attractions that have local and national importance, community facilities, and open space. Existing designations continue to encourage low-density, suburban, auto-oriented uses. With the introduction of transit-oriented development in the Halawa area, zoning through a TOD Special District can both regulate and coordinate development around the Aloha Stadium Station and allow a higher density, complementary mix of uses to support a diverse urban community. The new TOD Special District would aim to:

- Create increased density and diversity of residential land uses near the rail station.
- Introduce additional supporting uses such as cultural and entertainment, in conjunction with a new Aloha Stadium.
- Discourage lower density uses adjacent to transit to maximize the "value capture" strategy.

### 4.2.2 ZONING DESIGNATIONS

Zoning districts specify the types of land uses allowed on specific properties. TOD projects will be reviewed for conformity with the underlying zoning, in addition to the TOD Special District regulations. The land use designations for the TOD zone, as proposed in this Plan, have been translated to the recommended land uses in this Plan. Figure 4-2 identifies the recommended zoning designations for the Halawa area. The changes primarily aim to increase density, expand the number of uses, and provide flexibility to developers on the large development parcels.

The primary change involves introducing the high-density, Community Business Mixed-Use (**BMX-3**) zoning designation to the stadium site, replacing the existing R-5 residential designation. Other modifications include:

- **BMX-3 Community Business Mixed-Use Designation** is proposed for the Stadium Mall (currently B-2 Community Business) and Stadium Marketplace (currently B-1 Neighborhood Business) sites, maintaining the ongoing viability of the existing retail uses, while providing longer term opportunities for incorporating housing in a medium- to high-intensity mix of uses.
- **BMX-3 Designation** is also proposed for the mauka end of the Puuwai Momi District (currently A-2 Medium Density Apartment), to transition commercial uses to the stadium site.
- **AMX-3 High Density Apartment Mixed-Use Designation** proposed for the majority of the Puuwai Momi District (currently A-2 Medium Density Apartment), to allow for predominantly high-density residential development.
- **AMX-2 Medium Density Apartment Mixed-Use Designation** is proposed for the Aiea Elementary School District (currently R-5 Residential and F-1 Federal and Military Preservation), to reflect its transit-influenced potential.
- **P-2 General Preservation Designation** is proposed for areas along Halawa Stream, as well as to provide a buffer between low-density and high-density development along Essex Street (currently R-5 Residential).

Re-designations beyond the four development sites are not recommended, in order to maintain the long-term residential character, as well as the military land uses.

### 4.2.3 PERMITTED USES

The State of Hawaii is the largest land owner in the TOD area and may pursue different land use configurations and strategies to maximize the value of their holdings or to address a number of other state-wide needs. As the owner, they have the ultimate say in how they use their lands to fit these needs. But as this Plan has shown, transforming the area into this walkable, urban environment given its regional accessibility and visibility should be pursued.

Zoning should allow for the range of sports-related activities to complement the stadium, such as training fields and facilities. It should also accommodate supportive healthcare services for the athletic industry, as well as for resident and businesses in the surrounding neighborhoods.

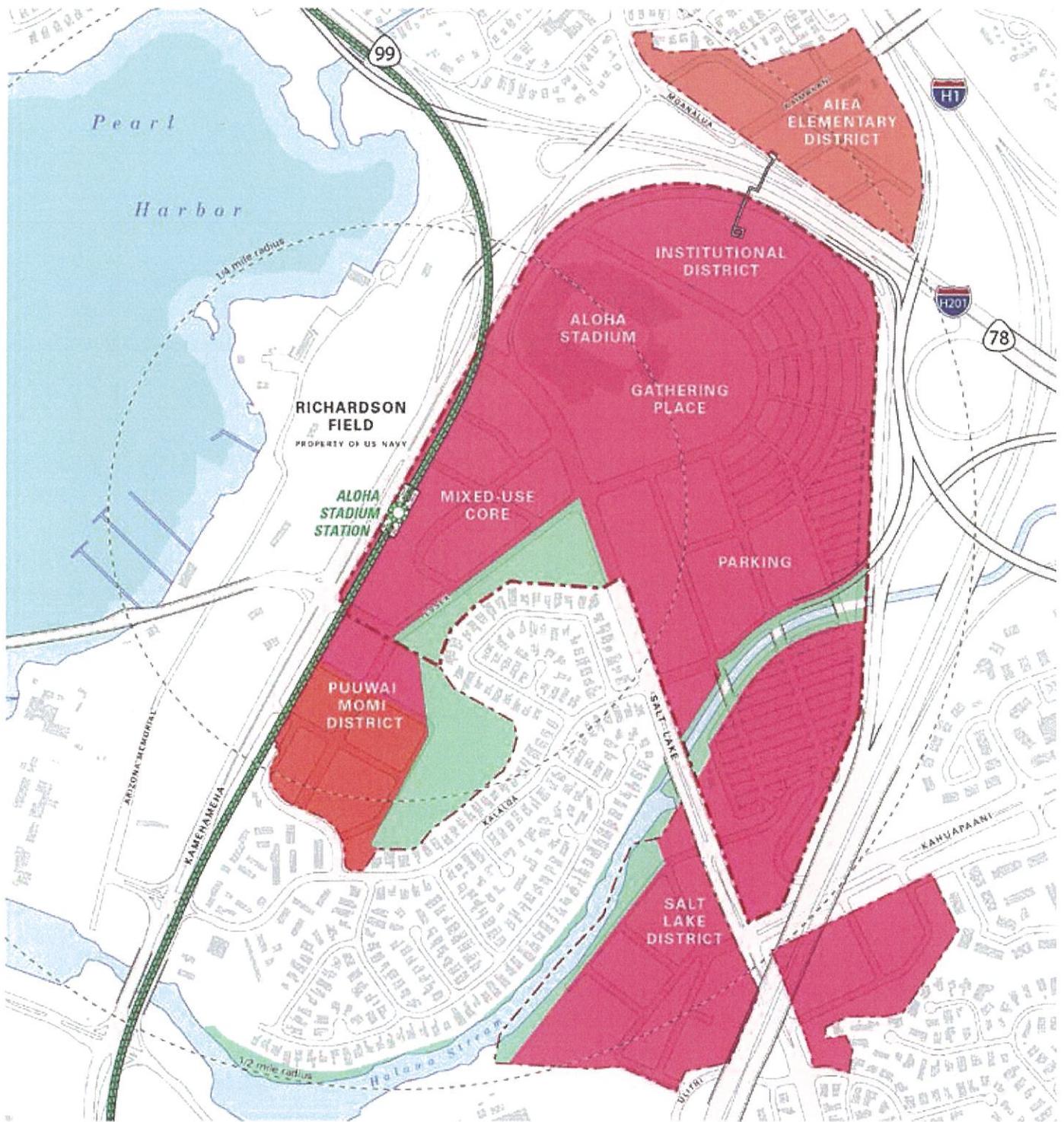
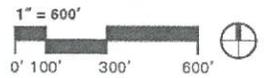


FIGURE 4-2: PROPOSED ZONING DESIGNATIONS



- Medium Density Apartment Mixed-Use (AMX-2)
- High Density Density Apartment Mixed-Use (AMX-3)
- Community Business Mixed-Use (BMX-3)
- General Preservation (P-2)
- Stadium Site
- Other Development Sites
- Aloha Stadium Rail Station
- Fixed Guideway

*\*Note: While the City has no jurisdiction to change the zoning and is not aware of any plans for the Navy to cede them to the city. The zoning designation is shown as future mixed-use to reflect its TOD potential.*

## 4.3 BUILDING ENVELOPE STANDARDS

### 4.3.1 INTENT

Currently, development parcels within the proposed TOD Special District are well below the appropriate TOD standards for floor area ratio and height. In addition, the existing building envelope standards do not encourage development near transit stations to capture the value of rail adjacency. Therefore, new development standards should be set to regulate zones conducive for TOD. The following standards aim to:

- Focus the most intense development within the TOD Special District.
- Stimulate development and community benefits through density and height bonuses.
- Create active urban street edges through strong street frontages.
- Provide consistent building form and massing regulations.
- Encourage highest and best use.

These goals can be achieved by amending the LUO development standards. Within current zoning policy under consideration, that allows for higher FAR in exchange for mitigation measures can provide for direct community benefits while encouraging a more urban environment. Establishing new height regulations, building frontages, lot coverage, and building setbacks can create a more cohesive urban environment.

### 4.3.2 HEIGHT AND DENSITY

The TOD Special District will address building height and density applicable to specified zoning districts. All proposed projects within the TOD Special District will be reviewed for conformity with the applicable standards. If landowners comply with these standards, they may be able to apply directly for a building permit. If they seek additional height or density, or seek to modify the TOD development standards, they must apply for a TOD Special District Permit or Planned Development Transit Permit. To achieve height or density bonuses, the landowner must provide community benefits, such as affordable housing, open space/parks, right-of-way improvements, improvements to existing community amenities, or enhancement of pedestrian and multimodal transportation. Future development of over 200 feet requires notification of the Federal Aviation Administration (FAA).

### 4.3.3 URBAN FORM

Proposed building setbacks, frontages, and transparencies for the Halawa Area TOD Special District are provided below. It is assumed that these guidelines be adopted for individual development parcels delineated within the larger development sites. For example, it is proposed that the stadium site be broken into a grid of these development parcels for site circulation and phasing purposes.

Building heights and massing should be less intense the farther one gets away from the Aloha Stadium Station. Larger, taller buildings of greater density should be located closer to Salt Lake Boulevard, and Essex Drive surrounding the rail station and Kahuapaani Street at its intersection with Salt Lake Boulevard which are proposed to be “key streets.” The key street designation for Salt Lake Boulevard would extend from its intersection with Kahuapaani to Kamehameha Highway. New commercial development should be oriented toward public sidewalks with parking located in the interior or the rear. The corner of Kahuapaani and Salt Lake Boulevard then could become the beginning of a new ‘Main Street’, with pedestrian plazas and entry features at the corners signaling that you have arrived in this new neighborhood between the rail station and Aloha Stadium.

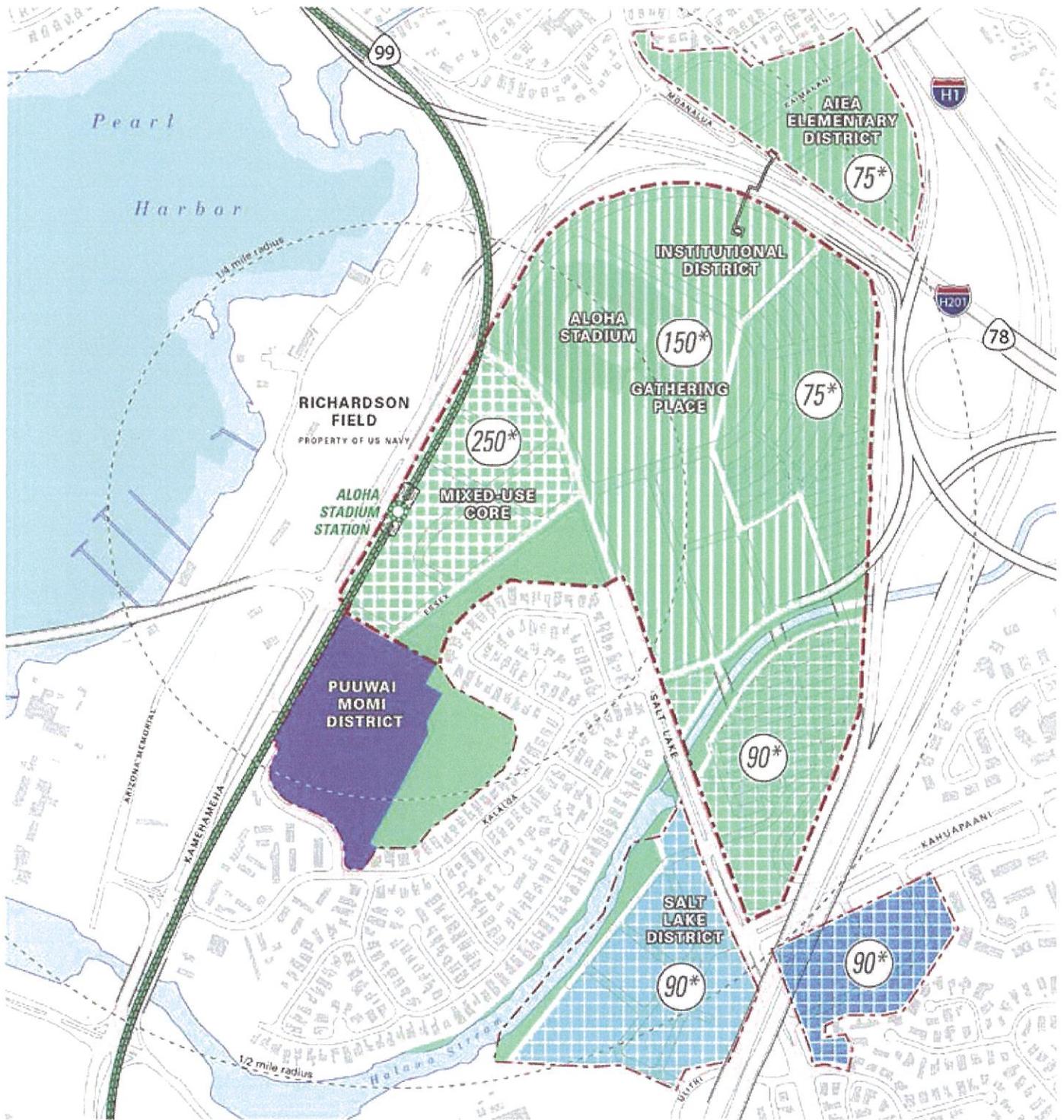


FIGURE 4-3: BUILDING MAXIMUM WITH COMMUNITY BENEFITS



MAXIMUM WITH COMMUNITY BENEFITS		BASE HEIGHT LIMIT			
	250' Area		150'		Stadium Site
	150' Area		60'		Other Development Sites
	90' Area		40'		Aloha Stadium Rail Station
	75' Area		30'		Fixed Guideway
	Maximum Height with Community Benefits		Other/No Limit Assigned		

*YARDS/BUILDING SETBACKS*

Yards and building setbacks should allow for safe, comfortable circulation along the street and between buildings, where necessary, and also provide view corridors through height setbacks above the street level. It is further recommended that the current street centerline setback for BMX-3 be replaced with the AMX height setback (1:10 above 40-feet). Transitions must be set for buildings in one zoning designation that abut the boundary of another designation.

*BUILDING FRONTAGE*

Continuous building frontage assists in providing an engaging ground-level environment for pedestrians. The frontage should meet the building build-to line as much as possible.

*STREET-LEVEL TRANSPARENCY AND ACTIVATION*

Transparency allows for buildings to engage pedestrians and contribute to a vibrant public realm. Transparency can take the form of windows and open air connections. Outdoor dining is one way to activate the streetscape.

**4.3.4 MAXIMUM COMMUNITY BENEFITS**

Additional building height may be granted, provided private development provides commensurate community benefits. The existing allowable building heights will be maintained. To allow anything higher will have to be "earned." Use of such incentive needs to be tied directly back to achieving community goals and objectives. Please refer to Section 4.7 for a description of the community benefits bonus.

**4.3.5 ENSURE NEIGHBORHOOD COMPATIBILITY**

With new FAR and building height limits in the TOD Special District, the scale of buildings may begin to grow to match the development intensities allowed by TOD. New buildings should:

- Consider their surrounding context.
- Match the desired scale and character of a transit-oriented community or of its component sub-districts.
- Closely study how building spacing impacts shadowing and wind.
- Study view corridors, especially when concerning tall buildings.

- Maintain at least 60 feet spacing between buildings over 150 feet tall on opposing and adjacent blocks in order to preserve views and solar access at the street level.
- Visually and sound buffer the station and adjacent neighborhoods.

**4.3.6 RESPECT HISTORICAL LANDMARKS**

New development adjacent to historic, scenic, and culturally significant sites (including the USS Bowfin, the Joint Base Pearl Harbor-Hickam, the Honolulu Plantation Manager's Residence, Forty-Niner Restaurant, and St. Elizabeth's Church in the Aiea Elementary District, etc.) should take care not to threaten the resources' integrity. This is especially true of the United States Naval Base, Pearl Harbor National Historic Landmark, of which Richardson Field is a contributing property. The character of these directly adjacent buildings should incorporate setbacks and massing that is consistent with the scale of the historic properties and does not project excessive shadows. In addition, all aspects of the project will comply with City Ordinance #09-04 with respect to resources of historic, scenic and cultural significance.

**4.3.7 ENSURE INTERACTION WITH ADJACENT BUILDINGS**

To promote sidewalk orientation and a vibrant district character, buildings close to each other should interact with and engage each other through their building frontages. These frontages should:

- Allow direct building access during business hours.
- Contain at least one public entrance on the street.
- Provide a public entrance per street front on corner buildings.

#### 4.3.8 BUILDING ORIENTATION TO STREET AND PUBLIC SPACES

To sustain street-level activity and promote pedestrian traffic, buildings should be oriented to the street and public spaces. This orientation should include:

- Retail storefronts oriented to the street and public spaces.
- Open air seating at ground-level restaurants.
- Wide sidewalks and support amenities (e.g. waste bins, benches, lighting).
- Storefront transparency at ground level.
- Pedestrian-scaled architectural features (awnings, canopies, overhangs) that help activate streets and storefronts.

#### 4.3.9 PROVIDE PEDESTRIAN-ORIENTED STREETScape

It is important that the overall streetscape within the Halawa Area TOD Special District make the public realm attractive and safe for pedestrians. Landscape buffers against buildings or open spaces with sidewalks at the curb should not be encouraged within development sites. A preferable streetscape alignment includes:

- The identification of “Key Streets” that are most vital to facilitate a walkable, vibrant, economically active neighborhood in direct vicinity of the rail station. Salt Lake Boulevard, Kahuapaani Street, and Essex Street are identified as “Key Streets” in the planning area.
- Street trees and planting zones along the curb.
- Sidewalks set back against the building.
- A clear differentiation of 1) furniture zone, 2) pedestrian zone, and 3) frontage zone.

#### 4.3.10 REDUCE VISUAL IMPACT OF PARKING

Though TOD intends to reduce the overall impact of automobile use, vehicular access will be improved on the Aloha Stadium site. As the stadium and new developments will include parking facilities, their design and management could have large impacts on the Halawa area. Parking should be designed to limit its impacts on the public realm by:

- Consolidating dedicated parking structures and surface parking in certain areas and near the elevated fixed guideway.
- Reducing the number of curb cuts on pedestrian-oriented streets.
- Encouraging orchard-style planting of surface parking lots.
- Limiting the visibility of parking facilities from the street.
- Encourage parking management and park-once district.

#### 4.3.11 SCREEN/BUFFER SERVICE AND LOADING FACILITIES FROM PUBLIC STREETS

Service and loading facilities, while essential to commercial and residential activities, detract from the public realm. Their impact on pedestrian-oriented areas may be reduced by:

- Placing facilities away from sidewalks, open spaces, or amenity facilities.
- Incorporating equipment architecturally, where applicable.
- Screening facilities with walls or landscaping.

#### 4.3.12 AVOID BLANK WALLS

Blank walls are not visually interesting and are difficult to mitigate, even with landscape and streetscape improvements. Such feature-less walls should instead be designed with transparency. If unfeasible, articulation and texture can add interest to a wall. Blank walls should be avoided, but in unavoidable cases can be somewhat mitigated by:

- Placement of active uses and entries along public spaces and streets.
- Maintaining a required amount of transparency at the street level.
- Incorporation of public art or appropriately scaled signage elements.

#### 4.3.13 UNDERGROUND UTILITIES

Redevelopment provides an opportunity to underground overhead transmission lines to improve the aesthetics in the area.

#### 4.3.14 OUTDOOR STREET AND BUILDING LIGHTING

To reduce the effects of light pollution and to reduce energy usage, all street and building lights should have:

- LED or comparable low energy use bulbs.
- Full cut-off light fixtures.
- Light is directed appropriately without glare.
- Automatic shut-off.

#### 4.3.15 NOISE AND EXCESS LIGHT MITIGATION

Projects will comply with city and state's noise level standards and excess light requirements. Mitigation measures such as sound barriers, architectural design and sound dampening materials in buildings along with use of full-cut off lighting, lower temperature and non-blue light wavelength lighting will help lower the health impacts associated with excessive noise and light. Estimated noise levels from the rail system and methods to mitigate their potential impacts were covered in the Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project.

#### 4.3.16 ENVIRONMENTAL JUSTICE

TOD, by its very nature, encourages and supports sustainability and affordability through compact, mixed-use development, provides convenient and affordable access to public transit and multi-modal transportation networks, supports affordable housing, reduces energy usage, thereby minimizing overall human and environmental impacts upon environmental justice communities. As necessary, combine environmental and demographic indicators to ascertain vulnerable sectors of the population utilizing the Environmental Justice mapping and screening tool (EJSCREEN) to ensure these vulnerable groups are not impacted.

## 4.4 TOWER GUIDELINES

### 4.4.1 INTENT

With over five (5) million square feet of new construction projected in the Halawa area, a significant share of new development will likely be in the form of towers. Towers will likely have a residential or hotel land use, and for the purposes of this study, include buildings over 150 feet at the Mixed-Use Core.

How these towers are designed in relation to view corridors, the public realm, and shadowing will play a key role in the future urban environment of the district. There are several key issues that should be addressed when establishing architectural guidelines for tall buildings.

### 4.4.2 TOWER MASSING

The design of tall buildings generally consists of three sections: base, middle (tower), and top. Design principles should be established for each building section to address how:

- The podium will affect the experience of the building at street level. Podium heights should be no taller than 60 feet and should be massed in a way to maintain street-level solar access.
- The middle will affect the building's shadows on the urban environment.
- The tower top will affect the building's aesthetic and experiential contribution to the urban skyline.

### 4.4.3 PROMOTE NATURAL AIR CIRCULATION AND VENTILATION WHILE MINIMIZING ADVERSE WIND CONDITIONS

Tall buildings have the ability to capture natural breezes that can provide benefits through reduced energy consumption and higher indoor air quality. Tower design should also evaluate wind-tunnel impacts that may have negative effects at the street level. At a minimum, a 60 feet dimension should be maintained between tall buildings proposed to be over 150 feet tall on opposing and adjacent blocks, in order to preserve views and solar access.

### 4.4.4 PROVIDE PROPER SETBACKS FOR TOWERS

Tall buildings can create imposing facades along street frontages. As such, tower placement is key to ensuring the public realm remains a comfortable environment. By setting back upper stories in towers away from street frontages, parks, trees, or open spaces, the perceived impact of the tower on the urban environment can be significantly reduced.

### 4.4.5 ORIENT TOWERS TO OPTIMIZE VIEW CORRIDORS

View corridors, primarily in the mauka-makai direction, may be impacted by new tower development in the Halawa area. Towers should be oriented in a mauka-makai direction to preserve these view corridors, as well as to create mauka-makai visual connections for people at street level and those occupying tall buildings.

## 4.5 PARKING STANDARDS

### 4.5.1 INTENT

The proposed scale and intensity of development in the Halawa area will depend on a managed approach to parking. The continuing presence of Aloha Stadium will be a primary driver in parking demands. Reduced standards based on shared district parking management, transportation demand management measures, and other applicable parking strategies should be implemented where appropriate.

Major developers should be required to develop a district parking management and transportation demand management (TDM) plan using the concepts outlined below in conjunction with City developments. City will collaborate and continue to explore and support innovative solutions.

### 4.5.2 PARKING RATIOS

To encourage a reduction in auto-reliance and lower development costs, new parking standards are included in the draft TOD Special District regulations pending before the City Council. These standards are intended to support higher intensity land use and alternate modes of transportation. They should:

- Set lower minimum automobile parking standards.
- Phase in maximum automobile parking standards.
- Require bicycle parking to encourage alternatives to driving.
- Reduce minimum standards based on shared parking and transit availability.

It is recommended that existing parking requirements are reduced by at least 50 percent.

### 4.5.3 PARKING MANAGEMENT

Parking management can reduce the overall amount of parking in the TOD district while providing enough capacity during peak demand times. Strategies include:

- Integrating off-street parking spaces of various uses into one system.
- Integrating wayfinding with real time parking availability with a “parking app.”
- Introducing parking need based on time-use.
- Unbundling parking from residential units and commercial developments.

- Regulating pricing based on demand.
- A shared parking district analysis must be completed to understand the feasibility of such a system for an entire district.

### 4.5.4 ON-STREET PARKING

On-street parking should be available along local streets, especially within the mixed-use core, where it will help meet short-term parking needs and serve ground-level retail. On-street parking could be managed to support more types of uses (e.g. short- vs. long-term), and higher frequency of available spaces, resulting in lower traffic and automobile emissions. These goals can be achieved by:

- Allowing on-street parking to count towards a development’s parking requirements, particularly for commercial/retail land uses.
- Adjust meter parking policies to ensure adequate turnover in commercial areas.

### 4.5.5 BICYCLE PARKING

To encourage greater bicycle use, bicycle parking in the draft TOD Special District regulations requires minimum standards similar to automobile parking requirements. Bicycle parking must be:

- Located in a safe place.
- Provided on-street for short-term use.
- Conveniently located within close proximity to the station and major area attractions.
- Secure for long-term bicycle parking (e.g. residents, workers) within parking garages.

### 4.5.6 TRANSPORTATION DEMAND MANAGEMENT (TDM)

To reduce demand for parking, as well as vehicle miles traveled and to promote alternative modes of transportation, the Plan encourages all new development to incorporate TDM strategies. On-site design measures may include preferred carpool and van-pool parking, and enhanced bicycle and pedestrian access. Participation by major employers in programs that reduce driving should also be encouraged, potentially including efforts that promote private commuter bus service, carpooling, telecommuting, flexible/alternate work schedules, car sharing, and bicycling including bikeshare and providing a transit subsidy instead of free parking.

## 4.6 ON-SITE OPEN SPACE

### 4.6.1 INTENT

With the transition from a low-density, suburban context to a high-density, mixed-use neighborhood, developments will require usable open spaces that are diverse in size and type. The proposed outdoor spaces in the Halawa area will range from plazas that support civic engagement and enhance the public domain, to interior courtyards that will serve as an amenity for residents. Strategically located, shared outdoor spaces should be comfortable for human occupation, public gathering, and social interaction.

### 4.6.2 DESIGN STANDARDS

The following standards are recommended for public open space and semi public open space. These spaces feature few limitations on when the public can use the space. Provision of this community benefit beyond the required amount can result in development bonuses per the community benefits bonus. Privately accessible, privately owned open spaces, such as balconies or amenity decks, should not be eligible for community benefits.

- Use decorative paving, plants, site furniture, and lighting to shape, embellish and give purpose to these spaces and make them comfortable for people to use.
- Use trees to regulate sun and shade, and create a pleasant micro-climate; canopy trees are recommended. Native orchard tree planting is encouraged, including hala, loulu and koi`a (preferable to monkey pod).
- If possible native and Polynesian-introduced flora in all landscape planting should be used.
- Establish a comfortable transition between indoors and outdoors, for example canopies, awnings, trellises, and similar features.

- Rely on moveable seating and planters where flexible use of the space is especially desired.
- Incorporate art pieces or special landscape features within key outdoor spaces; for example, a sculptural piece may serve as the focal point of a plaza or campus green.
- Design outdoor spaces with safety in mind, allowing for active surveillance from adjacent buildings or the street. For example, residential units facing a park are preferred. Where residential units back up to a park, they should have lanai windows and doors facing the park.
- Encourage uses such as outdoor cafes and vendors that will activate an outdoor space, as appropriate to that space's character and function.
- Define outdoor space through a combination of building and landscape. In general, open spaces should take on the character of "outdoor rooms" that complement the streetscape.
- Establish a direct physical and visual connection between sidewalks and outdoor rooms, such as plazas and paseos. These spaces should be located at or near the same grade as adjacent sidewalks..
- Employ a rich, coordinated palette of landscape materials to provide scale, texture, and color.

### 4.6.3 AMENITY SPACE REQUIREMENTS

Amenity space requirements for new development can help achieve a more active pedestrian experience for residents, locals, and tourists. For buildings with ground floor retail, outdoor dining may be considered as an open space amenity. The outdoor dining must be located along the street frontage or in publicly accessible pedestrian alleys or plazas, and may qualify for a community benefits bonus.

## 4.7 COMMUNITY BENEFITS BONUS

### 4.7.1 INTENT

Community benefits utilize development potential to incentivize transit-oriented development, meet community goals and objectives, mitigate development impacts, and provide community amenities. While the TOD Plan should remain flexible, the City is in the process of adding more specific requirements into the zoning code (LUO) and the TOD Special District Ordinance as well as making revisions to the Interim Planned Development - Transit Permit, and proposed affordable housing requirements.

### 4.7.2 SUMMARY PROCESS

- **Identify Additional Development Potential** through public investment in the rail transit system, particularly rail station amenities.
- **Allow Higher Density** to achieve potential build-out and offset otherwise prohibitive developer costs associated with high land prices, parcel assembly, existing encumbrances, etc.
- **Use Zoning Incentives** (i.e., density bonuses, parking reductions, etc.) to support higher yields and promote redevelopment at targeted locations (i.e., station proximity).
- **Tie Incentives to Community Goals and Objectives as Outlined in this Plan.**
- **Prioritize Desired Community Benefits** and establish a nexus with incentivized development.
- **Assign Mitigation Measures and/or Fees** to offset impacts of additional development and promote community goals and objectives.
- **Encourage a Balanced Mix of Uses** (that market forces might not otherwise support) to strengthen TOD, including:
  - \* Affordable and market rate housing.
  - \* Incubator office.
  - \* Neighborhood shops and services.
  - \* Accessible open spaces (e.g., parks and plazas).
  - \* Civic and cultural facilities.

- **Fund Neighborhood Programs and Improvement** Projects that enhance livability utilizing revenues generated through fees, including:
  - \* Infrastructure upgrades.
  - \* Multi-modal improvements/streetscape enhancements.
  - \* Public park and open space upgrades.
  - \* Pedestrian and bicycle paths.

### 4.7.3 POTENTIAL COMMUNITY BENEFITS IMPLEMENTATION

The following guidelines are recommended to ensure new development contributes to making the Halawa area a walkable, dynamic, and livable TOD community.

- **As-of-Right with New Standards:** Benefits provided through additional use and design standards required of all new development.
- **As-of-Right Combining New Standards with Zoning Incentives:** Benefits provided through imposition of additional use and design standards tied to specific increments of extra development yield.
- **“Menu” of Benefits Combined with Zoning Incentives:** Benefits selected by applicant from available list, with point values typically assigned to various mitigation measures (e.g., use, design and fee requirements) and tied to additional development yield. This approach may be administered “as-of-right” or through discretionary review depending on level of flexibility.
- **Discretionary Review Combining Mitigation Measures with Zoning Incentives:** Benefits provided through various mitigation measures (e.g., use, design and fee requirements) tied to additional development yield, as determined through discretionary review process.
- **Negotiated Development Agreement:** Benefits provided through various mitigation measures (e.g., design, use and fee requirements) tied to additional development yield, as determined through negotiated development agreement.

## 4.8 AFFORDABLE HOUSING

### 4.8.1 INTENT

The community has expressed a clear desire for TOD to encourage a balance of housing types, including more affordable housing. Affordable housing can help to preserve the socioeconomic diversity of people within the Halawa area.

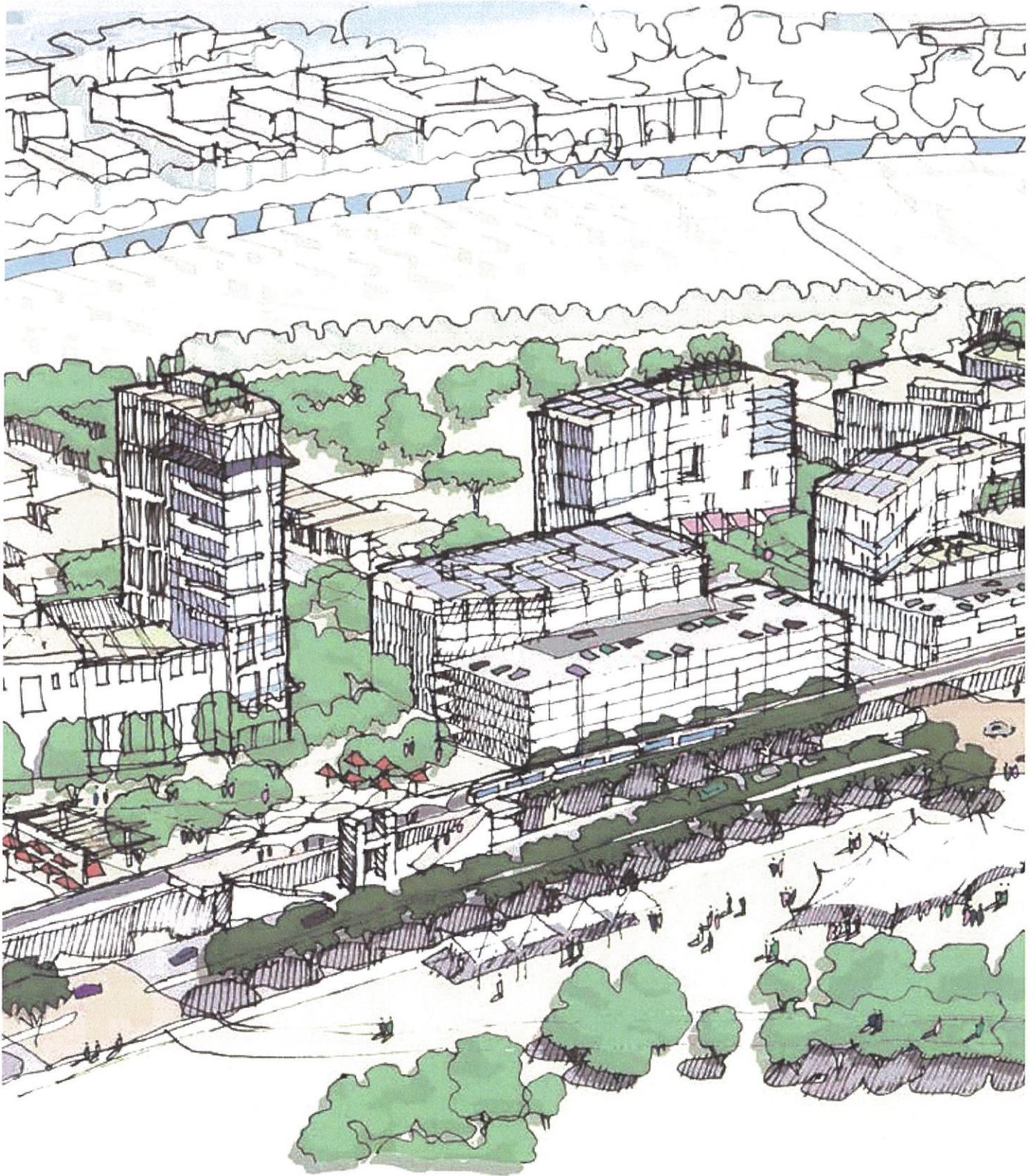
### 4.8.2 EXISTING AND NEW STANDARDS

The City currently requires that 30 percent of the total residential units in all new developments granted a zone change allowing residential uses must be affordable within the following guidelines:

- At least 10 percent affordable to low-income households (earning no more than 80 percent of area median income (AMI)).
- At least 20 percent affordable to low- /moderate-income households (earning no more than 120 percent of AMI), which equals 10 percent affordable if 10 percent are already provided in the low-income category.
- At least 30 percent affordable to gap group households (earning no more than 140 percent of AMI), which equals 10 percent affordable if 20 percent are already provided in the low- /moderate-income category.

Responding to several City Council resolutions, and to underscore the relationship between a rail system and affordable housing, the City is developing an affordable housing strategy that redefines affordability to 120 percent of AMI and below, requires affordable housing to remain affordable for longer periods of time, and emphasizes rental housing. In addition, the strategy includes new incentives such as significant reduction in development fees and real property taxes, as well as new financing options.

The federal government currently owns property near the Aiea Elementary School where housing is proposed. The federal government is not subject to the City's housing affordability requirements. However, if site ownership or jurisdiction is transferred to a non-federal (City, State, or private) entity, a zone change will likely be required, and the City's affordable housing requirements could then apply if residential uses are allowed.



*Successful transit-oriented development in the Halawa area will require partnerships with federal, state, and local authorities.*

# 5. DEVELOPMENT IMPLEMENTATION

---

*Implementation of the community's vision for the Halawa area will require a coordinated implementation strategy. Before ground is broken, developers need to consider the site's unique constraints, including the significant costs of providing infrastructure. However, with the help and guidance of federal, state, and local organizations, as well as a funding sources, the vision can be realized and a timetable and phasing strategy can be established.*

## 5.1 OVERALL STRUCTURE

The implementation of the Halawa Area TOD Special District will involve various players at different times during the process. This chapter outlines:

- **Infrastructure:** The considerations and costs to prepare stadium site and other development sites for TOD (approximately 150 acres of mixed-use, high-density development).
- **Development Phasing:** Since not all the objectives of the Halawa Area TOD Plan can be completed at the same time, a phased approach can allow for the full extent of the Plan to roll out over the short-, medium-, and long-term development of the district.
- **Strategic Partners:** Identifying who the partners are and their responsibilities in the Halawa area's development gives accountability to each player in the process.
- **Funding Sources:** With the large extent of infrastructure projects proposed in the Plan, funding is a key issue in moving these improvements forward. Identifying various local, state, federal, and private funding sources for construction, operation, and maintenance should help advance implementation.
- **Action Plan:** The final part of this chapter synthesizes the different initiatives of the Halawa Area TOD Plan. It summarizes what initiatives should be completed; what government agencies should be involved; and short, mid, and long-term goals.

## 5.2 INFRASTRUCTURE

### 5.2.1 INTENT

This section summarizes the requirements for utility infrastructure needed for TOD in the Halawa area. In summary, current conditions of the water and storm water (exclusive of laterals) drainage systems, and the electric and gas networks, would handle the demand generated by the significant development proposed in the Plan, assuming some improvements are made. On the other hand, waste water infrastructure would require substantial upgrades in capacity to meet the demand from significant new development. In addition, roadway projects have been identified and costs estimated.

The following sections provide order of magnitude estimates based on a potential full build-out of 5.2 million square feet, and the land use configuration identified in the TOD Plan.

Since the State is the largest landowner within a ¼- to ½-mile of the Aloha Stadium rail station, the estimated infrastructure cost of \$495-675 million to realize the vision outlined in the Halawa Area TOD Plan is a tremendous financial burden for one entity to bear. Therefore this chapter covers a variety of potential funding sources as well as public and private partners, including the City with financial tools such as tax increment financing or a business improvement districts, to help the Halawa area realize its full TOD development potential.

If new infrastructure is required, or if existing infrastructure requires upgrading, they should be constructed or reconstructed to City standards. In addition, all underground utilities shall be at the City required minimum depth of 36 inches.

5.2.2 TRANSPORTATION INFRASTRUCTURE

To prepare the areas within and adjacent to the Halawa Area TOD Special District for development, a road network must be developed that is appropriately suited to the land uses and capacities projected with TOD. The following cost estimates are based on lane-mile estimates and special projects for the Plan, and shown in Figure 5-1.

COMPLETE STREETS

These streets should allow for effective and safe vehicular, transit, pedestrian, and bicycle circulation and access. Complete Streets are defined here as modified existing roadways, which may incur potential disruptions and cause congestion during reconstruction. The TOD Plan estimates ±3 lane miles, and includes the stretches of Kamehameha Highway, Salt Lake Boulevard, Kahuapaani Street, other roadways that may be impacted by TOD, and demolition of other existing streets. The approximate cost of Complete Streets improvements is provided below:


Complete Streets  
~\$20 Million

NEW ROADS

It is likely that in any scenario for development, an internal Complete Streets network would be created within the stadium site, to delineate development parcels and parking lots while supporting the stadium site's internal circulation. It is estimated that ±11 lane-miles be constructed, and also includes the realignment of Salt Lake Boulevard, as well as street networks within the other development sites. New roads will be built to City standards. The approximate cost of Complete Streets improvements in 2016 dollars is provided below:


New Roads  
~\$70 Million

INTERSECTION IMPROVEMENTS

This category includes modifications of existing intersections, or new intersections along existing streets. Modifications include realignments to improve traffic throughput and measures to improve pedestrian connectivity and safety. Four improved intersections and 10 new intersections along major arterials are proposed. The approximate cost of intersection improvements is provided below:


Intersection Improvements  
~\$15 Million

SPECIAL PROJECTS

These facilities include major transportation infrastructure projects that may require significant investment, such as bridges and elevated crossings. The approximate cost of special projects is provided below:


Special Projects  
~\$190 - 370 Million

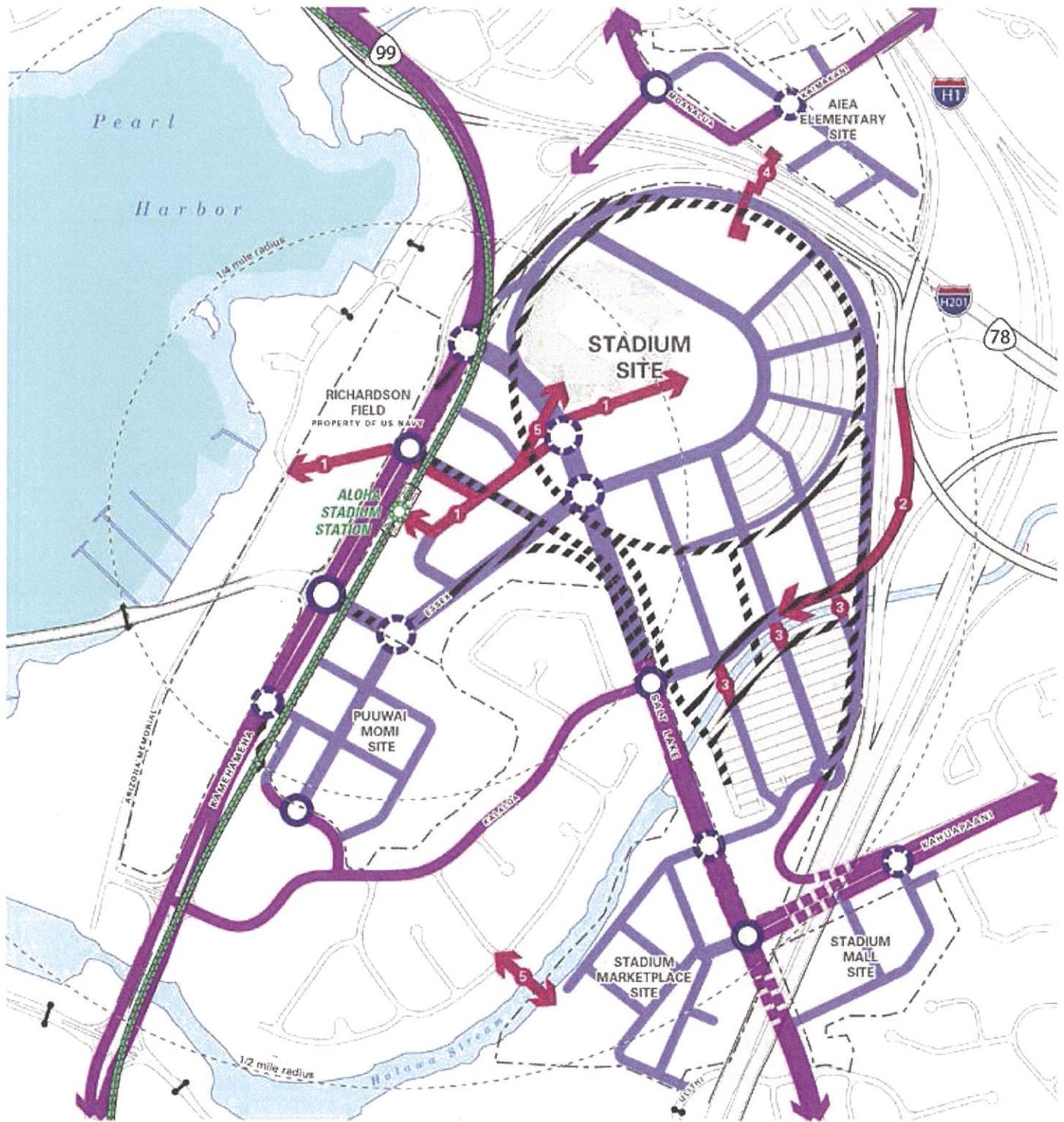


FIGURE 5-1: PROPOSED TRANSPORTATION INFRASTRUCTURE



- |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                        |                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li> Complete Streets Improvements</li> <li> Demolition of Existing Streets</li> <li> New Roads</li> <li><br/></li> <li><b>INTERSECTIONS</b></li> <li> Intersection Improvements</li> <li> New Intersections</li> </ul> | <p><i>SPECIAL PROJECTS</i></p> <ul style="list-style-type: none"> <li> 1 Stadium-Station Connection</li> <li> 2 Slip Ramp from H-1 Freeway</li> <li> 3 New Halawa Stream Bridges</li> <li> 4 Improve Existing Ped. Bridge</li> <li> 5 New Pedestrian Bridge</li> </ul> | <ul style="list-style-type: none"> <li> Development Sites</li> <li> Aloha Stadium Rail Station</li> <li> Fixed Guideway</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|

### 5.2.3 WATER UTILITY SYSTEM

In the Halawa area, the public water system is owned and maintained by the Honolulu Board of Water Supply (BWS), a semi-autonomous City agency. The existing water system in the TOD district was designed to have sufficient capacity to support an intensive urban environment, typically sized to provide for the maximum density allowed by zoning. The fire hydrant network is well-developed with hydrants spaced at a maximum of 250 feet based on zoning.

Use of nonpotable water for irrigation of large landscaped areas are required. There is existing brackish nonpotable water available nearby. Salt tolerant landscaping is advisable.

#### IMPACT OF DEVELOPMENT

TOD in the Halawa area should be satisfactorily served by the existing water infrastructure, and new developments should be able to trench into existing rights of way. Based on the scale of development, some off-site improvements may be required. The proposed cost of water infrastructure improvements is provided below:



The Honolulu Board of Water Supply (BWS) must verify that adequate water resources are available to serve new developments. A Water Master Plan (WMP) needs to be submitted to determine the adequacy of the water system to provide water and fire protections to Water System standards. Commitment of water resources will be made at the time of a building permit submittal.

The availability of water will be determined at the Building Permit stage. When water is made available, the applicant will pay the prevailing Water System Facilities Charges.

High-rise buildings with booster pumps will be required to install water hammer arrestors or expansion tanks to reduce pressure spikes and potential main breaks in the water system.

The developers will be required to meet the BWS cross-connection control and backflow prevention requirements.

Water supply requirements for fire protection for the projected buildings to be constructed in the area will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department. Drawings must be submitted to the HFD for review and permit approval.

### WATER CONSERVATION

Conservation measures are required for all proposed developments. These measures may include utilization of non-potable water for irrigation using rain catchment and chiller/air handler condensate, cooling tower conductivity meters and water softening recycling systems, drought tolerant plants, xeriscaped landscaping, and efficient irrigation systems. Wherever practicable, alternate water sources should be utilized.

In addition, water efficient, or low-flow plumbing fixtures should be installed, such as Water Sense labeled ultra-low-flow water fixtures and toilets. These and other water efficient practices should be implemented throughout new and existing developments in the Halawa area to reduce the increased demand on the island's freshwater resources.

### 5.2.4 STORM WATER UTILITY SYSTEM

Two municipal storm water systems are located within the study area, one maintained and owned by the State of Hawaii Department of Transportation (HDOT), and the other owned and maintained by the City. Both the City and HDOT drainage systems consist of open drainage channels and underground drainage conduits and discharge into Halawa Stream and Pearl Harbor at various locations. Currently, the capacity of the City drainage system is adequate for the existing condition, per conversations with the City DPP's Civil Engineering Branch (CEB). In addition, the HDOT drainage system within the study area does not have any known issues. The stadium site is currently 20 to 50 feet above sea level, therefore, projects should not become influenced by the sea level rise issue in the future. Any projects that could be influenced by flooding along or near the Halawa Stream will be designed to mitigate these effects.

*IMPACT OF DEVELOPMENT*

TOD in the Halawa area shall be satisfactorily served by the existing storm water infrastructure, and new developments shall be able to trench into existing rights of way. Based on the scale of development, some off-site improvements may be required. The improvements will meet the City's storm water quality requirements. Once conceptual plans for redevelopment are prepared, they will be submitted to the City for review and approval. The proposed cost of storm water infrastructure improvements is provided below:

	Storm Water Utility Infrastructure ~\$100 Million
-----------------------------------------------------------------------------------	------------------------------------------------------

Any future development discharging storm water into HDOT's drainage system will not be allowed if there is an increase in runoff from its site, without adequate containment.

In addition, sea level rise is projected to increase by 3 feet by the end of the century. Tidal inundation onto the stadium site could be greater than current conditions but should not directly impact the study area.

*STORM WATER BEST PRACTICES – GREEN STORM WATER INFRASTRUCTURE*

Permanent best management practices (BMPs) should be installed as part of the development to treat the quality of storm water prior to discharge. Examples of permanent BMPs include green streets, vegetated swales, infiltration trenches/basins, green roofs, constructed wetlands, catch basin inserts, and manufactured treatment devices. A drainage connection application must be submitted to HDOT for approval prior to any connection or discharge into HDOT's drainage system.

5.2.5 WASTE WATER UTILITY SYSTEM

Waste water in the study area is collected and transported by gravity mains and sewage pump stations to the Honolulu Waste water Treatment Plant, located in Ewa Beach. The sewer system is maintained by the City's Department of Environmental Services (ENV).

The sewer system within the study area consists of gravity lines up to 36 inches in diameter. Pressurized mains, called force mains, 21 to 30 inches in diameter originate at the Halawa Pump Station, located along Salt Lake Boulevard adjacent to Aloha Stadium. Existing system capacity is adequate with no known trouble spots per conversations with the City and County of Honolulu's Department of Planning and Permitting (DPP), Waste Water Branch (WWB).

*IMPACT OF DEVELOPMENT*

The analysis of the existing waste water system indicates limited capacity for additional waste water flow, regardless of the scale of additional development. Capacity is limited by pipes with shallow slopes and fixed capacity of the existing pump stations at the Halawa, Waimalu, and Pearl City WWPSs. These deficiencies can lead to sewer overflows. To accommodate the additional capacities that TOD may bring, additional infrastructure related to extra pump stations, pipe sizes and proper grading must be created. The improvements will meet the City's waste water quality requirements. Once conceptual plans for redevelopment are prepared, they will be submitted to the City for review and approval. However, these estimates do not include the possible relocation of the Oahu Community Correctional Center to the Halawa area. The proposed cost of waste water infrastructure improvements is provided below:

	Waste Water Utility Infrastructure ~\$80 Million
-------------------------------------------------------------------------------------	-----------------------------------------------------

Future developments will need to submit an application for sewer connection to DPP WWB. Due to the insufficient sewer capacity, any potential developer may also be required to construct off-site sewer improvements (i.e. upsizing lines) in the surrounding area prior to connecting to the collection system. A Waste Water System Facility Charge (WWSFC) will be assessed for all new connections and will be based on the equivalent single-family dwelling unit (ESDU). The construction of off-site sewer improvements may be credited against the WWSFC provided that the improvement will be a benefit to the general population and not just to the individual development.

### 5.2.6 OTHER INFRASTRUCTURE

The following utilities are in adequate supply at or near the TOD Special District, and would be generally able to accommodate significant future development.

#### *ELECTRICAL*

Hawaiian Electric Company (HECO) is the sole electric utility on Oahu. Underground and overhead electric service is widely available within the study area. HECO has existing facilities on the identified properties, Fiber Links are:

- Kuahua Substation to Ford Island Substation.
- Makalapa Substation to Ford Island Substation.
- Makalapa Substation to Kuahua Substation.
- Waiau Power Plant to Makalapa Substation.

For any future projects HECO will need to be contacted to coordinate service needs and to get review and approval of the project. It is recommended that above ground transmission lines be placed underground with the introduction to TOD.

#### *TELECOMMUNICATION SERVICES*

Two major providers of telecommunication services are within the study area, Oceanic Time Warner Cable and Hawaiian Telcom. Both utilities provide telephone, internet, and television service.

Hawaiian Telcom has a trunk line located along Kamehameha Highway which could provide service to future developments. Oceanic Time Warner Cable's system in the TOD district consists of fiber optic cable. The current system capacity is sufficient for the existing condition. Future expansion of the cable system may be potentially difficult because the Kamehameha Highway portion of the network is located in Hawaiian Telcom ductwork.

The City and County of Honolulu is also planning to incorporate high-capacity fiber optic cable in the transit system guideway.

#### *NATURAL GAS*

Hawaii Gas is the sole provider of natural gas service on Oahu. Within the TOD Special District, a 16-inch underground transmission line is located under Kamehameha Highway and 4-inch underground distribution lines are located throughout the study area. The Aloha Stadium parcel is serviced by 2-inch diameter laterals. The current capacity of the underground gas lines is good with no known trouble spots or deficiencies.

Future development may be supported through construction of new regulator lines which can tap off of the existing 16-inch diameter transmission line. One regulator line typically can service an entire development. Gas service can also be provided via above ground storage tanks where underground service is not available. Service requests must be made with the applicable utility provider.

### 5.2.7 TOTAL INFRASTRUCTURE COSTS

During the planning process, an infrastructure analysis was provided by the consultant team. The findings and associated estimate of costs were presented to the various City, State and private utility and infrastructure providers at a workshop held in March 2016. The following total estimated infrastructure costs are provided below:

## HALAWA AREA

### ~\$495-675 Million

#### ESTIMATED INFRASTRUCTURE COSTS



~\$295-475 Million  
TRANSPORTATION  
INFRASTRUCTURE



~\$200 Million  
UTILITY INFRASTRUCTURE

In consideration of the substantial transportation and utility infrastructure costs preliminarily estimated, a more in-depth transportation master plan and infrastructure assessment will need to be undertaken by the developer(s) to provide more details on infrastructure system capacities, needed improvements and associated cost estimates.

While not necessarily a typical infrastructure item, it should be recognized there is a possibility that redevelopment could add to school enrollment in the area potentially overloading the Department of Education (DOE)'s already stretched capacity. This could require further capital investment in school infrastructure and should such needs should be coordinated with the DOE.

## 5.3 INFRASTRUCTURE FUNDING SOURCES

### 5.3.1 INTENT

In order to fund and maintain the potentially significant infrastructure projects depicted in the TOD Plan, various funding sources will be necessary. While it is expected that private development would pay most of the costs for their needed infrastructure, the following funding sources provide for capital improvements, operations, and maintenance.

### 5.3.2 FUNDING SOURCES

#### *COMMUNITY BENEFITS*

Community benefits are neighborhood improvements developers provide in exchange for higher height and FAR bonuses. The community benefits bonus is discussed in Section 4.7.

#### *STATE CAPITAL IMPROVEMENT PROJECT (CIP) BUDGET*

With the possibility of rebuilding a new Aloha Stadium, since it is a state-run facility, the state could invest significantly in infrastructure to make the refurbishment of the stadium and entire site into a priority.

#### *FIXING AMERICA'S SURFACE TRANSPORTATION ACT (FAST ACT)*

The FAST Act, enacted in December 2015 (effective October 2015), provides funds for road, bridge, transit, freight, bicycle, and pedestrian improvements as well as to improve safety, maintain infrastructure conditions, reduce traffic congestion, and protect the environment.

#### *HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)*

The HSIP is a federal program intended to reduce traffic fatalities and serious injuries on all public roads including local roads. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. HSIP funds can be used to provide improvements that provide separation between pedestrians and motorists.

*SURFACE TRANSPORTATION BLOCK GRANT PROGRAM (STBG)*  
STBG replaces the former Surface Transportation Program (STP). The STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address state and local transportation need. STBG funds can be used to preserve and improve the conditions and performance on any federal-aid highway, bridge, and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects.

#### *TRANSPORTATION ALTERNATIVES SET-ASIDE (TA)*

The TA is a set-aside of funders under the STGB which replaced the Transportation Alternatives Program (TAP). Eligible activities include on- and off-road pedestrian and bicycle facilities, infrastructure projects to improve non-driver access to public transportation and enhanced mobility, community improvement activities such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity; recreational trail projects (non-transportation purpose), safe routes to school projects; and projects for planning, designing, or constructing boulevards, and other roadways largely in the right-of-way of former divided highways.

#### *CONGESTION MITIGATION AND AIR QUALITY (CMAQ)*

The CMAQ is a federal program which provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality, for example with bicycle and pedestrian facilities or non-construction projects for safe bicycle use. Since the State of Hawaii is in attainment, CMAQ funds are used by HDOT as general purpose funds for activities eligible under the STBG.

#### *TAX INCREMENT FINANCING (TIF)*

TIF is used to leverage future increased property taxes to pay for projects within a geographic area. Establishing a Halawa area TIF District can help to pay for and maintain capital improvement programs.

#### *COMMUNITY FACILITIES DISTRICT (CFD)*

CFDs are an assessment tool used by local governments to obtain community funding for neighborhood-specific improvements. These funds can also be used for public services.

*BUSINESS IMPROVEMENT DISTRICT (BID)*

BIDs are an organizational tool used by businesses to pay additional taxes for improvements such as marketing, security, and street maintenance. After the introduction of additional retail and dining in the Halawa area, the establishment of a BID can help in the maintenance of capital improvement projects, such as those in the pedestrian realm.

*SAFE ROUTES TO SCHOOL (SRTS)*

SRTS funds state and local programs for infrastructure and non-infrastructure projects to provide students safe pedestrian and bicycle access to schools. As safe travel to local schools is currently difficult for area students, this program, now bundled under the TA setaside, may help to provide improved conditions, similar to those proposed in this Plan.

## 5.4 DEVELOPMENT PHASING

### 5.4.1 INTENT

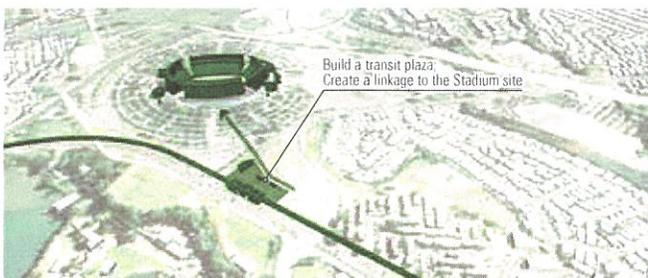
The phasing of TOD is considered variable and highly subject to change. Successful implementation relies upon decisions regarding a reconstructed or rebuilt Aloha Stadium's operations and the nature of the mixed-use proposed for the stadium site. Parallel to the City's TOD planning efforts is the State's Stadium Authority's Request for Interest (RFI) to private developers to solicit ideas for how the stadium site might be redeveloped. The State's RFI contemplates a sports and entertainment district integrated with a mixed-use development of varying mixes and intensities of uses. It is assumed that any developer selected to build mixed-use development on the stadium site will use the TOD Plan as a starting point, but may make changes to the site design and uses to meet market conditions.

The Plan is long-term in nature, therefore may take several decades (20-40 years) to implement. The following sections outline a preliminary implementation schedule simulating a logical process for developing the stadium site and Halawa area shown on Figure 5-2 over this time horizon.

### 5.4.2 PHASE 1: ALOHA STADIUM STATION

The Aloha Stadium Station represents the first step in preparing the Halawa area for TOD. The station will incorporate a 600-space surface parking lot for park-and-ride, taxis, shuttles, and bus transfer facilities. To prepare the overall stadium site for significant development, it is recommended that the station vicinity be modified to densify its uses:

- Remove the station surface parking lot by placing parking underground or providing parking in a nearby structure.
- Provide a temporary, direct hardscaped connection to Aloha Stadium for stadium goers traveling by transit.
- Construct a transit plaza adjacent to the station with wayfinding, bicycle facilities, and a museum or information center that ties into nearby Pearl Harbor attractions.
- Provide additional improvements to nearby public realm facilities, such as improving conditions along Kamehameha Highway.
- Conduct master plans for waste water and roadway improvements.



Phase 1: Initiate Aloha Stadium Station with a transit plaza

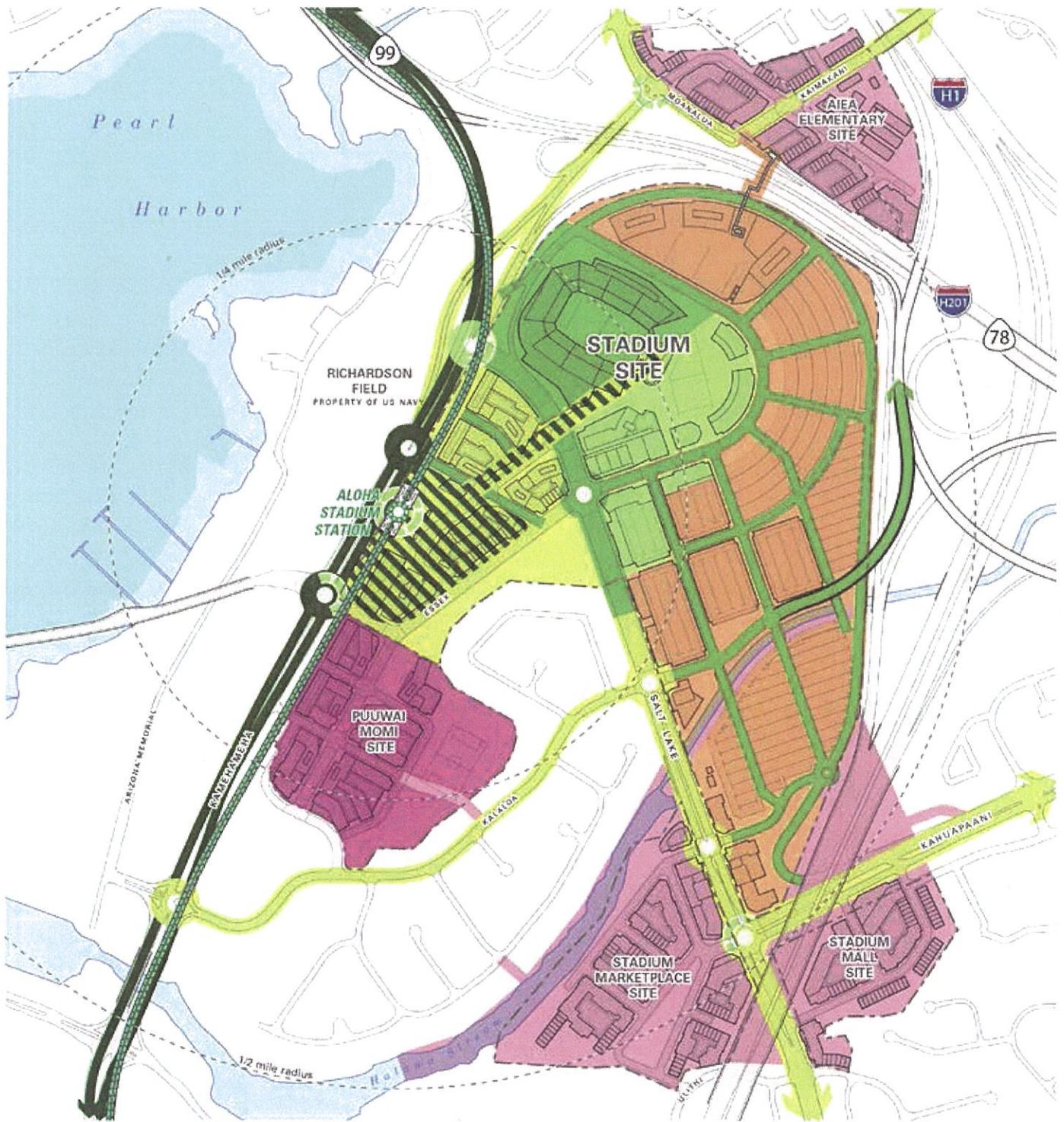


FIGURE 5-2: HALAWA AREA TOD PHASING



- |                                                                                     |                                          |                                                                                     |                                   |
|-------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|
|  | Phase 1: Aloha Stadium Station           |  | Phase 6a: Puuwai Momi Site        |
|  | Phase 2: Aloha Stadium                   |  | Phase 6b: Other Development Sites |
|  | Phase 3: Sports & Entertainment District |  | Development Sites                 |
|  | Phase 4: Mixed-Use Core                  |  | Aloha Stadium Rail Station        |
|  | Phase 5: Stadium Site Infill             |  | Fixed Guideway                    |

### 5.4.3 PHASE 2: ALOHA STADIUM

Replacement of the current Aloha Stadium with a contemporary, first-class stadium with a smaller capacity presents exciting opportunities for ancillary development around the stadium and the new rail station. However, most major sports stadiums take many years of pre-development planning even before construction can begin. No matter where Aloha Stadium is planned to be located on the stadium site, its location will be crucial in determining the character of mixed-use development and the sports and entertainment component of the Halawa area.

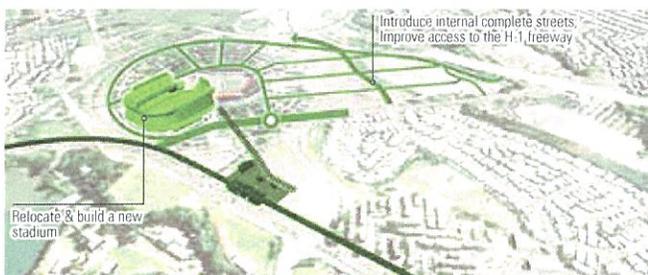
Aloha Stadium is proposed to be relocated slightly west of the current stadium location, allowing for the potential for a phased construction/demolition process in a compact area. This may minimize any potential disruptions to stadium events, such as UH home games, and maximize the remainder of the site for parking or additional development. The following additional improvements could be provided at this phase:

- Improved vehicular accessibility to the stadium site, such as a ramp from the H-1 freeway.
- Provide connectivity and introduce an internal street grid based on Complete Streets concepts and guidelines within the stadium site to delineate surface parking lots, structures, or future development sites.
- Potential reorganization or on-site relocation of the Swap Meet.
- Potential realignment of area streets, such as Salt Lake Boulevard, to optimize stadium traffic and/or future development.

### 5.4.4 PHASE 3: GATHERING PLACE

Mixed-use sports and entertainment districts adjacent to sports stadiums require a threshold level of development, or “critical mass”, in order to be successful. This phase represents the initial investment (aside from infrastructure preparation) a developer may make, allowing for a more intensive year-round usage of the stadium site. The uses that make up the investment rely upon the ability to create a vibrant, lively environment that a broad array of locals and visitors will be drawn to. Successful districts of this type must be large enough, and have the right mix of uses, to foster this environment. The following elements should be located adjacent to Aloha Stadium, preferably along the stadium-station connection:

- A large, programmable open space that can be used for events.
- A hotel.
- A cultural venue, such as a theater, museum, or cinema.
- Supporting retail and dining.
- Introduction of structured parking or underground parking magazines.
- Gateway signage at TOD district edges.



Phase 2: Relocate and build a new Aloha Stadium



Phase 3: Build gathering place and sports and entertainment district

5.4.5 PHASE 4: MIXED-USE CORE

The next phase should be to create a more permanent population that may live on the stadium site by providing residential and office uses, as well as providing retail services to support that population and transit riders at Aloha Stadium Station. The following elements would also support significant residential development on the stadium site:

- Permanent stadium-station connection lined with retail.
- Upgrading of sidewalks and intersections adjacent to mixed-use core.
- Introduction of additional office/institutional uses.
- Public realm improvements on nearby arterials and streets to accommodate increased densities.

5.4.6 PHASE 5: STADIUM SITE INFILL

This phase is primarily contingent on market demand, and therefore development should be located in opportunistic places. Additional infill is generally recommended to be located along Salt Lake Boulevard, allowing for maximum visibility. This phase may require structured parking in order to accommodate required stadium parking. Other recommendations include:

- Upgrades to further area intersections.
- A complete internal pedestrian and bicycle network.
- Potential pedestrian/bicycle connections to other development sites.

5.4.7 PHASE 6: OTHER DEVELOPMENT SITES

The other development sites will be developed independently of the stadium site. These sites are not completely dependent on TOD, but will certainly be influenced by the adjacency of Aloha Stadium Station. The Puuwai Momi Public Housing development, owned by the Hawaii Public Housing Authority, is a prime site for redevelopment in the near- to medium-term, as it is located closer to Aloha Stadium Station than the other development sites. Redevelopment of this site should be coordinated with the stadium site to maximize synergies and connectivity with the rail station.

The potential timing for redevelopment of these sites will depend upon factors such as the physical condition of the existing buildings, evolving market conditions, land values, and the long-term goals of the property owners. The following strategies to further increase overall connectivity in the Halawa area during this phase include:

- Rehabilitate the Halawa Stream and introduce pedestrian amenities.
- Renovation of other existing parks and open spaces of opportunity.
- Introduce a programmed open space underneath the H-1 overpass at Salt Lake Boulevard and Kahuapaani Street.
- Complete additional pedestrian/bicycle facilities to connect ewa/diamond head to the existing Halawa Valley Subdivision and mauka to Aiea.



Phase 4: Build mixed-use core and streets enhancement



Phase 6-a: Redevelop Puuwai Momi site (may take place in shorter term)



Phase 5: Infill the stadium site



Phase 6-b: Revitalize other sites

## 5.5 RESPONSIBLE AGENCIES AND STRATEGIC PARTNERS

### 5.5.1 INTENT

There are many different strategic partners who will be key players in successfully implementing TOD in the Halawa area. Several of them are described below. Coordination at the city-level should be conducted by the Mayor's TOD Sub-cabinet of city departments and relevant agencies.

Although the majority of TOD will be privately initiated and financed, the City would be responsible for certain public improvements, such as street upgrades and regional infrastructure. The City also requires park dedication for almost all residential developments. To ensure the continued safety and quality of new public improvements, memoranda of understanding between responsible entities should be developed to establish maintenance jurisdiction over public and private improvements. New public spaces and infrastructure provided to private entities will also need to be constructed in accordance with City standards in order to be dedicated to and maintained by the City.

### 5.5.2 FEDERAL AGENCIES

Federal cooperation will be crucial in determining how proposed TOD development relates to its surroundings, specifically the adjacent Joint Base Pearl Harbor-Hickam, the United States Naval Base-Pearl Harbor National Historic Landmark, and the surrounding landscape.

- The U.S. Navy may provide feedback on acceptable levels of development adjacent to the Pearl Harbor Causeway.
- The National Park Service (NPS) may provide strategies to mitigate the visual impact of development on the United States Naval Base, Pearl Harbor National Historic Landmark.
- Any public use or modifications of Richardson Field including integrating a public bike trail is subject to review and approval by the U.S. Navy.
- Cooperation with the U.S. Army Corps of Engineers will be crucial to improve the channelized Halawa Stream and mitigate flooding. Any aesthetic improvements to the stream as proposed in this Plan must be coordinated with the U.S. Army Corps of Engineers and should conform to the Rules and Regulations of the National Flood Insurance Program (NFIP).

- All projects must conform to local, state and federal environmental health regulations to support sustainable and healthy design, to maintain and/or improve water quality, to comply with the National Pollutant Discharge Elimination System (NPDES) permit requirements, to apply provisions of the respective government department of health administrative rules, and to comply with all Hawaii Environmental Policy Acts. Where appropriate, a Health Impact Assessment and environmental justice analysis, combining environmental and demographic indicators to ascertain vulnerable sectors of the population utilizing the Environmental Justice mapping and screening tool (EJSCREEN) should be considered. As necessary Environmental Site Assessments (ESA) may be conducted to determine if pollutants and contaminants have been remediated on-site.

### 5.5.3 STATE AGENCIES

State agencies are responsible for planning, constructing, and operating transportation systems such as highways, harbors, and airports. Specific to the Halawa area, the state maintains ownership of a significant portion of potential development sites, including the stadium site itself. State agency coordination can be led by the new TOD Interagency Council. The State's responsibilities can include, but are not limited to:

- Removing the deed restriction which restricts development on the stadium site for recreational land uses only.
- Fostering public-private partnerships to develop the stadium site and improve infrastructure.
- Cooperating with the Stadium Authority and the State of Hawaii Department of Accounting and General Services (DAGS) to plan and coordinate redevelopment of the stadium site.
- Coordinating with Department of Transportation (HDOT) on improvements to nearby roads and highways.
- Coordinating with Hawaii Public Housing Authority (HPHA) on redevelopment of the Puuwai Momi Public Housing development.
- Providing input on the design of crossings along Kamehameha Highway.
- Funding for affordable housing and infrastructure improvements.

- Coordinating with the State of Hawaii Department of Education (DOE) to ensure sufficient school capacity to meet the needs of area school-aged population.
- With the possible relocation of the Oahu Community Correctional Center (OCCC) to the Halawa area, the Department of Public Safety should be consulted about methods and programs to provide safe connectivity and improved access from public transportation to a relocated OCCC for facility residents and clients. This may include separate shuttles from the rail station and enhanced security features.
- Coordinating any aesthetic improvements to the channelized Halawa Stream and natural, upper portions of the stream with the Department of Land and Natural Resources (DLNR).

#### 5.5.4 CITY AGENCIES

City agencies are responsible for planning, construction, and maintenance of public facilities and capital improvement projects as well as regulating new residential and commercial development. These responsibilities, potentially coordinated within the Halawa area by the Mayor's TOD Sub-cabinet can include, but are not limited to:

- Lifting the City's deed restriction (Managing Director, Department of the Corporation Counsel).
- Constructing the Aloha Stadium Station (Honolulu Authority for Rapid Transportation).
- Providing efficient and timely rail service (Honolulu Authority for Rapid Transportation).
- Coordinating bus and rail timetables for efficient transfers (Department of Transportation Services).
- Finalize release of the City's deed restriction to recreational uses once federal government approves removal of their restriction.
- Cooperating with the State and private developers to implement the TOD vision (Department of Planning and Permitting).
- Cooperation with the HDOT to maintain efficient traffic flow along Kamehameha Highway (Department of Transportation Services).
- Coordination with the Disability and Communication Access Board is encouraged. Future projects within the Halawa area will comply with the City's Americans with Disabilities Act (ADA) requirements.
- Supporting cultural programs and small businesses (Office of Economic Development).
- Improving city infrastructure such as streetscapes, multimodal connections, and bicycle lanes (Department of Transportation Services, Department of Design and Construction).
- Maintaining public streets, parks, rail infrastructure, and trees (Department of Facility Maintenance, Department of Parks and Recreation, Honolulu Authority for Rapid Transportation).
- Increasing water, sewer, and storm water capacity, to allow development at TOD intensities (Department of Environmental Services, Department of Design and Construction, Board of Water Supply, Department of Facility Maintenance).
- Due to the public nature of the stadium, a high level of safety should be built into the facility, including the provision of emergency shelters for protection and sanctuary in the event of hurricanes, flood hazards, and other natural disasters on the local community. In addition, it is expected that all new buildings will be built to meet applicable national, state, and local building codes (Department of Emergency Services).
- Current coverage should be adequate since this is a developed area. However, if future projects require more Outdoor Warning Siren coverage, they will be reviewed and approved only after meeting all federal, state, and local standards.
- Requests for additional City emergency evacuation planning and management funding will be made when resources become available at the time projects are completed.
- Additional funding for City services such as police and fire protection will be requested when resources for additional personnel and equipment become available at the time projects are completed (Honolulu Fire Department, Honolulu Police Department).
- Facilitating the provision of high speed broadband internet access to support economic development (Department of Information Technology).
- Updating zoning designations, regulations, and standards (Department of Planning and Permitting).
- Improving multi-modal travel, access, and pedestrian safety (Department of Transportation Services, Department of Design and Construction).

- Planning new off-street bicycle and pedestrian facilities (Department of Transportation Services, Department of Planning and Permitting).
- Providing plan updates and implementation actions to all affected neighborhood boards, as well as area residents, businesses, etc. (Department of Planning and Permitting).
- Providing property tax abatements and other financial tools as incentives for TOD projects (Department of Planning and Permitting, Department of Budget and Fiscal Services).
- Additional funding for City infrastructure improvements will be requested when resources for additional personnel and equipment become available at the time projects are completed (Department of Budget and Fiscal Services).

#### 5.5.5 PRIVATE DEVELOPERS

Private developers are responsible for providing the majority of investment into developing the stadium site and other sites; in other words, they are responsible for maintaining existing buildings and constructing new ones that reflect the new transit-oriented vision for the area. These responsibilities can include, but are not limited to:

- Partnering with State organizations to redevelop the stadium site and Puuwai Momi Public Housing development.
- Building new housing, offices, and commercial uses.
- Attracting ownership and leases for new mixed-use development.
- Constructing and improving privately owned infrastructure such as streets, open spaces, multi-modal connections, and pedestrian and bicycle facilities.
- Property maintenance, including privately owned open spaces, streets, pedestrian and bicycle facilities, and other landscaping.
- Providing community benefits in conjunction with new development, including improvements that help implement the elements in City's Complete Streets Design Manual.

#### 5.5.6 LANDOWNERS AND BUSINESSES

Landowners and business owners are responsible for participating in government processes to ensure business input is taken into account to keep the Halawa area competitive place for business. These responsibilities can include, but are not limited to:

- Attending community meetings.
- Providing insight into market trends.
- Forming BIDs as necessary.
- Sharing in ownership and programming of public spaces.

#### 5.5.7 RESIDENTS AND COMMUNITY GROUPS

Citizens living in and around the Halawa area are responsible for participating in government processes, to ensure that community input continues to be a part of Plan implementation. These responsibilities can include, but are not limited to:

- Attending community meetings.
- Providing input on community context for development projects.

## 5.6 HALAWA AREA TOD ACTION PLAN

### 5.6.1 INTENT

Coordinating different government agencies within the TOD Sub-cabinet is vital to realizing the vision for the Halawa area. An action plan identifying short-term, mid-term, and long-term actions should be created by the TOD Sub-cabinet to help guide implementation. The actions that can be taken by the City are broken down into three categories: policy initiatives, administrative programs, and capital investment.

### 5.6.2 POLICY INITIATIVES

Certain policies within the existing Honolulu Land Use Ordinance or Primary Urban Center Development Plan conflict or do not take into account the tenets of transit-oriented development. The City should take steps to change City ordinances to reflect the changes in development goals. In addition, the City should encourage the State's lifting of the deed restriction on the stadium site, as well as lift its own deed restriction.

### 5.6.3 ADMINISTRATIVE PROGRAMS

There are actions the City and County of Honolulu can take internally to help move development forward. These actions can involve communication between agencies, encouraging additional public programs and events to bring awareness to the Halawa area, and working with the private sector and State to attract and select a developer(s) to redevelop the stadium site and Puuwai Momi. The TOD Sub-cabinet should coordinate city-level actions.

### 5.6.4 CAPITAL INVESTMENTS

The physical changes necessary to make the Halawa area transit-oriented should provide investment in pedestrian, bicycle, and multimodal infrastructure improvements, as well as public spaces and utility infrastructure necessary for new development.

To address future school capacity needs, capital investment in school facilities will have contributions from redevelopment projects within this area paying into the Leeward Oahu School Impact District. Once they are paid, they are subject to the State Legislature appropriating funds first and then building new or expanding existing public school facilities to address any capacity constraints.