ALA PONO
an Ala Wai crossing

ALA WAI ALTERNATIVES ANALYSIS EXECUTIVE SUMMARY

CITY AND COUNTY OF HONOLULU
STATE OF HAWAII

Honolulu COMPLETE STREETS

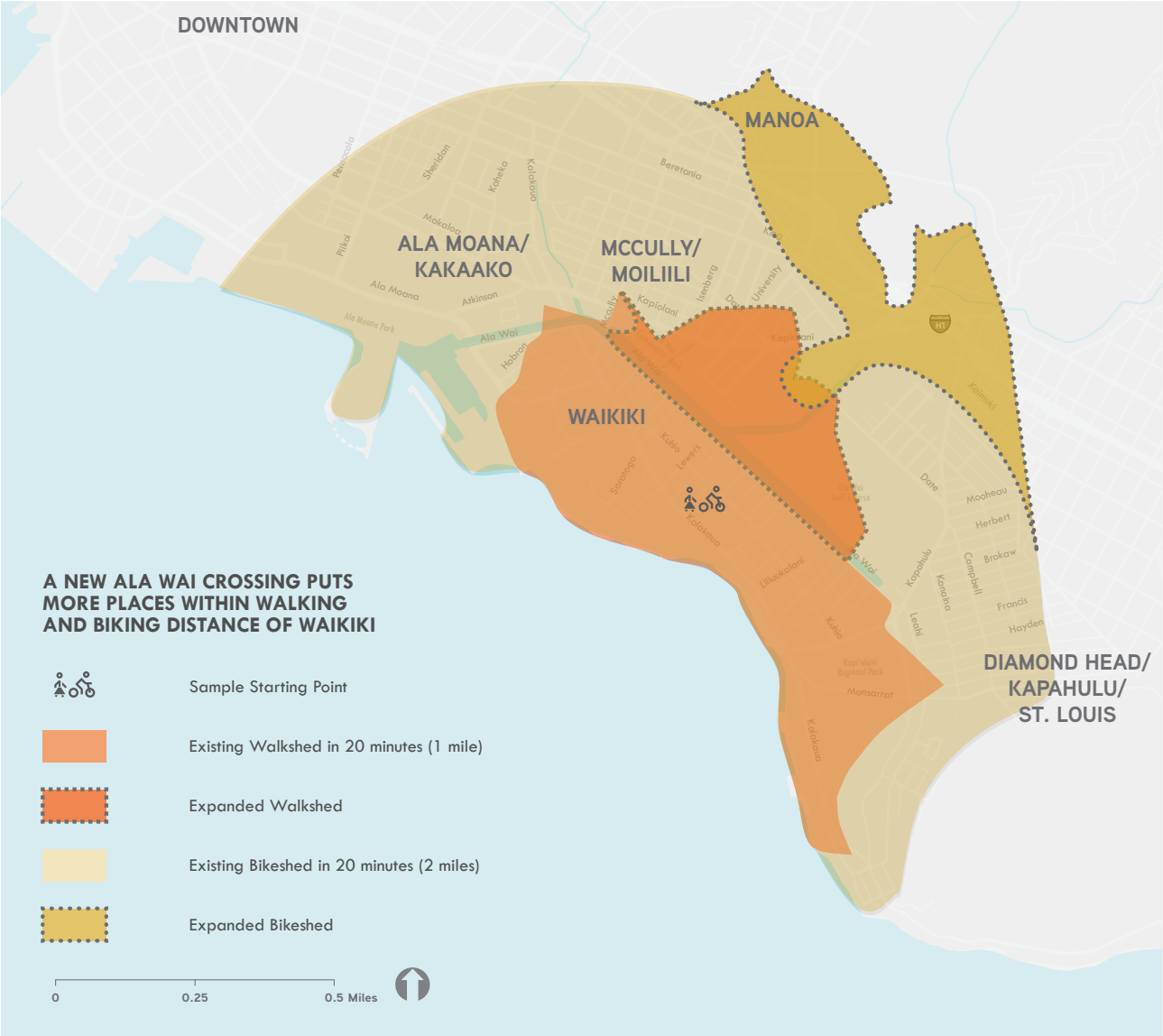
NOVEMBER 2019

PROJECT PURPOSE & NEED

ALA PONO'S PRIMARY PURPOSE IS TO IMPROVE MULTIMODAL NETWORK CONNECTIVITY AND ENHANCE PUBLIC SAFETY FOR PEOPLE WALKING AND BICYCLING. THE SECONDARY PURPOSES ARE TO ASSURE COMFORTABLE, SUSTAINABLE MOBILITY OPTIONS THAT ENHANCE ECONOMIC VITALITY, ENVIRONMENTAL HEALTH, AND SOCIAL EQUITY.

- Safety from Traffic
- Improved Non-Motorized Emergency Evacuation and Public Safety
- Complete Streets Connectivity
- Travel Time and Convenience
- Environmental and Public Health
- Vibrant Canal
- Affordable Access

STUDY AREA

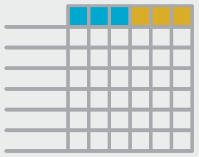


Ala Pono's goals to enhance complete streets connectivity and access for people traveling by foot or bicycle across the canal narrowed the analysis to areas where residents, employees, and travelers could reasonably take trips by foot or bike. Ala Pono's study area is defined as the area around the canal within a 20-minute walk or bike ride from Waikiki, both with the existing canal crossing and with a new mid-canal crossing. This study area, or the project walk and bikeshed, was used throughout the alternatives analysis to measure existing and possible access, how people are currently traveling, and how travel could change with an improved crossing.

ALTERNATIVES ANALYSIS PROCESS

PROJECT ALTERNATIVES

Each alternative was evaluated for feasibility, potential environmental impact, and alignment with the project's purpose and need. The New Crossing and Enhance Existing Crossing alternatives have multiple alignments or locations for possible implementation.



ALTERNATIVES ANALYSIS

Evaluation criteria were selected for each project need and organized into an evaluation matrix. This data-driven analysis captured differences between alternatives across the range of identified primary needs.

HIGHEST SCORING ALTERNATIVE

The analysis and public feedback identified the approximate University Avenue alignment as the highest-scoring alternative that best achieves the project's purpose and need to improve access for people traveling by foot or bicycle across the Ala Wai Canal.

BRIDGE TYPE EVALUATION

With a new crossing in the vicinity of University Avenue as the highest-scoring alternative, Ala Pono evaluated the types of bridges that most aligned with the community's preferred bridge experience based on feedback from community meetings. The bridge type evaluation also used criteria to assess the feasibility and potential impacts of different bridge types for a new crossing.

IMPLEMENTATION & NEXT STEPS

The Ala Wai Alternatives Analysis identified the preferred alternative. Following the Alternatives Analysis phase, the City and County will move into the Preliminary Engineering phase to further evaluate the preferred alternative. Environmental Assessment will occur during this project phase.

PROJECT ALTERNATIVES

A B C

ENHANCE EXISTING CROSSINGS:

Improve existing canal crossings with possible solutions ranging from reconfiguration of the existing bridge travel lanes to structural solutions to create more space for people walking and bicycling.

D E

CREATE A NEW CROSSING:

Create a new canal crossing with a bicycle and pedestrian bridge at either University Avenue or in the vicinity of the Ala Wai Golf Course.

NO BUILD

No new crossing or improvements to existing crossings, establishing an existing conditions baseline for the alternatives analysis.

OTHER ALTERNATIVES

Three non-bridge solutions were assessed:

- **F** Aerial Tram: Construct an aerial tram to transport people across the Ala Wai Canal.
- **G** Aqua Bus: Establish a network of dock locations and a fleet of vessels to transport people along with bicycles, strollers, and wheelchairs across the Ala Wai Canal.
- **H** Tunnel: Construct a tunnel under the Ala Wai Canal for people walking and bicycling.

EVALUATION MATRIX

Data-driven analysis informed the evaluation of crossing alternatives. Alternatives were ranked according to their potential to meet the project goals expressed in the purpose and need statement.

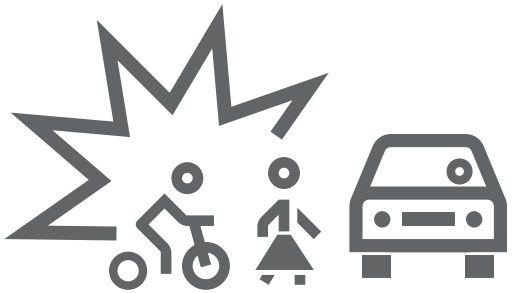
INCREASING EVALUATION WEIGHT

- PUBLIC INPUT
- COMPLETE STREETS CONNECTIVITY
- POTENTIAL ENVIRONMENTAL IMPACTS
- IMPLEMENTATION
- TRAFFIC SAFETY
- TRAVEL TIME AND CONVENIENCE
- ENHANCE SUSTAINABLE MOBILITY AND IMPROVE PUBLIC HEALTH
- AFFORDABLE ACCESS
- IMPROVED NON-MOTORIZED EMERGENCY EVACUATION AND PUBLIC SAFETY
- VIBRANT CANAL

SAMPLE ANALYSES

TRAFFIC SAFETY

A new crossing in the vicinity of University Avenue provides a low-crash link and a connection for people walking and biking through areas with fewer collisions.



OUT OF THE 86 COLLISIONS IN THE PROJECT AREA OCCURRING BETWEEN 2014-2018,

30 COLLISIONS

INVOLVED PEOPLE WALKING AND BICYCLING.

AFFORDABLE ACCESS

Kupuna, youth, and low-income residents would be best served by a new crossing.

A NEW CROSSING WOULD PROVIDE OPPORTUNITIES FOR MANY COMMUNITY MEMBERS...

1,000

KUPUNA (65 AND OVER)

1,000

YOUTH (18 AND UNDER)

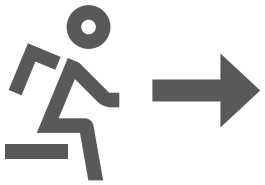
1,200

LOW-INCOME EMPLOYEES

Source: 2016 ACS 5-Year Estimates, 2015 LEHD

IMPROVED NON-MOTORIZED EMERGENCY EVACUATION AND PUBLIC SAFETY

New crossings create direct routes to the Tsunami Evacuation Safe Zone and increase public safety.



A CROSSING IN THE VICINITY OF UNIVERSITY AVE WILL DECREASE EVACUATION TIMES FROM WAIKIKI BY...

15 MINUTES FOR 20,000 PEOPLE

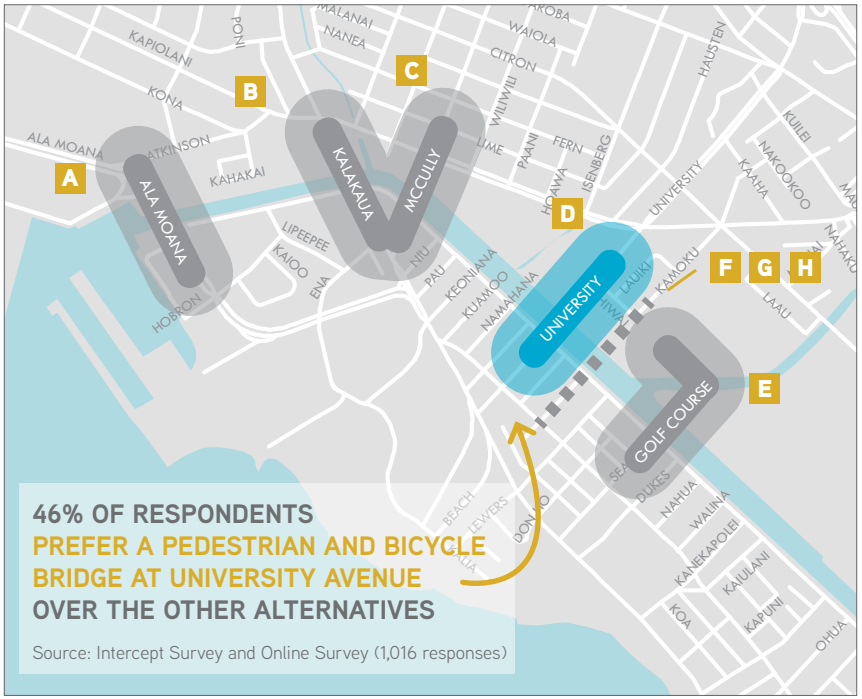
HIGHEST SCORING ALTERNATIVE

BRIDGE TYPE EVALUATION

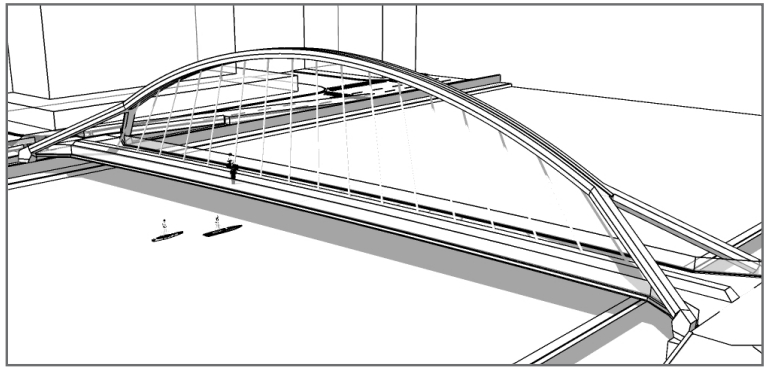
HIGHEST SCORING ALTERNATIVE & BRIDGE TYPE EVALUATION

Ala Pono's alternatives analysis and public feedback identified a new crossing in the vicinity of University Avenue as the highest-scoring alternative that best achieves the project's purpose to improve access for people traveling by foot or bicycle across the Ala Wai Canal.

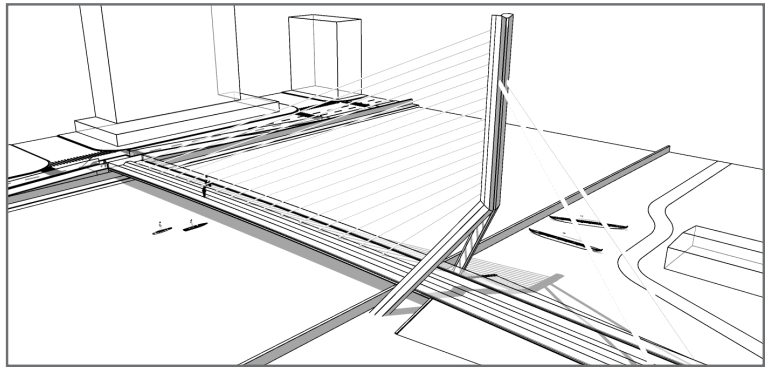
Ala Pono also evaluated the bridge types that most aligned with the community' preferred bridge experience based on feedback from community meetings. With a distinct visual form that minimizes impacts to views, the concrete arch bridge type emerged as the preferred alternative. The concrete arch, along with other bridge types that may minimize visual impacts, will be further evaluated during the preliminary engineering phase and the environmental process.



CONCRETE ARCH



CONCRETE CABLE-STAYED



OUTREACH SUMMARY

3 PUBLIC OPEN HOUSES

304 ATTENDEES

180 LIVE POLLING RESPONSES

900 IN-PERSON SURVEYS OF TRAVELERS AROUND THE CANAL

100 RESPONSES TO ONLINE SURVEY

WHAT WE HEARD FROM THE PUBLIC...

"**WIDEN MCCULLY BRIDGE**& make access by walking and biking safer."

"Another opportunity to get across the Ala Wai would be ideal. **Accessibility to Waikiki is important.**"

"If a pedestrian bridge is constructed on University Avenue it is critically important to **MAINTAIN TRAVEL LANES**"

"**I really wish I could bike to work** instead of paying $3,000 in gas and $1,200 in parking each year."

"I have lots of concerns re **HEALTH & SAFETY ISSUES** for the neighboring community and schools."

"**Ala Pono** for future generations!"

"Prioritize **CONNECTIVITY & ACCESSIBILITY**"

"Make it **SAFE!**"

"Do not turn our residential area into a **noisy and uncomfortable corridor** for the rest of time."

RESPONDENTS WANT A CROSSING THAT...

"...provides **safe travels for bicycles and beyond** the bridge."

"...allows me to **ENJOY THE GREAT SCENERY** of the Ala Wai Canal."

"...is **aesthetically pleasing** separates **bikes and pedestrians**, and is **creative** without being overly expensive."

"...considers the needs of **OUR KUPUNA AND DISABLED 'OHANA**"

Source: Open Houses and Online Survey

RELATIVE LEVEL OF COMMUNITY CONCERN...

Source: Online Survey (191 responses)

IMPLEMENTATION & NEXT STEPS

PRELIMINARY ENGINEERING (PE-1): ENVIRONMENTAL PERMITTING, ENGINEERING DESIGN

The Ala Wai Alternative Analysis identified the highest-scoring, locally-preferred alternative that best meets the project's purpose and need. Following the Alternatives Analysis phase, the City and County will move into the Preliminary Engineering phase to refine the design of the locally preferred alternative. Environmental Assessment will occur during this project phase.

Key tasks in the PE-1 phase will include:

- Preliminary Environmental Permitting as required by the National Environmental Policy Act (NEPA) and Hawaii Environmental Policy Act (HRS 343)
- Topographic Surveys and Soils Engineering
- Archaeological and Historical Studies
- Subsurface Utility Location, Coordination, and Agreements
- Transportation Demand Management Plan, and Parking Study
- Multimodal Circulation Plan
- Plans, Specifications and Estimates: 30% and 60% Design Submittal and Review
- Landscape Maintenance Plan
- Urban Design Plan and viewshed analysis

AREAS OF FUTURE STUDY

At the Report Back and Next Steps community meeting in March 2019, participants were asked, "What analysis is most important to you for further study?" Participants indicated a preference for urban design and landscape maintenance, followed by further project design visualization, renderings and physical model, and a parking study and demand management plan. Other suggestions for future studies and work included connections, wayfinding, entry/exit transitions to the future bridge for people walking and biking, crime, and homelessness.

- Parking Study and Effective Demand Management Plan
- Urban Design and Landscape Maintenance Plan
- Context-Sensitive Lighting Plan
- Further Public Engagement
- Further Project Design Visualization, Renderings and Physical Model
- Viewshed Impact Assessment
- Further Environmental Assessment, Technical Studies and Permitting
- Wayfinding Plan
- Cultural and Historical Heritage Assessment

RESPONDING TO COMMUNITY FEEDBACK

The PE-1 project phase will include **project design visualization, renderings, and physical modelling** to help the community further understand the look, feel, and overall experience of the final bridge design. Renderings will depict the bridge from various angles, including on, below, above, and from the landings.

An integrated **urban design plan** will broadly address the public realm aesthetics of the bridge including the bridge approach area, seating, lookouts, railings, special lighting, public art and historic features, and delineation between people walking and bicycling, and access management. The urban design plan will also include **viewshed impact analysis.**

PE-1 will include an innovative **management plan for parking supply and demand**. The parking study and management plan will explore and provide recommendations for how to balance the needs of residents, workers, and students in the area with economic benefits of tourism and recreation in ways that further community and active transportation goals. A multimodal circulation plan will analyze ways to optimize connectivity and safety for people walking and bicycling on the new connection. **Pedestrian lighting** and eliminating walking barriers and creating connections to bicycle routes and paths will be prioritized.

ANTICIPATED PROJECT TIMELINE

SPRING 2020

Administrative Draft Environmental Assessment

FALL 2020

Public review of Draft Environmental Assessment (DEA)

WINTER 2020/21

Finding of No Significant Impact (FONSI)

SPRING 2021

Begin final design

SUMMER 2023

Begin construction phase