

iHeart Media Radio Tower Relocation Site Selection and Development Plan

Public Informational Meeting

Farrington High School Cafeteria

Thursday, January 19, 2017

Open House: 4:00 p.m. to 6:00 p.m.

Presentation: 6:00 p.m. to 8:00 p.m.

Open House: 8:00 p.m. to 9:00 p.m.

Presented For:



Department of Transportation
Harbors Division

Presented By:



R. M. Towill Corporation

AGENDA

1. Introductions
2. Existing Tower and Emergency Alert System
3. Relationship to Harbor and Airport Operations
4. Constraints
5. Candidate Sites
6. Site Selection Process
7. Alternatives Considered
8. Schedule
9. Questions and Answers

STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION

- **Ford Fuchigami, Director**
- **Darrell Young, Deputy Director, Harbors Division**
- **Ross Higashi, Deputy Director, Airports Division**
- **Tim Sakahara, Public Information Officer**
- **Carter Luke, Harbors Engineering Program Manager**
- **Dean Watase, Harbors Project Manager**

PROJECT TEAM

R. M. Towill Corporation

- David Tanoue, Vice President
- Laura Mau, Project Coordinator
- Michelle Wong, Planner

Centerline Solutions

- Matt Miura, Regional Director - Hawaii
- Aaron Toma, Project Manager
- Katie Southwick, Project Coordinator

Broadcast Resources Co.

- Ernie Nearman, Broadcast Engineer

SMS Consultants, LLC

- Faith Rex, President
- Kanaloa Schrader, Assistant Project Coordinator



OVERALL PROJECT PHASING

- **Phase 1: Site Selection and Development Plan**
- **Phase 2: Environmental Compliance**
- **Phase 3: Design & Licensing**
- **Phase 4: Construction**



LOCATION OF EXISTING TOWER



EXISTING TOWER VIEWS

View from Kohou St. Facing Mauka/Diamond Head



View from Dillingham Blvd. Facing Diamond Head



EXISTING TOWER VIEWS

View from Dillingham Blvd.
Facing Makai



TOWER INFORMATION

Tower Owner: iHeart Media

Land Owner: Kamehameha Schools

Construction Date: 1985

Existing Height: 450 ft. (440-ft. tower and 10-ft. base)

Antenna Features:

- **AM Stations:** KSSK 590 (Primary State EAS)
KHVH 830
KIKI 990
KHRA 1460
- **FM Station:** The BEAT 93.9

TOWER ANATOMY

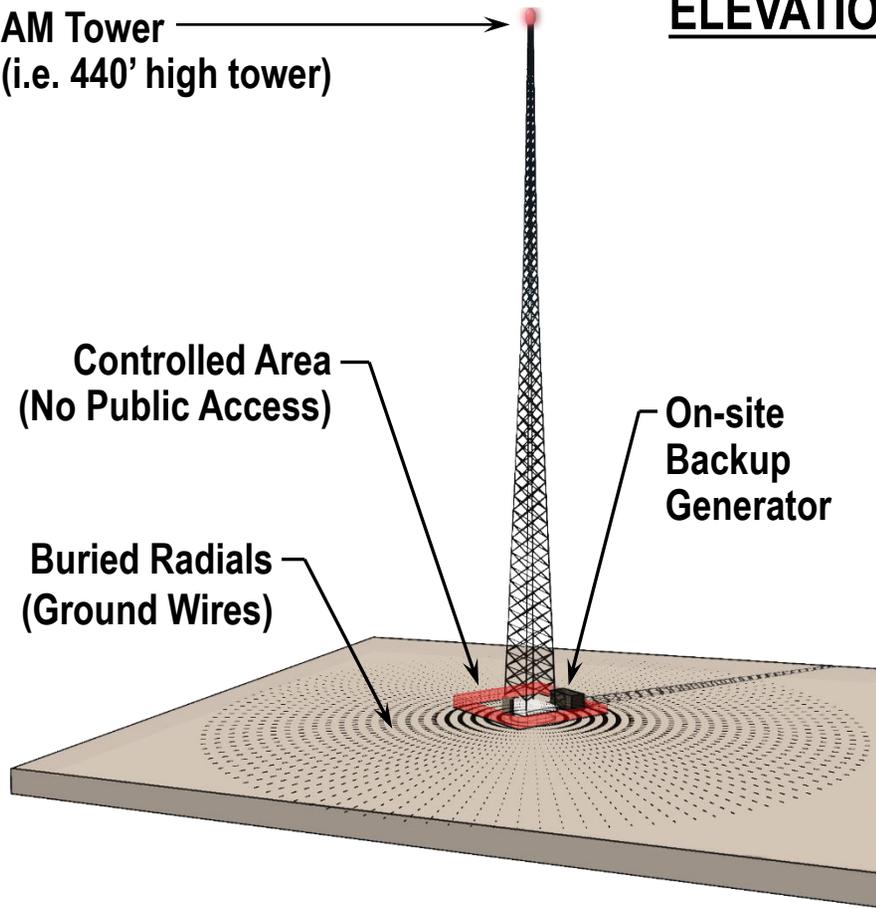
AM Tower
(i.e. 440' high tower)

ELEVATION

Controlled Area
(No Public Access)

Buried Radials
(Ground Wires)

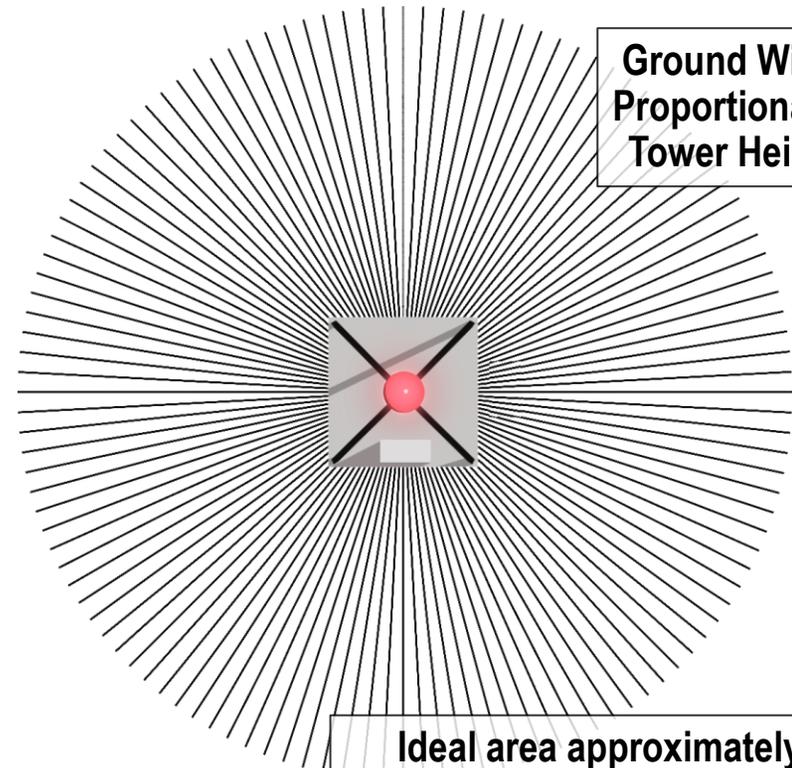
On-site
Backup
Generator



(Not to Scale)

PLAN VIEW

Ground Wires
Proportional to
Tower Height



Ideal area approximately
10 to 18 acres for 440-ft. radials
depending on site conditions

(Not to Scale)

WHY IS THIS PROJECT NEEDED?

- **Ensure Continued Public Safety**
 - Tower includes KSSK AM 590
 - Designated Primary Emergency Alert System (EAS) Station
- **Improve Maritime Operations**
 - Modernization of Honolulu Harbor
 - New, taller cranes needed to support larger Aloha Class Ships (Matson) and Kapalama Container Terminal (Pasha)
- **Support Aviation Operations**
 - Improve operational efficiencies
 - Tower relocation will provide wider departure path

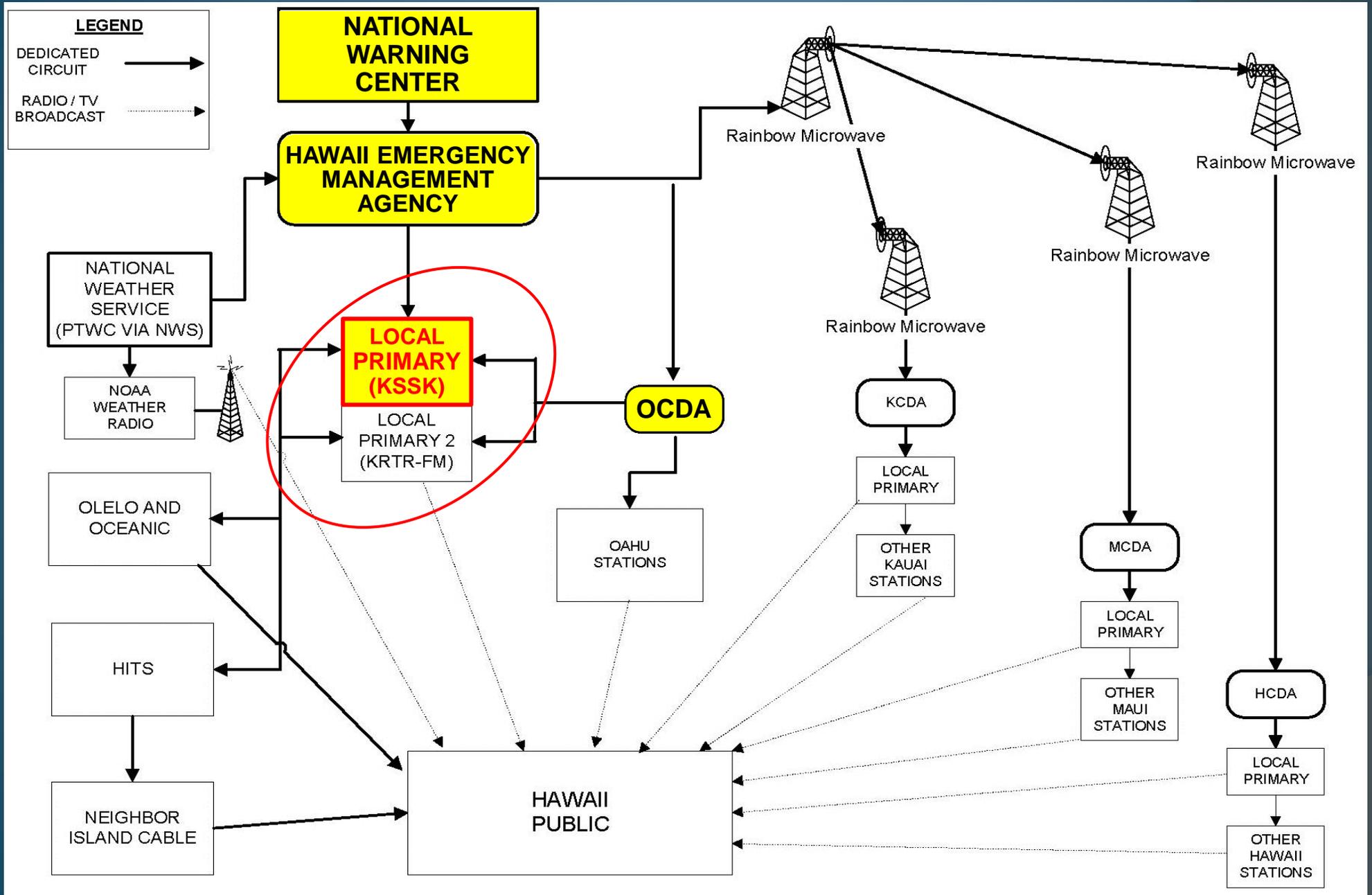
STATEWIDE EMERGENCY ALERT SYSTEM (EAS)

HAWAII EMERGENCY MANAGEMENT AGENCY'S THREE-PRONGED SYSTEM:

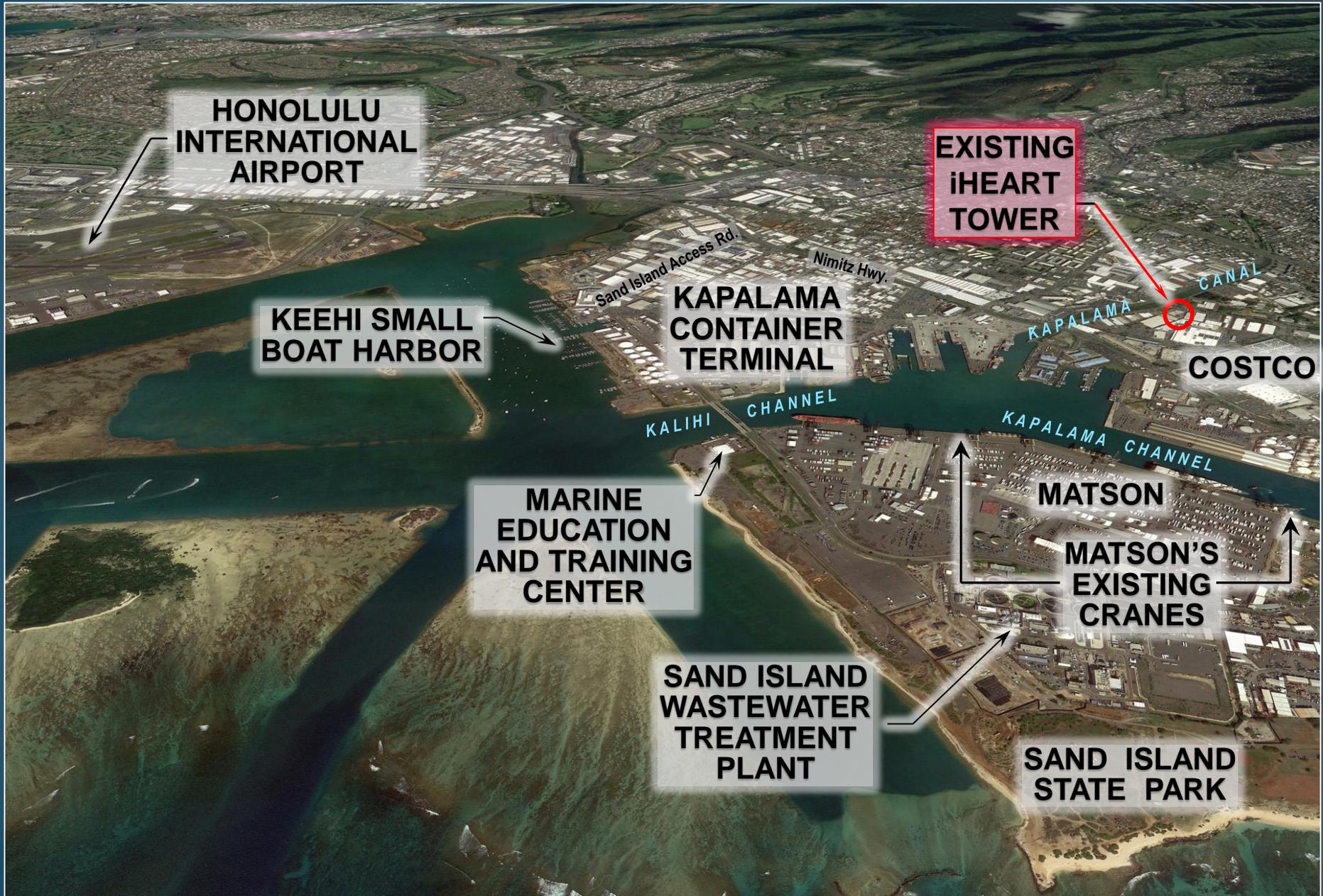
- **Live Audio Broadcast System (LABS)**
- **Live Video Broadcast System (LVBS)**
- **Siren Warning System**



STATEWIDE EAS PLAN



LOCATION MAP



MATSON CONTAINER YARD

Gantry Cranes – Stowed Position



**Gantry Cranes –
Operational Position**



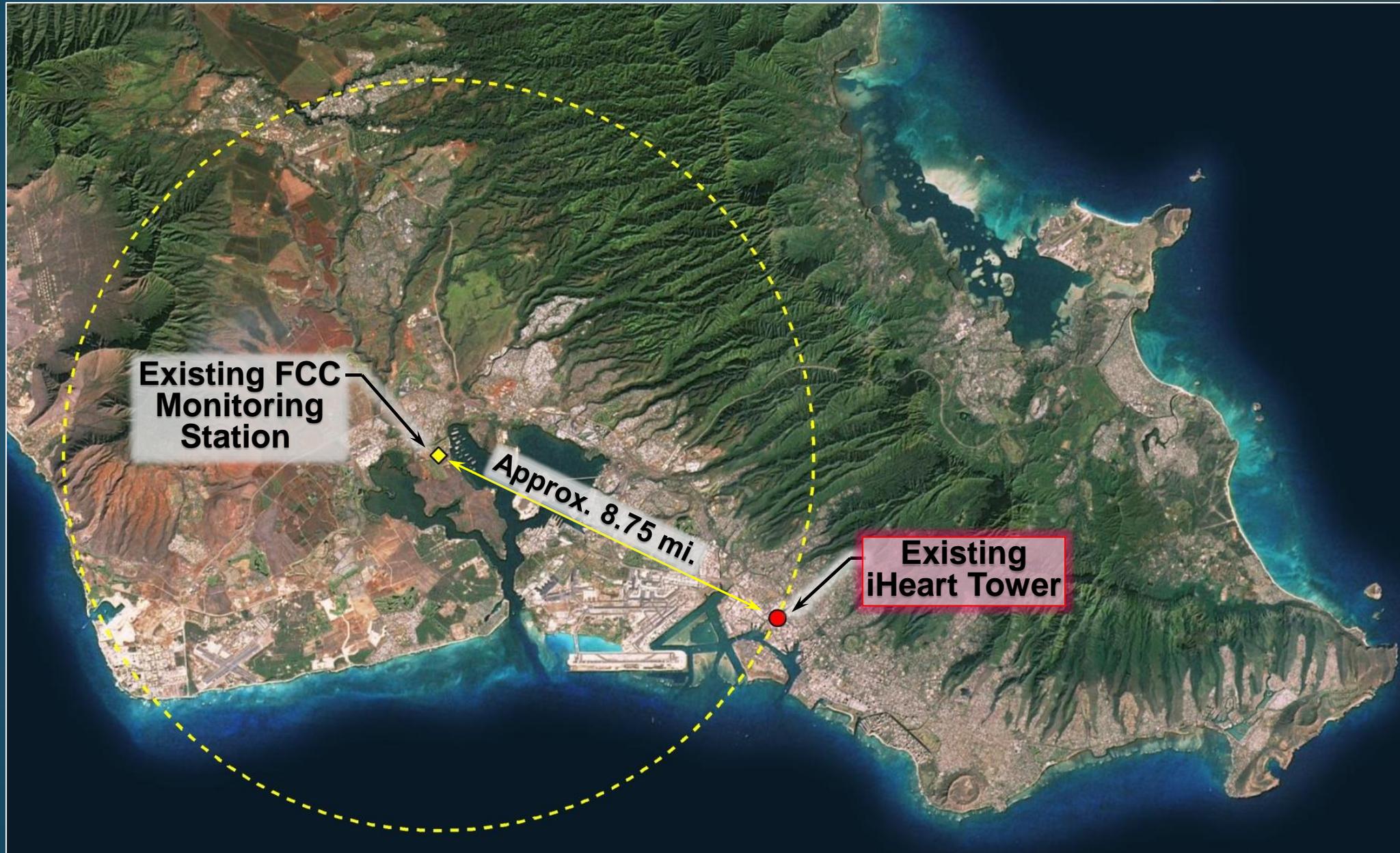
Photographs courtesy of Matson



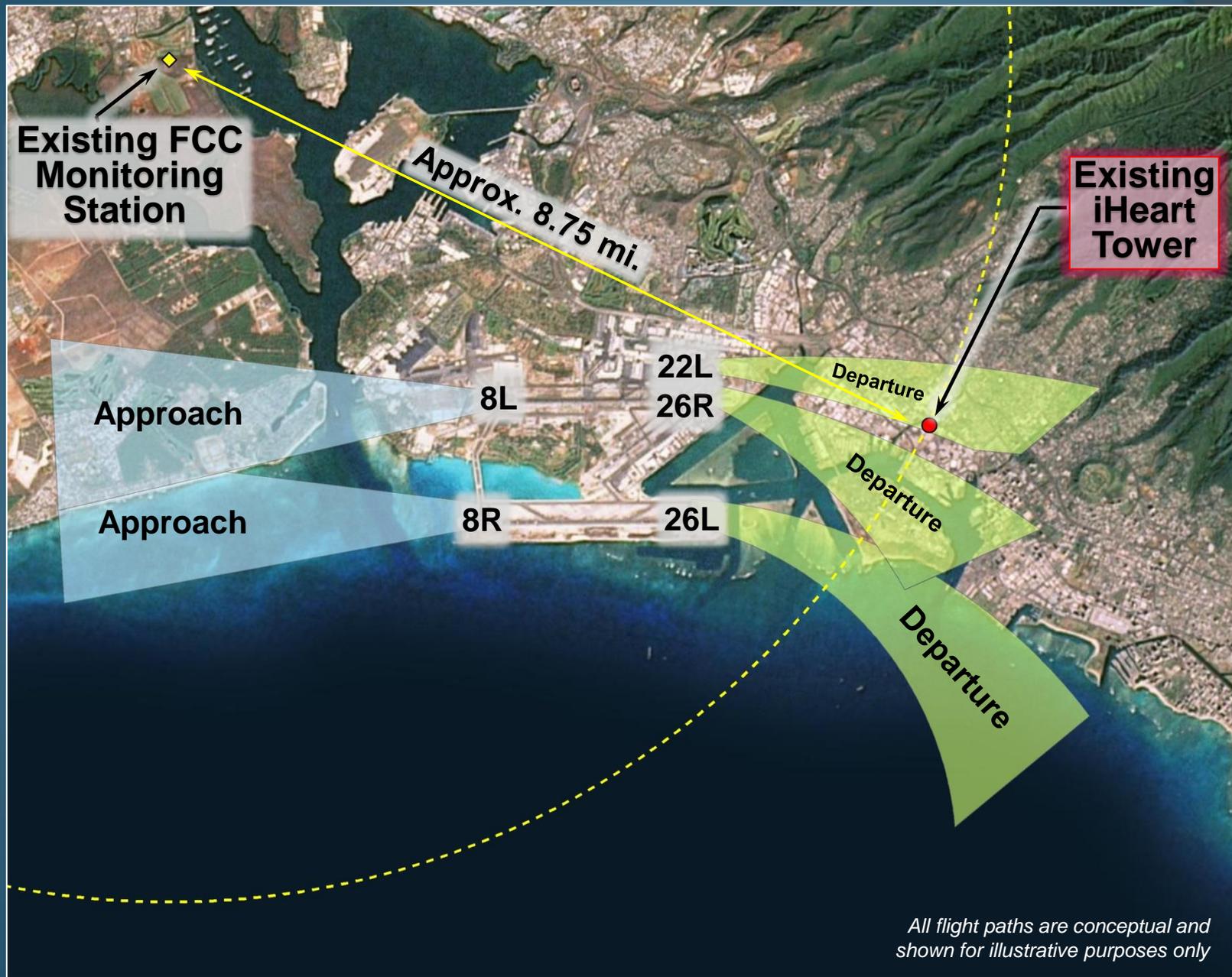
CONSTRAINTS



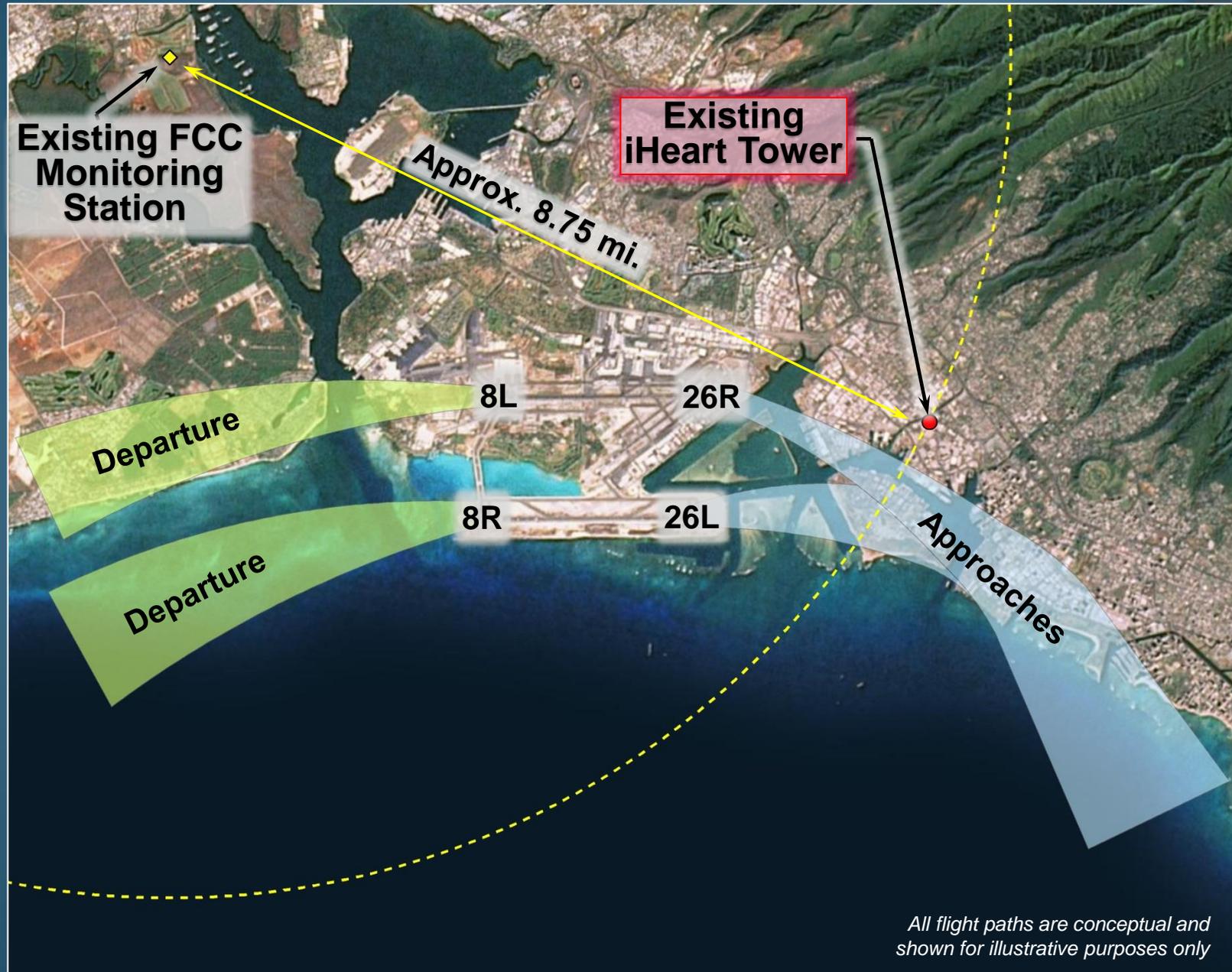
CONSTRAINTS – FCC MONITORING STATION



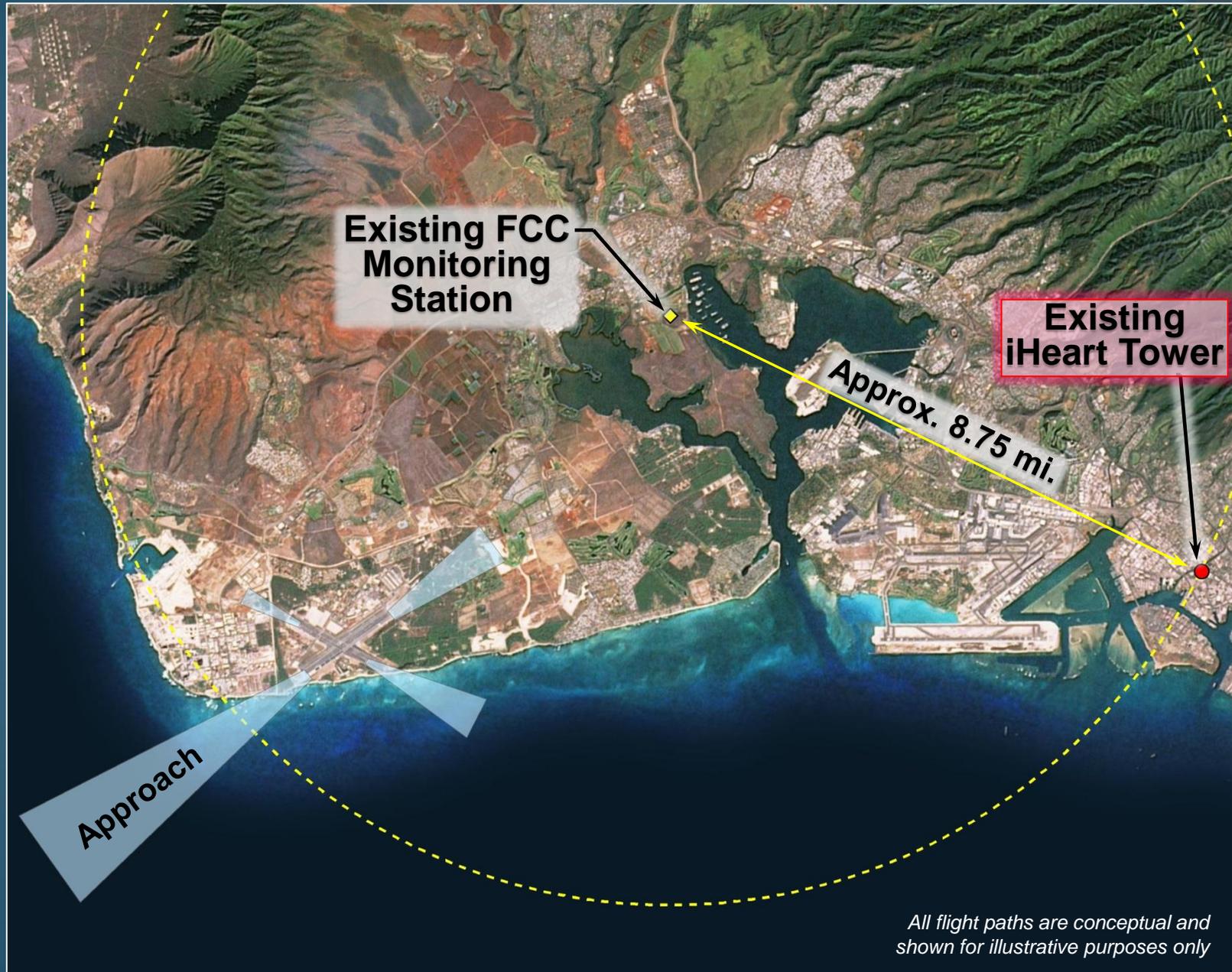
CONSTRAINTS – FLIGHT PATHS (Trade Winds)



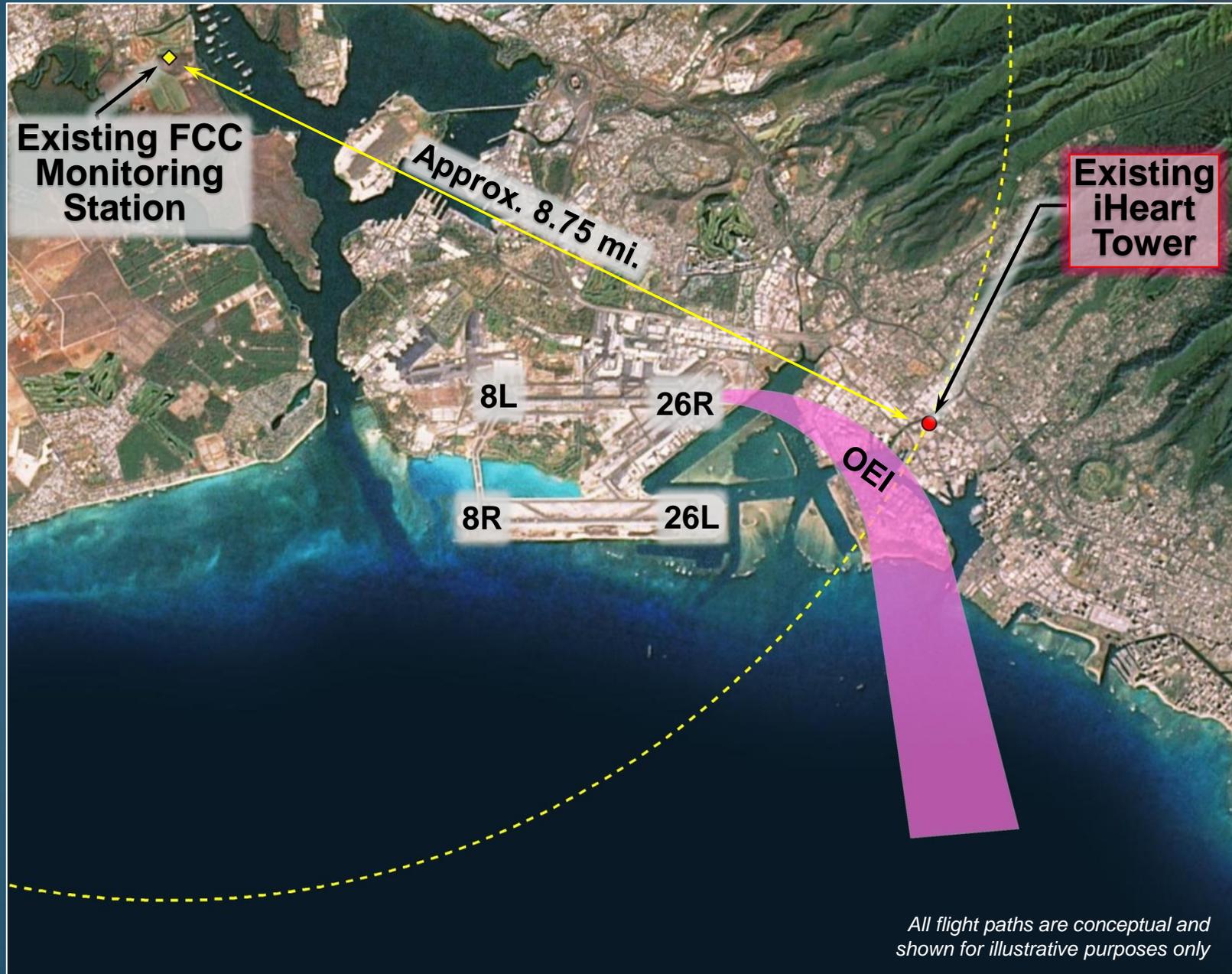
CONSTRAINTS – FLIGHT PATHS (Kona Winds)



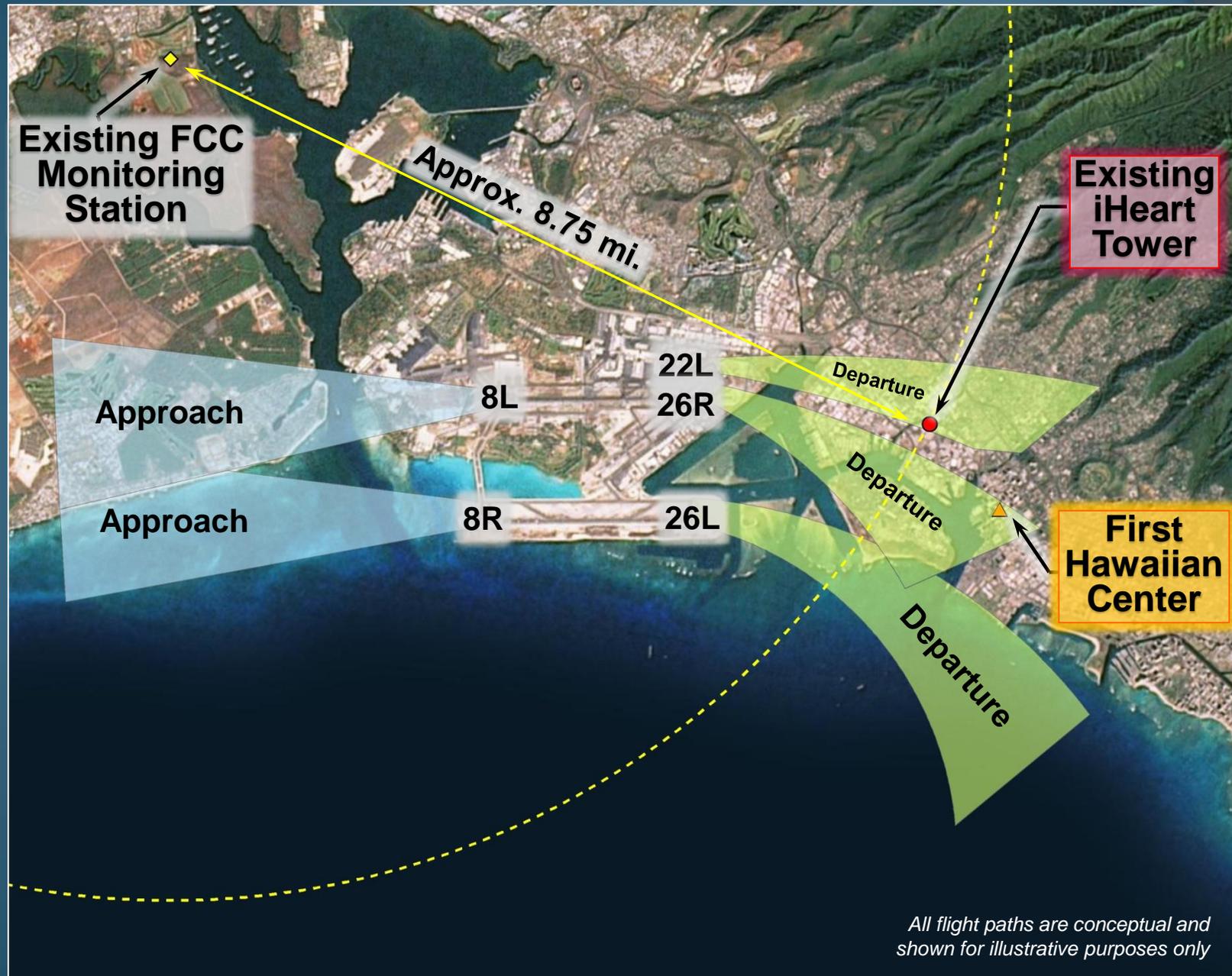
CONSTRAINTS – KALAELOA FLIGHT OVERLAYS



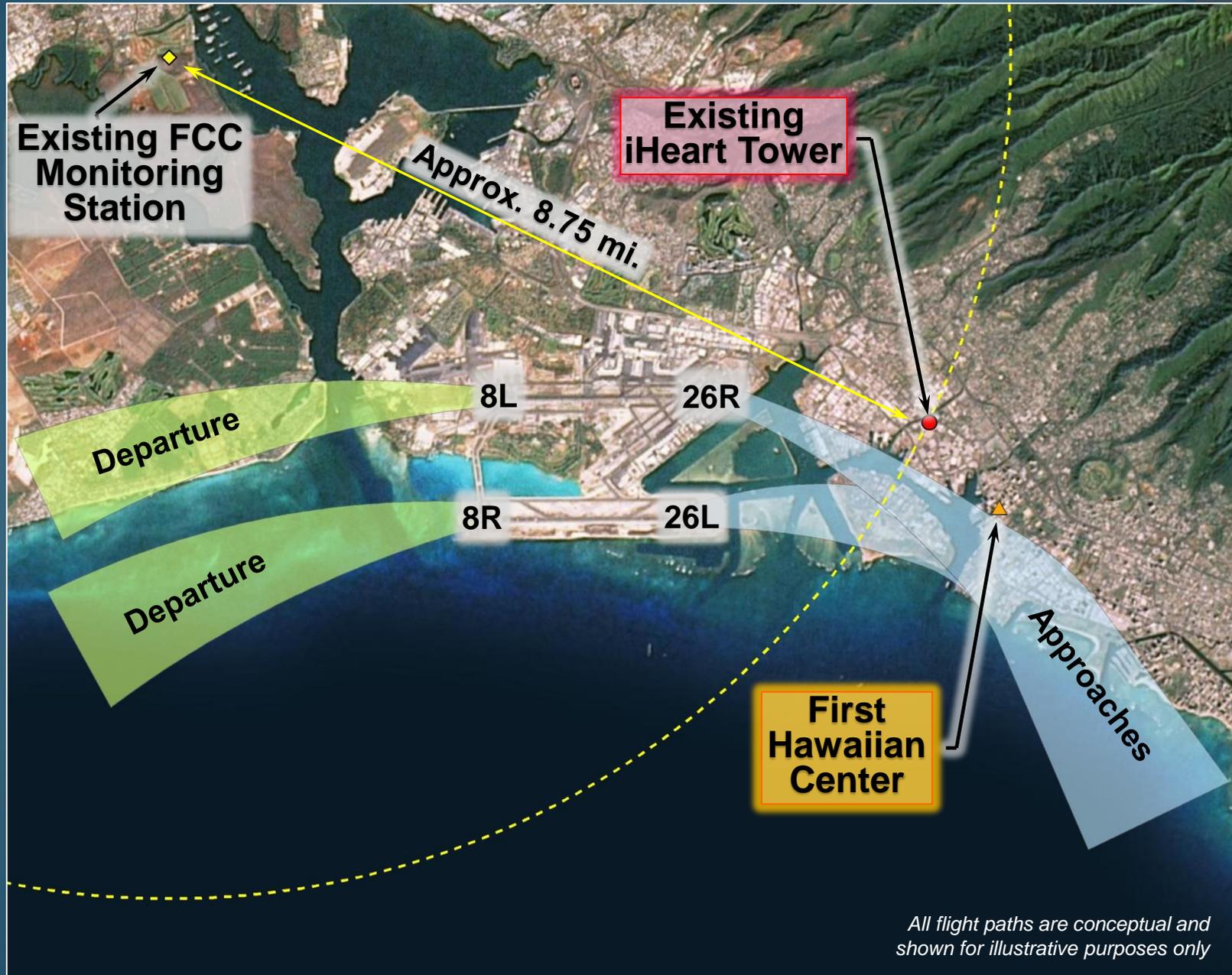
CONSTRAINTS – OEI OVERLAY



CONSTRAINTS – FLIGHT OVERLAYS (Trade Winds)



CONSTRAINTS – FLIGHT OVERLAYS (Kona Winds)



SITE SELECTION PROCESS

1. **Site Screening and Evaluation**
2. **Outreach Program**
3. **Research, System Requirements and Testing**
4. **Regulatory and Environmental Determination**
5. **Site Licensing**
6. **Development Plan**

SITE SELECTION PROCESS

1. Site Screening and Evaluation

- Prepare Selection Criteria Matrix
- Conduct Candidate Search
- Prepare Candidate Summary
- Identify Candidate Short-List (up to 3 sites)

PREFERRED SITE CHARACTERISTICS

- Adequate Land Area – Min. 10 to 18 Acres (contingent on signal strength)
- Sea Level Proximity
- Flat Topography
- No Nearby Tall Structures (1 kilometer clear distance)
- No Avigational Interference
- Ready Access
- Publicly-Owned Property
- Maintains Existing Signal Coverage
- Power Source Availability

PRELIMINARY SITE SELECTION MATRIX

Priority Level	Criteria #	DECISION CRITERIA	DEFINITIONS	PRELIMINARY CANDIDATE SITES														
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	1	Maintain Existing Statewide Coverage																
		1a. Statewide RF Coverage	Ability to maintain existing coverage with statewide coverage.															
		1b. Geographic Conditions	Flat terrain & proximity to ocean															
	2	Land Area	Approximate area is 10-12 acres, based on existing conditions															
	3	FCC Clearance	Meets standard interference criteria															
	4	Airspace Encroachments																
		4a. FAA Clearance	Located outside of flight path															
		4b. ACH OEI	Located outside of OEI layer (DOT to provide limits)															
	5	Environmental Conditions																
		5a. Environmental Permits, i.e. 404/401, SMA, CDUA	FEMA, Army Corp of Engineers, State and City and County land designations that impact the construction cost and zonability. Includes the impact to Shoreline Management, Preservation Land, Wetlands, Flood Zones.															
		5b. Archaeological/Cultural Resources (Sec. 106)	Presence of previously identified sites															
5c. Endangered Species/Habitats (Sec. 7)		Presence of T&E species and/or critical habitats																
5d. Public Recreation Resources (Sec. 6F)		Presence of LWCF Act or other recreational resources																
5e. Hazardous Materials *		Presence of contamination. * Phase 1 testing for up to 3 sites																
	5e. Soil Conditions *	* Soil testing for up to 3 sites																
B	6	6a. Operational Costs	Monthly rent and maintenance costs															
		6b. Land Ownership																
		6bi. State Ownership	Feasible properties under the jurisdiction of the State of Hawaii															
		6bii. Property Availability	Property is readily available															
C	7	7a. Licensing Requirements	Attainable rights to use a property that is clear of encumbrances at an acceptable rental rate that is acceptable to the lessee (iHeart)															
		7b. Zoning Requirements	Attainable land use permits from the jurisdictional body responsible for the property.															
	8	Constructability																
		8a. Construction Cost	Capital cost to build the project as funded by the DOT															
		8b. Foundation *	Feasible construction of structural foundation for 440' tall self support tower. *Soil testing for up to 3 sites.															
		8c. Resiliency	Additional costs required for construction to address flood zone and natural disasters.															
	9	Utilities Availability																
		9a. Power **	Contingent on HECO. Feasible access to commercial power utilities for 120/240 single phase electrical service. Key requirements are easement and proximity to utility access point, which could be underground or aerial. Service request to be submitted for final candidate site.															
		9b. Telecom **	Contingent on telecom provider. Feasible access to telecom (fiber/telecom cable) utilities for signal, data, communication connectivity. Key requirements are easement and proximity to utility access point, which could be underground or aerial. **Service request to be submitted for final candidate site.															
	9c. Water **	Contingent on BWS. Feasible access to water utilities for irrigation of the landscaping. Key requirements are easement and proximity to utility access point. **Service request to be submitted for final candidate site.																
TOTAL				0	0	0	0	0	0	0	0	0	0	0	0	0	0	



PRELIMINARY SITE SELECTION MATRIX

A	1	Maintain Existing Statewide Coverage
		1a. Statewide RF Coverage
		1b. Geographic Conditions
	2	Land Area
	3	FCC Clearance
	4	Airspace Encroachments
		FAA Clearance
		One Engine Inoperative (OEI) Overlay
	5	Environmental Conditions
		5a. Permits and Approvals
		5b. Archaeological/Cultural Resources (Sec. 106)
		5c. Endangered Species/Habitats (Sec. 7)
		5d. Hazardous Materials
		5e. Soils Conditions

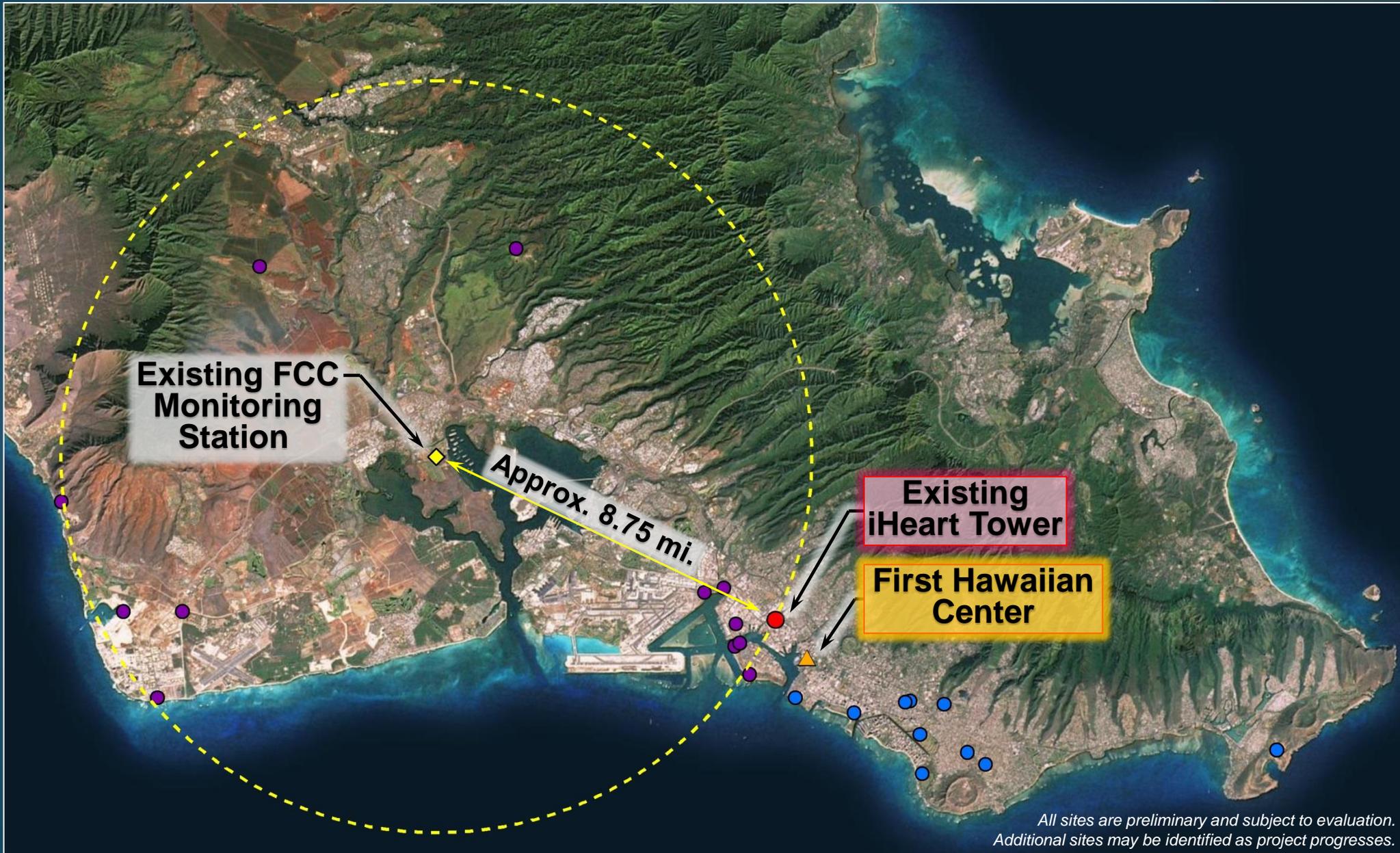
PRELIMINARY SITE SELECTION MATRIX

B	6	6A. Operational Costs
		6b. Land Ownership
		6bi. State Ownership
		6bii. Property Availability

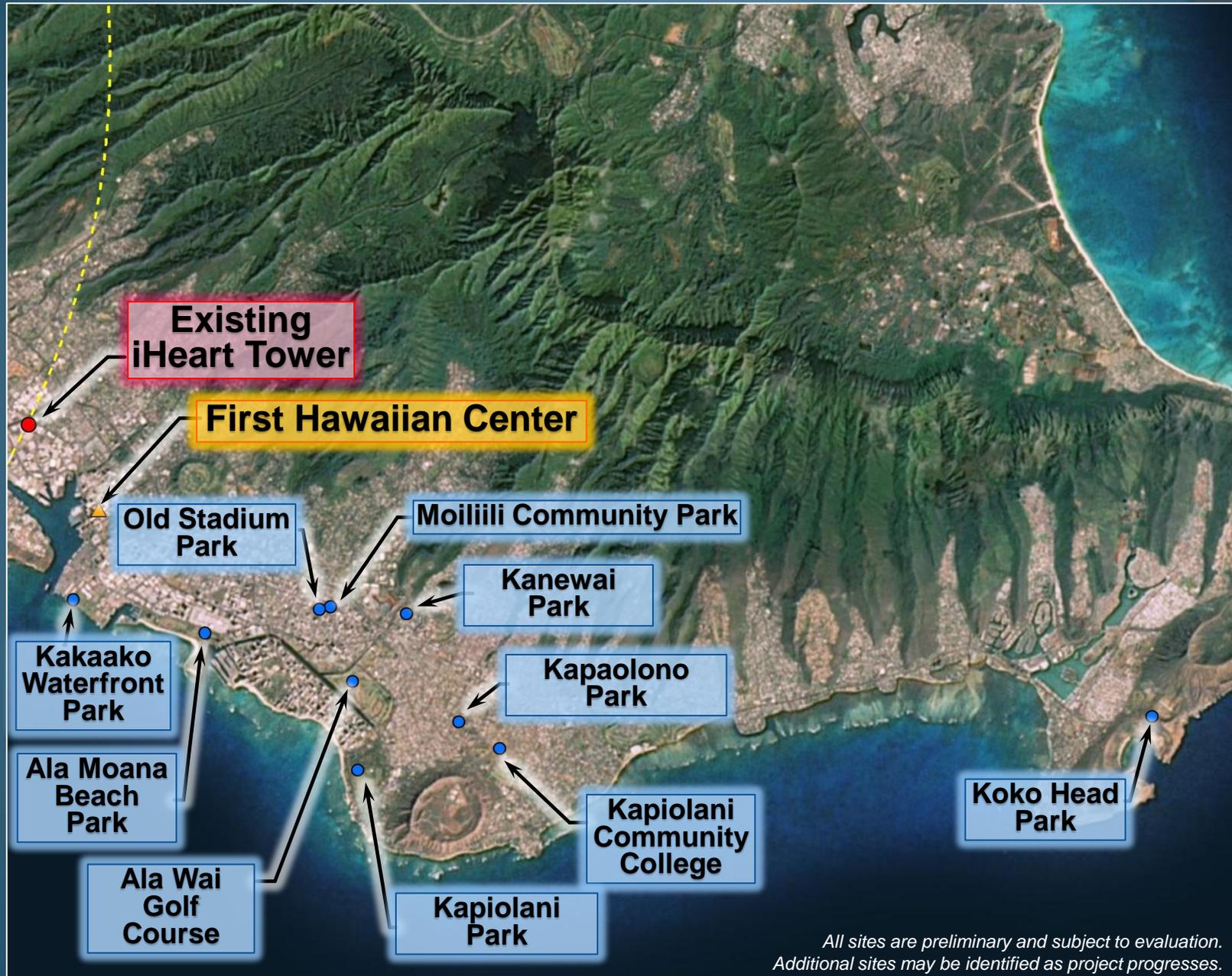
PRELIMINARY SITE SELECTION MATRIX

C	7	7a. Licensing Requirements
		7b. Zoning Requirements
	8	Constructability
		8a. Construction Cost
		8b. Foundation
		8c. Resiliency
	9	Utility Availability
		9a. Power
		9b. Telecom
		9c. Water

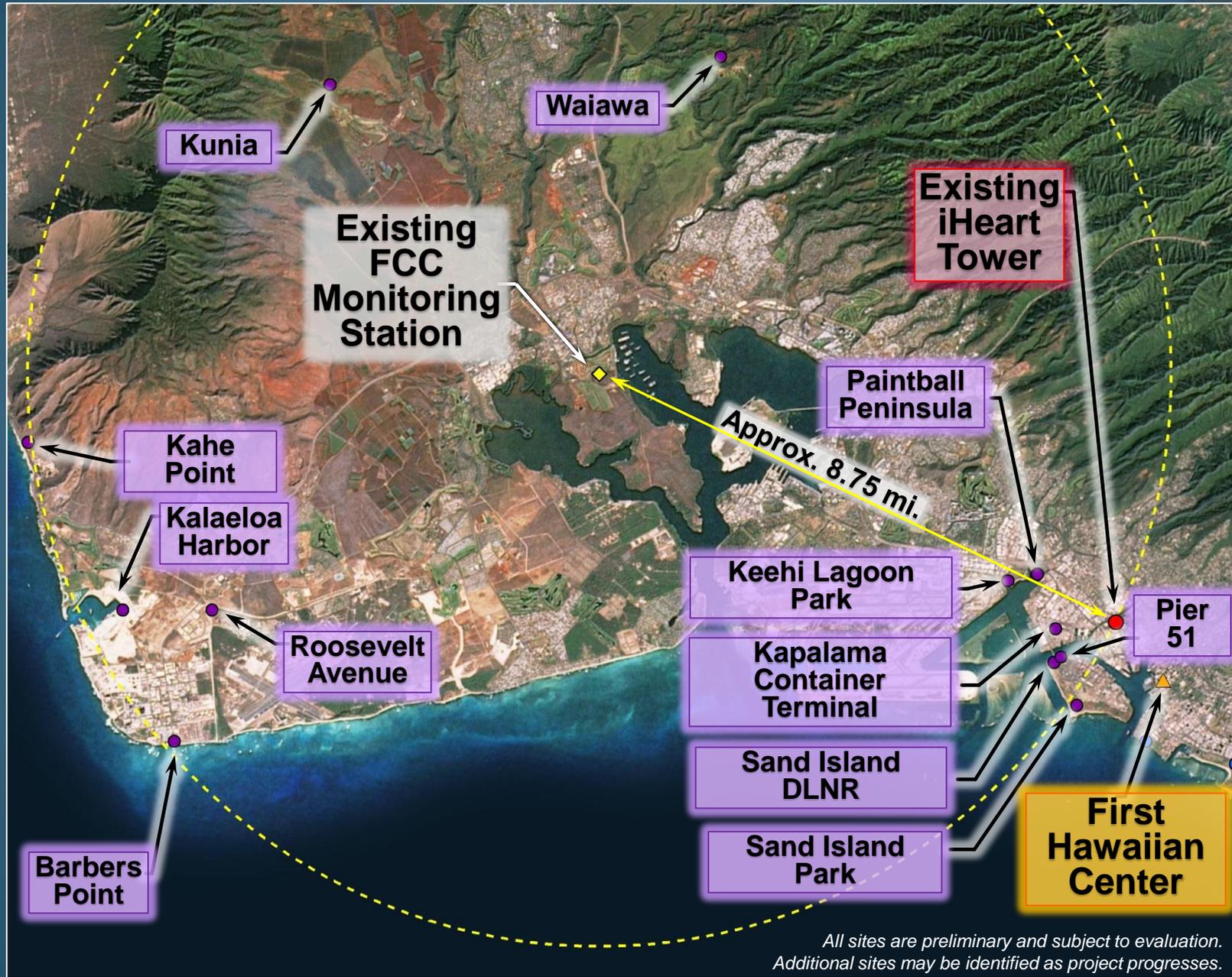
PRELIMINARY CANDIDATE SITES



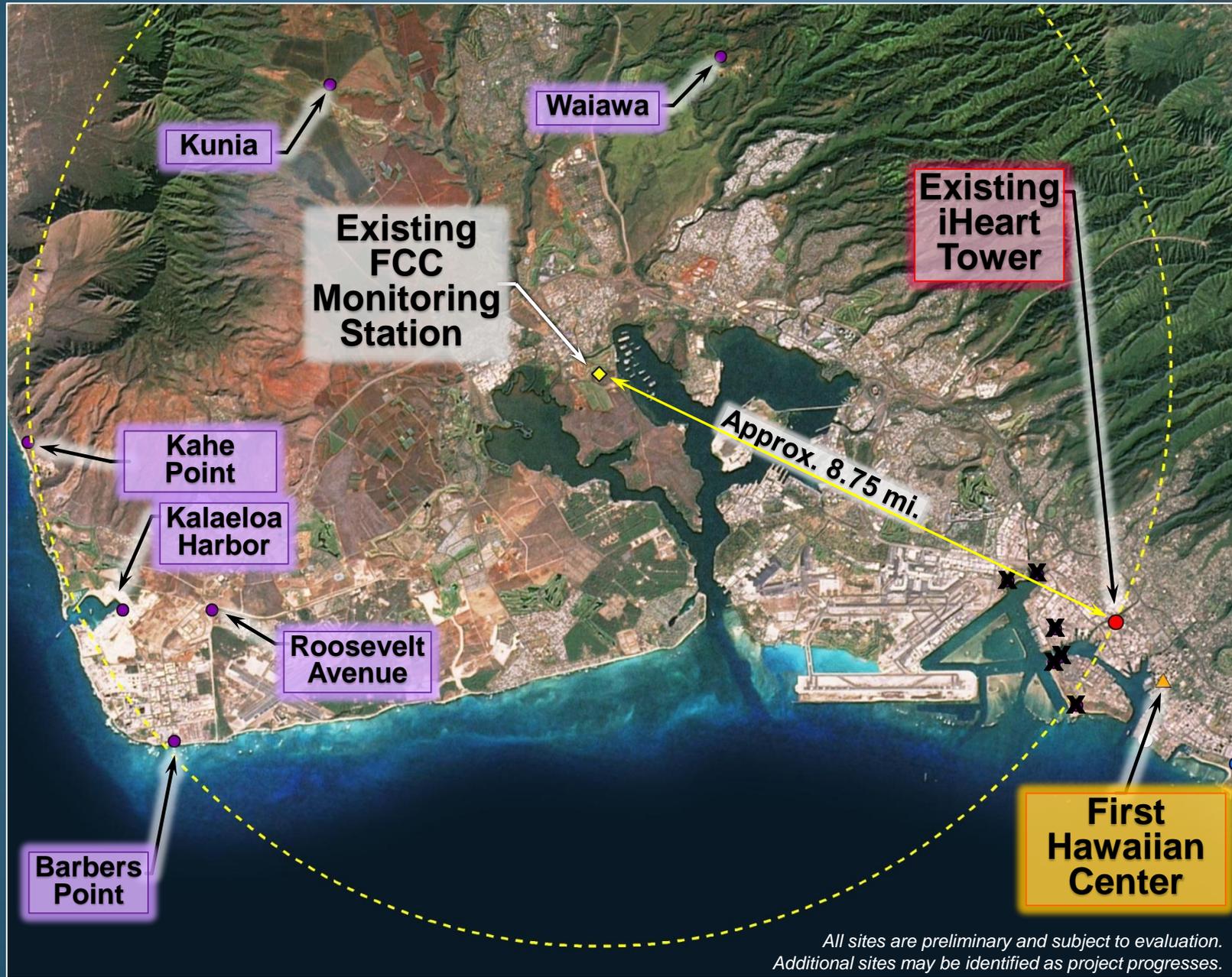
PRELIMINARY CANDIDATE SITES – EAST OF FHC



PRELIMINARY CANDIDATE SITES – WEST OF FHC



PRELIMINARY CANDIDATE SITES – WEST OF FHC



SITE SELECTION PROCESS

2. Outreach Program

- **Federal**
 - Federal Communications Commission
 - Federal Aviation Administration
 - U. S. Fish and Wildlife Service
- **State**
 - Hawaii Emergency Management Agency
 - Dept. of Land and Natural Resources
 - Key Senators and Representatives
 - University of Hawaii
 - Office of Planning
- **City and County of Honolulu**
 - Honolulu Authority for Rapid Transportation
 - Dept. of Planning and Permitting
 - Dept. of Parks and Recreation
 - Key Councilmembers
 - Key Neighborhood Boards

SITE SELECTION PROCESS

2. Outreach Program (continued)

- iHeart Media
- Honolulu Harbor Users Group
- Airlines Committee of Hawaii
- Landowners
- Public Informational Meetings

SITE SELECTION PROCESS

3. Research, System Requirements and Testing (Up to 3 Sites)

- Topographic Survey Map
- FAA / FCC 1A Certification Forms
- Electro Magnetic Emission Survey
- Phase 1 Hazardous Materials Survey
- Geotechnical Survey
- Ground Meggar Readings
- Electro Magnetic Interference Study
- Broadcast Equipment Requirements
- Combiner Filter Analysis
- Preliminary Site, Tower and Foundation Plans
- Utilities System Plans (Electrical, Telecom, and Water)

SITE SELECTION PROCESS

4. Regulatory and Environmental Determinations (Up to 3 Sites)

- Prepare Frequency Clearance Assessment
- Prepare Aeronautical Clearance Assessment
- Determine Environmental Documentation

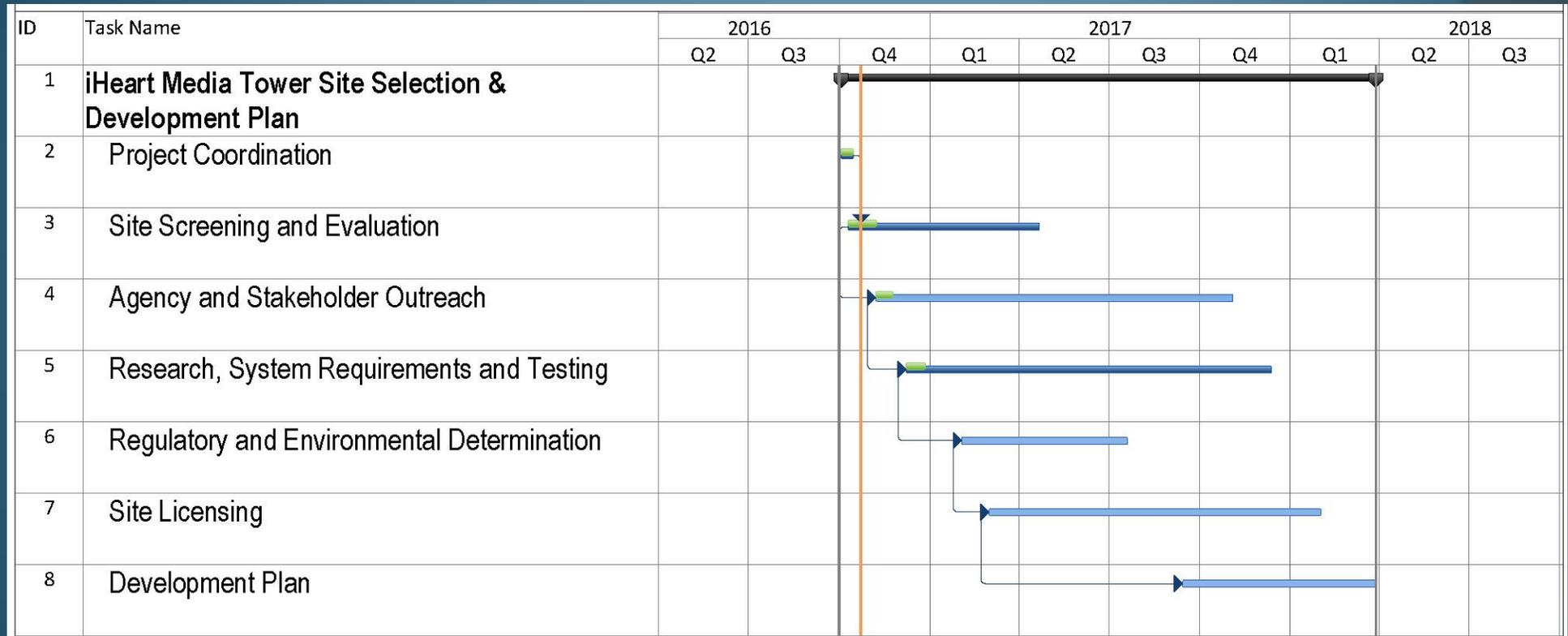
5. Site Licensing (Up to 3 Sites)

- Prepare Audit Review and Assessment
- Coordinate Title Report, Access Easement, and License Option Agreement

6. Development Plan

- Summarize Site Selection Process
- Identify Next Steps

ESTIMATED SCHEDULE – PHASE 1



OVERALL PROJECT – PRELIMINARY SCHEDULE

- Phase 1: Feasibility and Site Selection
Scheduled Completion: Spring 2018
- Phase 2: Environmental Compliance
Anticipated Completion: 2019 - 2020
- Phase 3: Design & Licensing
Anticipated Completion: 2020 - 2021
- Phase 4: Construction
Anticipated Completion: 2021 - 2022



OPPORTUNITY FOR INPUT

**Please submit Input Sheets tonight or
Via mail or email by Thurs., Feb. 2, 2017 to:**

**R. M. Towill Corporation
2024 North King St., Suite 200
Honolulu, HI 96819
Attention: Laura Mau, Project Manager
Email: iHeartTowerSiteSelection@rmtowill.com**

**This presentation is available at DOT's website:
<http://hidot.hawaii.gov/presentations/>**



MAHALO!



QUESTIONS & ANSWERS

