

# ***ALOHA STADIUM***

Planning For A New Stadium & Site Redevelopment

D.A.G.S. Job No. 12-10-0862

Phase I

***Final***

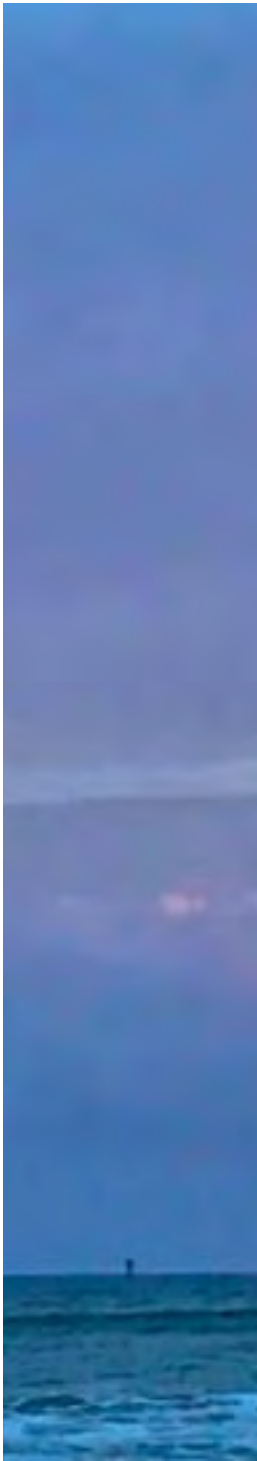


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**WT PARTNERSHIP**

FEBRUARY 15, 2019



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**EXECUTIVE SUMMARY**

At the request of the State of Hawaii DAGS, the Aloha Stadium: Planning for a New Stadium & Site Redevelopment Team (henceforth the Development Design Team) has undertaken a study analyzing the relative merits and drawbacks of the current Halawa site against a range alternative site options.

The study considers a wide range of measures, including site access, transit connections, regional demographic and development opportunities and incentives. Based on a high-level survey, six potential sites were analyzed in detail:

- a. The Halawa Site (existing Aloha Stadium site)
- b. The University of Hawaii at Manoa
- c. The University of Hawaii at West Oahu
- d. The Ala Wai Golf Course
- e. Kapiolani Regional Park
- f. The Kalaeloa Airport

This *Aloha Stadium: Planning for a New Stadium & Site Redevelopment* report is a catalogue of the process of selecting the sites chosen for evaluation, a repository of the information used to evaluate the sites, a record of the interaction with DAGS and the Stadium Authority and a summary of the numerical ranking of sites in conclusion.

The study has concluded and it is the recommendation of the Development Design Team that the Halawa Site is the most appropriate, viable and development-ready site for a new 35,000 seat stadium and ancillary surrounding development.

This report and its resulting recommendation sets the stage for the ongoing master planning effort and preliminary economic analysis of the Halawa site for a new Stadium & Site Redevelopment. The key element of the next portion of this current phase of work is to undertake preliminary master planning for the Halawa site. The alternative site analysis work that this report now concludes will feed into the requirements for the Environmental Impact Study (EIS) which mandates that alternative sites be considered for a new stadium, not simply an analysis of the current or preferred site as a foregone conclusion.

The EIS and associated analyses will be undertaken by the Development Design Team in a subsequent phase at the conclusion of this current work effort.

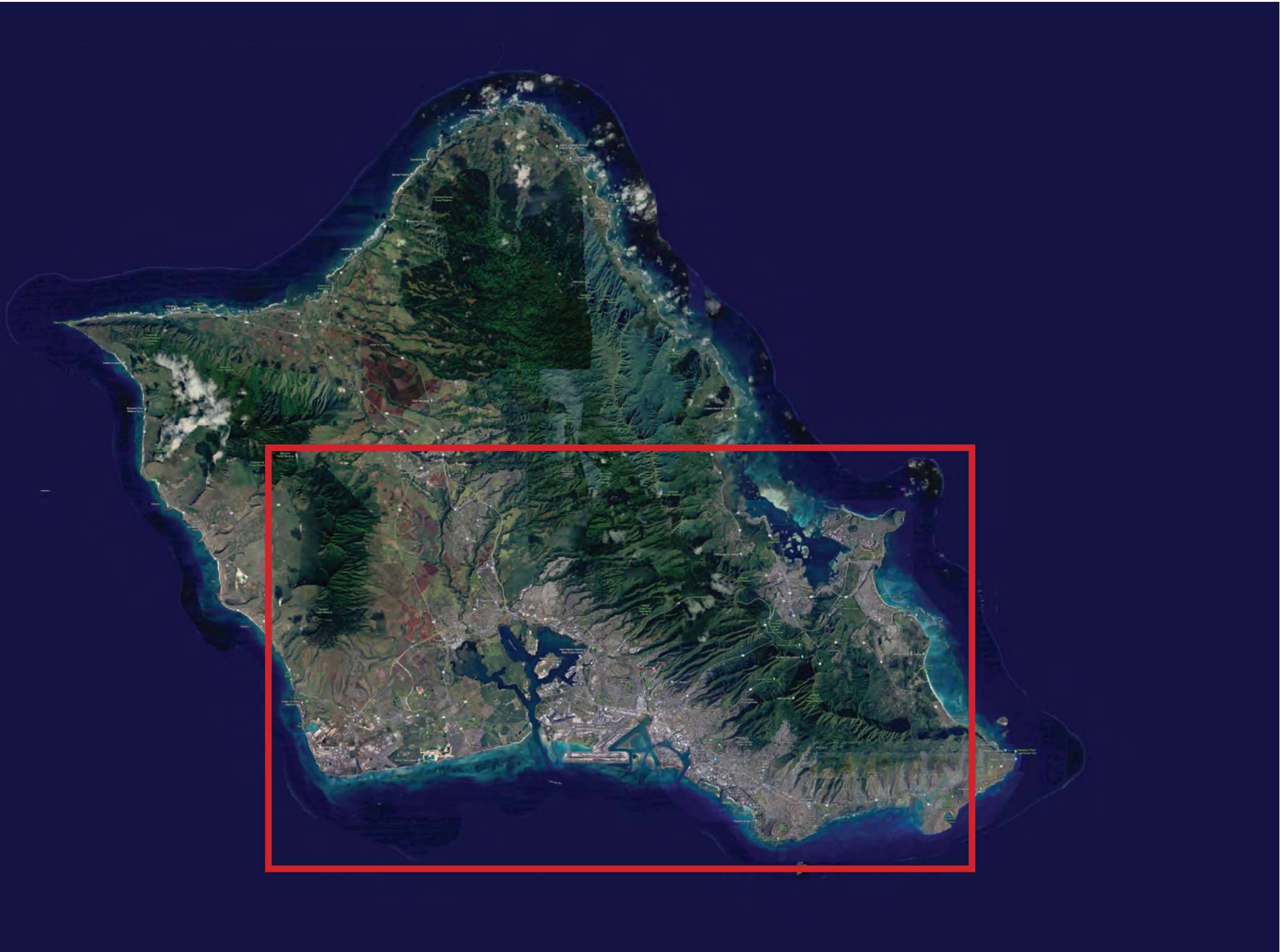


REFERENCE DATA MAPS OF HONOLULU

Reference data maps were developed from various data sources, including the US Census Bureau, the County of Honolulu and the State of Hawaii. They were generated using QGIS software and broken into the following categories for evaluation:

- Population Density
- Land Ownership
- Hazard Zones
- Incentive Zones
- Income & Employment
- Transportation

These categories form a basis for evaluation of each of the proposed sites individually and comparatively. The reference maps are confined to the south side of the island, specifically centers on downtown Honolulu, Waikiki and Oahu. The reference maps served as a base for initial site selection.

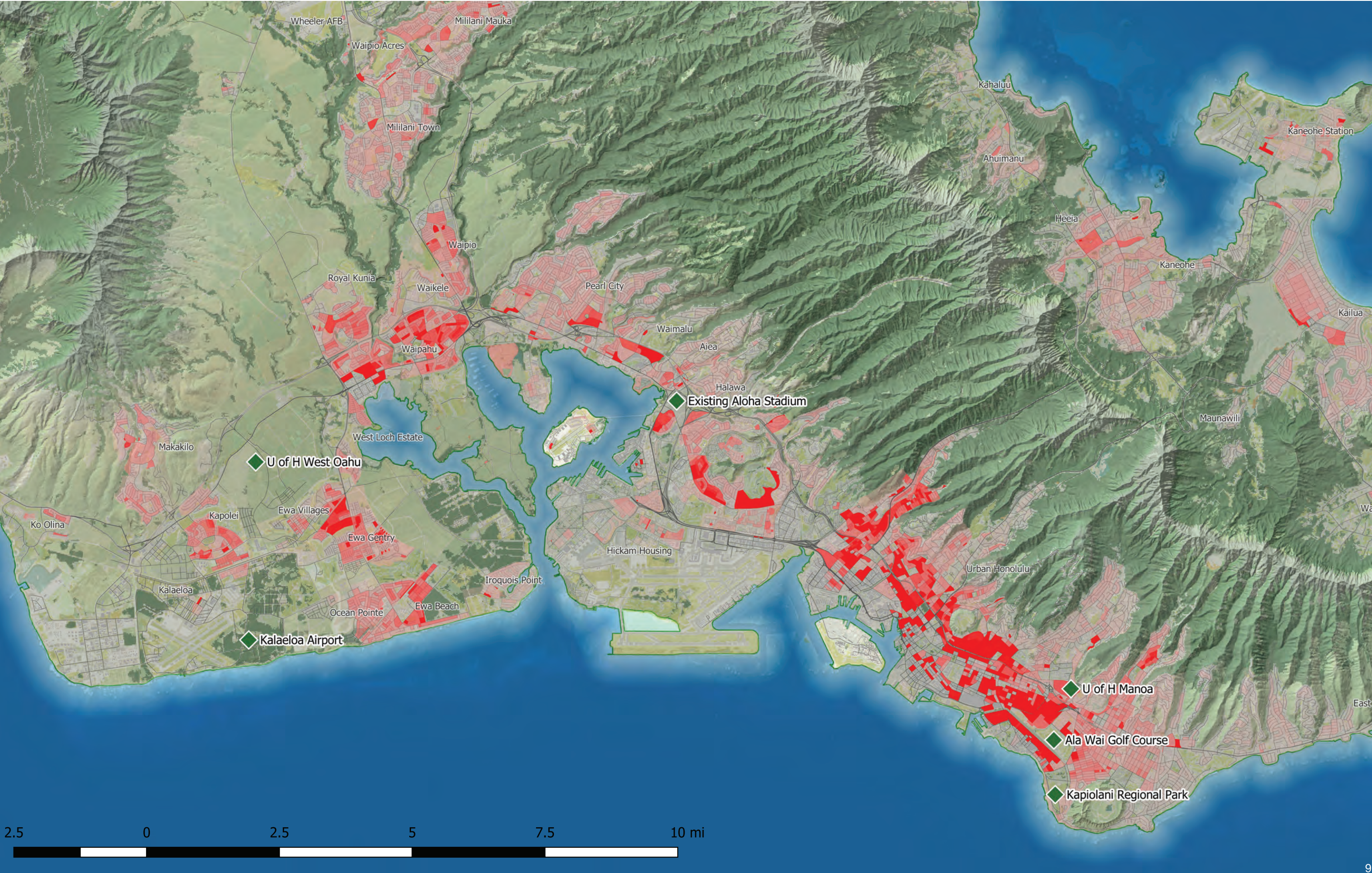
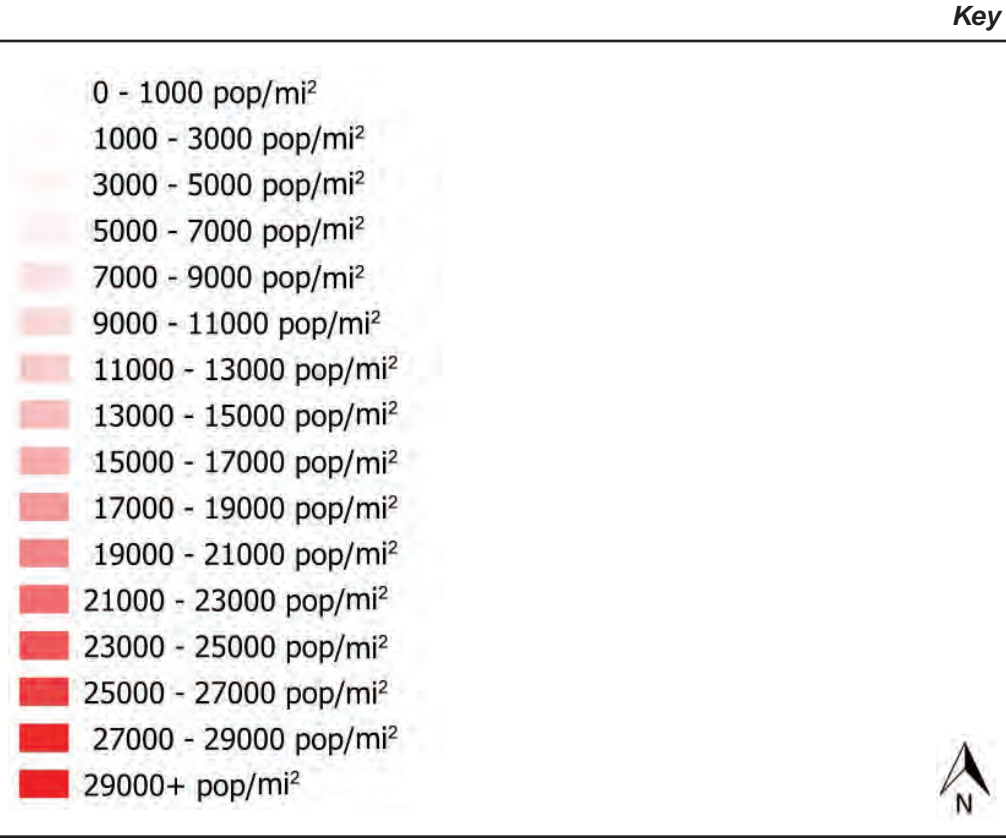




# Population Density

Population density is shown as it currently exists in the referenced areas. It does not take into account future growth. The areas of the most dense population are located between the airport and Waikiki, north of downtown Honolulu.

Population density can be used in different ways for evaluation. Areas of dense population can be seen as good locations for development, with many user groups located nearby, while areas of sparse population could be seen as prime spots for future growth.

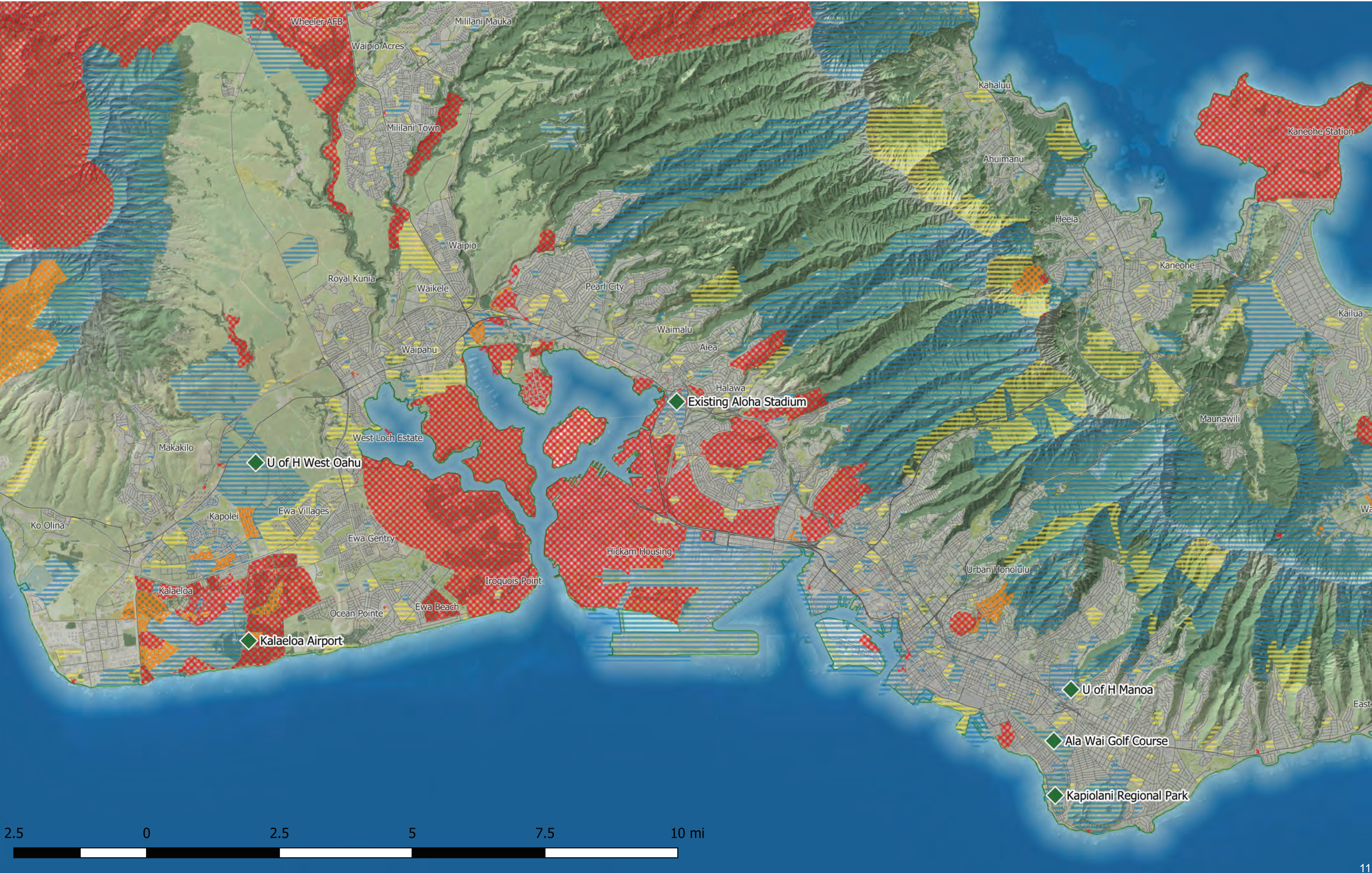
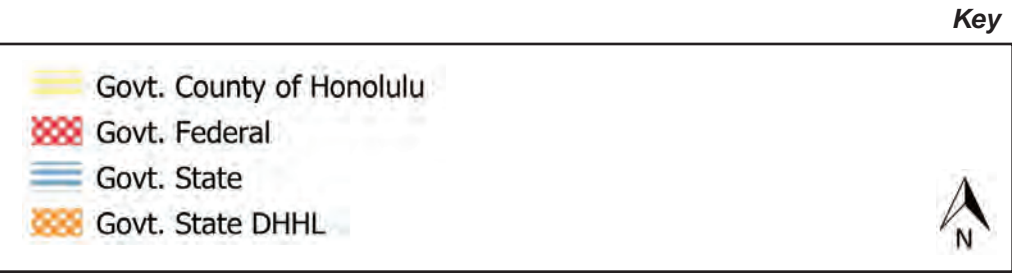




# Land Ownership

Existing land ownership for this project is a significant factor in site selection. Land that is already owned/controlled by the State of Hawaii will be much easier to utilize vs. land that would need to be purchased/acquired.

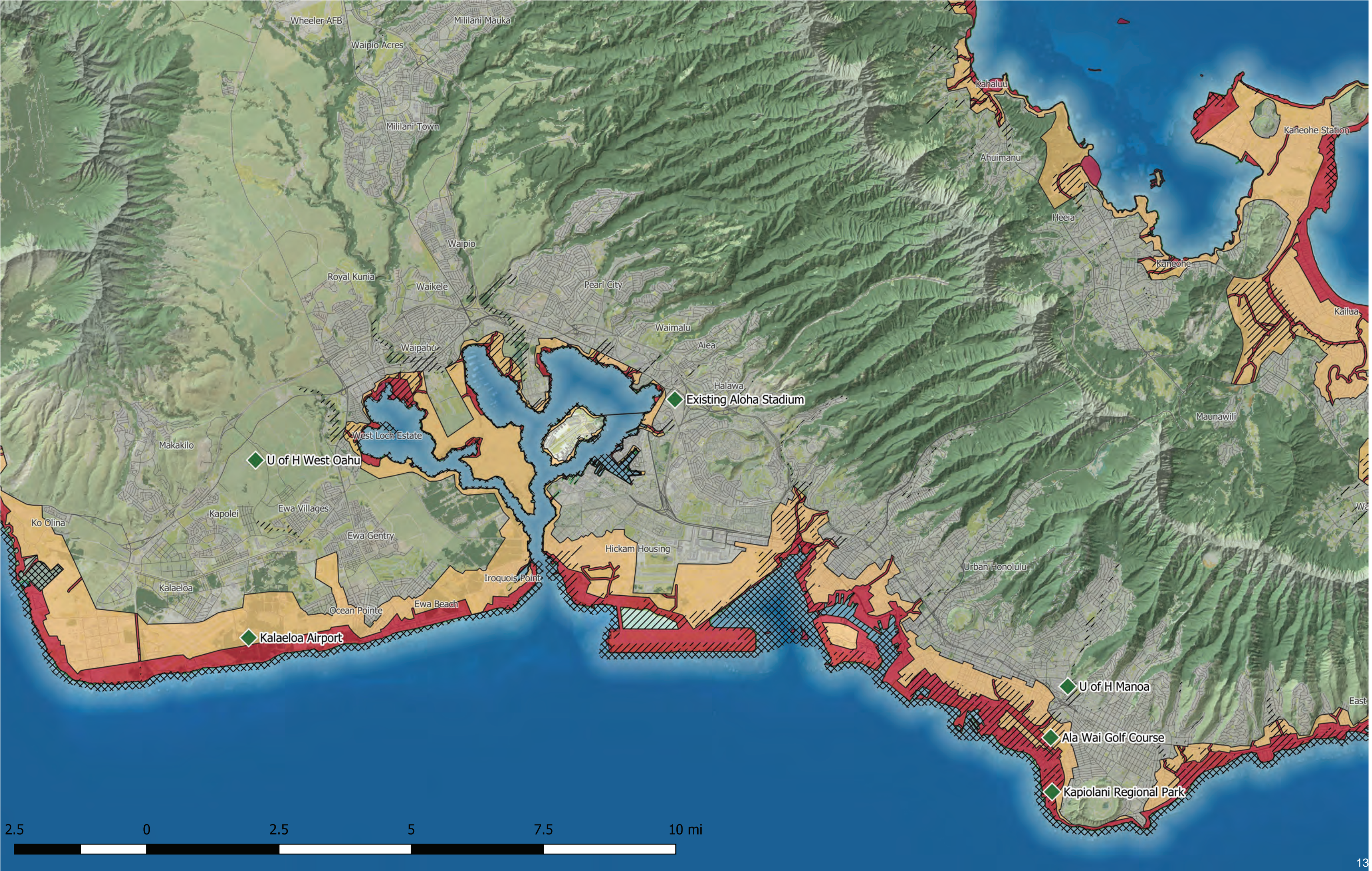
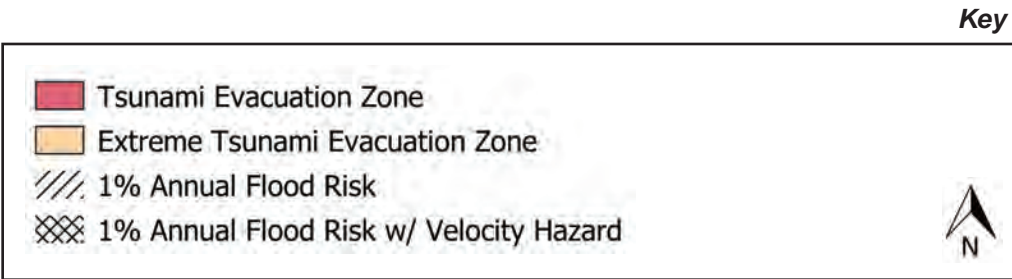
The design team also wanted to be careful to not consider any land that is to be preserved as natural preserves.





# Hazard Zones

Oahu’s position as an island in the Pacific leaves it open to several hazards unique to the State of Hawaii, and not the rest of the mainland. These hazards were taken into consideration when selecting a site. The shoreline of Oahu and inward up to ½-mile in certain areas falls into a tsunami hazard zone and extreme tsunami hazard zone. Additionally these areas fall under flood risk in extreme weather. An additional consideration was research into a general sea level rise due to changes in climate. These hazards all play a part in considering whether or not to locate a potential development in these areas, but don’t completely rule out sites near the ocean. Hazards can be addressed, land can be elevated and potential hazard zones can become viable.



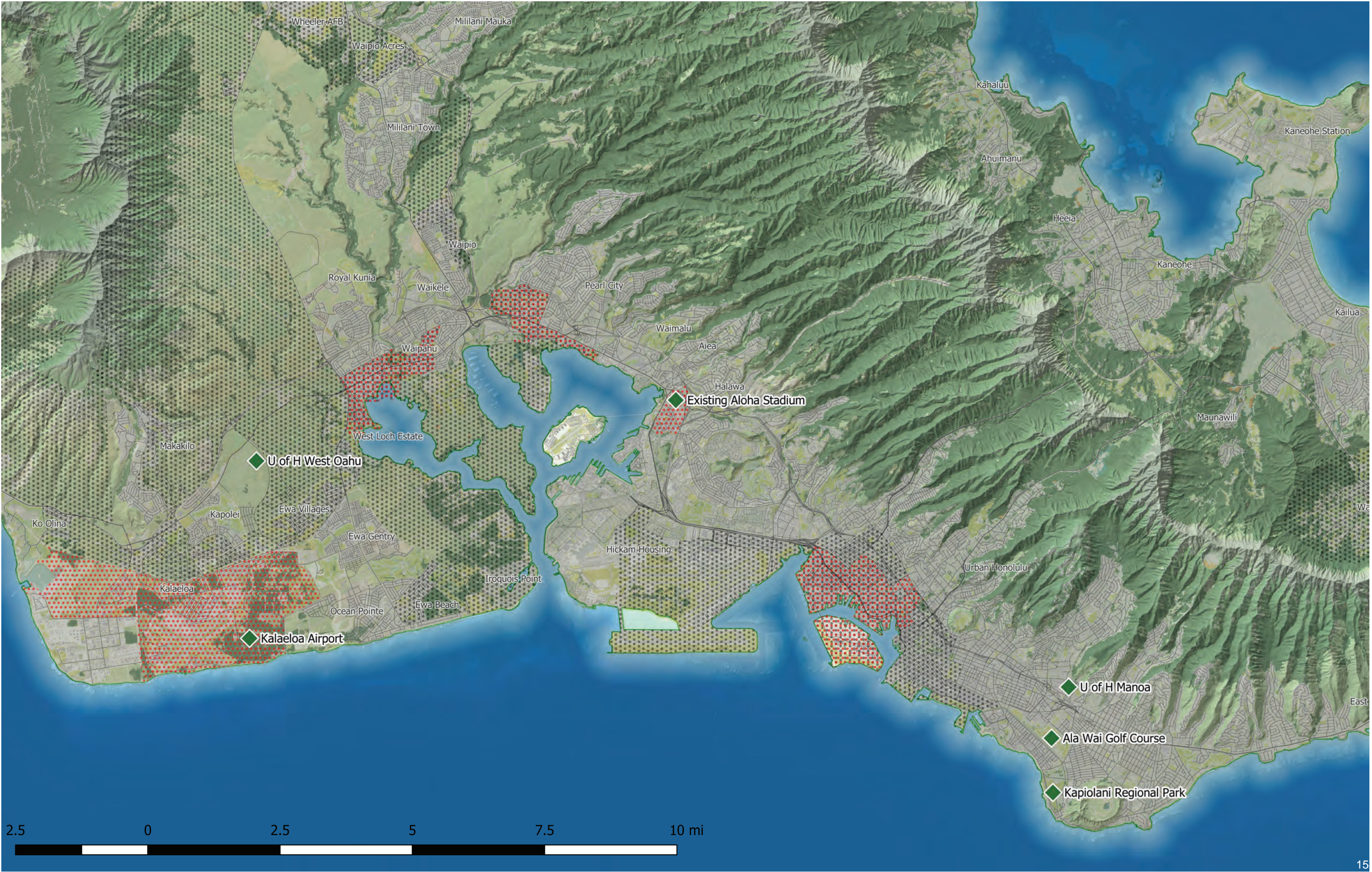
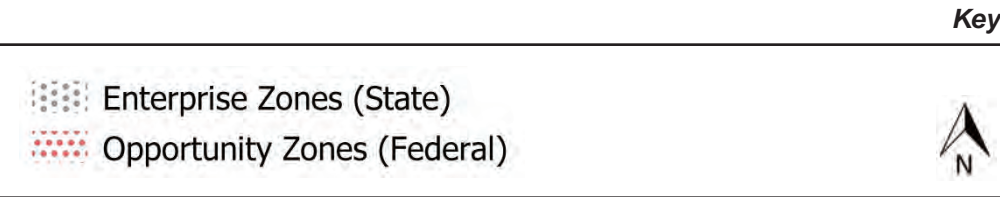


# Development Incentive Zones

There are two geographically-defined incentive programs covering portions of Oahu, which could help to offset development costs on covered sites: Enterprise Zones and Opportunity Zones.

The Enterprise Zones were created by the State of Hawaii to help stimulate certain types of business activity and increase employment in targeted areas of the state. It is intended to bring business and opportunity to less affluent areas.

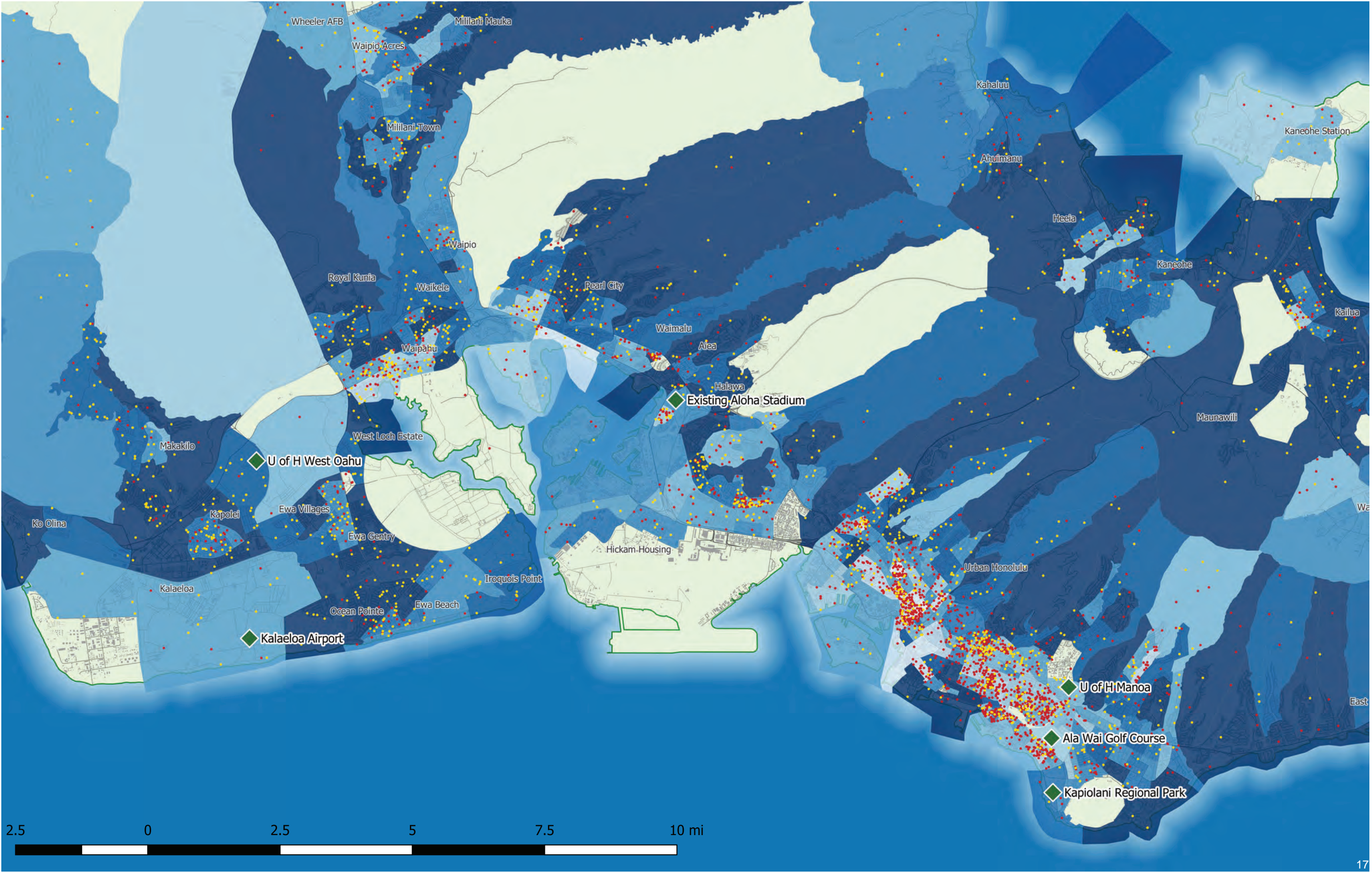
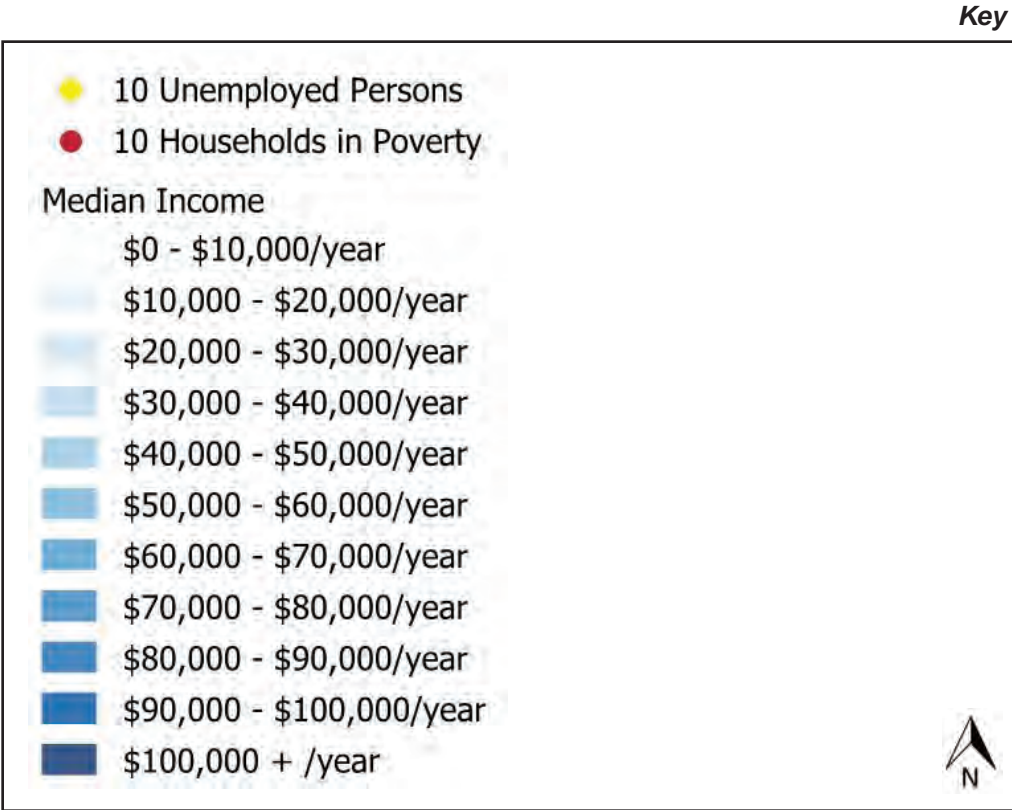
The Opportunity Zones were created by the Federal Tax Cuts and Jobs Act in order to provide incentives for investors to reinvest unrealized capital gains into Opportunity Funds in exchange for temporary tax deferral and other benefits. The Opportunity Funds will then be used to provide investment capital in certain low income communities.





Income & Employment

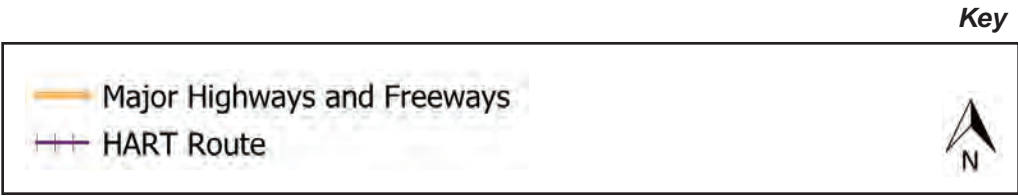
Income and employment were both considerations in determining locations for this potential project development. Areas of high income are seen as areas with significant potential disposable income to be used at events and in the commercial areas. More important, areas of low income and low employment are seen as locations that could significantly benefit from this development with job opportunities that could be created in the immediate area.





# Major Transit Routes

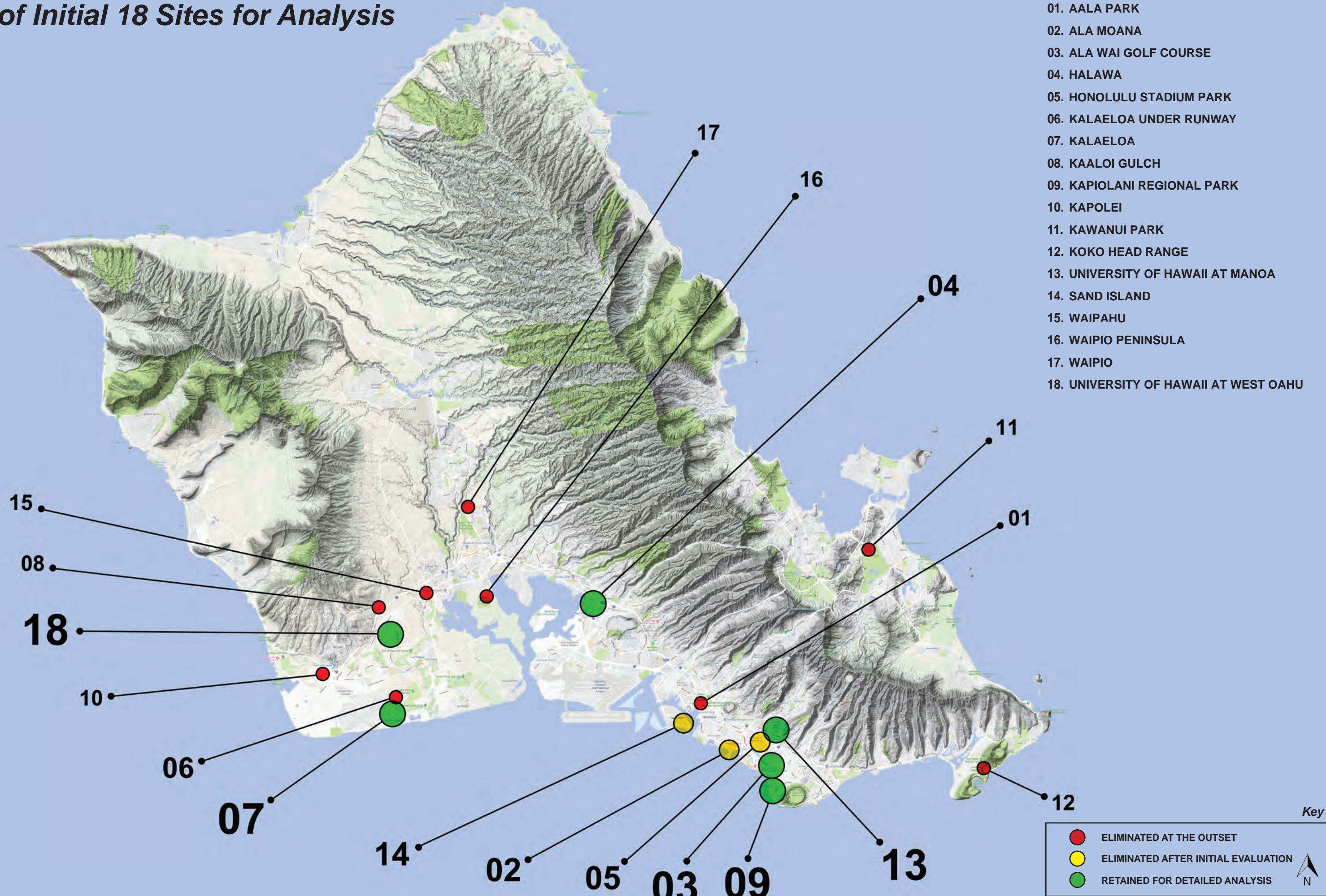
The density of Honolulu offers challenges to certain particular areas for development. Transportation infrastructure would need to be built or improved in order to meet the demand of a stadium development. Searching for sites with existing highway access for visitors and close proximity to the harbor and airport, for shipping of event materials was an important consideration in locating site possibilities. Additionally, the HART line, currently under construction was a major consideration as it has the capability of bringing large numbers of visitors to stadium events without increasing demand on already busy highways, and can reduce parking requirements for a stadium.





Map of Initial 18 Sites for Analysis

- 01. AALA PARK
- 02. ALA MOANA
- 03. ALA WAI GOLF COURSE
- 04. HALAWA
- 05. HONOLULU STADIUM PARK
- 06. KALAELOA UNDER RUNWAY
- 07. KALAELOA
- 08. KAALOI GULCH
- 09. KAPIOLANI REGIONAL PARK
- 10. KAPOLEI
- 11. KAWANUI PARK
- 12. KOKO HEAD RANGE
- 13. UNIVERSITY OF HAWAII AT MANOA
- 14. SAND ISLAND
- 15. WAIPAHU
- 16. WAIPIO PENINSULA
- 17. WAIPIO
- 18. UNIVERSITY OF HAWAII AT WEST OAHU



SITE SELECTION PROCESS

In order to meet the requirements set by the State of Hawaii DAGS to evaluate additional sites around Honolulu, along with the existing Halawa Site for its viability in locating the new Aloha Stadium Development, the Development Design Team began the process of selection with a clean slate. In order to give a fair evaluation of every possible site and treat all sites equally, Oahu was evaluated with no preconceived notions about where is the best location. The team embarked on the process treating all possible locations equally.

The first step in the process of selecting a site was to analyze all available data pertaining to the island of Oahu. Reference maps were overlaid with data showing population density, open land, hazard zones, development and incentive zones, relative income areas, transportation maps and maps showing land ownership. These maps were then analyzed for possible locations.

Initial criteria in finding these locations was to find possible sites in areas that had enough open land to construct the Stadium Authority's desired stadium capacity footprint and also to find land that would be fairly easily acquirable, meaning that it should already be owned or controlled by the State of Hawaii. This initial search led the team to eighteen (18) potential sites around Oahu and Honolulu.

The initial site selection process was then a quick review of these 18 sites, to narrow the field down to a more reasonable number of sites for evaluation. Looking more closely at these sites, the Development Design Team eliminated half (9) of the sites due to remoteness of location and poor access, projected difficulties in acquiring the sites, complex terrain for construction or in simple comparisons to other sites that were located nearby.

Next the analysis was a slightly more in-depth review of the particular sites chosen. This was called the "desktop review." Sites were seen as potential sites for development and simple stadium diagrams were laid out on the sites to check for viability. After this process, 3 additional sites were eliminated from the process: The Sand Island Site, the Ala Moana Site and the Honolulu Stadium Park Site.

3. SITE SELECTION PROCESS

This process of elimination left the Development Design Team with 6 sites for full evaluation:

- 1. Halawa
- 2. University of Hawaii at Manoa
- 3. University of Hawaii at West Oahu
- 4. Ala Wai Golf Course
- 5. Kapiolani Regional Park
- 6. Kalaeloa Airport

Full evaluation of the six (6) sites included the following:

- The creation of an evaluation Isochrone to gather specific data pertaining to each of the individual sites.
- An in-person visit by the Development Design Team to each of the sites to photograph and catalog the existing conditions, conduct a visual inspection of the site and put forth initial thoughts on development pros and cons.
- Development diagrams and test fits, to understand how the stadium and potential other development pieces could fit on the site.
- The creation of an evaluation matrix (outlined subsequently in this book) broken into four (4) categories and multiple sub-categories that were discussed and ranked and debated amongst the Development Design Team to reach a numerical ranking of each of the sites.

During the course of the site evaluation process, the Development Design Team prepared a workbook and met with DAGS and with the Stadium Authority (Client Group) to review the progress and collaborate on the site analysis. The workbooks were distributed to the Client Group and filled out individually by each of the members. They were used to promote conversation about the project in 5 ways:

- **Conversation 1** sought to identify what the key elements that make Hawaii such a unique and special place and to help determine what is important to the people of Hawaii. This background information is critical in evaluating site options.
- **Conversation 2** sought to define the site evaluation criteria. The Development Design Team prepared a preliminary site evaluation matrix, which was reviewed and modified to the final version contained in this book, using input from the Client Group.

- **Conversation 3** presented the 6 sites to the Client Group for their initial thoughts and comments.
- **Conversation 4** dealt specifically with the future Aloha Stadium itself, and was used in further determining the size and types of events that might be held there in the future, as well as initial ideas on what vision the Client Group might have for its aesthetic.
- **Conversation 5** was a wrap-up conversation and a time to let the Client Group imagine what the completed project would mean to the State of Hawaii and City of Honolulu.

At the end at the end of this process, the Development Design Team reached its conclusion on which site to recommend to the State of Hawaii DAGS and the Stadium Authority.



18 INITIAL SITE LOCATIONS

1. AALA PARK

2. ALA MOANA

3. ALA WAI GOLF COURSE

4. HALAWA

5. HONOLULU STADIUM PARK

6. KALAELOA UNDER RUNWAY

7. KALAELOA

8. KALOI GULCH

9. KAPIOLANI REGIONAL PARK

10. KAPOLEI

11. KAWANUI PARK

12. KOKO HEAD RANGE

13. U OF H AT MANOA

14. SAND ISLAND

15. WAIPAHI

16. WAPIO PENINSULA

17. WAPIO

18. U OF H AT WEST OAHU

9 DESKTOP REVIEWS

2. ALA MOANA

3. ALA WAI GOLF COURSE

4. HALAWA

5. HONOLULU STADIUM PARK

6. KALAELOA

9. KAPIOLANI REGIONAL PARK

13. U OF H AT MANOA

14. SAND ISLAND

18. U OF H AT WEST OAHU

6 SITES FOR EVALUATION

3. ALA WAI GOLF COURSE

4. HALAWA

6. KALAELOA

9. KAPIOLANI REGIONAL PARK

13. U OF H AT MANOA

18. U OF H AT WEST OAHU



Desktop Reviews of Sites Excluded From Final Group



2. ALA MOANA

Ala Moana Park is located between downtown Honolulu and Waikiki, just to the south of the Ala Moana Shopping Center. It is a recreational park and public beach offering swimming, picnicking, tennis courts, a yacht club and walking/biking trails. A stadium development could fit nicely in the area right near the public beach and the Magic Island Lagoon, but would likely divide the park in two. The location, in conjunction with the Ala Moana Shopping Center is the eastern terminus for the HART line. Parking could also be shared with the Ala Moana Shopping Center.

While the Ala Moana location seems like it could be ideal for a stadium, it would eliminate a significant and highly used parkland from the City of Honolulu. The site is squarely located in multiple tsunami and seal level rise hazard zones. Additionally, the City of Honolulu has already embarked on numerous additions and improvements to the park, due to be completed by 2025.



5. HONOLULU STADIUM PARK

Honolulu Stadium Park is located on King Street in the Mo'ili'i district of Honolulu. The park was the original home of the Honolulu stadium which opened in 1926, featured 25,000 seats and hosted numerous events and concerts before it was finally demolished in 1976 after the completion of Aloha Stadium. The location is now a neighborhood park featuring walking paths, play areas and picnic areas. The Park is a short walk from the University of Hawaii at Manoa, and was once home to Rainbow Warriors football team.

While the idea of rebuilding a stadium on the site of the original Honolulu Stadium would be interesting, the site as it exists is far too small for the stadium requirements and would necessitate the purchasing and demolition of numerous homes, businesses and other buildings to create the necessary space. It also has no parking available and is not near any of the proposed HART stations.



14. SAND ISLAND

Sand Island is an industrial area owned by the State of Hawaii. Portions of the island have been converted in to a beach front camping and recreation area. While much of the remainder is given over to private use, the property is held by the state. The 73 contiguous acres of the island not given include the Honolulu Harbor, the Coast Guard and the city wastewater treatment plant which are bounded by Sand Island Parkway.

While Sand Island is geographically proximate to urban Honolulu, it is quite isolated from a transportation perspective. Only the Lt. John R. Slattery Bridge connects Sand Island back to the city and H1 via the Sand Island Access Road. This bottleneck greatly reduces the coverage of the Sand Island 10-minute isochrones, meaning that only 173,100 residents of Oahu live within a 10-minute drive of the site. Combined with complete lack of bus and HART access, this makes Sand Island one of the least accessible sites in the study (second only to Kalaeloa) and with very few options to remediate the issue without negatively impacting harbor operations.



ALOHA STADIUM | ALTERNATIVE SITE EVALUATION





The Workbook

For this effort, the Client Group, comprised of representatives from DAGS and the Stadium Authority, were requested to respond to a pre-prepared workbook designed to prompt opinions about the nature and history of Hawaii, the goals of the project, the criteria used in evaluating the potential sites and the memories of and future uses of the stadium.

The following section is a consolidation of the Client Group's responses to that workbook. Everyone's opinions have been catalogued on each page and used by the Design Development team both in preparation of the analysis matrixes and the understanding of the importance of the project and the evaluation of each of the sites.

The responses and comments are written in green throughout the book. It is important to note that the collected comments are those of the Client Group only and not the Design Development Team. These comments and opinions were then used by the Design Development Team along with their own opinions in the site selection process.



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# HAWAII & THE PROJECT



## Questions About the Project

1. What, in your opinion, is the ultimate goal for this project?

- » Provide a stadium facility at best value to the taxpayer
- » A self-sustaining, centralized entertainment center that would be a highlighted location with consideration given to transportation, revenue generating opportunities, other entertainment venues, island-wide
- » To provide a new destination facility for sports/entertainment to serve the community of the state of Hawaii. The facility should be sustainable and feasible
- » To decide a "location", to decide to "build new" or remodel existing structure
- » Provide safe, viable sports/entertainment facility for use by the people of Hawaii
- » Two major anchor tenants (transit station/new stadium) on property with ancillary development in between. Create a sport /entertainment facility that is also for the community.
- » New stadium
- » A stadium with vibrant surrounding uses that will be a gathering place for recreational uses including sports, entertainment, shopping and other uses that can generate revenue to sustain the use and promote TOD



## Questions About the Project

2. What, if anything, can this project provide that the State of Hawaii doesn't already have?

- » Reduced maintenance costs + versatile facility
- » A large enough venue to accommodate mid-larger scale events that would not compete with other existing venues
- » A facility that can host multiple sports events while being flexible & have the capacity to also be active and host events 365 days a year. What it includes a broad definition of activities.
- » A workable, safe, money maker project
- » Safe, modern & economic facility
- » Major destination for all who visit the state of Hawaii
- » State of the art venue that can host various events
- » A multi-use stadium property which will be source of pride for the community and garner more entertainment uses



## Questions About the Project

3. At the end of this project, how will you measure success?

- » Self-sustaining venue that is operational year-round
- » We would have feasible plans to implement sustainable development of the ultimate goal facility
- » Usage of project, monies spend to get the project doing, time spent to get the project going
- » Popularity for use by Hawaii, economically viable
- » Completion of a new facility/stadium
- » Stadium that has events throughout the year that will generate revenue for the state
- » Similar to question #2, new multi-use stadium that will take into account future uses in a central location





#### Questions About the Project

4. What is something uniquely Hawaiian that you would like to see reflected in this project?

- » The open, Aloha Airport and sense of welcome, with respect for all local cultures and partnerships of the environment
- » Hawaii in Name; Hawaiian sports + entertainment HOF
- » Architecture should reflect Hawaiian culture / environment
- » View and connection of water and Pearl Harbor in a place central to the island. Also tribute to Native Hawaiian culture



#### Questions About the Project

5. Mauka or Makai?

- » In between. Hawaii's "Ahupua'a" flow Mauka to Makai.
- » Both
- » Represent both
- » Makai
- » Closer to Makai



#### Questions About Hawaii

Mark 3 that best describe a vision of Hawaii in your mind.













Halawa



Pro

- » centrally located
- » centralized location, rail transit station
- » lots of space, transportation access means (3 highways / 1 rail), proximity to Pearl Harbor, central location for whole island
- » people are used to the present site
- » proper zoning, adequate water/sewer, transit stop, highway confluence (west, east, windward), share parking with other development, large open + cleared area, close to airport
- » one of the largest state owned properties. Site is centrally located.
- » large site accessible (transportation)
- » central location, TOD/rail, size of property for development related to stadium entertainment
- » central location with access to all major freeways, large site
- » existing, known to public

Con

- » opportunity lost
- » need improved freeway on/off ramps
- » traffic mess, falling apart
- » facility stadium has to operate during construction
- » roadways in/out
- » lack infrastructure to maximize development
- » student accessibility (UH)

University Of Hawaii, West Oahu



Pro

- » student participation
- » vast land area
- » potential large land area, near rail
- » land available?
- » large land area, transit
- » large size site to development, on campus, multiple HART stops
- » undeveloped so lots of potential roadway in/out, lots of land
- » large land area
- » future growth of population

Con

- » away from current population center
- » not centrally located
- » windward/east Honolulu residents will not travel here
- » too far for many parts of the island where people live
- » lack of water/sewer
- » one way in one way out
- » distance from population (far)
- » far from most users groups
- » infrastructure, away from population center / isolated to one side of island
- » distance from Waikiki

University Of Hawaii, Manoa



Pro

- » student life, participation
- » close to Waikiki
- » close to Waikiki, students @ Manoa
- » mostly benefits the U of H
- » close to school campus
- » close to other venues
- » close to students
- » near university
- » student access, close to Waikiki, amenities (restaurants close by)

Con

- » community opportunity
- » space limitations, not conducive to all areas of island
- » land-locked, bad freeway access, no near time plans for trail, bad traffic during events
- » bad traffic mess, can they (U of H) afford + maintain the project
- » lack of water/sewer, lack of road access, disturbance of existing residents, no HART
- » lack of property to expand sports complex, partially developed already
- » traffic in/out, small site, limitation of surface streets
- » long time to development, zoning, roadways in/out, lack of development in surrounding area
- » size restricted, infrastructure (transportation)
- » traffic

Ala Wai Golf Course



Pro

- » nearby communities, close to UH
- » close to Waikiki
- » land area
- » land available, convenient for access
- » close to populated area
- » lodging + hotels, community support (near Waikiki)
- » close to Waikiki
- » pretty view, more room for development
- » large area, near Waikiki / commercial center
- » existing amenities, restaurants and entertainment

Con

- » golfers lose
- » flood zone potential
- » (access, disruption to community), flooding, displaces golfers
- » near the water with possible entertainment in future
- » road access, water/sewer lack, flooding, popular golf course, no HART
- » will be evacuation zone, re-zoning
- » traffic in/out, surface streets, distance to H1
- » same issue with UH, too close to Waikiki, expensive land
- » site access limited, sea level rise?
- » existing use Golf Course



Kapiolani Regional Park



Pro

- » nearby communities
- » close to Waikiki
- » land area
- » large open area
- » proximity, close to Manoa campus
- » close to Waikiki
- » closer than Halawa is to most user groups
- » near Waikiki, large land area
- » close to Waikiki

Con

- » community opposition
- » does not have ingress/egress to accommodate stadium
- » access & potential for future access, much beloved greenspace, sea level rise
- » takes away for current events, green space will be “less”
- » bad access, no HART, the Trust does not allow profit
- » access
- » traffic in/out, far from H1
- » not a good idea, takes away from a much loved park, should not be an option
- » limited access, sea level rise?
- » restriction in operations of stadium (noise)

Kalaeloa Airport



Pro

- » abundant land
- » land area is sufficient to meet needs
- » land area
- » large area
- » growing community
- » far from Honolulu
- » land available
- » land area

Con

- » far from current population center
- » not centrally located
- » remote, may be restricted by air development requirements, access by rail, windward/east Honolulu will not travel here
- » too far!
- » water/sewer, floody, flight path restriction, no HART
- » location – for most
- » vicinity to airport, development restrictions
- » too far, roadways in/out, not on rail line, not a viable option
- » infrastructure, FAA height restrictions?
- » infrastructure

Sand Island



Pro

- » spur improvement of the area
- » location is centrally located
- » large area
- » not residential
- » industrial land
- » large land area
- » available land

Con

- » access
- » limited ingress/egress
- » industrial area, displaces businesses, more suited for harbor function, no future rail access
- » bad, traffic access is BAD!, near water so possible encroachments
- » remote, no HART, water/sewer?, better used as shipping seaport, flooding?
- » road access transportation, ingress/egress challenges, will be in evacuative zone
- » one access in/out
- » far from everything and difficult in/out, not a viable option
- » displacement of industrial infrastructure, sea level rise?, constricted site access
- » rising sea levels







### Stadium Events












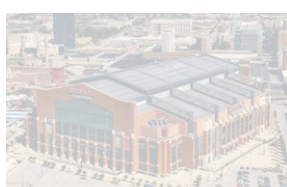
What events would you most like to see in a new stadium? (Mark as many as you want.)

10  University of Hawaii Rainbow Warriors Football	9  Major Stadium Concert	8  Professional or International Soccer Match	8  College Football Bowl Game
8  NFL Pro Bowl	7  Rugby Match	6  University of Hawaii Women's Soccer	5  WWE Smackdown
4  X-Games	4  CrossFit Games	3  Monster Jam	<ul style="list-style-type: none"> <li>Baseball</li> <li>UFC</li> <li>Sumo Wrestling</li> <li>HS Sports</li> <li>Spartan Race</li> </ul>



### Stadium Aesthetic

What aesthetic look can you picture in your mind for a new stadium? (Mark as many as you want.)

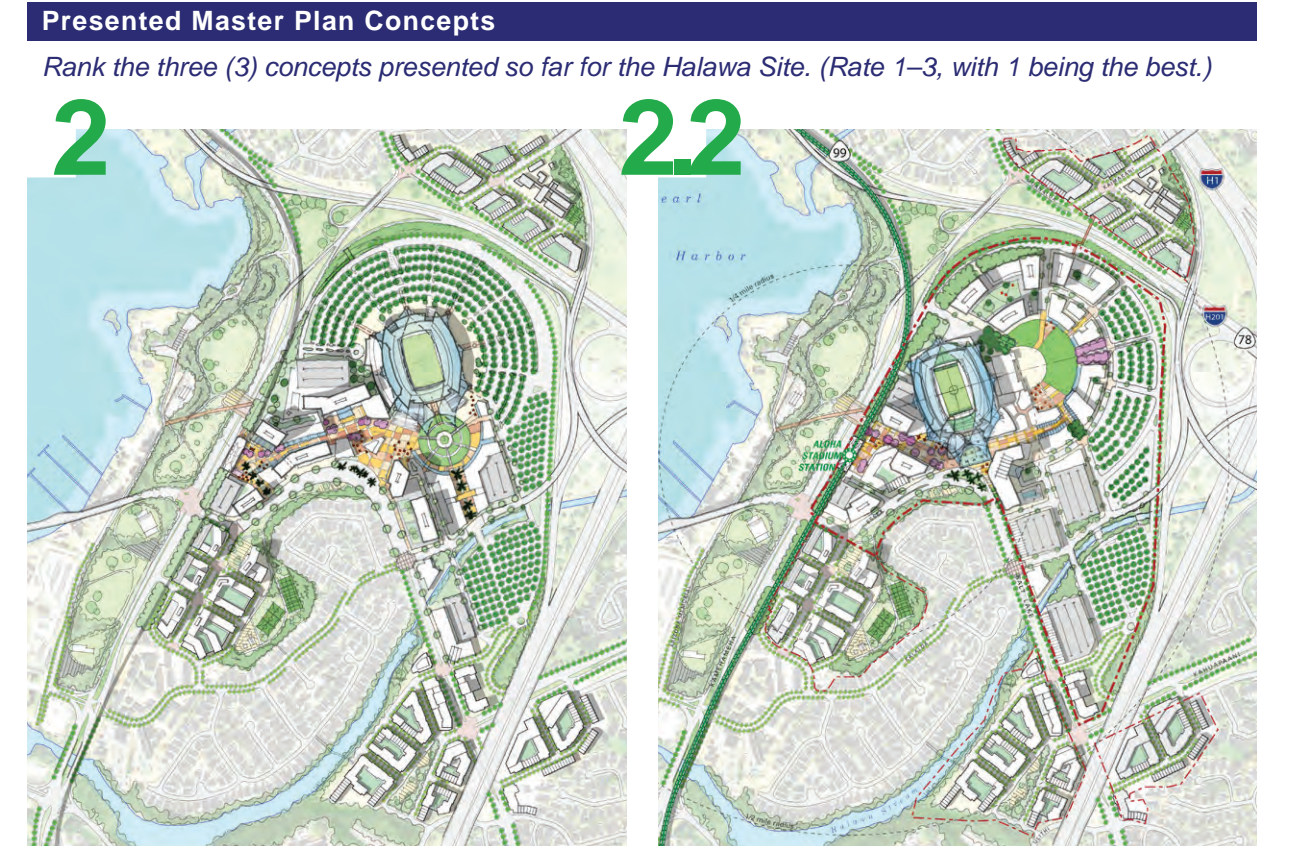
6 	6 	4 	3 
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### Existing Stadium

What do you like best about the current stadium?

- » It is a fair and reasonable location to serve all of Oahu: near to Waikiki, West Oahu, East Oahu, Windward Oahu
- » location, openness, history (memories of past events), access / centralized flexibility
- » convenient but traffic problems
- » road access to most parts of the Island, good site lines
- » centrally located site and a major gathering place, creating enjoyable and memorable moments
- » nice open feel, accessible to both east + west side, ability to tailgate @ UH games
- » location and available resources
- » "the wave"







**Future Thoughts**

The front page of the Honolulu Star-Advertiser is featuring this project on opening day.  
What does the headline say?





4. SUMMARY OF SITE EVALUATION

EVALUATION CRITERIA

The selected sites are to be evaluated for suitability based on a range of metrics grouped into five headings:

- **Site, Infrastructure and Environment** – What are the intrinsic physical qualities of the site -- how big is it, does it have transit access, how close is it to major landmarks and amenities on the Oahu, and how vulnerable is it to natural disasters?
- **Development Costs** – How is the site zoned, what legal or logistical challenges might complicate development, and what financial incentives are available?
- **Community** – How will the project be received by its potential neighbors, what cultural benefits can it bring to the area, and what sorts of political head- or tailwinds would it face?
- **Economic Impact** – How might development on the site bring economic opportunity to the neighborhoods around it?
- **Intuitive Site Qualities** – Are there any advantages or drawbacks to the site that have not been quantified in any of the other categories?

SITE, INFRASTRUCTURE and ENVIRONMENT

- **Total Acreage**  
For the project to be viable as a mixed-use development there must be enough total potentially-developable area enclosed within the site boundary. The minimum amount may vary depending on the adjacent resources the site can rely upon, but in general more is better.
- **HART Access**  
The HART is an elevated-guideway rapid transit system currently under construction, that at completion will provide a high-capacity rapid transit link connecting urban Honolulu with Daniel K. Inouye International Airport, various tourist attractions, and West Oahu. A site with connectivity to the system could benefit dramatically from these connections, enabling visitors to the development to easily reach the site from far-flung parts of the island and massively reducing the need to develop on-site parking facilities, freeing up acreage for developable building area and visitor amenities.
- **Proximity to Daniel K. Inouye International Airport**  
Though the new stadium development will largely serve the needs of the University of Hawaii and local residents, access to the site for visiting teams, shows, and fans must be considered. As the primary mode of interstate travel to and from Honolulu, Inouye International Airport represents a critical connection point for those users. The time and distance to the airport, as well as the range of transit options available to visitors traveling to and from it, must be considered. 1 point deducted per 10 miles of road distance.

- **Proximity to Emergency Services**  
Events drawing large attendance frequently require the assistance of public services for crowd control, on-site medical care, and emergency needs. Proximity to these services is crucial in minimizing the risks involved in hosting such events. 1 point for each service under 5 miles distant from site.
- **Proximity to Honolulu Harbor**  
As the island's container shipping terminal, convenient access to and from Honolulu Harbor will be important for traveling shows and other, similar events. 1 point deducted per 10 miles of road distance.
- **Proximity to Waikiki**  
Although it is not the only place hotels are found on Oahu, about 27,700 of the roughly 31,700 hotel rooms on the island (87%) are located in Waikiki. While a larger development could easily include additional hotel rooms on site, during any event drawing significant out-of-state attendance more rooms will be needed than can be feasibly accommodated on site. Access to Waikiki is therefore an important metric in considering site options. 1 point deducted per 10 miles of road distance.
- **Ability to Accommodate Stadium Program**  
At a minimum, a viable site must be large enough to accommodate the stadium proper, support facilities, and the required event-day parking.
- **Flood/Tsunami Hazard Avoidance**  
Most of the sites under consideration sit close to the coastline, making flooding and tsunami risks the primary natural hazards to consider. FEMA flood hazard zones are used to make risk assessments for weather- and tide- related risks; for tsunami hazards, Honolulu divides the coast into areas threatened into a “Tsunami Warning Zone” for typical hazards and an “Extreme Tsunami Warning Zone” that would only be endangered in the case of an extraordinary event. Particularly due to the challenges involved in facilitating a timely evacuation from a stadium in the event of a locally-generated tsunami, an ideal site would be protected from both flooding and tsunami risks. However, protective measures and provisions for sheltering in place could mitigate these risks.
- **Sea Level Rise Hazard Avoidance**  
In addition to present-day flooding and tsunami hazards, sites close to the coastline may face risks in the future from rising sea levels. NOAA predicts that, by 2100, the sea may rise by 3.2 feet. In addition directly threatening sites with shifting coastlines, sites that were previously safe from other hazards may see increased flooding and tsunami risks.
- **Wetlands Impact Avoidance**  
While Hawaii has no formal wetland protection programs, an environmentally-conscious development strategy should avoid disrupting existing wetland areas, or even potentially consider expanding and developing them as a site amenity. Generally speaking, wetland acreage contained within a potential site should be deducted from the total developable acreage if it is feasible to do so.

- **Bus Access**  
Providing good access to mass transit broadens the potential customer and employee base for any mixed-use development, while also reducing the need for on-site parking and road lanes to accommodate personal vehicles for daily and event traffic.

DEVELOPMENT COSTS

- **Existing Zoning**  
What zone or zones are currently applied to the site by the County of Honolulu.
- **P3 Potential or other Development Possibilities**  
How suitable the site is for additional development beyond the core stadium program; this development may help to defray the cost of building the stadium itself, and provide additional new job opportunities and amenities for the people of Oahu.
- **Ceded Lands Encumbrance**  
Roughly 1.8 million acres of land on the Hawaiian islands was formally ceded to the United States by the Republic of Hawaii on annexation. These lands were formerly known as Crown and Government Lands by the Kingdom of Hawaii, and due to the Kingdom's overthrow by the Republic, the State of Hawaii has since acknowledged that this transfer was immoral and unlawful. However, the status and boundaries of these lands is not fully understood, and due to legal limitations on their sale and transfer without consideration for Native Hawaiians, their presence on any site represents a significant potential risk for any public or private development.
- **Infrastructure Costs**  
The cost of extending or improving roads, transit and pedestrian links, utilities, and other supporting elements to the site.
- **Land Acquisition**  
The cost of acquiring land for development can be a major component of total costs. In this case, all sites are held by the State of Hawaii, although one is held by the Department of Hawaiian Homelands.
- **Development Incentives**  
Hawaii and the County of Honolulu have a partnership program called “Hawaii Enterprise Zones” that offers tax incentives to promote job creation and business activity in geographically-targeted parts of the island. Additionally, the State of Hawaii has designated several “Opportunity Zones” under the 2017 Tax Cuts and Jobs Act that could potentially provide development incentives to a P3 development partner (though this program is not fully fleshed-out at this time). Sites in these zones may be more desirable for P3 development.
- **Complexity**  
Any confounding factors not encompassed in the metrics above that may add to the challenge of creating a viable development at a given site.



SITE DECISION MATRIX

Site Analysis and Scoring Rubric

Category	Subtotal	Criteria	Value
Site, Infrastructure, and Environment	30	Total Acreage	5
		HART Access	5
		Proximity to Daniel K. Inouye International Airport	3
		Proximity to Emergency Services	3
		Proximity to Honolulu Harbor	2
		Proximity to Waikiki	2
		Ability to Accommodate Stadium Program	2
		Avoids Flood/Tsunami Hazards	2
		Avoids Sea Level Rise Hazard	2
		Avoids Wetlands Impact	2
		Suitability for Emergency Shelter	1
		Bus Access	1
Development Costs	20	Existing Zoning	4
		P3 Potential or other Development Possibilities	4
		Ceded Lands Encumbrance	3
		Infrastructure Costs	3
		Land Acquisition	2
		Development Incentives	2
		Complexity	2
Community	30	Community Acceptance	10
		Positive Cultural Impact	10
		Political Viability	10
Economic Impact	20	Employment Demand in Vicinity	6
		Households Experiencing Poverty in Vicinity	6
		Population in Proximity	6
		Per-Capita Income in Vicinity	2
Intuitive Site Qualities	0	Unique Site Improvement Opportunities - positive*	5
		Anticipated Site Difficulties - negative**	-5
			100

\* discretionary points added (up to 5)  
\*\* discretionary points taken away (up to 5)

COMMUNITY RECEPTION

- Community Acceptance**  
A measure of how supportive the neighborhoods and institutions in the vicinity of the site are of bringing the development into their community.
- Positive Cultural Impact**  
A measure of how the development may provide new cultural and entertainment benefits to the neighborhoods around the site.
- Political Viability**  
A measure of how the differing sites may be affected by current or future political decisions, and the direction of growth in the community.

ECONOMIC IMPACT

- Employment Demand in Proximity**  
Unemployment in proximity to a given site can be used as a metric by which to judge how much a given site can have an impact on the economic needs of the community around it. All other things being equal, a site with higher levels of unemployment within commuting range can more effectively provide jobs to Hawaiians that need them most. Based on 2016 American Community Survey (ACS) data and travel time data provided by the Open Route Service; 1 point awarded per 2,500 unemployed people.
- Households Experiencing Poverty in Proximity**  
While not a direct measure of employment shortfalls, households in poverty may benefit from the availability of additional jobs that could permit householders to pick up additional part-time work, move from underemployment to full employment, or bring an additional member of the household into the workforce. Based on 2016 American Community Survey (ACS) data and travel time data provided by the Open Route Service; 1 point awarded per 3,000 households below the Federal poverty line.
- Population in Proximity**  
This figure represents the number of people and households that live within a nominal 10-minute drive time of the proposed site. In addition to being a critical indicator of the potential user-base of any development, the range of the 10-minute drive time also serves as a good proxy indicator for how accessible by road a given site is. Ideally this figure should be as large as possible, indicating that a significant proportion of the island's population can easily utilize the amenities of the development. Based on 2010 US Census data and travel time data provided by the Open Route Service; 1 point award per 50,000 residents.

- Per-Capita Income in Proximity**  
The ability of the project to lift household incomes in an area varied based on the average income in proximity. Lower average incomes in an area are indicative of a greater need for better employment opportunities. Based on 2016 American Community Survey (ACS) data.

INTUITIVE SITE QUALITIES

- Unique Site Improvement Opportunities**  
All of the sites will have a unique quality about them and a different ability to be developed that cannot be quantified specifically. This category allows for the alternative sites to gain points based on those intuitive qualities through discussion and historical knowledge.
- Anticipated Site Difficulties**  
Some of the sites may have impediments to development that are neither easily identifiable, nor able to be placed easily in the evaluation rubric. This category provides opportunity to adjust the individual site scores based on discussion and collected knowledge of the Client and Development Design Team.



5. PROPOSED SITES FOR ANALYSIS





**Halawa (Existing Aloha Stadium Site)**

The existing Aloha Stadium is situated on 97 acres of land immediately adjacent to the highways H1, H201, and Salt Lake Boulevard, on the Diamond Head side of Pearl Harbor. Currently, the site consists of the stadium proper and its surrounding surface parking lots. Halawa Stream cuts through the south end of the site, and a portion of its channel is considered wetland. The future Halawa/Aloha Stadium stop on the HART will be at the ewa side of the site, and is expected to be complete in 2020. In addition to the rail stop, 20 bus stops are present in a ¼ mile radius from the site perimeter. Emergency services are moderately close to the site, with only police services (dispatched from Pearl City Police Station) more than five miles distant. As a developed site, utilities are already present, though additional capacity will likely be required to support more intensive development.

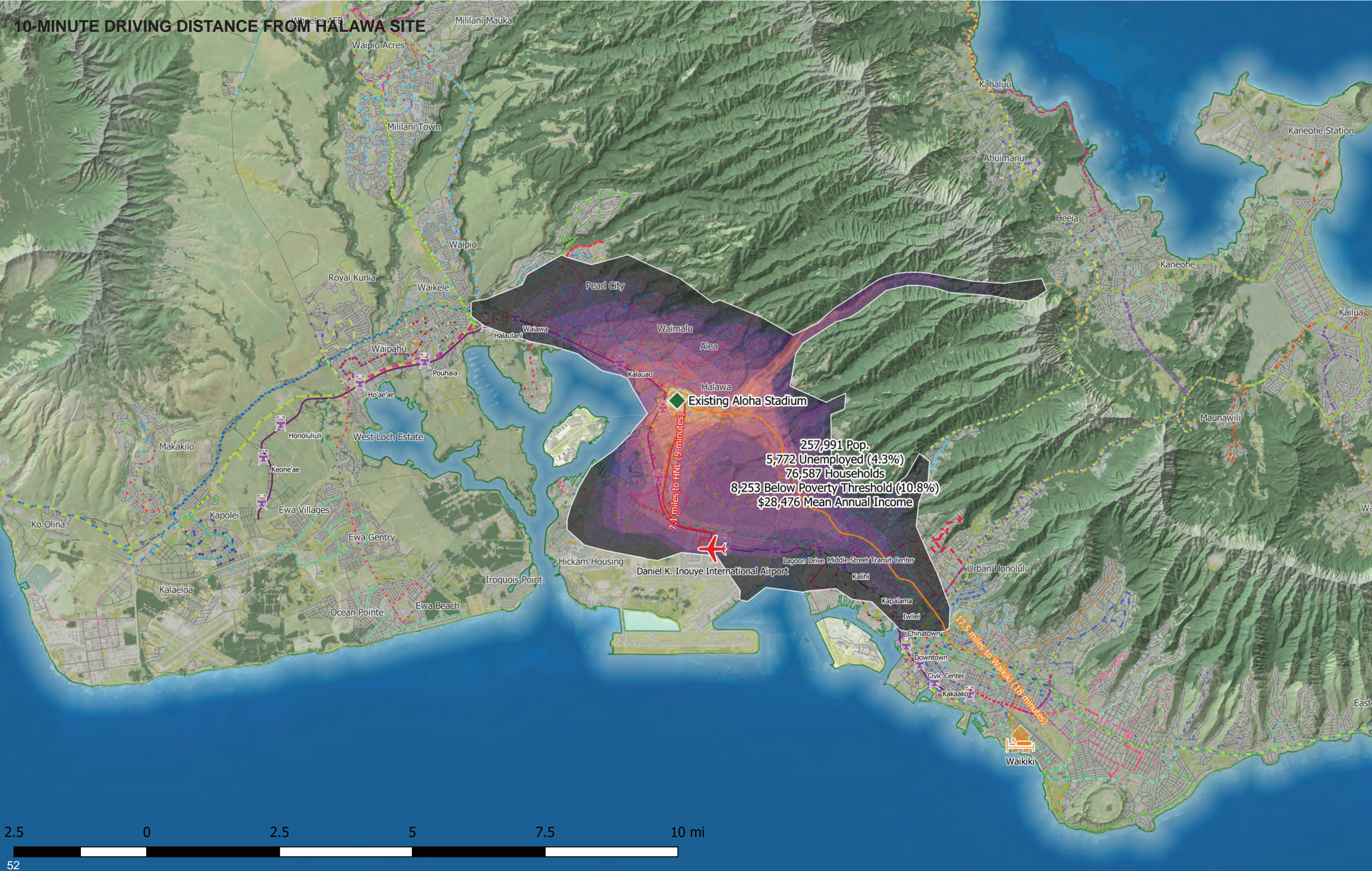
Roughly 258,000 residents of Oahu live within a nominal 10-minute drive, and those residents earn on average about \$28,500 per year. This puts the site in the middle of the pack demographically, but with good connectivity to areas beyond the 10-minute driving isochrone thanks to its transit links.

The existing Aloha Stadium was constructed in 1975, and has reached the end of its useful life. The steel superstructure of the facility has undergone rapid corrosion as a result of corrosion protection and its proximity to seawater. The demolition and construction of a replacement facility on the site, while not depriving the Rainbow Warriors of a venue, would be one of the larger challenges of redeveloping the site -- though not an insurmountable one by any means.

This site also has been thoroughly studied for redevelopment, and a wealth of analysis is available to build a development plan from with minimal additional study.



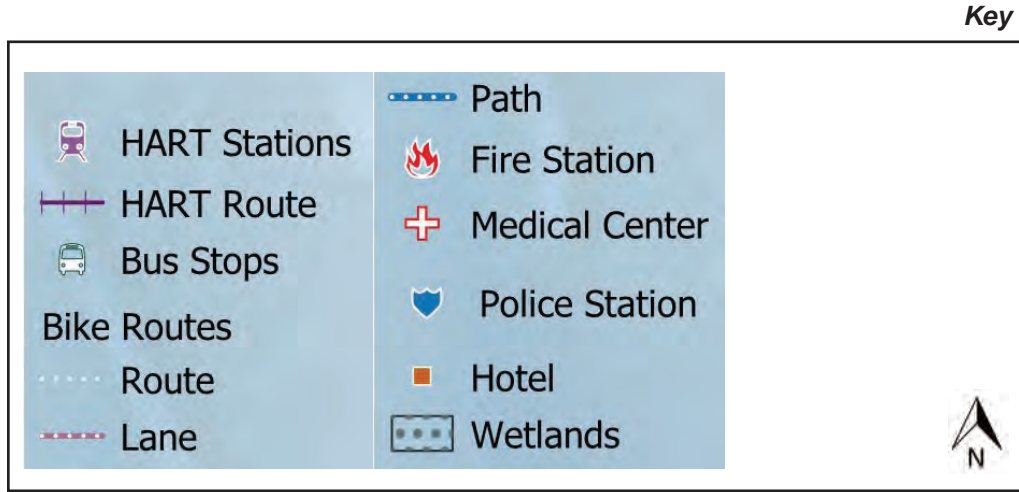




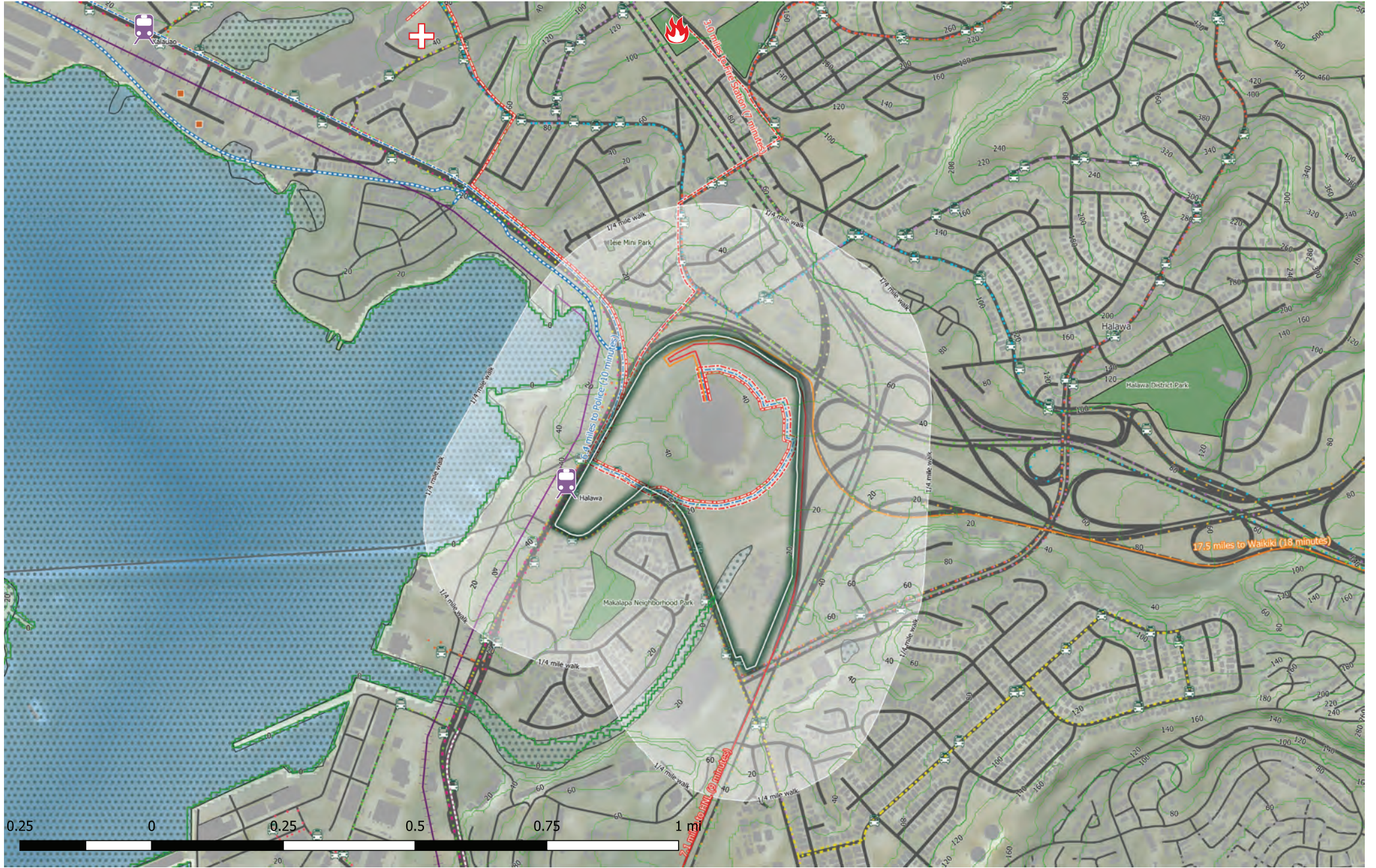
<b>Total Site Size:</b>	97 acres
<b>Total Tree Cover:</b>	0.0 acres (0.0%)
<b>Designated Wetlands:</b>	1.5 acres (1.6%)
<b>Site Slope</b>	
• Mean:	3.7-deg
• Max:	19.8-deg
• Std Dev:	3.3-deg
<b>Bus Stops Nearby:</b>	20
<b>HART Stops Nearby:</b>	1

The “10-Minute Driving Map” represents an isochronal diagram highlighting a distance around each one of the potential sites. This isochrones map show the distance that one could travel to or from the site in a 10-minute period of time, with no traffic. This catchment area is used to collect all of the data points and rubric information included in the site analysis matrixes. This is shown consistent for all the sites.

The “Vicinity Map” shows the bounds of an area that is a 15-minute (1/4-mile) walk from the site perimeter. This area provides additional information about the facilities and infrastructure immediately adjacent to the site. This is shown consistent for all the sites.



**VICINITY MAP OF HALAWA SITE**





# Halawa Site

## General Description

Located at the intersection of H1, H3 and H201, the Halawa Site is the existing location of Aloha Stadium. The 50,000 seat venue opened in 1975 and has been the home of the University of Hawaii Football team, the Swap Meet and host of many major concerts and events over the last 45 years.

Pros	Cons
<ul style="list-style-type: none"><li>Planned HART station is already under construction on the east side of the site.</li><li>Existing stadium infrastructure in place.</li><li>Ample site area for new stadium along with additional ancillary development.</li><li>Close to the harbor and the airport for visitor access and event shipping / management.</li><li>Close to Pearl Harbor.</li><li>Access to the site from the rest of the island is very good, via highway.</li><li>Tradition of site as the stadium venue for the last 45 years is already in place; public approval could potentially be easier than at other sites which might require changes to existing uses.</li><li>Equidistant between Waikiki / Downtown and West Oahu.</li><li>Since the site is mainly covered in car parking only, preparation of the site for development would not be difficult.</li></ul>	<ul style="list-style-type: none"><li>Existing stadium needs to be addressed; either removed or renovated in place.</li><li>Concerns over the accommodation of the Swap Meet.</li><li>Not close to any of the University Campuses.</li><li>Not great pedestrian access.</li></ul>

## Summary Observation(s)

The site appears to be the most ready for immediate development. Master Plan studies for this site have already been conducted and it is more than sufficient for significant development. The site has the benefit of continuing the history of use as a stadium / event site along with the ability to grow and provide additional development for the surrounding areas.



Pedestrian bridge to Halawa site



Construction of HART Station



Aloha Stadium Bowl



Aloha Stadium parking lot



Swap meet



Existing entry and public art

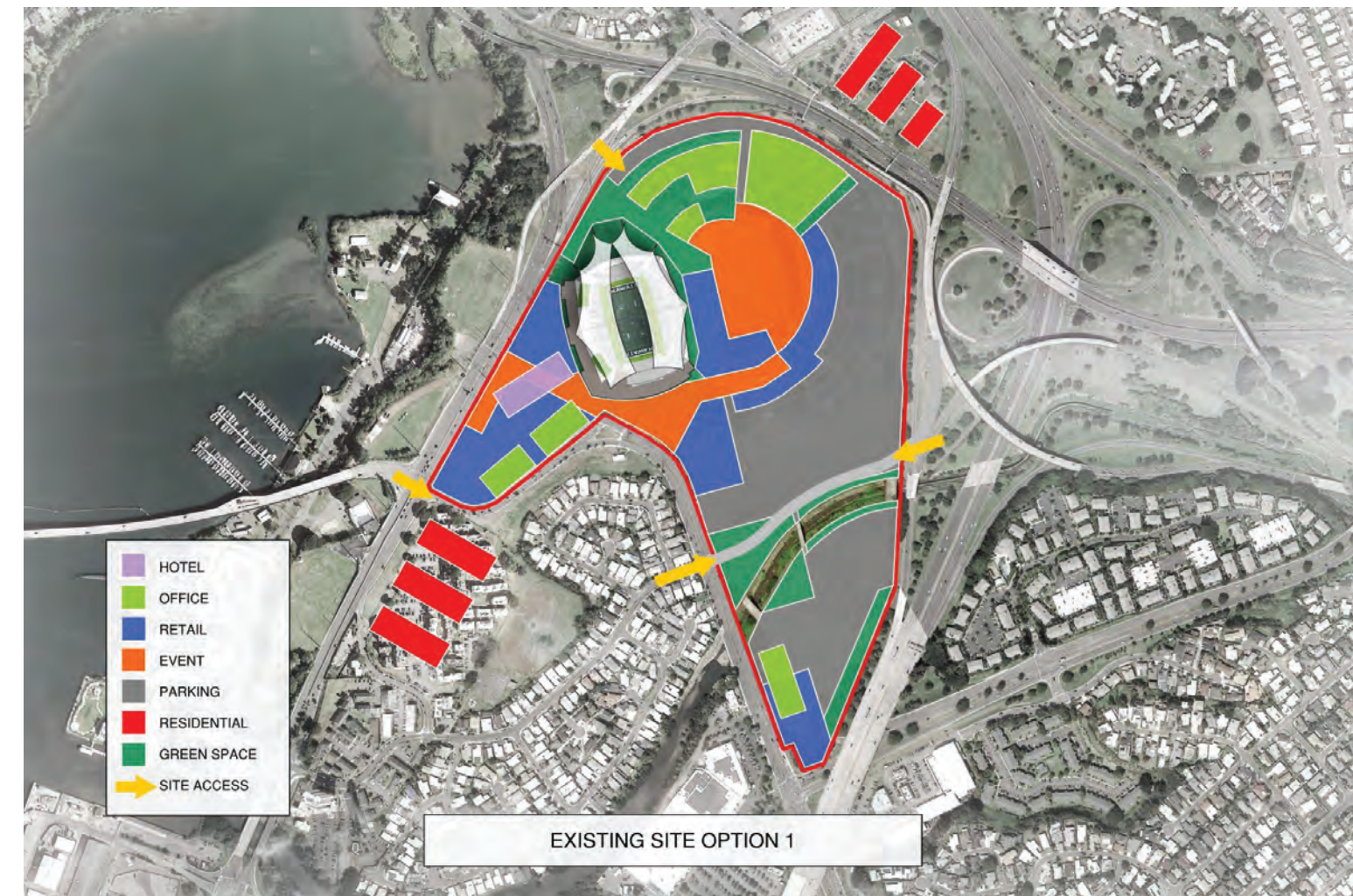




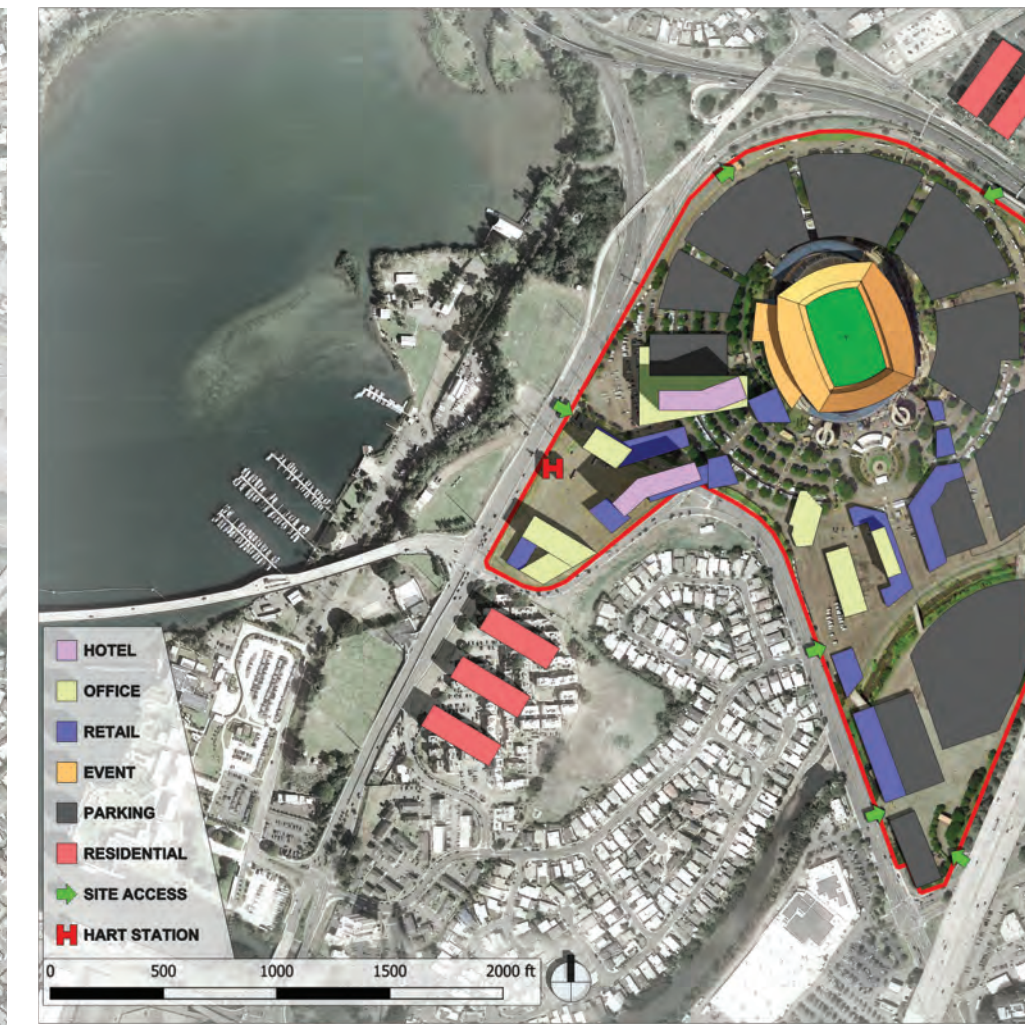
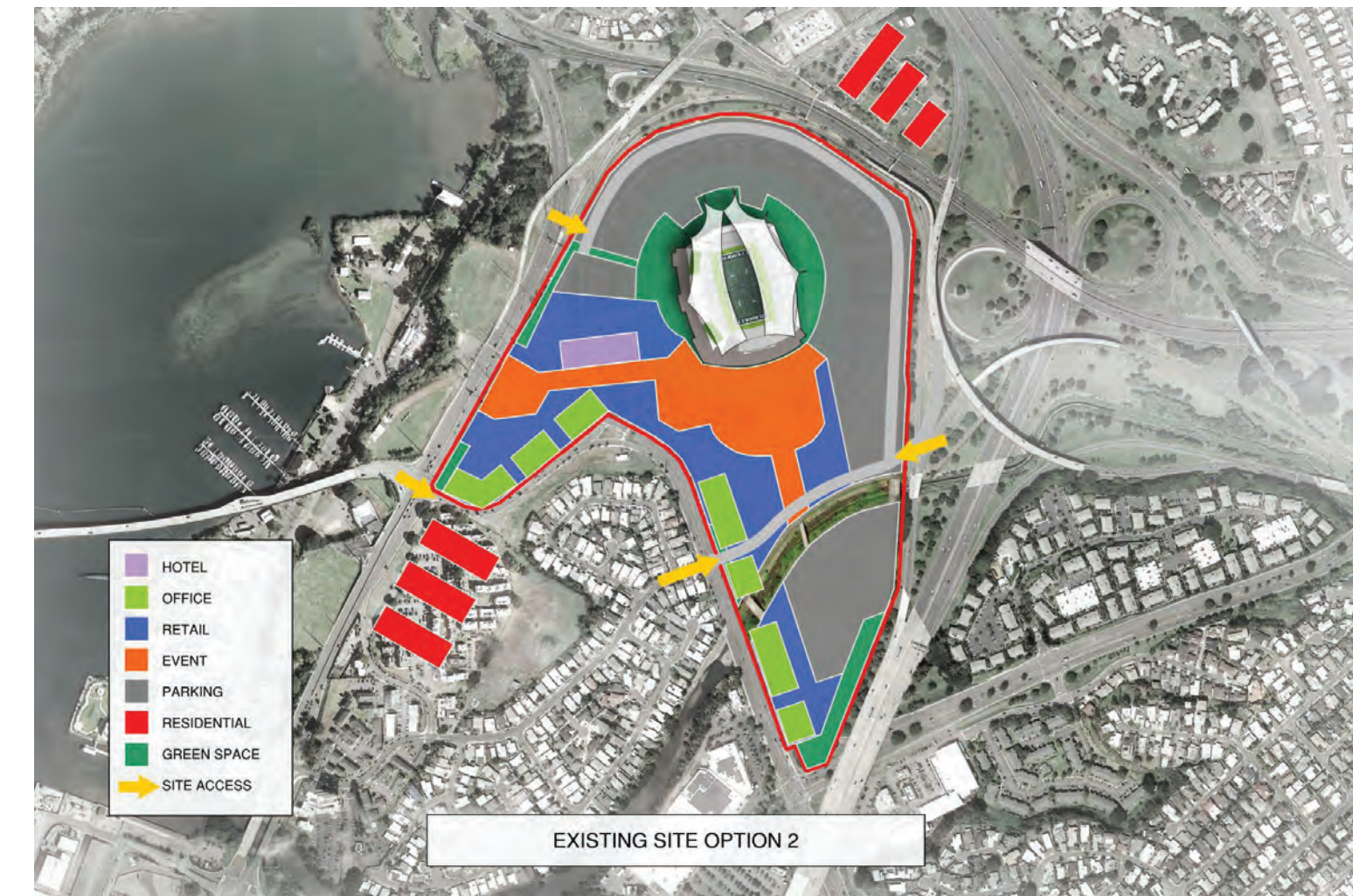




DEVELOPMENT CONCEPTS AT THE HALAWA SITE



DEVELOPMENT CONCEPTS AT THE HALAWA SITE





HALAWA SITE ANALYSIS

Site Analysis and Scoring:		Halawa Site			
Category	Criteria	Indicators	Notes	Score	Subtotal
Site, Infrastructure, and Environment	Total Acreage	97 acres on existing site and adjacent lots along Salt Lake Blvd.		5 / 5	27 / 30
	HART Access	1 dedicated HART station on perimeter of site	Aloha stadium station is eastern terminus of HART Phase 1 project	5 / 5	
	Proximity to Daniel K. Inouye International Airport	7.1 miles (9 minutes) to/from airport	Kalaeloa Airport not considered due to limited cargo handling facilities	3 / 3	
	Proximity to Emergency Services	3.0 miles from Aiea Fire Station; 6.4 miles from Pearl City Police Station; 3.2 miles from Pali Momi Medical Center		3 / 3	
	Proximity to Honolulu Harbor	7.1 miles (15 minutes) to/from harbor	Barber's Point Harbor not considered due to lack of container facilities	2 / 2	
	Proximity to Waikiki	17.5 miles (18 minutes) to/from Waikiki	87% (~28000) of hotel rooms on Oahu are in Waikiki	1 / 2	
	Ability to Accommodate Stadium Program			2 / 2	
	Avoids Flood/Tsunami Hazards	Outside Tsunami Evacuation Zones and 1% Annual Flood Risk Zones	Per NOAA Pacific Tsunami Warning Center and FEMA flood risk maps	2 / 2	
	Avoids Sea Level Rise Hazard	Halawa Stream channel affected, but majority of site well above future sea levels	Per NOAA circa 2100 worst-case scenario projections (3.2ft)	1 / 2	
	Avoids Wetlands Impact	1.5 acres designated wetlands (1.6% of total) along Halawa Stream		1 / 2	
	Suitability for Emergency Shelter	Good road and transit access, outside flood/tsunami risk zones; high coastal exposure		1 / 1	
	Bus Access	20 bus stops within 1/4 mile radius of site		1 / 1	
Development Costs	Existing Zoning	R-5 Residential District	Not likely to be an impediment due to existing use as a stadium	3 / 4	17 / 20
	P3 Potential or other Development Possibilities	Good placement, site area, and transit access for commercial development		4 / 4	
	Ceded Lands Encumbrance	Some ceded lands at site edges		2 / 3	
	Infrastructure Costs	Utilities on site for existing Aloha Stadium facilities		3 / 3	
	Land Acquisition	Owned by State of Hawaii		2 / 2	
	Development Incentives	Site covered by Aloha Stadium Federal Opportunity Zone		2 / 2	
	Complexity	Flarge, flat, easily-accessed site; existing stadium could create complications		1 / 2	
Community	Community Acceptance	Existing stadium site - community is accustomed to use		9 / 10	24 / 30
	Positive Cultural Impact			7 / 10	
	Political Viability			8 / 10	
Economic Impact	Employment Demand in Vicinity	5,772 unemployed persons in 10-min. drive distance (4.3% of pop.)	Potential to bring new employment opportunities to area	6 / 6	17 / 20
	Households Experiencing Poverty in Vicinity	8,253 households in poverty in 10-min. drive distance (10.8% of total)		3 / 6	
	Population in Proximity	257,991 persons in 76,587 households in 10-min. drive distance		6 / 6	
	Per-Capita Income in Vicinity	\$28,476	Relatively low incomes relative to other sites could reduce commercial viability	2 / 2	
Intuitive Site Qualities	Unique Site Improvement Opportunities - positive	Site is one of the largest underdeveloped parcels along HART route; Site has been subject of extensive previous study for reuse		3 / 5	2
	Anticipated Site Difficulties - negative			-1 / -5	
Total Score:				87 / 100	



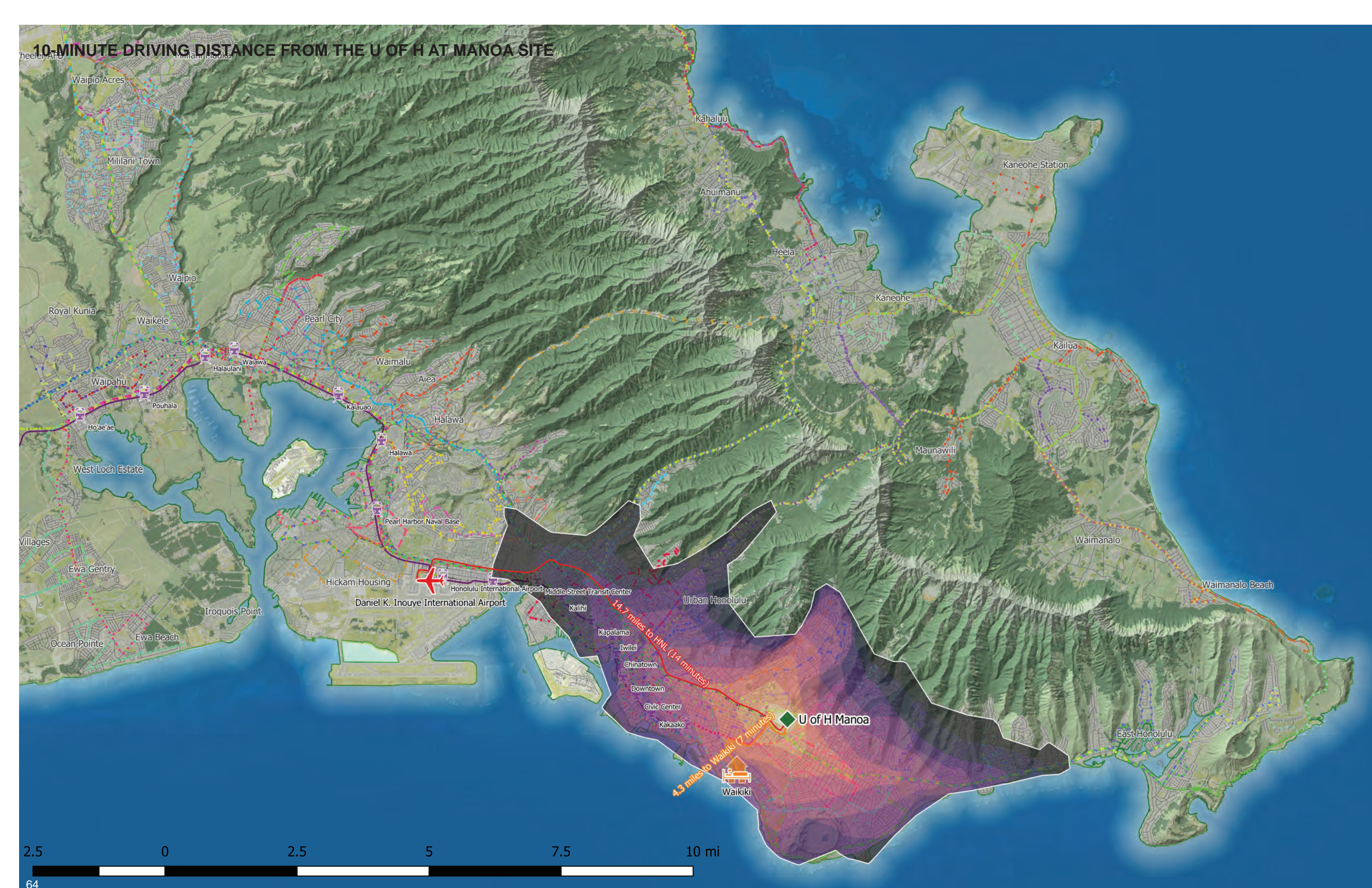
**University of Hawaii at Manoa**

During the primary campaign, both Governor Ige and his opponent, Representative Hanabusa, expressed a desire to locate the replacement for Aloha Stadium on a University of Hawaii campus at Manoa or West Oahu, depending on the preference of the university. In accordance with this desire, the team has studied the Manoa campus and located a potential site, though it comes with caveats.

The Manoa campus of the University of Hawaii is situated mauka of H1, against the base of Kalaepohaku Ridge and hemmed in by surrounding neighborhoods. The campus is heavily developed already, with minimal areas of contiguous free space. Cooke Field (the current practice fields for the Rainbow Warriors football team) represents the only potential location with the ability to support a football stadium of the necessary size. It is likely that utilizing this site effectively would also require the demolition of the Rainbow Wahine softball stadium, as well as partially or completely removing the adjacent tennis facilities. This site would also preclude the possibility of mixed-use development using the stadium as an anchor. However, the Manoa campus is centrally located in urban Honolulu (with 325,000 residents within a 10 minute drive), is walkable for students, and can leverage existing campus parking structures for game-day and event parking.



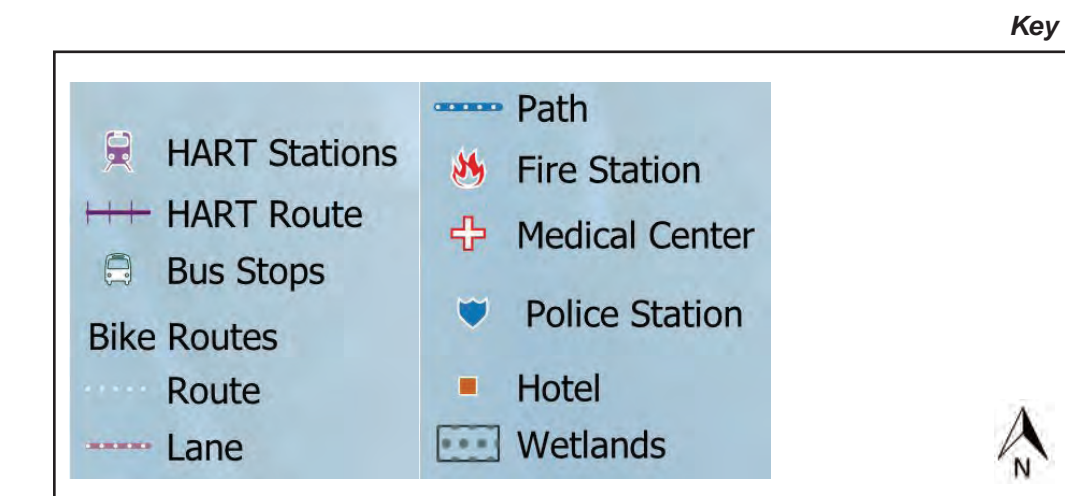




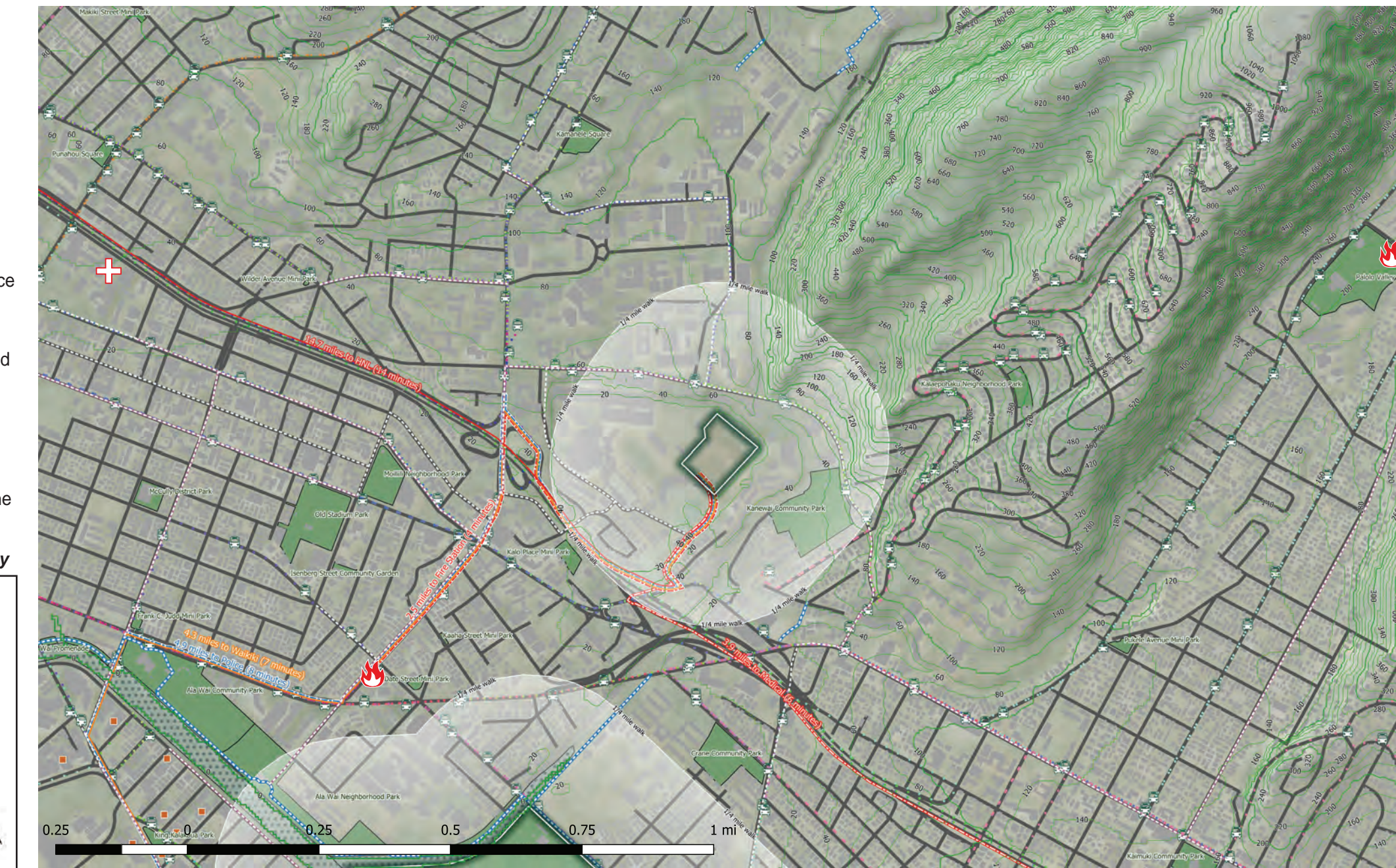
<b>Total Site Size:</b>	7 acres
<b>Total Tree Cover:</b>	0.0 acres (0.0%)
<b>Designated Wetlands:</b>	0.0 acres (0.0%)
<b>Site Slope</b>	
• Mean:	3.5-deg
• Max:	16.3-deg
• Std Dev:	3.0-deg
<b>Bus Stops Nearby:</b>	10
<b>HART Stops Nearby:</b>	0

The “10-Minute Driving Map” represents an isochronal diagram highlighting a distance around each one of the potential sites. This isochrones map show the distance that one could travel to or from the site in a 10-minute period of time, with no traffic. This catchment area is used to collect all of the data points and rubric information included in the site analysis matrixes. This is shown consistent for all the sites.

The "Vicinity Map" shows the bounds of an area that is a 15-minute (1/4-mile) walk from the site perimeter. This area provides additional information about the facilities and infrastructure immediately adjacent to the site. This is shown consistent for all the sites.



ALOHA STADIUM | ALTERNATIVE SITE EVALUATION





# University of Hawaii at Manoa Site

## General Description

The site is in the athletic district of the University of Hawaii, Manoa Campus. It is situated in a natural bowl on the site with student housing to the east (up the hill) and the rest of the athletic campus to the east. The campus is approximately 10 miles from Aloha Stadium at the current Halawa Site.

Pros	Cons
<ul style="list-style-type: none"><li>• U of H Manoa is the home to the Rainbow Warriors football team already; one of the major users of the proposed stadium.</li><li>• The majority of the student population who will want to watch the games is on campus; their parking requirements would be negated.</li><li>• The natural bowl could work to create a stadium form that fits neatly into campus.</li><li>• Some parking for the stadium already exists in the form of on campus parking garages.</li><li>• The setting for an on campus stadium would have views to Diamond Head, Waikiki and Downtown.</li></ul>	<ul style="list-style-type: none"><li>• The site is very tight and would likely necessitate a reduction in seating capacity from the proposed 35,000 seat stadium. Reduction in seats could have an impact on the events that would come to the stadium and its revenue generation potential.</li><li>• Construction on the tight site would be disruptive to campus.</li><li>• The closest HART station is 1.8 miles away at the Ala Manoa Center.</li><li>• There is no room for ancillary development around the site.</li><li>• There would be no room for future stadium expansion.</li><li>• Site access from the freeway is poor.</li></ul>

## Summary Observation(s)

The siting of a new stadium on the University of Hawaii, Manoa campus could potentially be done so that it fits in seamlessly with the established campus and create an intimate football/soccer venue for the campus itself. Saturday afternoon football games on university campuses across the country are a staple of American collegiate culture.



student pedestrian path thru Athletic District



tennis & softball facilities, Diamond Head & Waikiki in the back



football practice field, Les Murakami Stadium in the background



duck pond

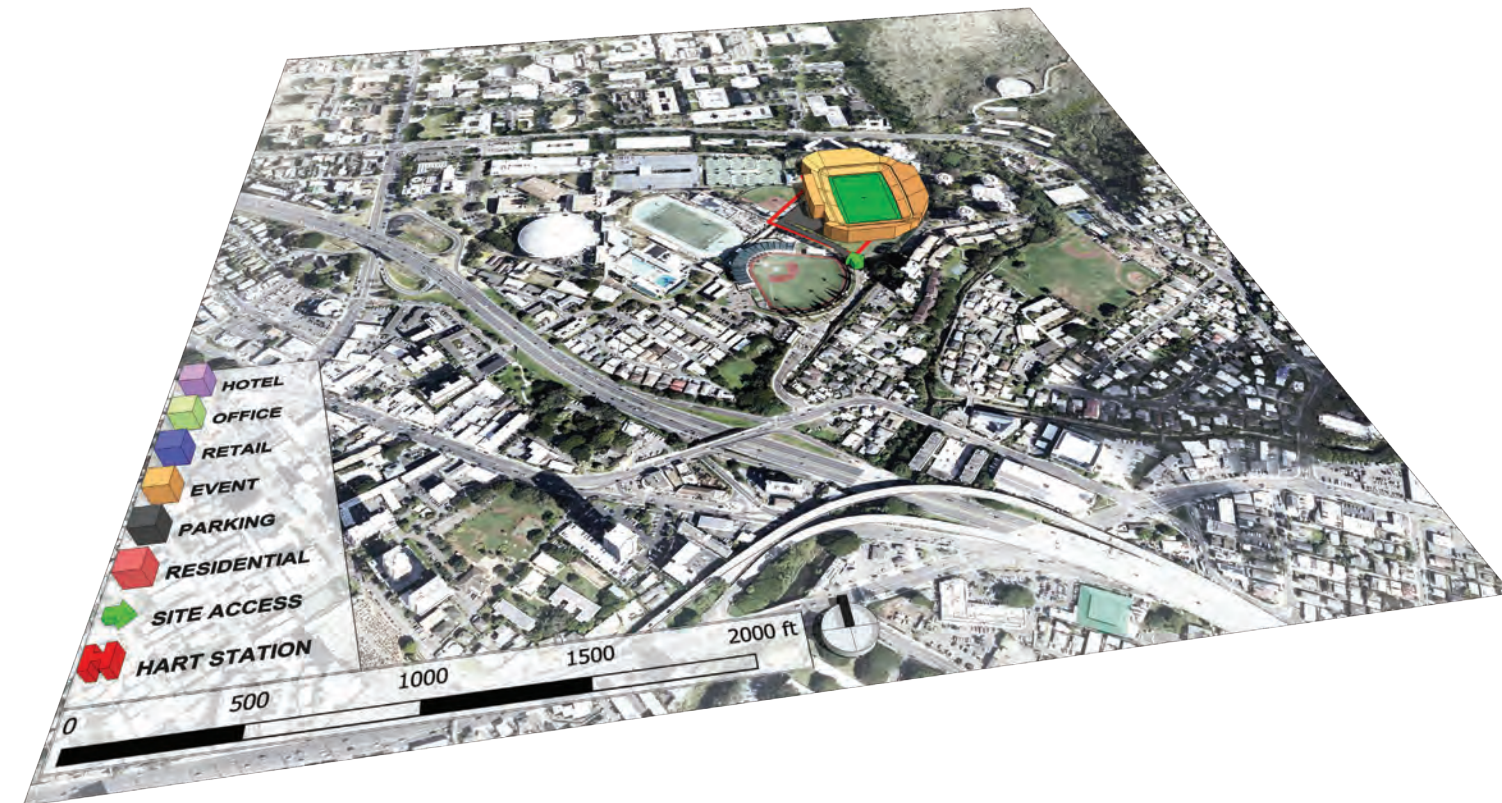


view of Waikiki from above the football practice field

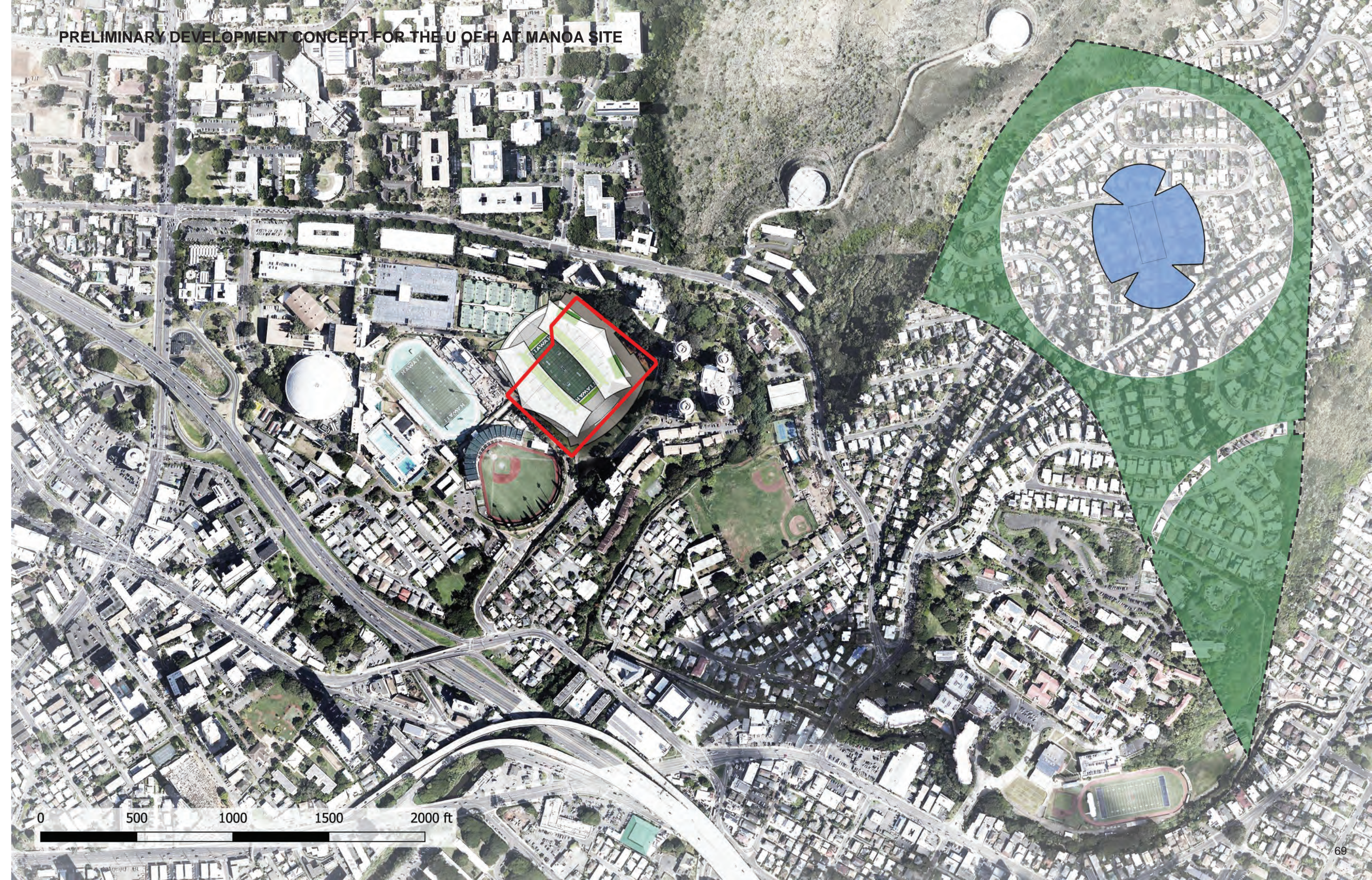
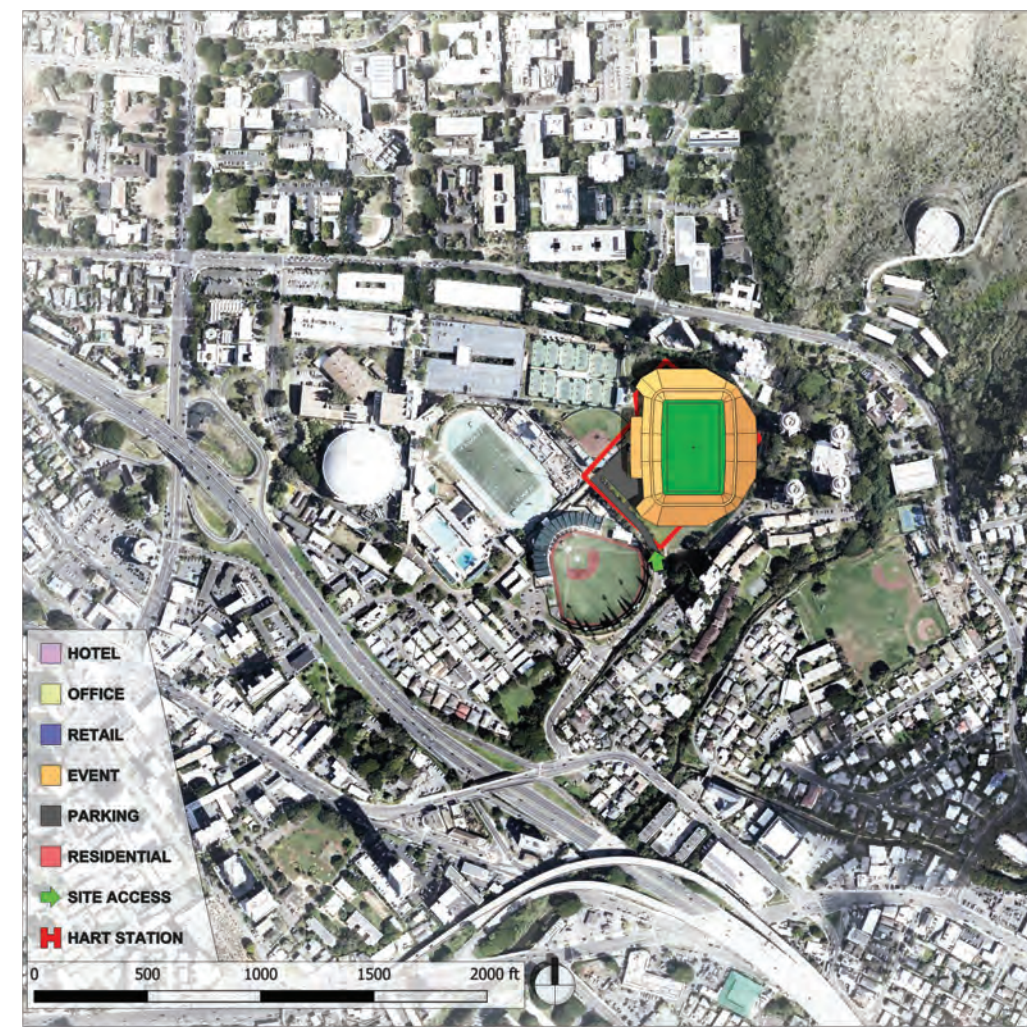
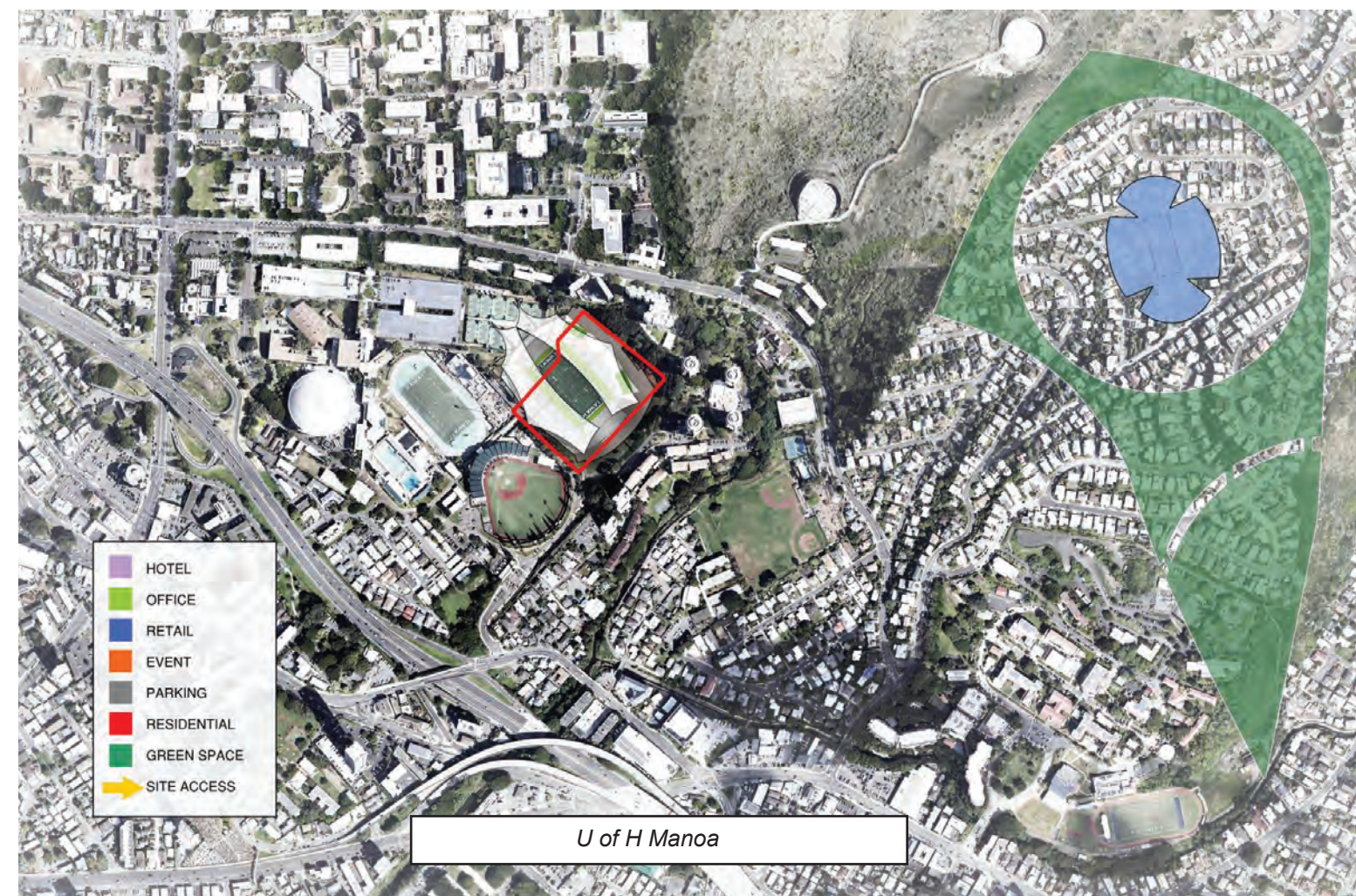


practice field with residential towers overlooking





DEVELOPMENT CONCEPTS AT THE U OF H MANOA SITE



PRELIMINARY DEVELOPMENT CONCEPT FOR THE U OF H AT MANOA SITE

0 500 1000 1500 2000 ft



UNIVERSITY OF HAWAII AT MANOA SITE ANALYSIS

Site Analysis and Scoring:		University of Hawaii - Manoa			
Category	Criteria	Indicators	Notes	Score	Subtotal
Site, Infrastructure, and Environment	Total Acreage	Approximatley <b>7 acres</b> on existing practice fields		1 / 5	20 / 30
	HART Access	no pedestrian access to HART	2.3 miles to Ala Moana station	1 / 5	
	Proximity to Daniel K. Inouye International Airport	<b>14.7 miles</b> (14 minutes) to/from airport	Kalaeloa Airport not considered due to limited cargo handling facilities	2 / 3	
	Proximity to Emergency Services	<b>2.5 miles</b> to Fire Station 29 McCully-Moiliili; <b>4.9 miles</b> to Waikiki Police Substation; <b>3.9 miles</b> to Leahi Hospital		3 / 3	
	Proximity to Honolulu Harbor	<b>8.7 miles</b> (20 minutes) to/from harbor	Barber's Point Harbor not considered due to lack of container facilities	2 / 2	
	Proximity to Waikiki	<b>4.3 miles</b> (7 minutes) to/from Waikiki	87% (~28000) of hotel rooms on Oahu are in Waikiki	2 / 2	
	Ability to Accommodate Stadium Program	Reductions to program or demolition of existing facilities probably needed to make site viable		0 / 2	
	Avoids Flood/Tsunami Hazards	Outside Tsunami Evacuation Zones and 1% Annual Flood Risk Zones	Per NOAA Pacific TsunamiWarning Center and FEMA flood risk maps	2 / 2	
	Avoids Sea Level Rise Hazard	Not endangered by sea level rise	Per NOAA circa 2100 worst-case scenario projections (3.2ft)	2 / 2	
	Avoids Wetlands Impact	no designated wetlands		2 / 2	
	Suitability for Emergency Shelter	Outside flood/tsunami risk zones; no coastal exposure; good road access/marginal transit access; minimal room for additional facilities		2 / 1	
	Bus Access	<b>10 bus stops</b> within 1/4 mile radius of site		1 / 1	
Development Costs	Existing Zoning	<b>R-5 Residential District</b>	Not likely to be an impediment due to existing campus use	3 / 4	11 / 20
	P3 Potential or other Development Possibilities	No on-site capacity for ancillary development		0 / 4	
	Ceded Lands Encumbrance	Unknown		3 / 3	
	Infrastructure Costs	Ability to tie into campus facilities and utilities for infrastructure needs; nearby campus parking structures		3 / 3	
	Land Acquisition	<b>Owned by State of Hawaii</b>		2 / 2	
	Development Incentives	No state or federal development incentives		0 / 2	
	Complexity	Extremely tight site likely to complicate design and construction		0 / 2	
Community	Community Acceptance	Potential community pushback from relocation of existing practice fields to other parkland in area		5 / 10	16 / 30
	Positive Cultural Impact	Placement of stadium on campus could improve student attendance and enable new campus programming		7 / 10	
	Political Viability	Site has been supported by Governor Ige		4 / 10	
Economic Impact	Employment Demand in Vicinity	<b>7,074 unemployed persons</b> in 10-min. drive distance (4.0% of pop.)	Minimal opportunity for ancillary development drastically limits potential economic impacts	3 / 6	10 / 20
	Households Experiencing Poverty in Vicinity	<b>14,669 households in poverty</b> in 10-min. drive distance (12.0% of total)		3 / 6	
	Population in Proximity	<b>325,042 persons</b> in 120,221 households in 10-min. drive distance		3 / 6	
	Per-Capita Income in Vicinity	<b>\$36,118</b>		1 / 2	
Intuitive Site Qualities	Unique Site Improvement Opportunities - positive	Potential new campus amenity		2 / 5	-2
	Anticipated Site Difficulties - negative	Site is prohibitively small and difficult to fit program on - functionality of stadium may be compromised		-4 / -5	
Total Score:					55 / 100



**University of Hawaii at West Oahu**

The West Oahu campus is the other site mentioned by Governor Ige, and presents almost the exact opposite pros and cons of the Manoa campus. Situated on farmland between H1 and Kapolei, the West Oahu site offers the most developable acreage of any of the options studied at 187 acres. It is also the only site with adjacency to multiple HART stops, with the Kualaka'i end station adjoining its southern tip and the Keone'ae station near its northern extent. Bus connections are weaker, with only a single bus line serving the area. Despite good transit connections, however, the West Oahu location is somewhat remote to urban Honolulu, which is reflected in long commute times from Daniel K. Inouye International and hotels in Waikiki, as well as a middling 231,000 residents within 10 minutes of the site, averaging \$28,900 in annual income per capita.

Emergency services are reasonably close to the site, with nominal drive times to police, fire, and medical services well under 10 minutes, and existing zoning is amenable to mixed-use development.





10-MINUTE DRIVING DISTANCE FROM THE U OF H AT WEST OAHU SITE

37.0 miles to Waikiki (30 minutes)  
26.0 miles to HNL (20 minutes)

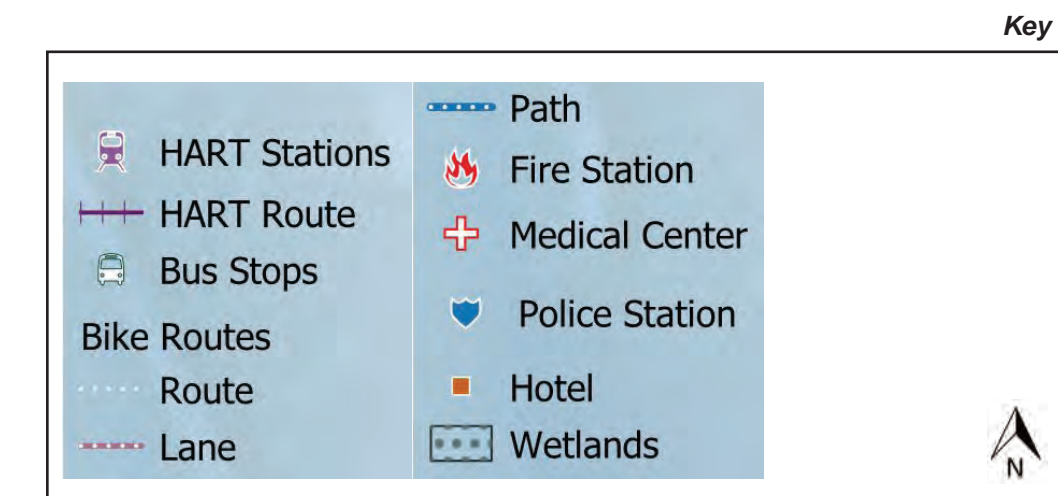
U of H West Oahu

Scale: 0 to 10 miles

<b>Total Site Size:</b>	187 acres
<b>Total Tree Cover:</b>	1.5 acres (0.8%)
<b>Designated Wetlands:</b>	3.3 acres (1.8%)
<b>Site Slope</b>	
• Mean:	1.8-deg
• Max:	15.1-deg
• Std Dev:	2.4-deg
<b>Bus Stops Nearby:</b>	3
<b>HART Stops Nearby:</b>	2

The “10-Minute Driving Map” represents an isochronal diagram highlighting a distance around each one of the potential sites. This isochrones map show the distance that one could travel to or from the site in a 10-minute period of time, with no traffic. This catchment area is used to collect all of the data points and rubric information included in the site analysis matrices. This is shown consistent for all the sites.

The "Vicinity Map" shows the bounds of an area that is a 15-minute (1/4-mile) walk from the site perimeter. This area provides additional information about the facilities and infrastructure immediately adjacent to the site. This is shown consistent for all the sites.



ALOHA STADIUM | ALTERNATIVE SITE EVALUATION

### VICINITY MAP OF THE U OF H AT WEST OAHU SITE





# University of Hawaii at West Oahu Site

## General Description

The site accommodates the current and future needs of the University’s expanding student population serving the higher education needs of the surrounding population centers. The site comprises a large and predominantly physically unencumbered land area. The campus is approximately 12.5 miles from Aloha Stadium in Halawa.

Pros	Cons
<ul style="list-style-type: none"><li>• Ample site area comprising flat, easily developable land, affording multiple site locations for a new stadium.</li><li>• Well connected to the freeway (H1).</li><li>• Two HART stations serve the site connecting the location with other destinations.</li><li>• Population centers nearby provide a potential ample labor pool.</li><li>• Ample site area for car parking and additional/ancillary development potential.</li><li>• Site has some, telegenic/aesthetic quality, including mountain views to the northwest and probable distant water views to the south from elevated positions within a new stadium.</li></ul>	<ul style="list-style-type: none"><li>• The University’s master plan doesn’t include a site for a new stadium.</li><li>• Distant from U of H (Manoa) football fans.</li></ul>

## Summary Observation(s)

Good potential for a new stadium but may lack necessary endorsement from U of H West Oahu decision-makers and other influencers.



U of H West Oahu northern HART stop



elevated HART line



detail of column at HART station



end of the line, south of U of H West Oahu southern HART stop



Kualakai Pkwy and elevated HART line adjacent to site

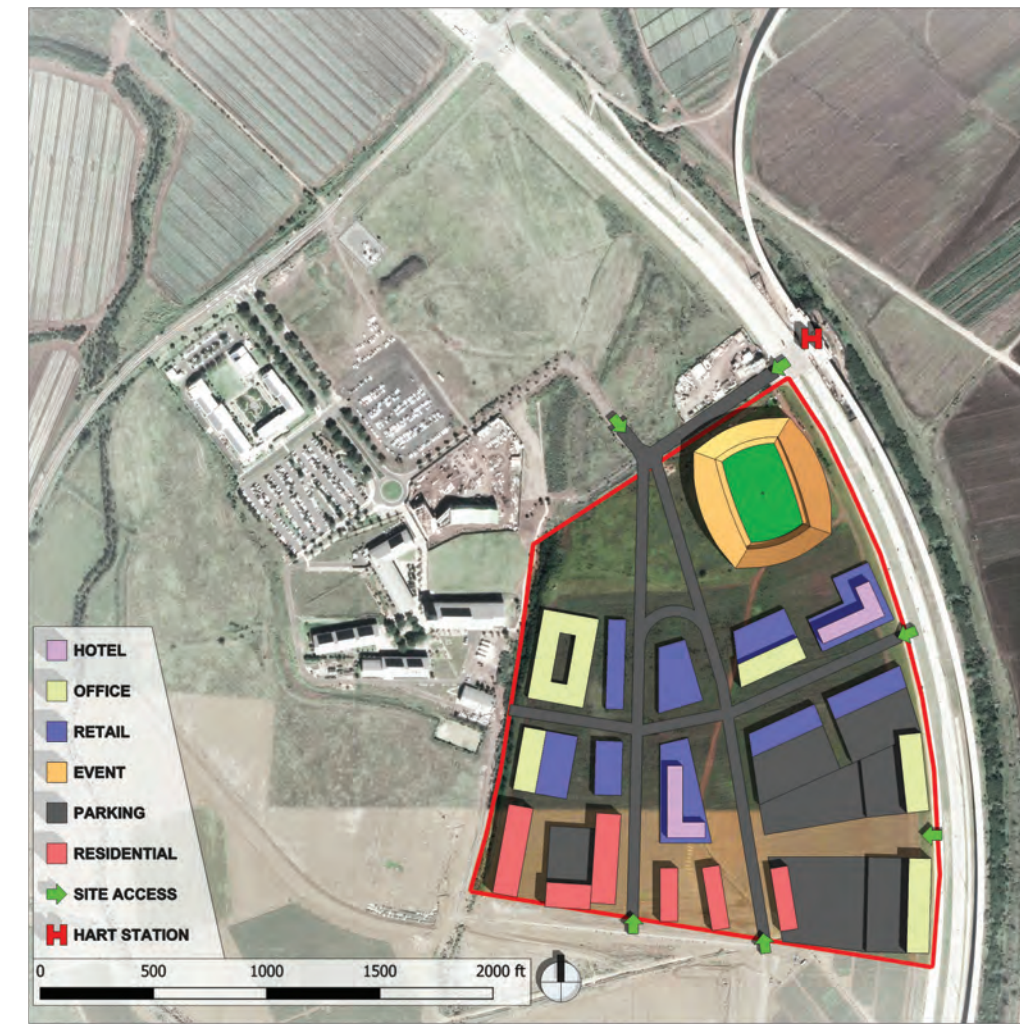
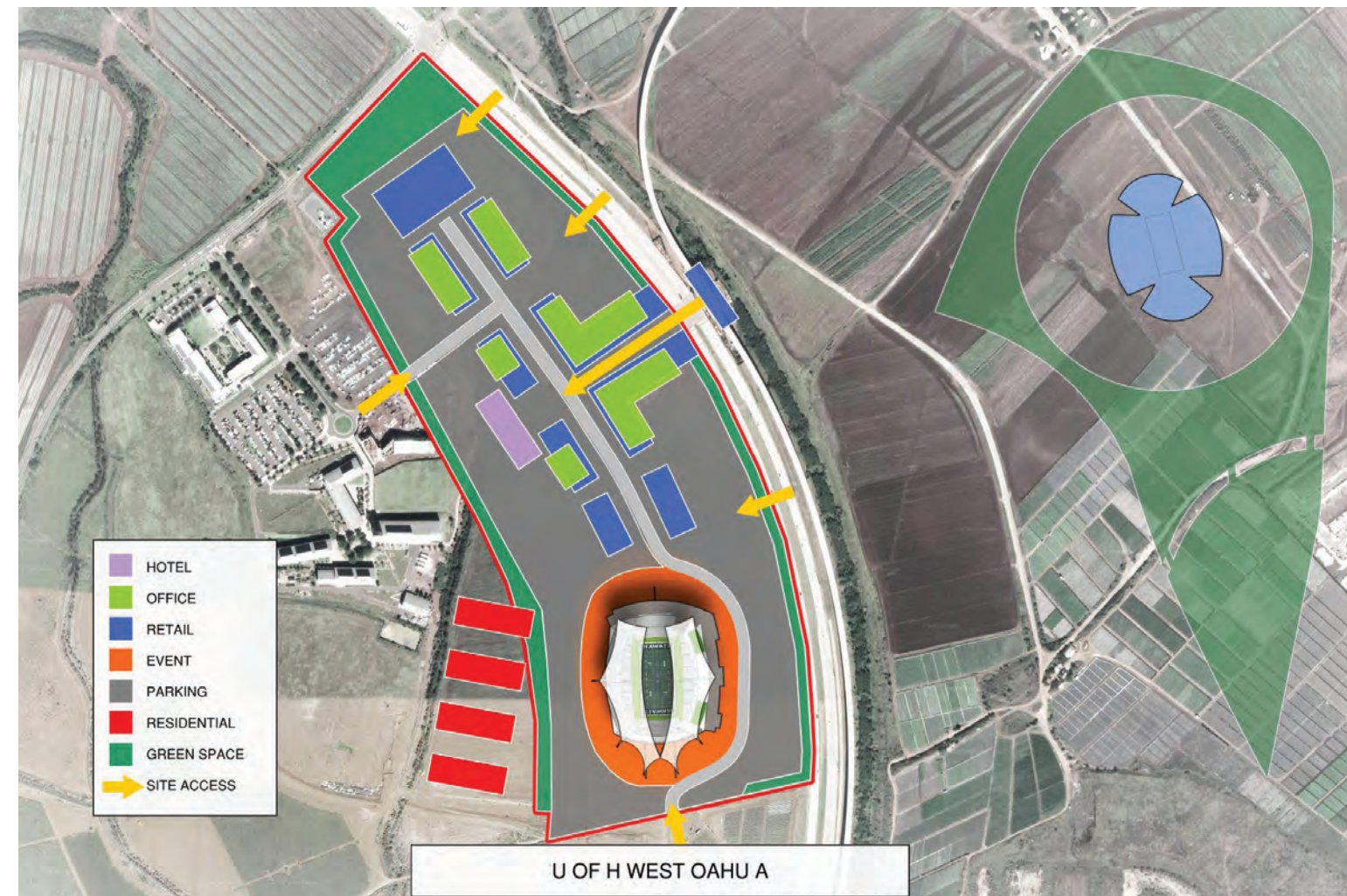


Kualakai Pkwy and elevated HART line adjacent to site





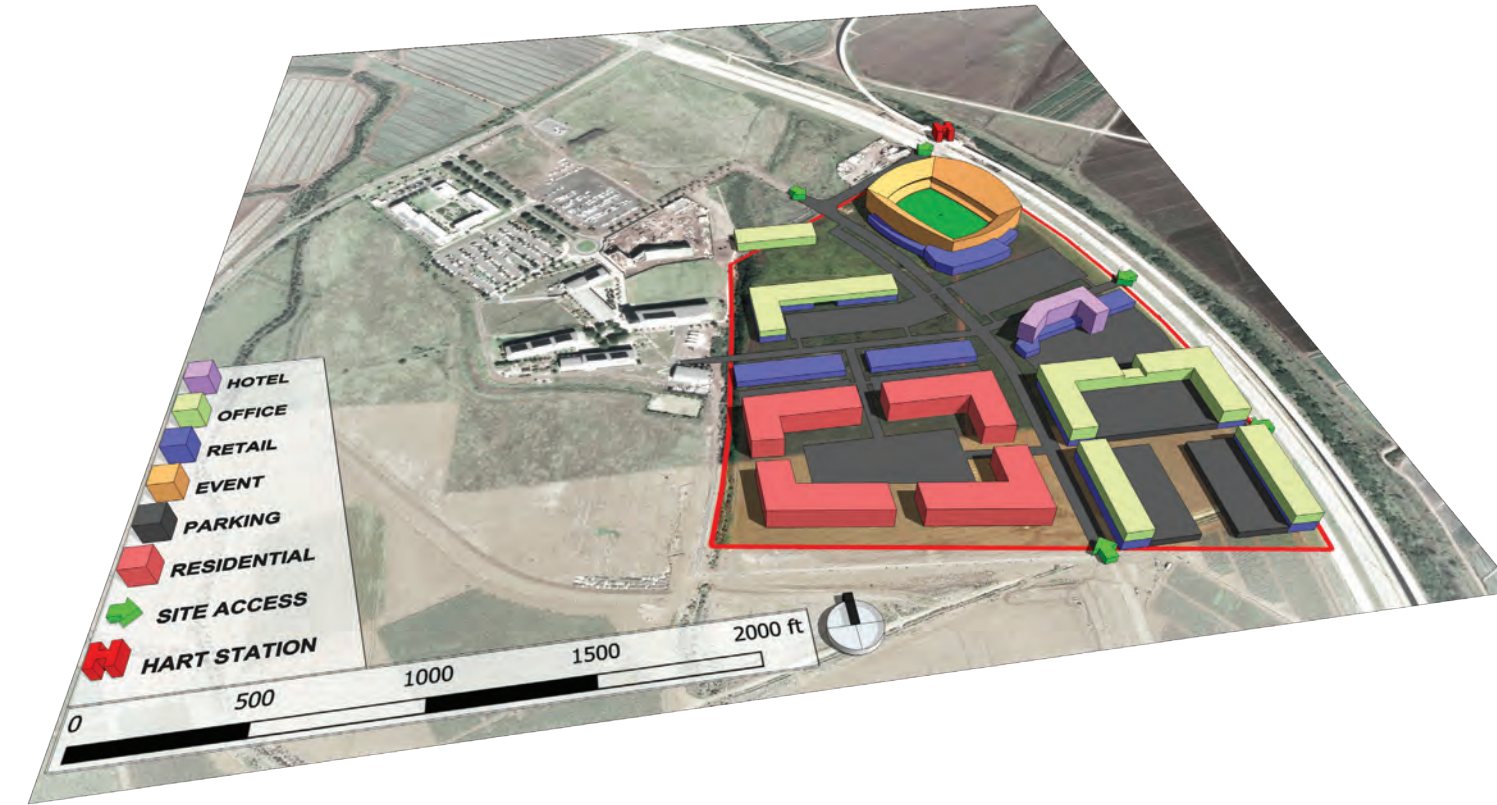
DEVELOPMENT CONCEPTS AT THE U OF H WEST OAHU SITE



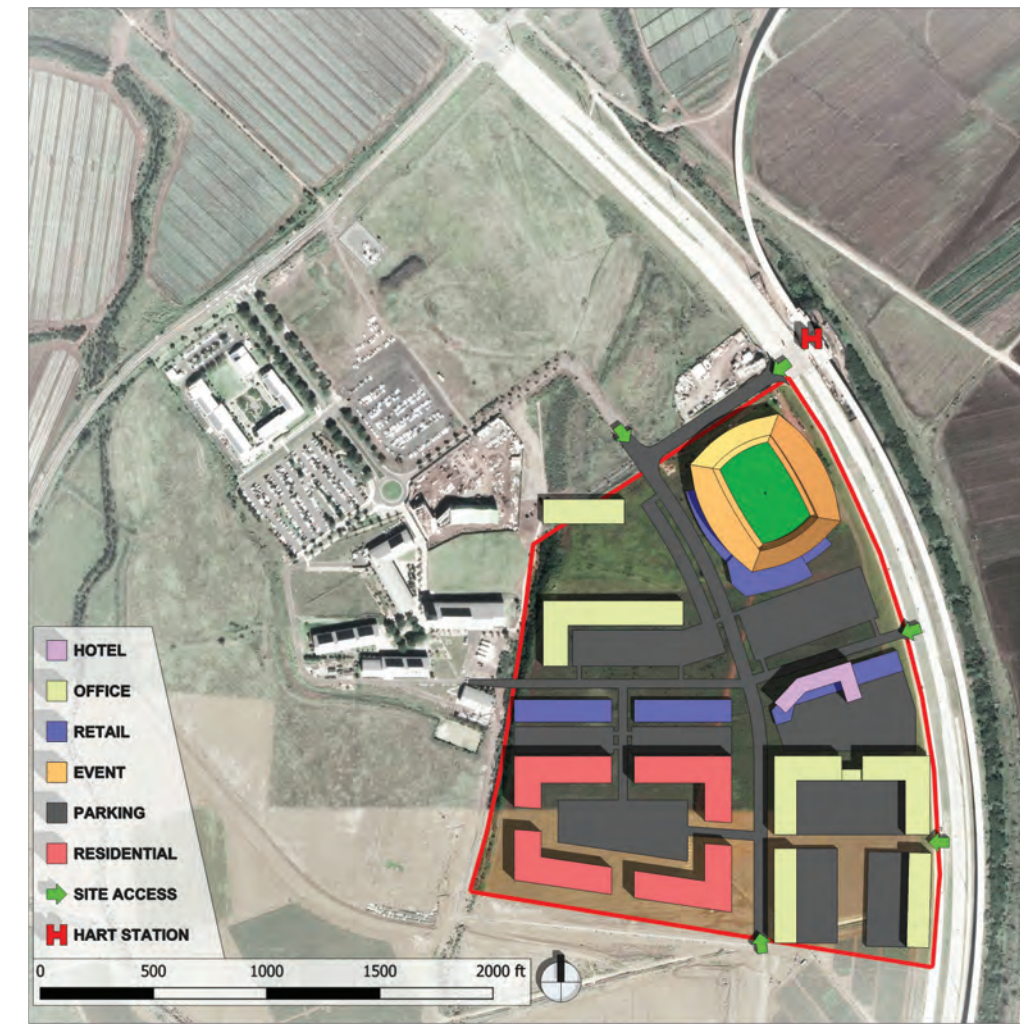
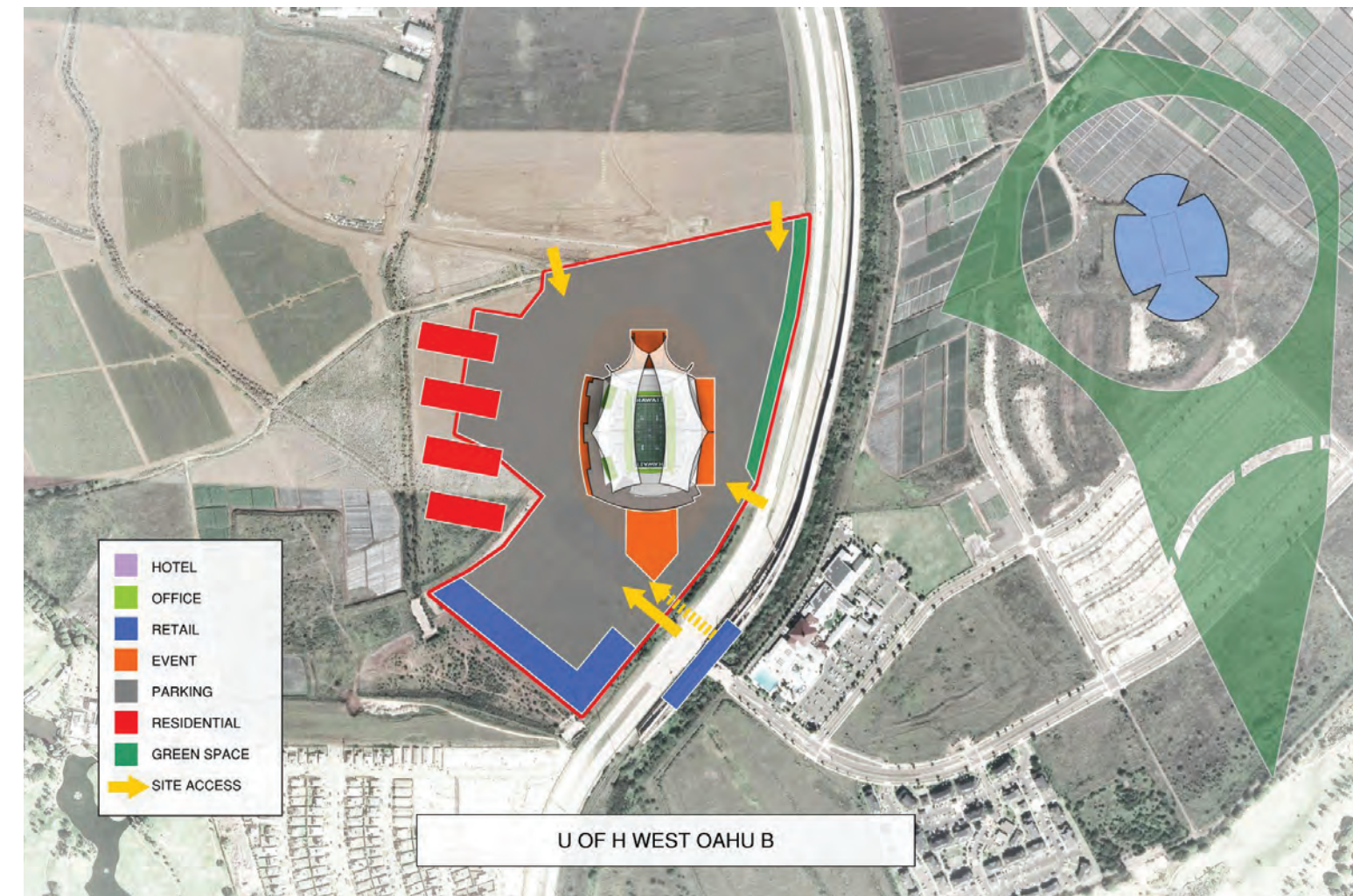
PRELIMINARY DEVELOPMENT CONCEPT FOR THE U OF H AT WEST OAHU SITE



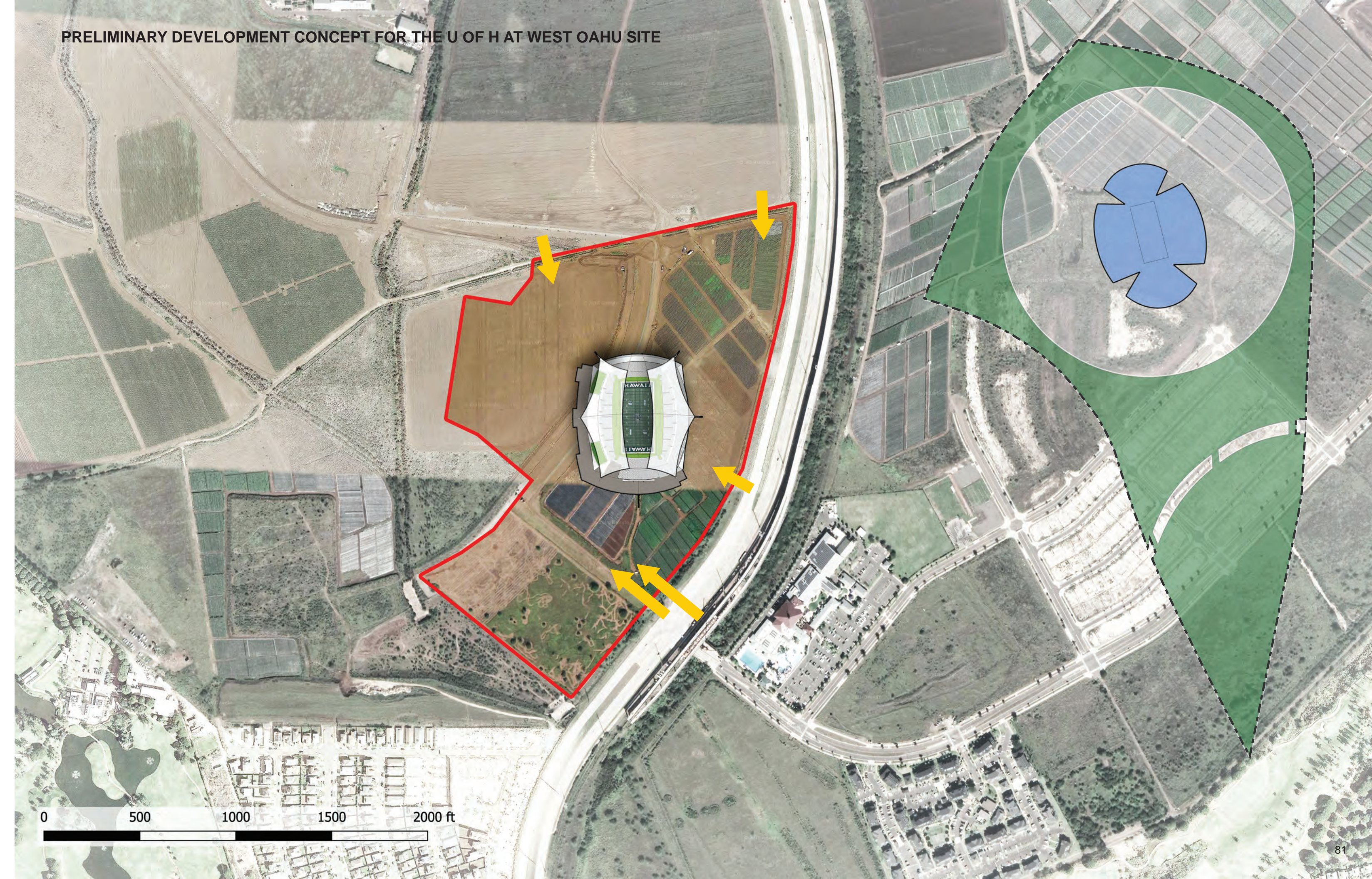




DEVELOPMENT CONCEPTS AT THE U OF H WEST OAHU SITE



PRELIMINARY DEVELOPMENT CONCEPT FOR THE U OF H AT WEST OAHU SITE





UNIVERSITY OF HAWAII AT WEST OAHU SITE ANALYSIS

Site Analysis and Scoring:		University of Hawaii - West Oahu			
Category	Criteria	Indicators	Notes	Score	Subtotal
Site, Infrastructure, and Environment	Total Acreage	Up to <b>187 acres</b> along Kualakai Parkway (approximately <b>83 acres</b> used for site plan study)	<i>Need to coordinate development with existing West Oahu campus master plan</i>	5 / 5	21 / 30
	HART Access	<b>2 HART stations</b> along Kualakai Parkway		5 / 5	
	Proximity to Daniel K. Inouye International Airport	<b>26.8 miles</b> (20 minutes) to/from airport	<i>Kalaeloa Airport not considered due to limited cargo handling facilities</i>	1 / 3	
	Proximity to Emergency Services	<b>7.2 miles</b> to Fire Station 12 Waipahu; <b>6.4 miles</b> to Kaploe Police Station; <b>7.1 miles</b> to The Queen's Medical Center - West Oahu		0 / 3	
	Proximity to Honolulu Harbor	<b>19.3 miles</b> (29 minutes) to/from harbor	<i>Barber's Point Harbor not considered due to lack of container facilities</i>	1 / 2	
	Proximity to Waikiki	<b>37.0 miles</b> (30 minutes) to/from Waikiki	<i>87% (~28000) of hotel rooms on Oahu are in Waikiki</i>	0 / 2	
	Ability to Accommodate Stadium Program			2 / 2	
	Avoids Flood/Tsunami Hazards	Outside Tsunami Evacuation Zones and 1% Annual Flood Risk Zones	<i>Per NOAA Pacific Tsunami Warning Center and FEMA flood risk maps</i>	2 / 2	
	Avoids Sea Level Rise Hazard	Not endangered by sea level rise	<i>Per NOAA circa 2100 worst-case scenario projections (3.2ft)</i>	2 / 2	
	Avoids Wetlands Impact	<b>3.3 acres</b> designated wetlands (1.8% of total) at north end of site		1 / 2	
	Suitability for Emergency Shelter	Outside flood/tsunami risk zones; no coastal exposure; good road and transit access		1 / 1	
	Bus Access	<b>3 bus stops</b> within 1/4 mile radius of site		1 / 1	
Development Costs	Existing Zoning	<b>159 acres BMX-3 Community Business Mixed Use District; 28 acres R-3.5 Residential District</b>	<i>Lack of adjacent residential areas could limit commercial appeal</i>	4 / 4	16 / 20
	P3 Potential or other Development Possibilities	Plentiful land to support ancillary commercial development and/or P3 development of additional facilities for West Oahu campus		4 / 4	
	Ceded Lands Encumbrance	Unknown		2 / 3	
	Infrastructure Costs	Some existing infrastructure in place to support West Oahu campus; modest surface parking lots on campus to west of site		2 / 3	
	Land Acquisition	<b>Owned by State of Hawaii</b>		2 / 2	
	Development Incentives	No state or federal development incentives		0 / 2	
	Complexity	Greenfield site with good access		2 / 2	
Community	Community Acceptance	Chance to build amenities complementing emerging Kapolei community south of site		6 / 10	16 / 30
	Positive Cultural Impact	Brings stadium to campus, but places it relatively remote from most students and fans; no sports focus on West Oahu campus		5 / 10	
	Political Viability			5 / 10	
Economic Impact	Employment Demand in Vicinity	<b>6,177 unemployed persons</b> in 10-min. drive distance (4.9% of pop.)	<i>Less opportunity to improve fhusehold incomes than with other sites</i>	4 / 6	14 / 20
	Households Experiencing Poverty in Vicinity	<b>3,614 households in poverty</b> in 10-min. drive distance (5.8% of total)		3 / 6	
	Population in Proximity	<b>231,132 persons</b> in 62,617 households in 10-min. drive distance		5 / 6	
	Per-Capita Income in Vicinity	<b>\$28,868</b>		2 / 2	
Intuitive Site Qualities	Unique Site Improvement Opportunities - positive	P3 development could jumpstart new opportunities for U of H - West Oahu campus		3 / 5	2
	Anticipated Site Difficulties - negative			-1 / -5	
Total Score:					69 / 100



Ala Wai Golf Course

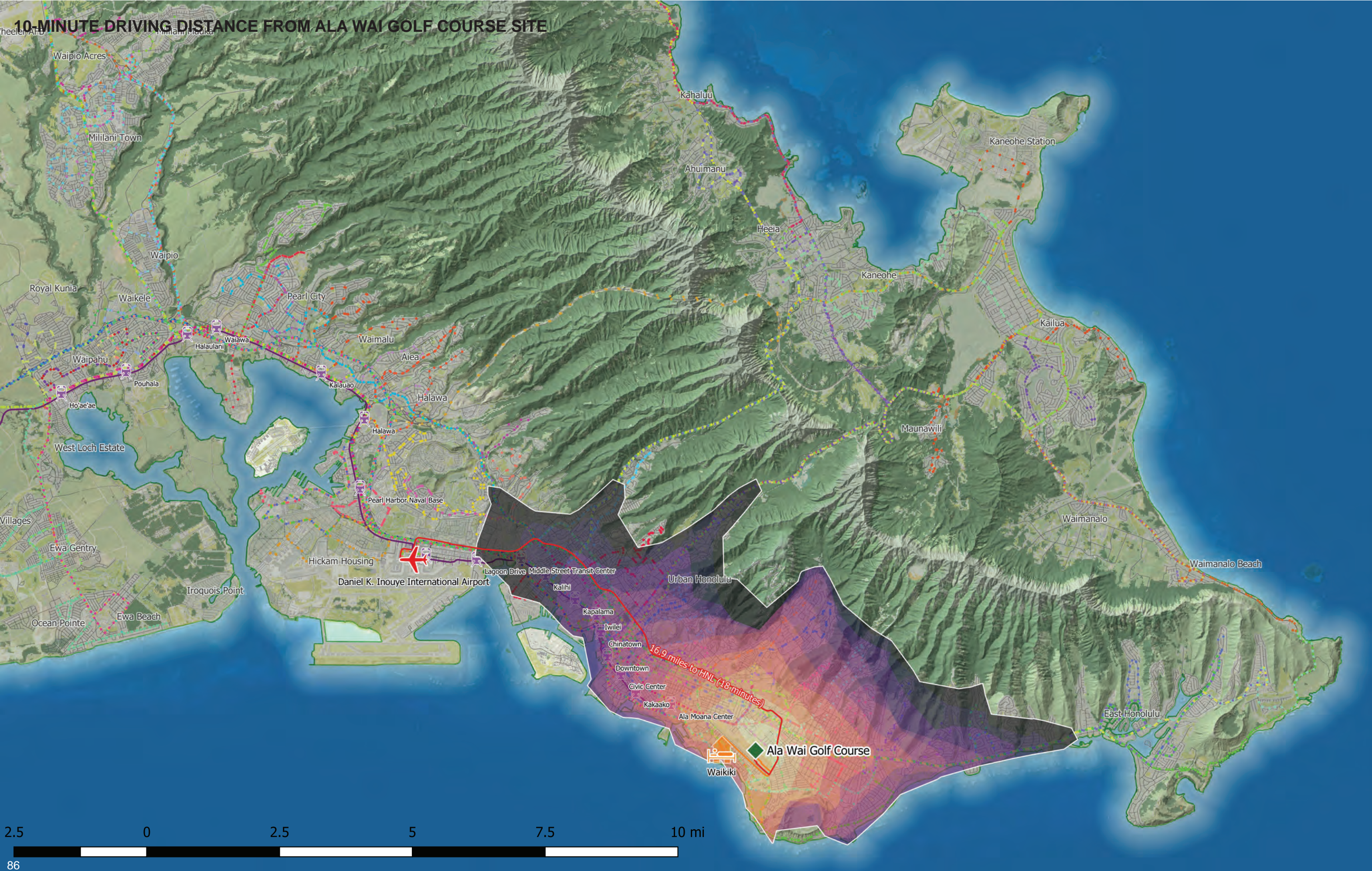
As an alternative to the Manoa campus site, the team studied the existing Ala Wai municipal golf course, just north of Waikiki, as a potential development site. While the course is currently very heavily used, it is considered a somewhat dated amenity. The driving range has been recently replaced with a TopGolf franchise; as such, this area was removed from the area to be redeveloped. Nevertheless, the remaining 128 acres represents the second-largest potential site under consideration, and its proximity to Waikiki (directly across Ala Wai Canal) means that it can rely on the hotels and amenities of the district to support any development (though road and/or pedestrian connections across the canal would likely have to be built to fully connect the areas). Additionally, emergency services are close by, only 3-6 minutes and not more than 3 miles away. Bus connections are abundant, with 48 stops in a quarter mile radius, but the closest HART station will be Ala Moana Center, which at 1.7 miles distant is well out of pedestrian range. While separated from the Manoa campus by H1, the site is close enough to campus to be feasibly served by event-day shuttles.

Demographically, the site is one of the most amenable, with 326,000 residents in a 10-minute driving range, and an average per-capita income of about \$36,100 per year. The central placement of the site also means that it could bring job opportunities closest to the largest number of unemployed persons and households in poverty of any site.

The site is currently owned by the state, though currently zoned P-2 General Preservation District. Given the popularity of the existing golf course, rezoning for new development may be contentious. No geographically-defined state or federal incentives are in place for the site. Significant portions of the site are covered by flood risk zones, and due to the proximity of Ala Wai Canal, a portion of the site is covered by a Tsunami Evacuation zone. The Extreme Tsunami Evacuation Zone covers the entirety of the site.



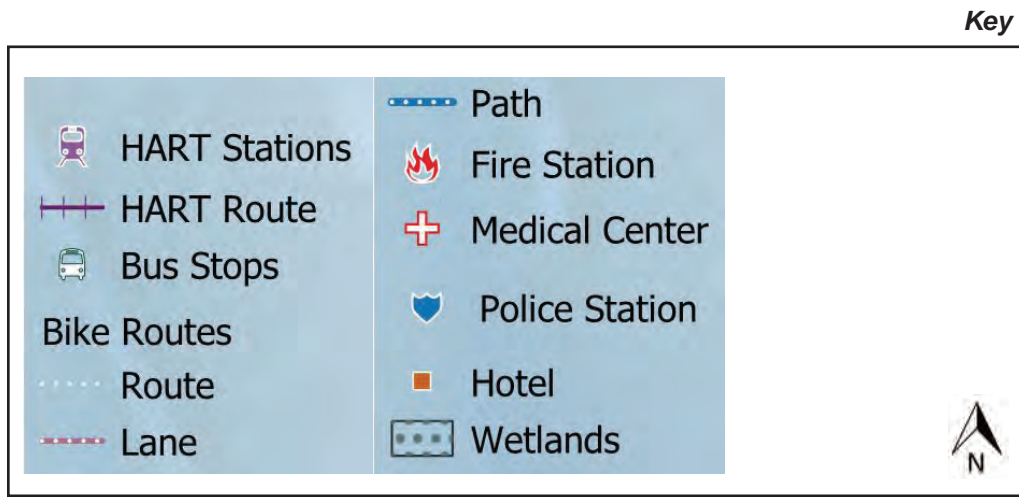




<b>Total Site Size:</b>	128 acres
<b>Total Tree Cover:</b>	1.3 acres (1.0%)
<b>Designated Wetlands:</b>	1.6 acres (1.3%)
<b>Site Slope</b>	
• Mean:	0.5-deg
• Max:	5.6-deg
• Std Dev:	1.5-deg
<b>Bus Stops Nearby:</b>	48
<b>HART Stops Nearby:</b>	0

The “10-Minute Driving Map” represents an isochronal diagram highlighting a distance around each one of the potential sites. This isochrones map show the distance that one could travel to or from the site in a 10-minute period of time, with no traffic. This catchment area is used to collect all of the data points and rubric information included in the site analysis matrixes. This is shown consistent for all the sites.

The “Vicinity Map” shows the bounds of an area that is a 15-minute (1/4-mile) walk from the site perimeter. This area provides additional information about the facilities and infrastructure immediately adjacent to the site. This is shown consistent for all the sites.



**VICINITY MAP OF ALA WAI GOLF COURSE SITE**





# Ala Wai Golf Course Site

## General Description

The Ala Wai Golf Course is located immediately north-east of Waikiki, across the Ala Wai Canal. The site has a significant amount of open land that is used by members and recreational golfers. It is several blocks from the H1 highway interchange at King Street.

Pros	Cons
<ul style="list-style-type: none"><li>Ala Wai’s close proximity to Waikiki, an established center of tourism and visitors to the potential stadium development.</li><li>Close proximity to downtown Honolulu, the Blaisdell Center, Ala Moana Center, and the convention center allows opportunity for synergy between businesses and development.</li><li>Many visitors could walk from the hotels in the area, minimizing parking requirements.</li><li>Fairly close to the University of Hawaii, Manoa Campus, less than a mile for student population to attend Rainbow Warrior games or other events.</li><li>Siting of a stadium at this location would create stunning views to Diamond Head. Additionally, aerial views of the stadium in this location would add to the already iconic images of Honolulu.</li><li>New development could work with the already planned Top Golf facility.</li><li>Enough land exists that green space could be preserved in this area promoting continued use by the general public while allowing for ancillary development.</li></ul>	<ul style="list-style-type: none"><li>Nearest HART station is 1.7 miles away at Ala Moana Center.</li><li>Density of Waikiki already creates traffic and some overcrowding issues.</li><li>Would likely run into opposition from existing golf course members and other stakeholders, as the golf course is a well-known course and has historically been one of the busiest golf courses on the island.</li></ul>

## Summary Observation(s)

The undeveloped land (large acreage controlled by one owner) at such close proximity to Waikiki sets up a unique opportunity to significantly increase the amount of tourist development in one of the most desirable locations in the world. Not only would a stadium venue fit easily on this site, but a large amount of development (hotels, retail, etc.) complimenting and adding to Waikiki would result as well.



view of Diamond Head from Ala Wai



Ala Wai Parking lot, looking towards Waikiki and Downtown



Ala Wai Clubhouse



Ala Wai Driving Range



canal between Ala Wai and Waikiki



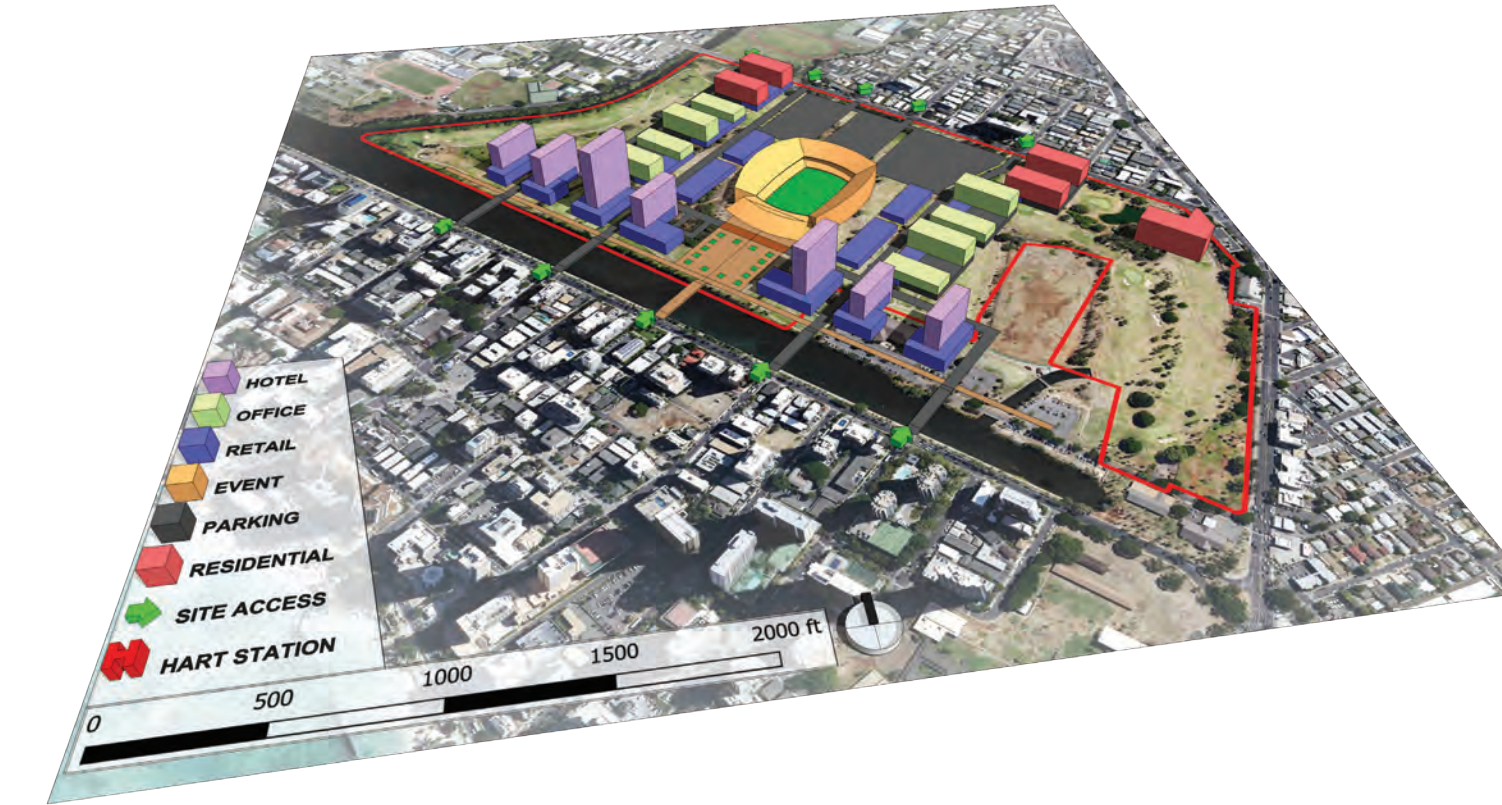
Ala Wai Golf Course



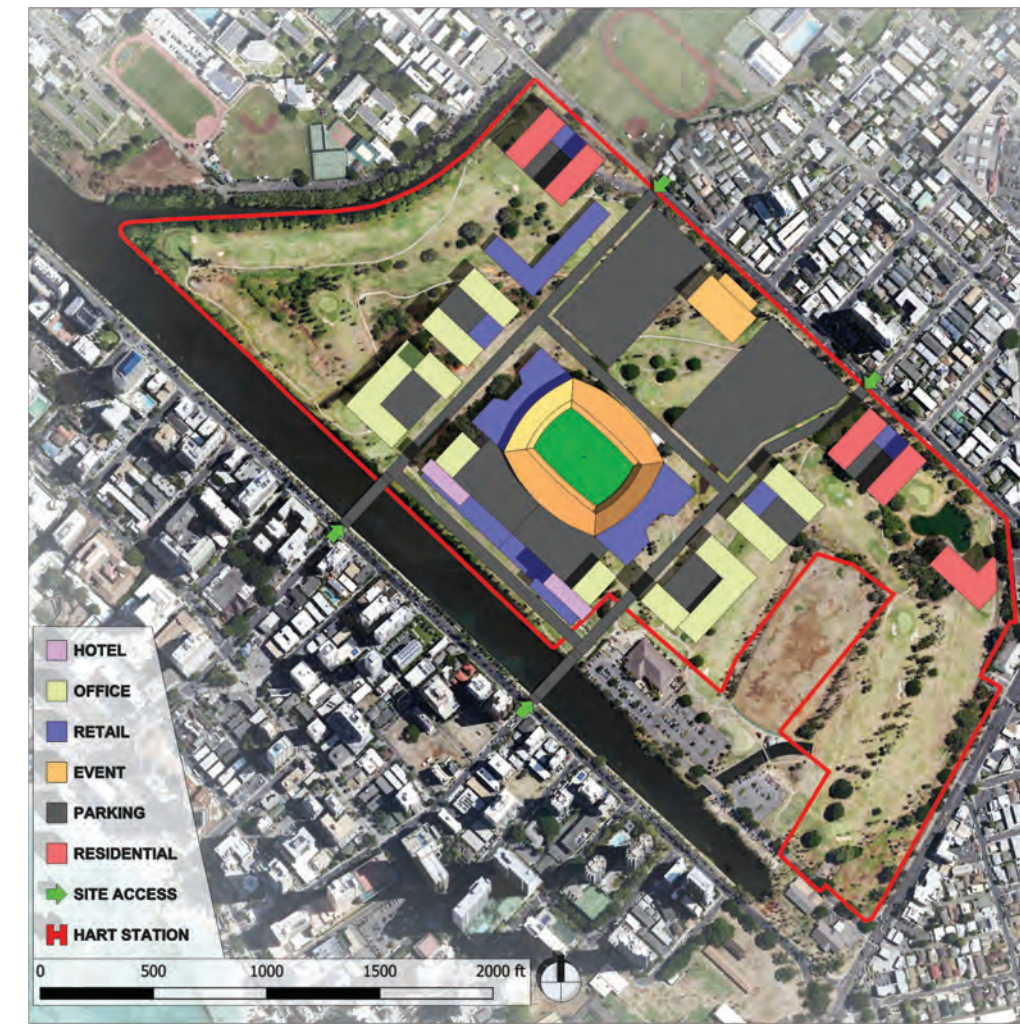
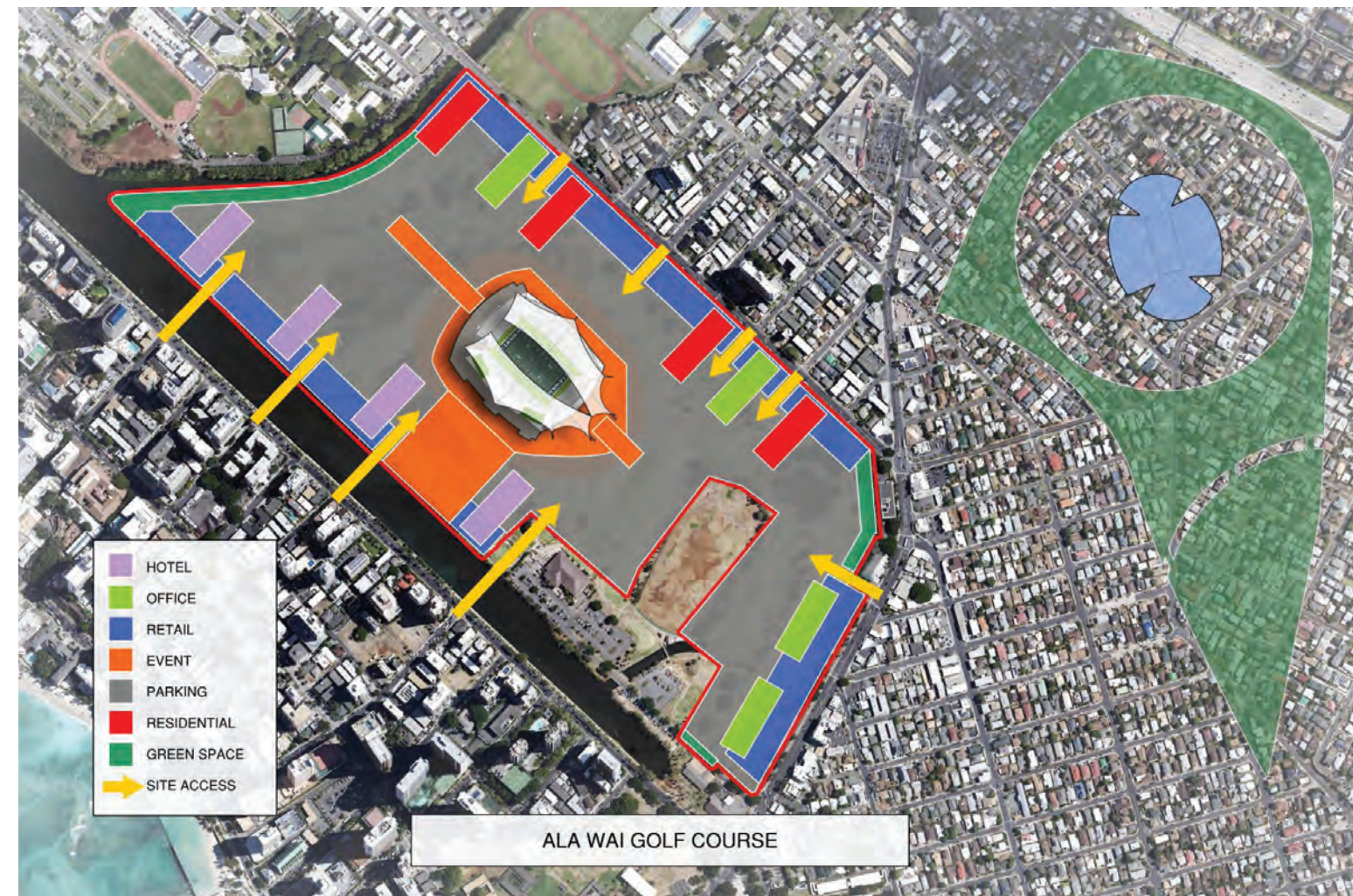
PRELIMINARY DEVELOPMENT CONCEPT FOR ALA WAI GOLF COURSE SITE



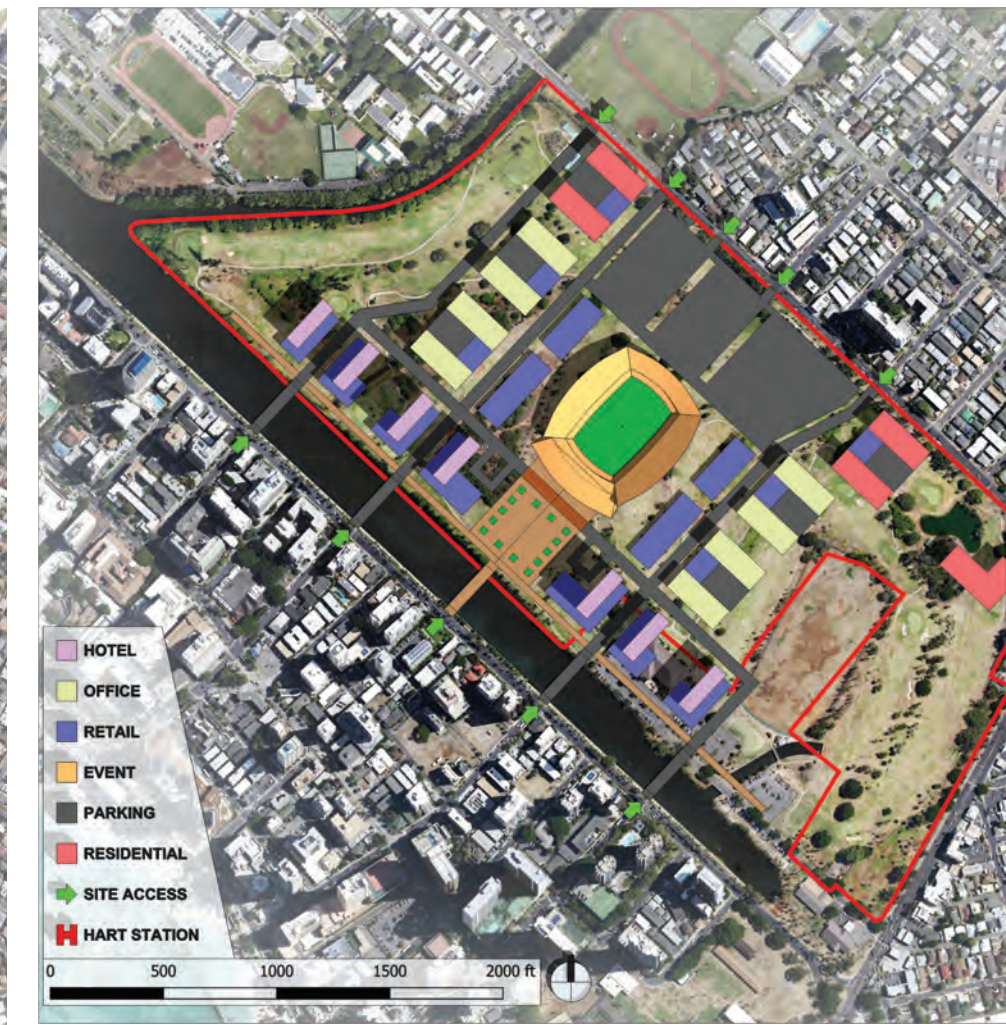
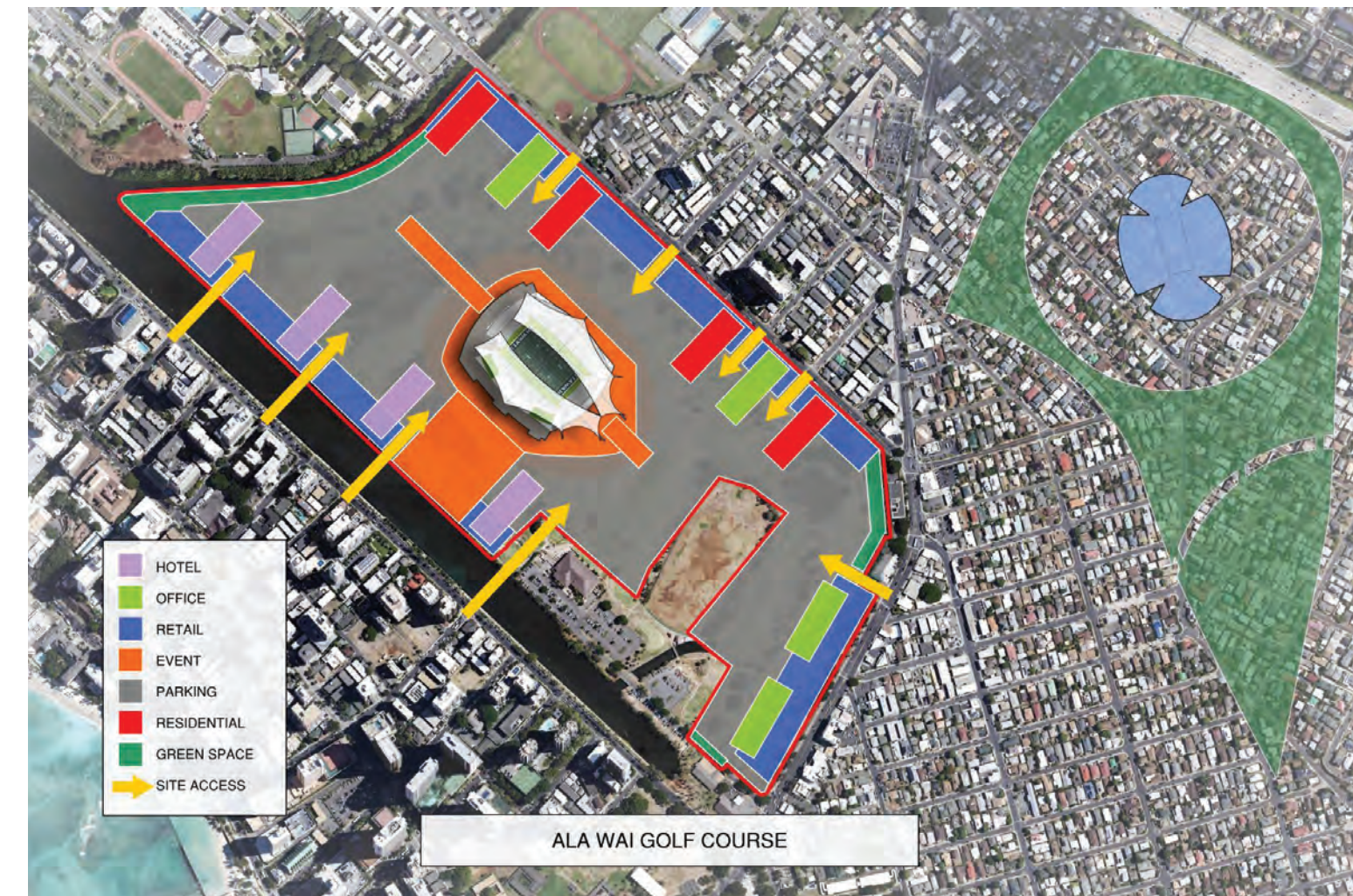




DEVELOPMENT CONCEPTS AT THE ALA WAI GOLF COURSE SITE



DEVELOPMENT CONCEPTS AT THE ALA WAI GOLF COURSE SITE





ALA WAI GOLF COURSE SITE ANALYSIS

Site Analysis and Scoring:		Ala Wai Golf Course			
Category	Criteria	Indicators	Notes	Score	Subtotal
Site, Infrastructure, and Environment	Total Acreage	128 acres on existing Ala Wai Golf Course property	Excludes driving range/TopGolf facility	5 / 5	19 / 30
	HART Access	no pedestrian HART access	1.7 miles to Ala Moana Center Station	1 / 5	
	Proximity to Daniel K. Inouye International Airport	16.9 miles (18 minutes) to/from airport	Kalaeloa Airport not considered due to limited cargo handling facilities	2 / 3	
	Proximity to Emergency Services	0.8 miles to Fire Station 07 Waikiki; 3.1 miles to Waikiki Police Substation; 2.5 miles to Leahi Hospital		3 / 3	
	Proximity to Honolulu Harbor	9.9 miles (22 minutes) to/from harbor	Barber's Point Harbor not considered due to lack of container facilities	2 / 2	
	Proximity to Waikiki	3.1 miles (6 minutes) to/from Waikiki	Could be incorporated into Waikiki area with bridges over canal	2 / 2	
	Ability to Accommodate Stadium Program			2 / 2	
	Avoids Flood/Tsunami Hazards	Within flood zone AE (1% annual flood risk); 100% of site covered by Tsunami/Extreme Tsunami Evacuation Zone	Manoa Stream floodway zone; 500' from Ala Wai Canal in Tsunami Evac Zone	0 / 2	
	Avoids Sea Level Rise Hazard	Approximately 30% of site along Ala Wai Canal directly threatened by sea level rise	Per NOAA circa 2100 worst-case scenario projections (3.2ft)	0 / 2	
	Avoids Wetlands Impact	1.6 acres designated wetlands (1.3% of total) along Ala Wai Canal		1 / 2	
	Suitability for Emergency Shelter	Good road access; Site at risk in flooding or tsunami scenario		0 / 1	
	Bus Access	48 bus stops within 1/4 mile radius of site		1 / 1	
Development Costs	Existing Zoning	P-2 General Preservation District	Conversion from existing use could be a challenge	1 / 4	11 / 20
	P3 Potential or other Development Possibilities	Large site within urban Honolulu, with direct adjacency to Waikiki tourist areas		4 / 4	
	Ceded Lands Encumbrance	Unknown		2 / 3	
	Infrastructure Costs	Minimal existing public parking and no major services currently on site		1 / 3	
	Land Acquisition	Owned by State of Hawaii	Course operated by Honolulu Dept. of Enterprise Services	2 / 2	
	Development Incentives	No state or federal development incentives		0 / 2	
	Complexity	Developing site responsibly would require interventions to protect against flooding, tsunami risk, and sea level rise		1 / 2	
Community	Community Acceptance	Existing Ala Wai golf course is an extremely popular public amenity		3 / 10	13 / 30
	Positive Cultural Impact			8 / 10	
	Political Viability			2 / 10	
Economic Impact	Employment Demand in Vicinity	7,044 unemployed persons in 10-min. drive distance (4.0% of pop.)	Site presents opportunity to do "the most good for the most people" in terms of offering employment to disadvantaged Hawaiians	6 / 6	17 / 20
	Households Experiencing Poverty in Vicinity	14,669 households in poverty in 10-min. drive distance (12.2% of total)		5 / 6	
	Population in Proximity	326,174 persons in 120,565 households in 10-min. drive distance		6 / 6	
	Per-Capita Income in Vicinity	\$36,114		0 / 2	
Intuitive Site Qualities	Unique Site Improvement Opportunities - positive			4 / 5	3
	Anticipated Site Difficulties - negative			-1 / -5	
Total Score:					63 / 100

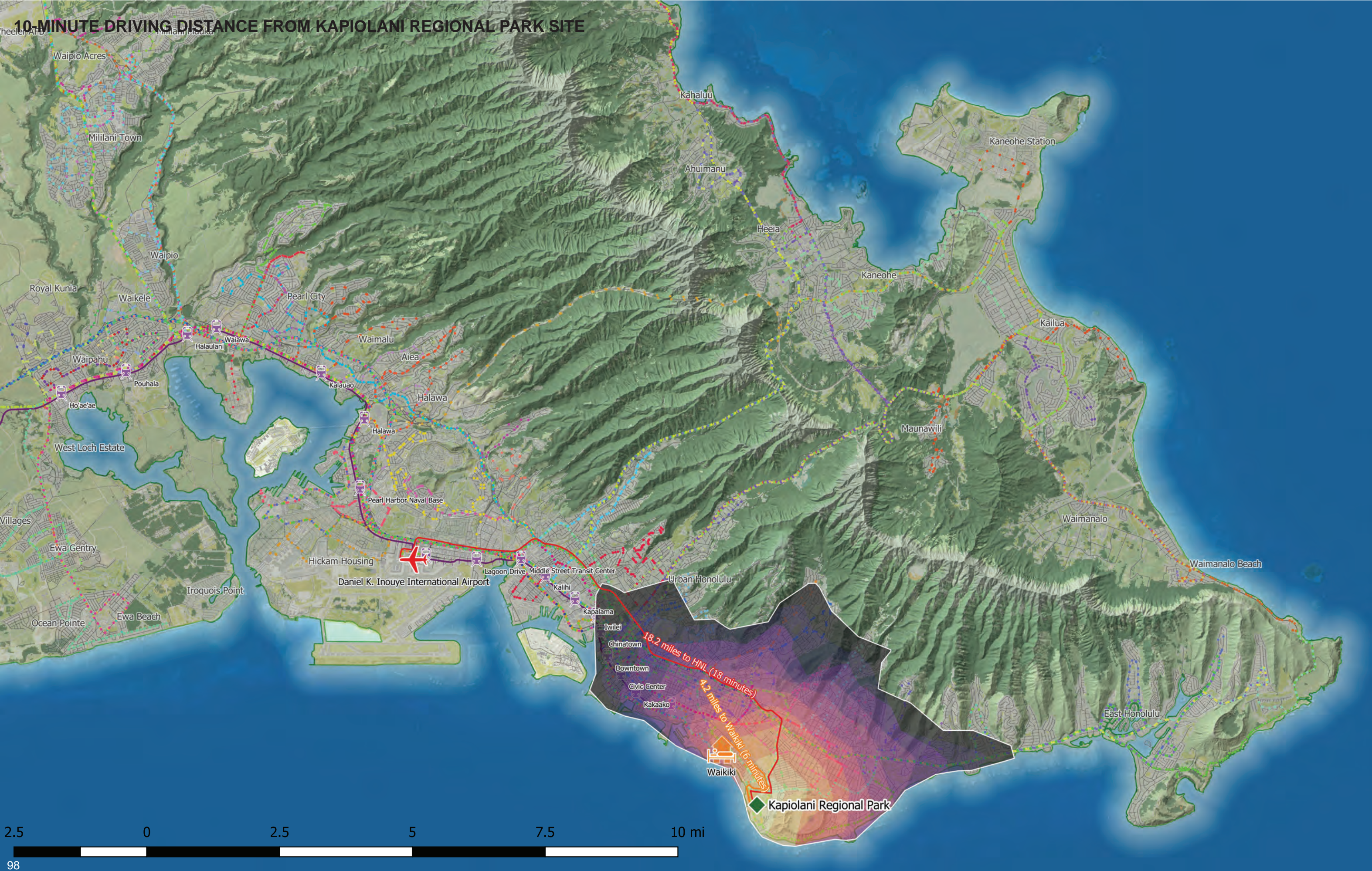


### ***Kapiolani Regional Park***

The team selected Kapiolani Regional Park as an additional alternative to the nearby Manoa Campus site. Kapiolani offers less developable land and poorer connections to transit and major roads, but would not necessitate the elimination of a public amenity as popular as Ala Wai Golf Course in order to convert the site. Excluding the Waikiki Shell Amphitheater, the site offers 69 developable acres in close proximity to Waikiki. Access to Waikiki is complicated by one-way streets, but emergency services are very close to site, 5 minutes or less. Due to the distance of the park from H1 and lack of links into the city grid due to one-way streets in Waikiki and Diamond Head adjacent to the site, access is the poorest here of any urban Honolulu site – only ~243,000 residents live within a 10 minute driving radius. However, those residents have a relatively high ~\$38,200 average per capita income.



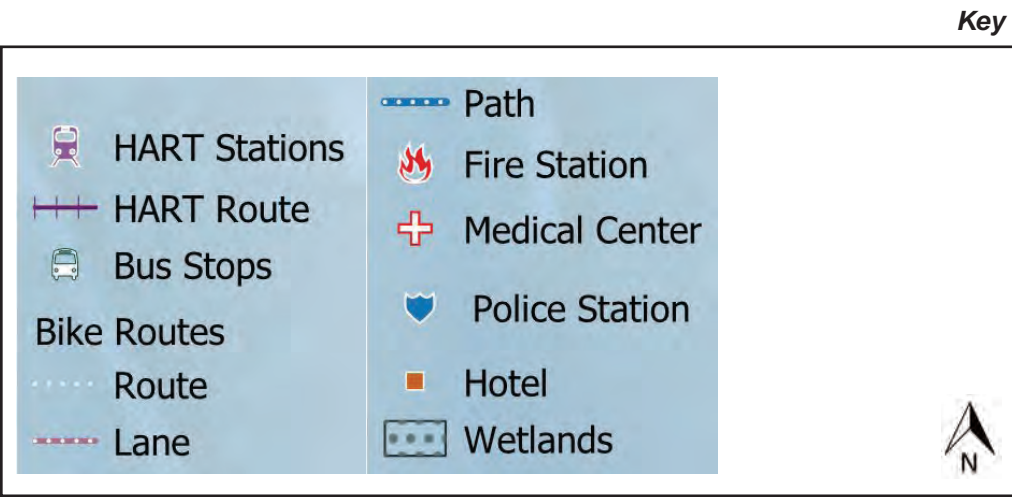




Total Site Size:	69 acres
Total Tree Cover:	0.1 acres (0.2%)
Designated Wetlands:	0.0 acres (0.0%)
Site Slope	
• Mean:	0.4-deg
• Max:	5.6-deg
• Std Dev:	1.4-deg
Bus Stops Nearby:	20
HART Stops Nearby:	0

The “10-Minute Driving Map” represents an isochronal diagram highlighting a distance around each one of the potential sites. This isochrones map show the distance that one could travel to or from the site in a 10-minute period of time, with no traffic. This catchment area is used to collect all of the data points and rubric information included in the site analysis matrixes. This is shown consistent for all the sites.

The “Vicinity Map” shows the bounds of an area that is a 15-minute (1/4-mile) walk from the site perimeter. This area provides additional information about the facilities and infrastructure immediately adjacent to the site. This is shown consistent for all the sites.



**VICINITY MAP OF KAPIOLANI REGIONAL PARK SITE**





# Kapiolani Regional Park Site

## General Description

Kapi'olani Park is a large public park situated at the east end of Waikiki and at the foot of Diamond Head. It is a large, open, flat park with a few recreation fields and minimal tree cover in the center and is used by the general public for recreation and relaxation.

Pros	Cons
<ul style="list-style-type: none"><li>• Close proximity to Waikiki, Diamond Head and the beach.</li><li>• Close to the zoo, the aquarium and the Waikiki shell (outdoor amphitheater venue).</li><li>• Creates an anchor at the south-east end of Waikiki without creating congestion in the heart of Waikiki.</li><li>• Siting of a stadium at this location would create a stunning venue at the foot of Diamond Head.</li><li>• Aerial views of the stadium in this location would add to the already iconic images of Honolulu.</li><li>• Many visitors could walk from the hotels in the area, minimizing parking requirements.</li><li>• Flat, open site already used by many for recreational purposes, which could be preserved and enhanced.</li></ul>	<ul style="list-style-type: none"><li>• Nearest HART station is 3.0 miles away at Ala Moana Center.</li><li>• Density of Waikiki already creates traffic and some overcrowding issues.</li><li>• Availability of the land is in question, based on possible deed restrictions and the proposed use. Potential that no additional for-profit development could be added on the site.</li><li>• Opposition from many who use the park for recreation, picnicking, field sports, etc.</li><li>• Loss of public green space in a dense area.</li></ul>

## Summary Observation(s)

The existing park is set up nicely to create a public venue that could work hand-in-hand with the Waikiki shell and maintain the outdoor recreation areas that are already in use by the public.



open park area at Kapiolani



outdoor bleachers and venue



picnicking at Kapiolani, Waikiki in the background



open park area at Kapiolani



View of Diamond Head from Kapiolani



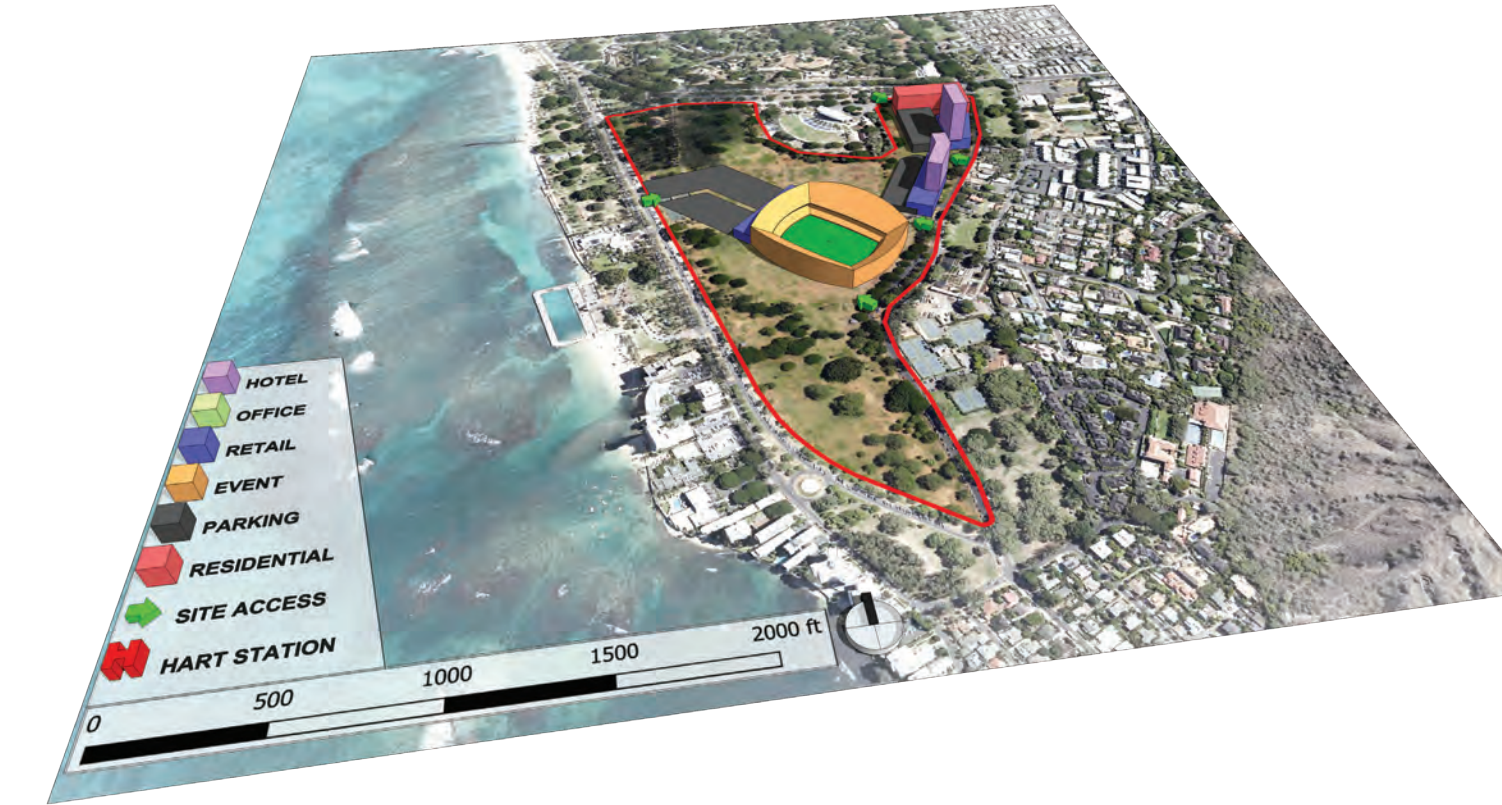
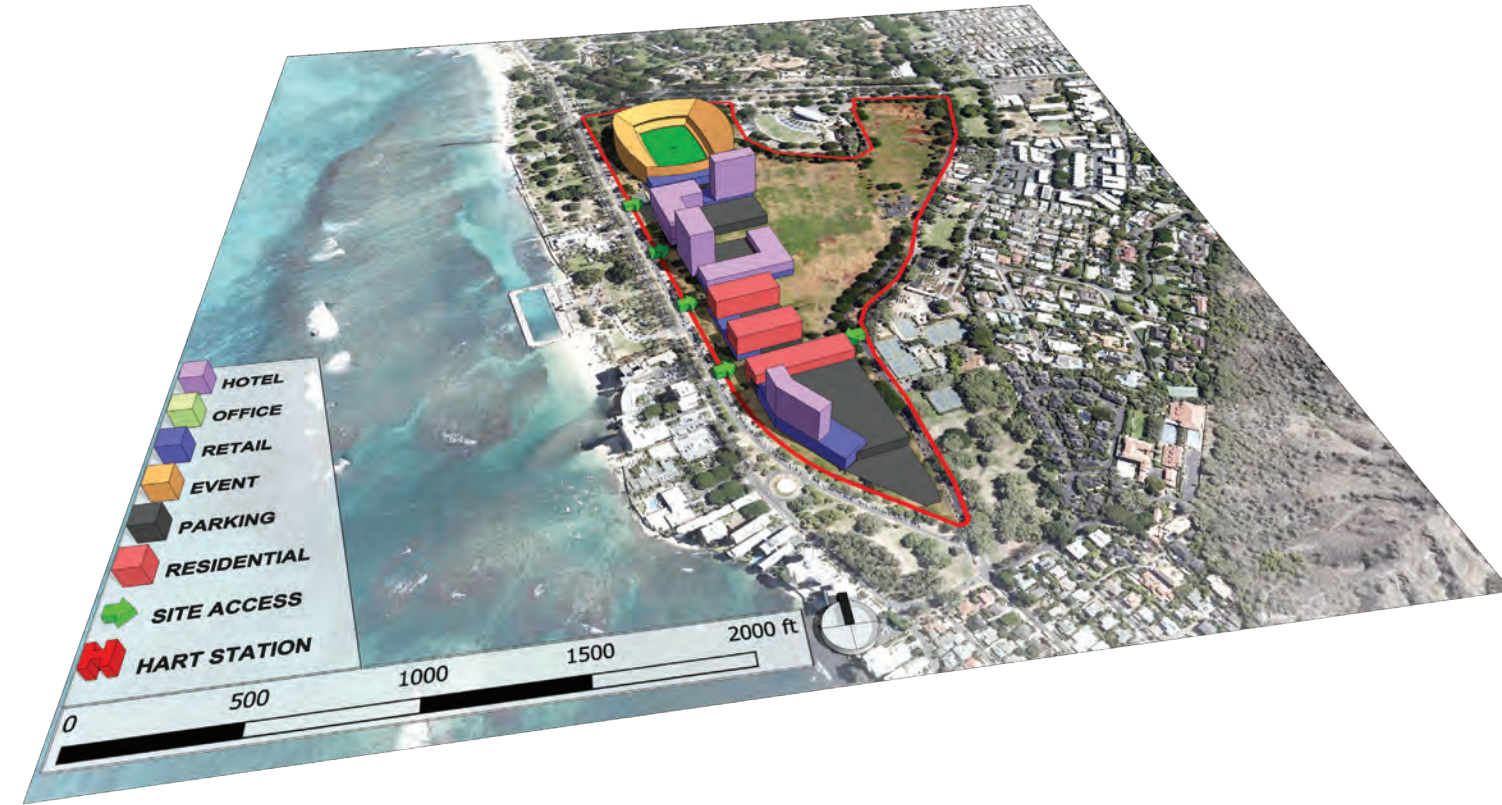
Waikiki Shell Outdoor Amphitheater



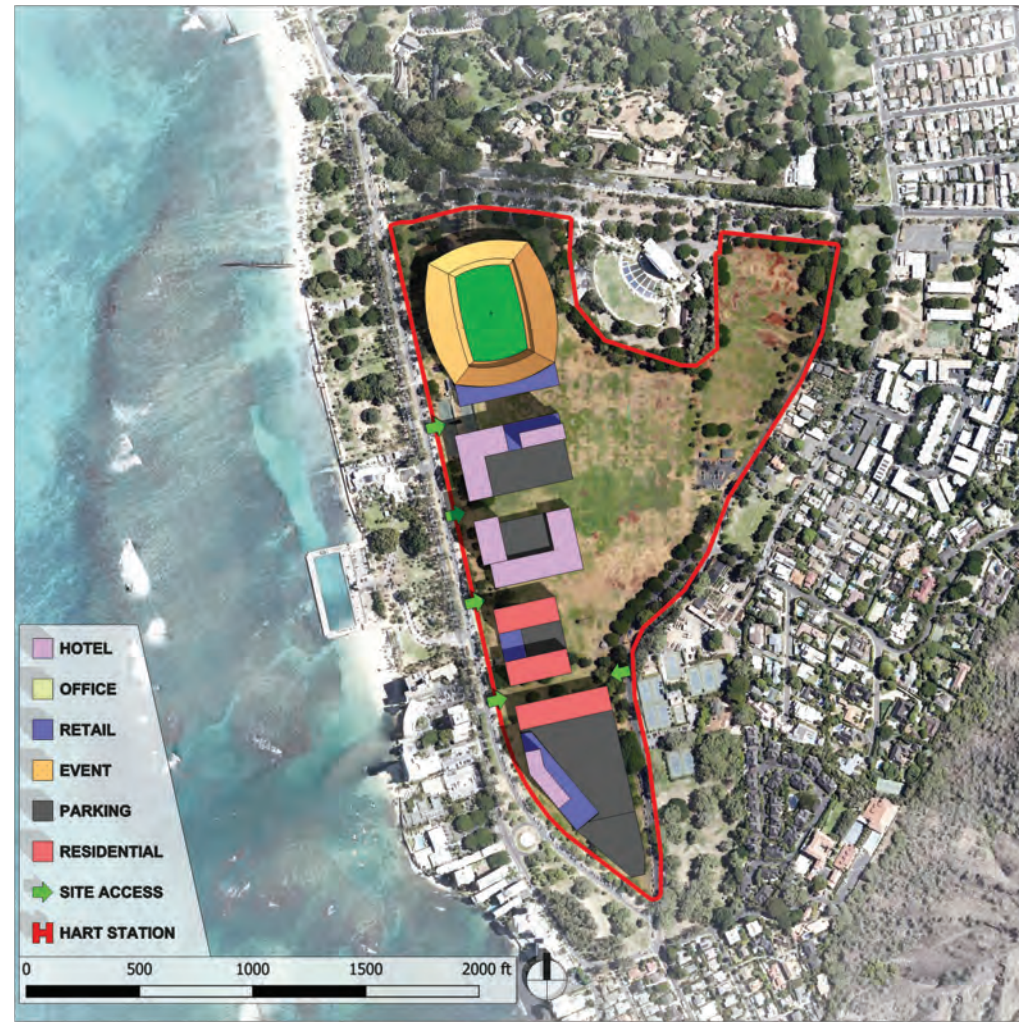
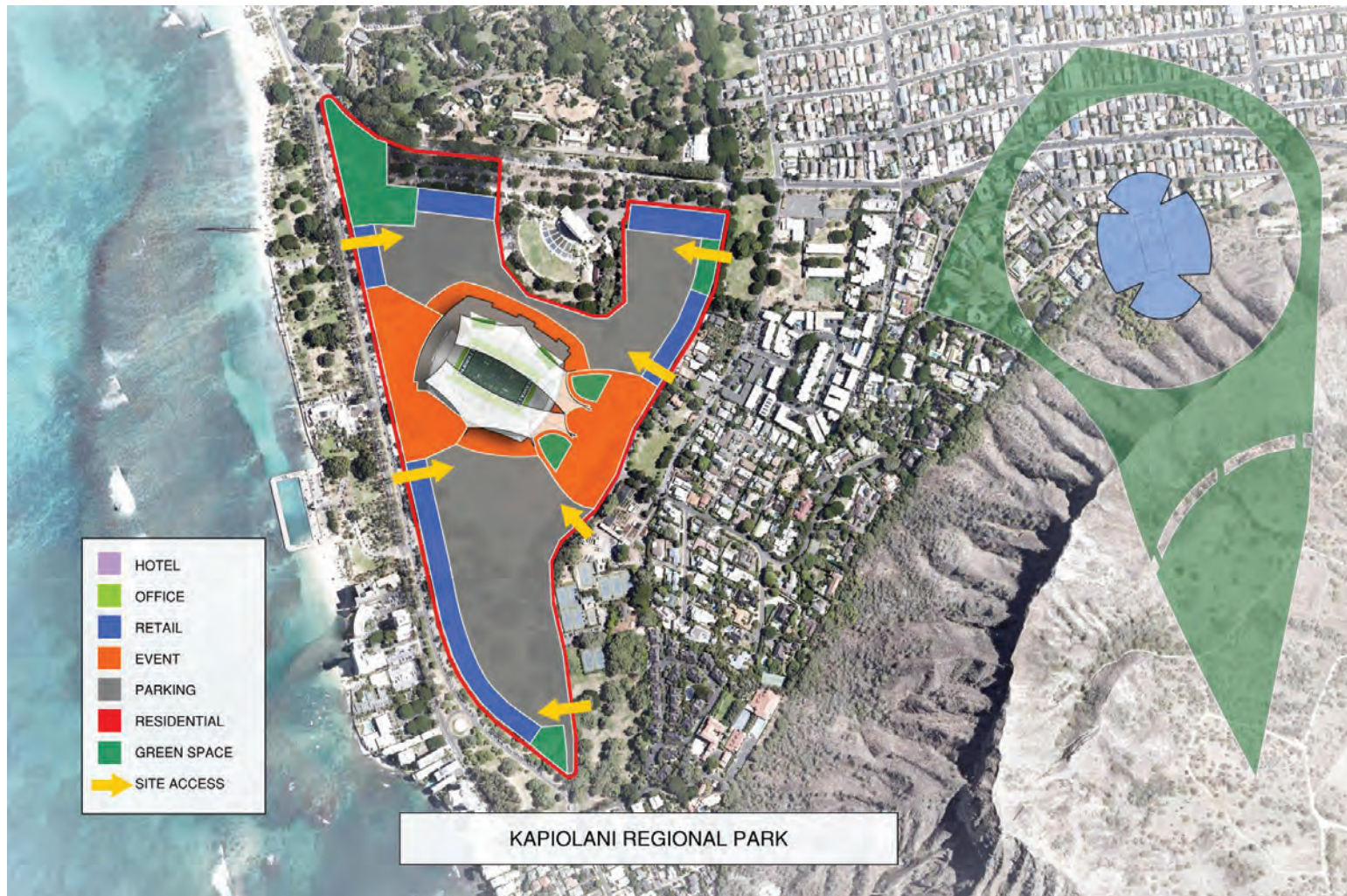
PRELIMINARY DEVELOPMENT CONCEPT FOR KAPIOLANI REGIONAL PARK SITE







DEVELOPMENT CONCEPTS AT THE KAPIOLANI REGIONAL PARK SITE



DEVELOPMENT CONCEPTS AT THE KAPIOLANI REGIONAL PARK SITE





KAPIOLANI REGIONAL PARK SITE ANALYSIS

Site Analysis and Scoring:		Kapiolani Regional Park			
Category	Criteria	Indicators	Notes	Score	Subtotal
Site, Infrastructure, and Environment	Total Acreage	69 acres at existing Kapiolani Regional Park		4 / 5	19 / 30
	HART Access	no pedestrian HART access	2.7 miles to Ala Moana Center Station	0 / 5	
	Proximity to Daniel K. Inouye International Airport	18.2 miles (18 minutes) to/from airport	Kalaeloa Airport not considered due to limited cargo handling facilities	2 / 3	
	Proximity to Emergency Services	0.9 miles to Fire Station 07 Waikiki; 3.3 miles to Waikiki Police Substation; 2.3 miles to Leahi Hospital		3 / 3	
	Proximity to Honolulu Harbor	10.6 miles (22 minutes) to/from harbor	Barber's Point Harbor not considered due to lack of container facilities	1 / 2	
	Proximity to Waikiki	4.9 miles (6 minutes) to/from Waikiki	87% (~28000) of hotel rooms on Oahu are in Waikiki	2 / 2	
	Ability to Accommodate Stadium Program			2 / 2	
	Avoids Flood/Tsunami Hazards	Within flood zone AE (1% annual flood risk); 100% of site covered by Tsunami Evacuation Zone	8'-9' calculated BFE	0 / 2	
	Avoids Sea Level Rise Hazard	Not endangered by sea level rise	Per NOAA circa 2100 worst-case scenario projections (3.2ft)	2 / 2	
	Avoids Wetlands Impact	no designated wetlands		2 / 2	
	Suitability for Emergency Shelter	Site at risk in flooding or tsunami scenario		0 / 1	
	Bus Access	20 bus stops within 1/4 mile radius of site		1 / 1	
Development Costs	Existing Zoning	P-2 General Preservation District		1 / 4	10 / 20
	P3 Potential or other Development Possibilities	Mid-sized site within urban Honolulu, with direct adjacency to Waikiki tourist areas		4 / 4	
	Ceded Lands Encumbrance	Unknown		2 / 3	
	Infrastructure Costs	Minimal existing public parking and no major services currently on site		0 / 3	
	Land Acquisition	Owned by State of Hawaii		2 / 2	
	Development Incentives	No state or federal development incentives		0 / 2	
	Complexity	Existing road access complicated by one-way traffic flows around Waikiki and nearby residential neighborhoods		1 / 2	
Community	Community Acceptance			2 / 10	9 / 30
	Positive Cultural Impact			6 / 10	
	Political Viability			1 / 10	
Economic Impact	Employment Demand in Vicinity	5,243 unemployed persons in 10-min. drive distance (3.9% of pop.)	Site presents somewhat poor opportunities for job creation for disadvantaged Hawaiians	6 / 6	16 / 20
	Households Experiencing Poverty in Vicinity	12,653 households in poverty in 10-min. drive distance (12.6% of total)		5 / 6	
	Population in Proximity	243,095 persons in 100,620 households in 10-min. drive distance		5 / 6	
	Per-Capita Income in Vicinity	\$38,238		0 / 2	
Intuitive Site Qualities	Unique Site Improvement Opportunities - positive			4 / 5	2
	Anticipated Site Difficulties - negative			-2 / -5	
Total Score:					56 / 100



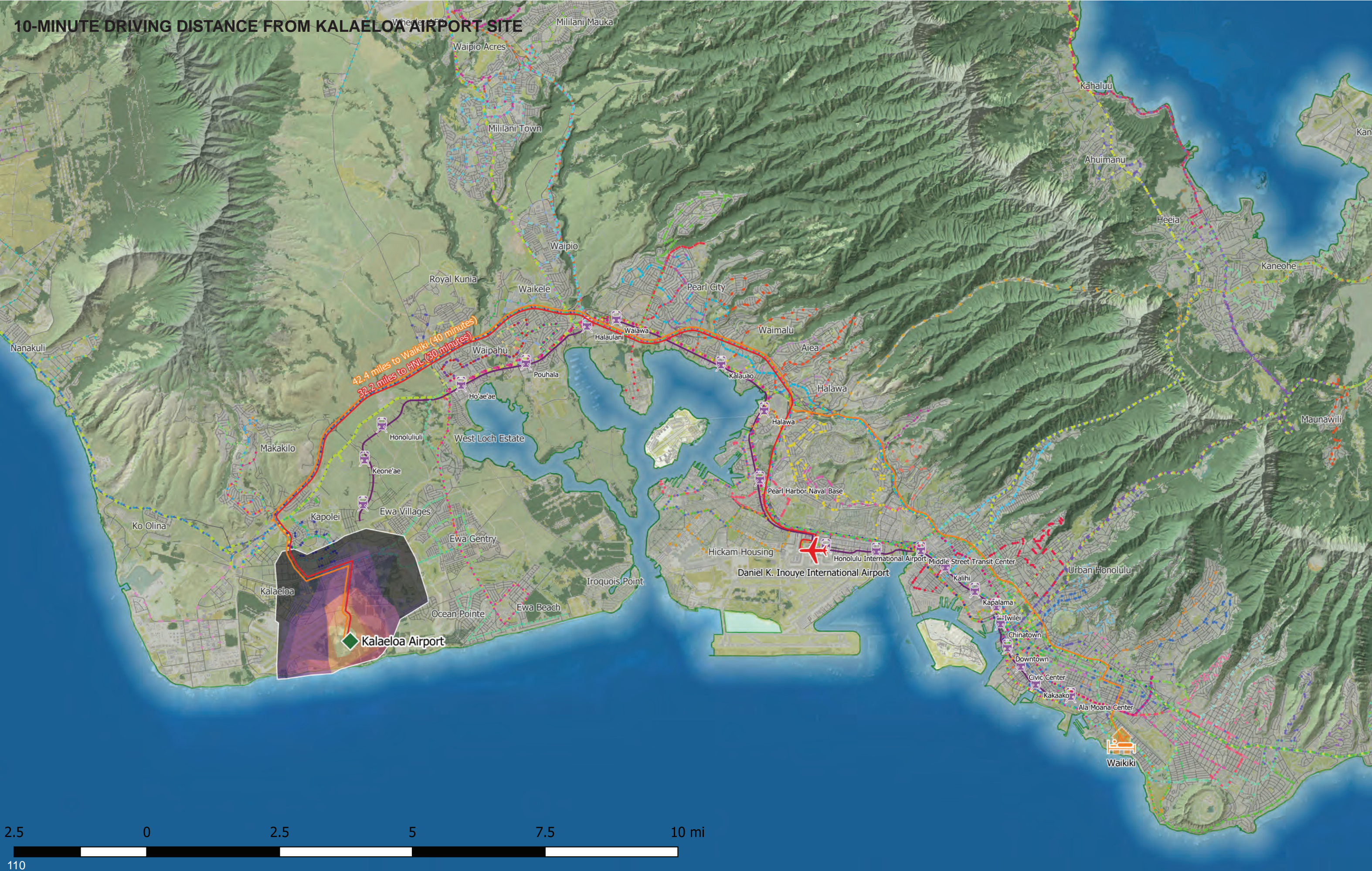
**Kalaeloa Airport**

The land on and around Kalaeloa Airport, on the west end of Oahu, represents a large swath of underdeveloped area in proximity to the fast-growing community of Kapolei. While there are a number of potential sites in the area, the team selected Lot C (previously studied for an OCCC detention facility) as a representative option. There are 50 acres on Lot C, which is currently held by the Department of Hawaiian Homelands.

The principal and overwhelming drawback of the Kalaeloa site is its remoteness. Only the suburban Kapolei neighborhoods lay within its 10-minute travel isochrone, covering a mere ~29,400 residents. Mass transit is sparse in the vicinity as well, with no existing bus lines serving the Lot C site or any other potential options. The closest HART station, Kualaka’i, is 4 miles away. Significant access improvements between the site and H1 would be required to support event-day traffic flows. The site is also the farthest – geographically and temporally – from Daniel K. Inouye International (32 miles and ~30 minutes) and Waikiki (42 miles and ~40 minutes), with travel times likely to be much higher due to event-day traffic and/or commuter congestion.



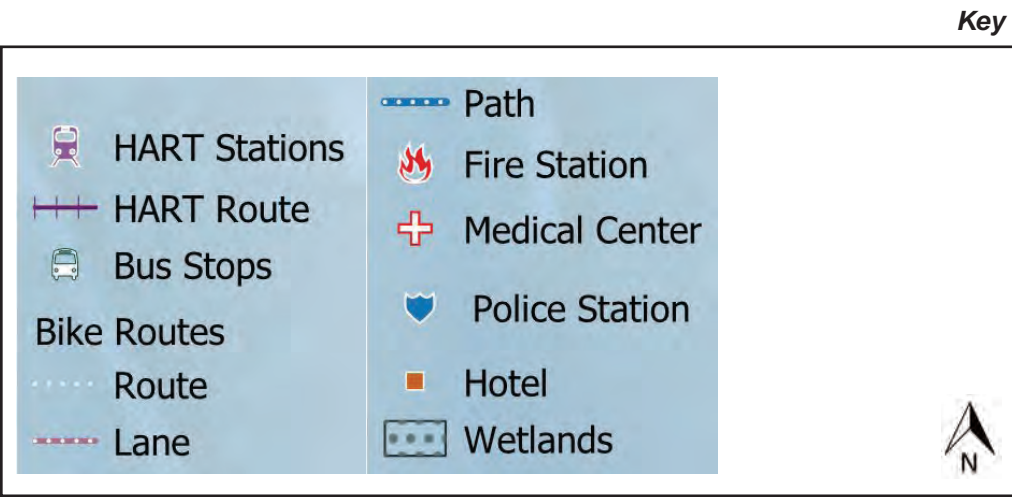




Total Site Size:	50 acres
Total Tree Cover:	25.5 acres (51.3%)
Designated Wetlands:	0.0 acres (0.0%)
Site Slope	
• Mean:	1.1-deg
• Max:	5.6-deg
• Std Dev:	1.9-deg
Bus Stops Nearby:	0
HART Stops Nearby:	0

The “10-Minute Driving Map” represents an isochronal diagram highlighting a distance around each one of the potential sites. This isochrones map show the distance that one could travel to or from the site in a 10-minute period of time, with no traffic. This catchment area is used to collect all of the data points and rubric information included in the site analysis matrixes. This is shown consistent for all the sites.

The “Vicinity Map” shows the bounds of an area that is a 15-minute (1/4-mile) walk from the site perimeter. This area provides additional information about the facilities and infrastructure immediately adjacent to the site. This is shown consistent for all the sites.



**VICINITY MAP OF KALAELOA AIRPORT SITE**





# Kalaeloa Airport Site

General Description

Located on the south west of the island is Oahu’s second airport which was originally operated by the Navy for marine patrol aircraft. Taken over in 1999 it now operates as a joint civil-military regional airport of the state of Hawaii serving the needs for commercial air transportation and other aviation demands. The airport is approximately 16 miles from Aloha Stadium in Halawa.

Pros	Cons
<ul style="list-style-type: none"><li>Commercial airport provides fly-in-fly-out connectivity for visiting teams, fans (inter-island, national and international), and touring events.</li><li>Connection potential to the H1 freeway.</li><li>Ample site area comprising flat, easily developable land with low scrub-like vegetative cover affording alternative site locations for a stadium.</li><li>Ample site area for car parking and additional/ancillary development potential.</li><li>Commercial center nearby in Kapolei (Costco, Home Depot, Target, restaurants, etc.).</li><li>Surrounding population centers provide a potential labor pool.</li><li>HART line is nearby (approximately 3-miles over land) connecting the location with other destinations; and the HART line could easily be extended closer to the airport</li><li>Ko Olina Resort is nearby providing high-end, luxury accommodation for visitors.</li><li>Investment in the airport could be an economic stimulus for the area.</li><li>Site has unique, telegenic/aesthetic qualities, including water views to the south and west from the stadium.</li></ul>	<ul style="list-style-type: none"><li>The site is the most distant from Honolulu’s more typical places of interest.</li><li>Infrastructure is under-capacity (such as pipe and wire services); roads and intersections (for site access) need improving, etc.</li><li>Flight path restrictions.</li><li>Lacks commercial visibility/presence.</li><li>Last HART station is approximately 4-miles driving distance.</li><li>Airport and supporting facilities may need to be upgraded.</li><li>Most distant from U of H (Manoa) football fans.</li></ul>

Summary Observation(s)

The site is a surprisingly well-endowed location that could be suitable for a new stadium location.



White Plains Beach near Kalaeloa



potential site



nearby Ko Olina Resort Development



typical vegetation and tree cover

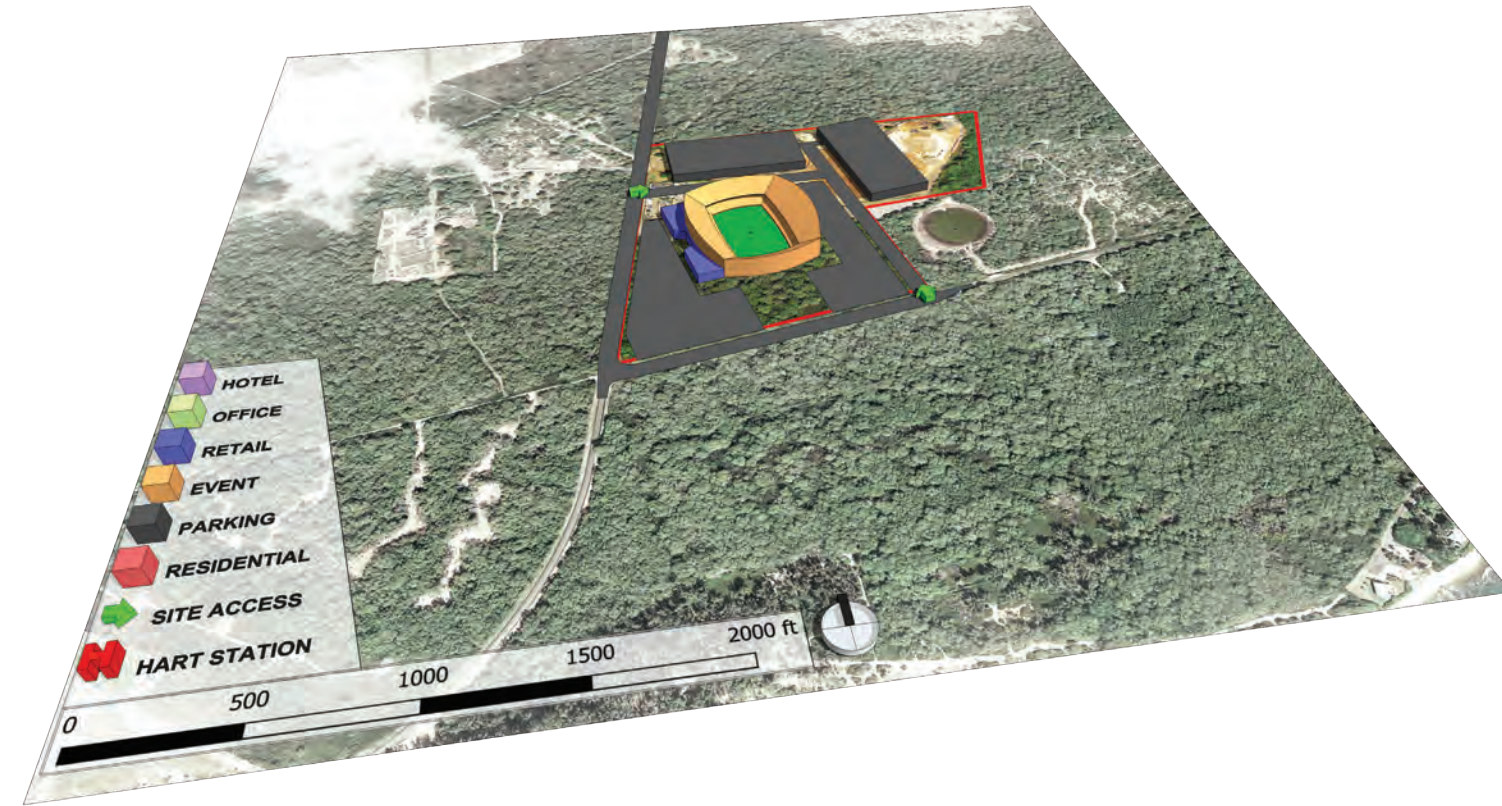


potential site

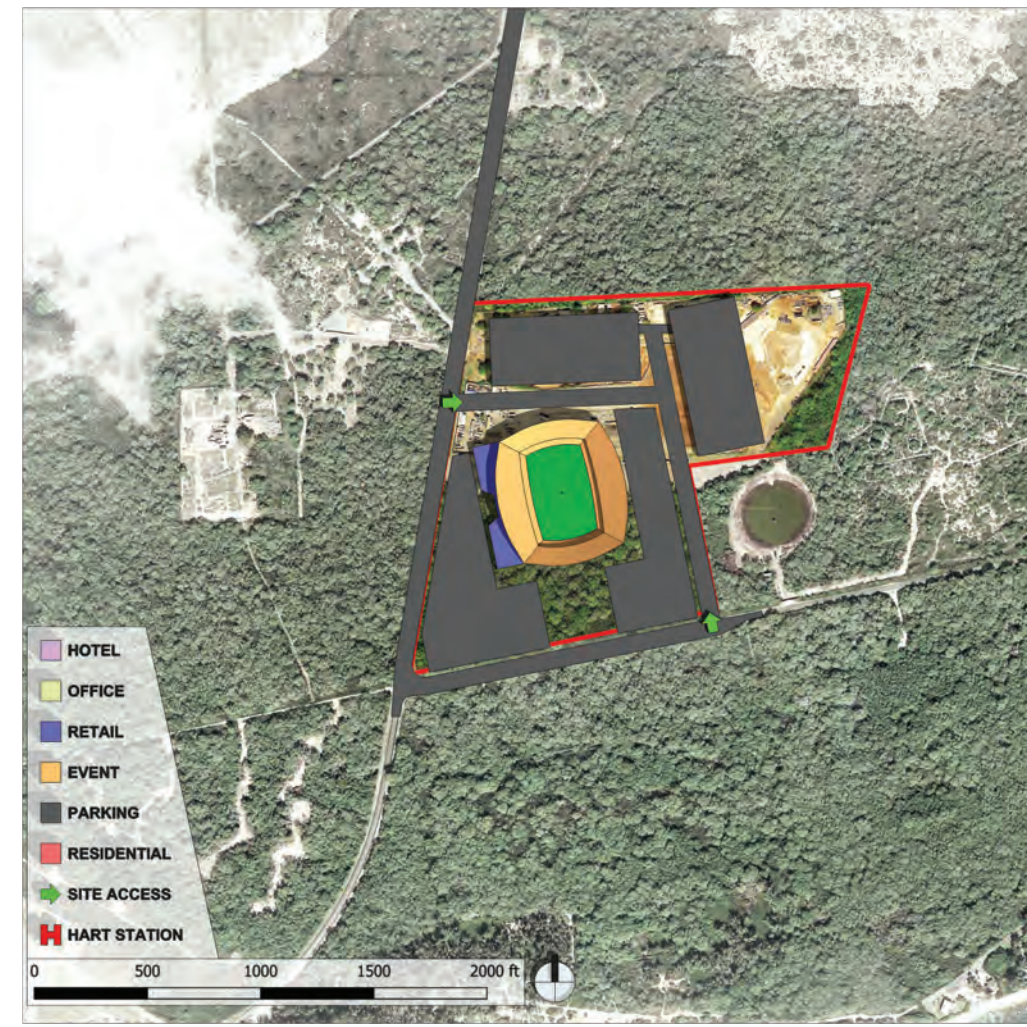


nearby Ko Olina Resort Development





DEVELOPMENT CONCEPTS AT THE KALAELOA AIRPORT SITE



PRELIMINARY DEVELOPMENT CONCEPT FOR THE KALAELOA AIRPORT SITE





KALAELOA AIRPORT SITE ANALYSIS

Site Analysis and Scoring:		Kalaeloa			
Category	Criteria	Indicators	Notes	Score	Subtotal
Site, Infrastructure, and Environment	Total Acreage	50 acres on DHHL property east of Kalaeloa Airport		5 / 5	13 / 30
	HART Access	no pedestrian HART access	4.0 miles to Kualaka'i Station	1 / 5	
	Proximity to Daniel K. Inouye International Airport	32.2 miles (30 minutes) to/from airport	Kalaeloa Airport not considered due to limited cargo handling facilities	0 / 3	
	Proximity to Emergency Services	7.2 miles to Fire Station 40 Kapolei; 6.6 miles to Kapolei District Station; 11.0 miles to The Queen's Medical Center - West Oahu		0 / 3	
	Proximity to Honolulu Harbor	24.2 miles (43 minutes) to/from harbor	Barber's Point Harbor not considered due to lack of container facilities	0 / 2	
	Proximity to Waikiki	42.4 miles (40 minutes) to/from Waikiki	87% (~28000) of hotel rooms on Oahu are in Waikiki	0 / 2	
	Ability to Accommodate Stadium Program			2 / 2	
	Avoids Flood/Tsunami Hazards	100% of site covered by Extreme Tsunami Evacuation Zone		1 / 2	
	Avoids Sea Level Rise Hazard	Not endangered by sea level rise	Per NOAA circa 2100 worst-case scenario projections (3.2ft)	2 / 2	
	Avoids Wetlands Impact	No designated wetlands		2 / 2	
	Suitability for Emergency Shelter	Site at risk in tsunami scenario; limited road and no transit access		0 / 1	
	Bus Access	0 bus stops within 1/4 mile radius of site		0 / 1	
Development Costs	Existing Zoning	F-1 Federal and Military Presevation District		3 / 4	13 / 20
	P3 Potential or other Development Possibilities	Remote site with limited appeal for commercial development		2 / 4	
	Ceded Lands Encumbrance	Unknown		2 / 3	
	Infrastructure Costs	Significant road improvement and utility construction needs anticipated		0 / 3	
	Land Acquisition	Owned by State of Hawaii - Department of Hawaiian Homelands		2 / 2	
	Development Incentives	Site covered by federal Kalaeloa Opportunity Zone		2 / 2	
	Complexity	Flat site with no prior development		2 / 2	
Community	Community Acceptance			7 / 10	19 / 30
	Positive Cultural Impact			7 / 10	
	Political Viability			5 / 10	
Economic Impact	Employment Demand in Vicinity	940 unemployed persons in 10-min. drive distance (5.8% of pop.)		0 / 6	2 / 20
	Households Experiencing Poverty in Vicinity	268 households in poverty in 10-min. drive distance (3.6% of total)		0 / 6	
	Population in Proximity	29,368 persons in 7,427 households in 10-min. drive distance		0 / 6	
	Per-Capita Income in Vicinity	\$28,948		2 / 2	
Intuitive Site Qualities	Unique Site Improvement Opportunities - positive			4 / 5	2
	Anticipated Site Difficulties - negative	Remoteness and inaccessiblity of site make it difficult to imagine it supporting anything other than a stadium and associated parking		-2 / -5	
Total Score:					49 / 100





### SUMMARY AND RECOMMENDATION

The recommendation from this report is that the Halawa Site is the best site for the construction of a new stadium and any ancillary development around it. The findings are conclusive in the fact that the site rated the highest, or equal highest, in all categories.

The Halawa Site is the most ready for development. It has the transportation infrastructure in place in terms of visitor access and will only get better with the addition of the rail stop. It has the land available to create additional program on site, enhancing its value to residents and increasing its desirability for developers. It is a site already used for the specific purpose of a stadium, and thus likely to be accepted by the community, at least from a use stand point. Its construction will not take away any beloved parks, landmarks or other uses. It is an opportunity to take something that is already highly used and accepted by the community, and to make it even better.

## 6. SUMMARY AND RECOMMENDATION

