

Ke'eauwoku

COMPLETESTREETS



COMMUNITY MEETING #1

November 16, 2021



Prepared by



HHF PLANNERS
places for people



Aloha!

Thank you for taking the time to meet with the City and County of Honolulu Complete Streets team to share your thoughts on the roadway safety improvements for Ke'eaumoku Street.

We will be presenting preliminary design concepts for the corridor and will be seeking your feedback and comments on the proposed solutions.

Mahalo for your participation!



Honolulu Complete Streets Ordinance (ROH 14-33)

*“Under this policy, the city hereby expresses its commitment to encourage the development of transportation facilities or projects that are planned, designed, operated, and maintained to provide **safe mobility for all users.**”*

Benefits of Complete Streets



Safety

Complete Streets designs minimize the number of potential conflict points between people using the street and provides accommodations for all road users, whether they are walking, rolling, biking, or driving.



Health

Complete Streets reduce automobile dependence and provide opportunities for active modes of travel, encouraging active lifestyles, and improving air quality



Equity

A network of streets that offer multiple, viable mobility options increases access to opportunities, resources, and services for everyone



Economy

Walkable and bikeable communities have stronger, more attractive, and more resilient economies



Environment

Complete Streets incorporate trees, vegetation, and green infrastructure into street designs to mitigate environmental impacts and responsibly manage stormwater runoff.

Meeting Agenda

- Ke'eaumoku Complete Streets Presentation
 - Project Context
 - Existing and In-process Conditions
 - Community Outreach
 - Improvements Toolbox
 - Preliminary Design Concepts
- Breakout Session #1 –Kapi'olani Ave to King St
- Breakout Session #2 – King St to Wilder Ave
- Closing Remarks

Introductions

- City & County of Honolulu Department of Planning and Permitting
 - Franz Kraintz, *Urban Planner/Project Manager*
- City & County of Honolulu Department of Transportation Services
 - Renee Espiau, *Complete Streets Coordinator*
 - Daniel Alexander, *Complete Streets Planner/Vision Zero Coordinator*
- Consultant Team

HHF Planners



Tom Fee
John Hagihara
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Claire Fukuoka

Toole Design Group



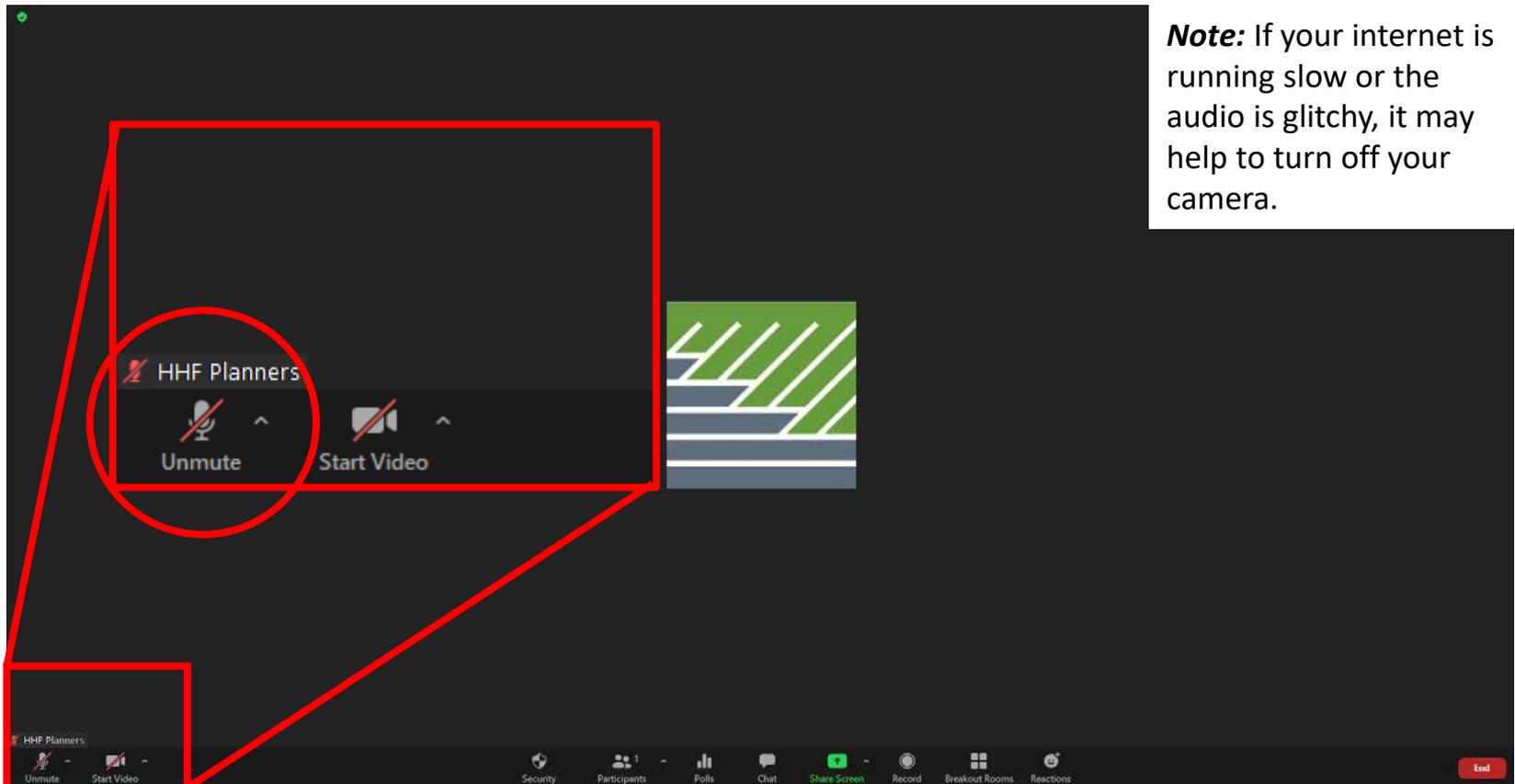
Adrian Witte

Etiquette Notes

- This meeting will be recorded
- You will be muted upon entry to the meeting for sound quality. Please do not unmute until the presenter has called on you to speak.
- Your questions are welcome! **Please use the chat feature.**
- Impersonating or mocking people or institutions are not allowed. Neither are blatantly false statements or foul language. Participants who engage in this behavior will be removed.

How to Mute and Unmute

Note: If your internet is running slow or the audio is glitchy, it may help to turn off your camera.



How to Chat

The screenshot shows a Zoom meeting interface. The main window displays a placeholder image with green and white diagonal lines. At the bottom, the Zoom toolbar is visible, with the 'Chat' icon circled in red. To the right, the chat panel is open, showing a 'Type message here...' input field, also circled in red. A white text box with the instruction '1) Click on "Chat"' is positioned over the toolbar. Another white text box with the instruction '2) Type your question here' is positioned over the chat input field.

1) Click on "Chat"

2) Type your question here

How to Use Zoom Polling

When we open a Zoom poll, a pop-up box will appear on your screen. Then please follow steps 1 through 3.

When the poll closes, we will share the responses with the group

1) Choose your response

2) Click submit

3) If you wish to clarify your answer, please submit your thoughts in the chat

Zoom Polls window: **How to use Zoom Polling**

1. Do you know how to use zoom polling? (Single Choice) *

- Yes
- No
- Unsure

0 of 1 answered

Submit

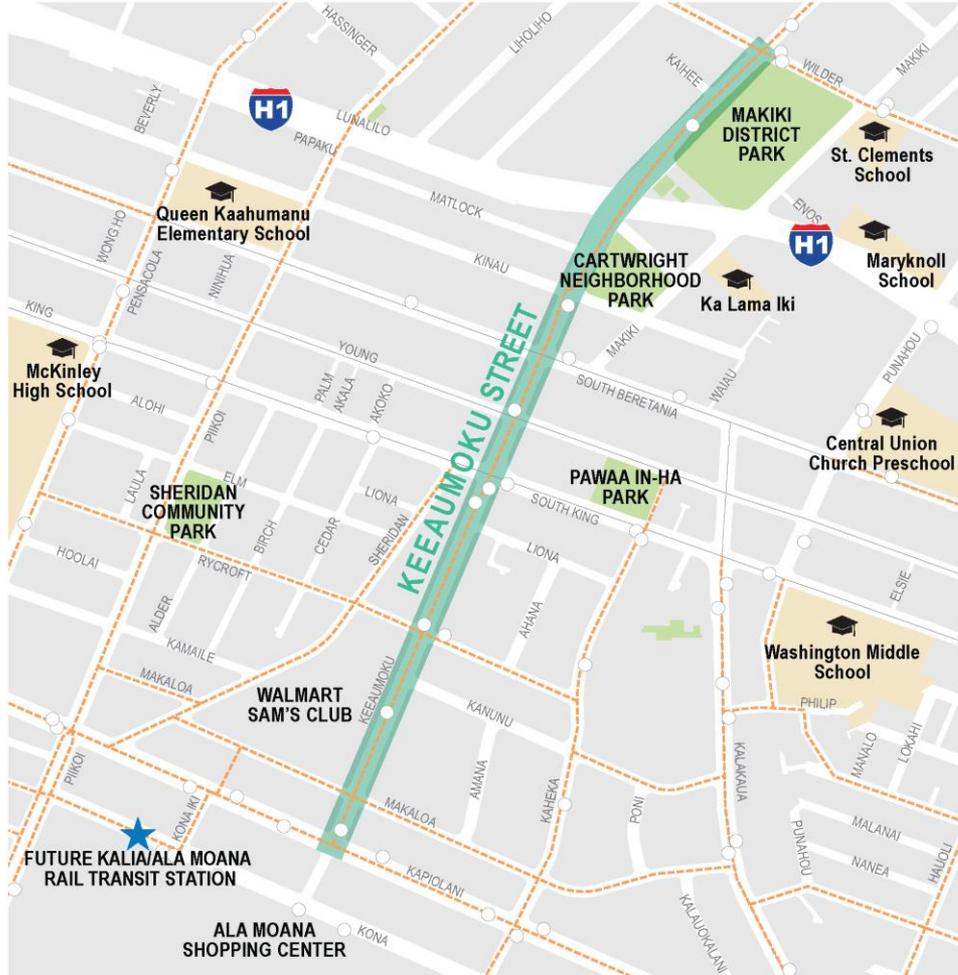
Live Polling – Warm Up

- How do you typically get around on Ke'eumoku Street? (please select all that apply)
 - Walk
 - Bike
 - Wheelchair
 - TheBus or TheHandi-Van
 - Drive (or ride in a car)
 - Other

Project Context



PROJECT AREA MAP



Ke'eaumoku Street – Complete Streets Project Corridor

- Ke'eaumoku Street Corridor
- Parks
- Schools
- Proposed Bikeways
- Existing Bikeways
- Bus Stops

Source: City and County of Honolulu, Department of Planning and Permitting, Honolulu Land Information System

- ★ Future Rail Transit Station
- 0 800 Feet

Why Ke'eaumoku?

- The corridor has been identified for rehabilitation/resurfacing.

Where?

- Kapi'olani Boulevard to Wilder Avenue

When?

- Construction of the proposed improvements would not be completed until 2024 or later.

Planning Phase Timeline



Overall Project Schedule

- The Ke'eumoku Complete Streets Project is currently in the planning phase.
- Following planning, the project will be moved into detailed design.
- Construction of the proposed improvements would not be completed until 2024 or later.

O'AHU GENERAL PLAN

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- Develop a balanced multimodal transportation system
- Safe and accessible for all ages and abilities.
- Provide safe and comfortable access to transit facilities.

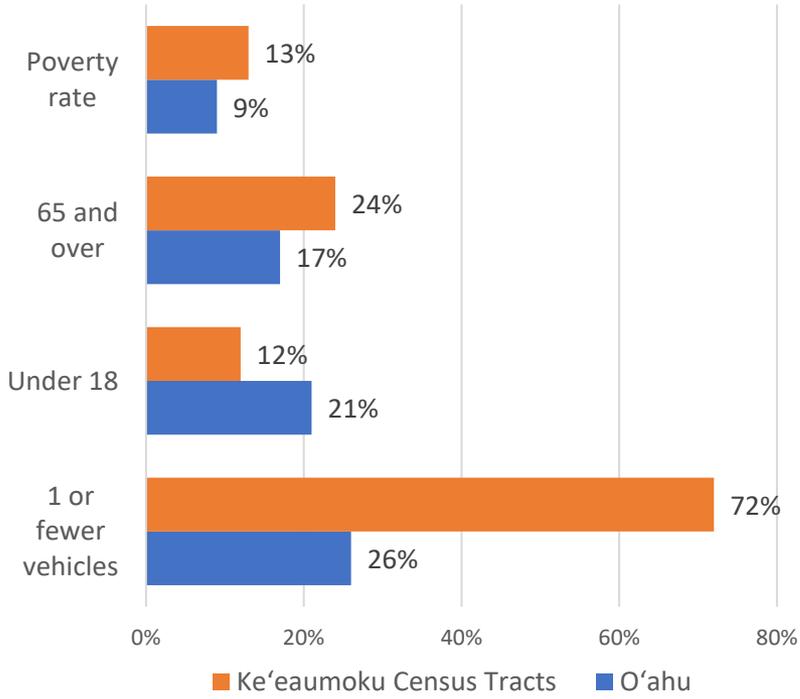


- Proposed Protected Bike Lane
- Priority 1 Facility
- Connections to existing facilities: King, Young, & Beretania
- Connections to proposed facilities: Kapi'olani, Makaloa, Rycroft, & Wilder



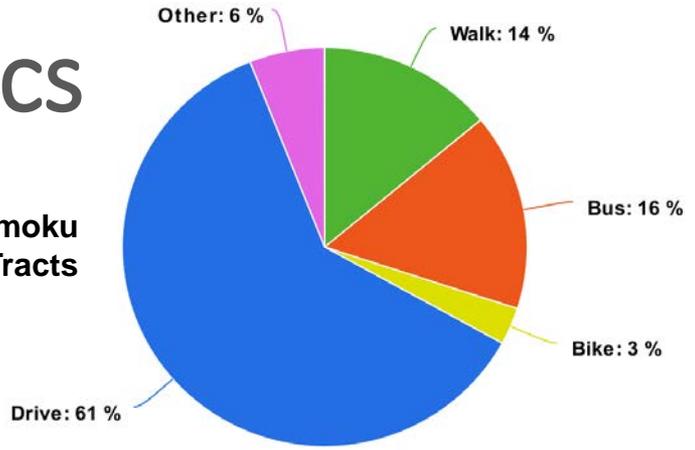
- Part of the Pedestrian Priority Network
- High pedestrian injury rates along the entire corridor.

Neighborhood Characteristics

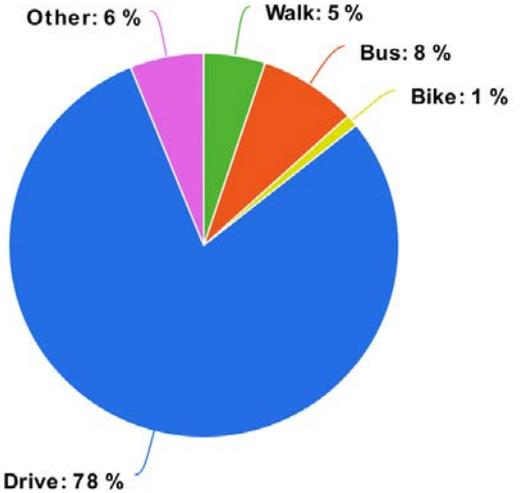


Demographics

Keeaumoku Census Tracts



Island of Oahu



Commuting Mode Share

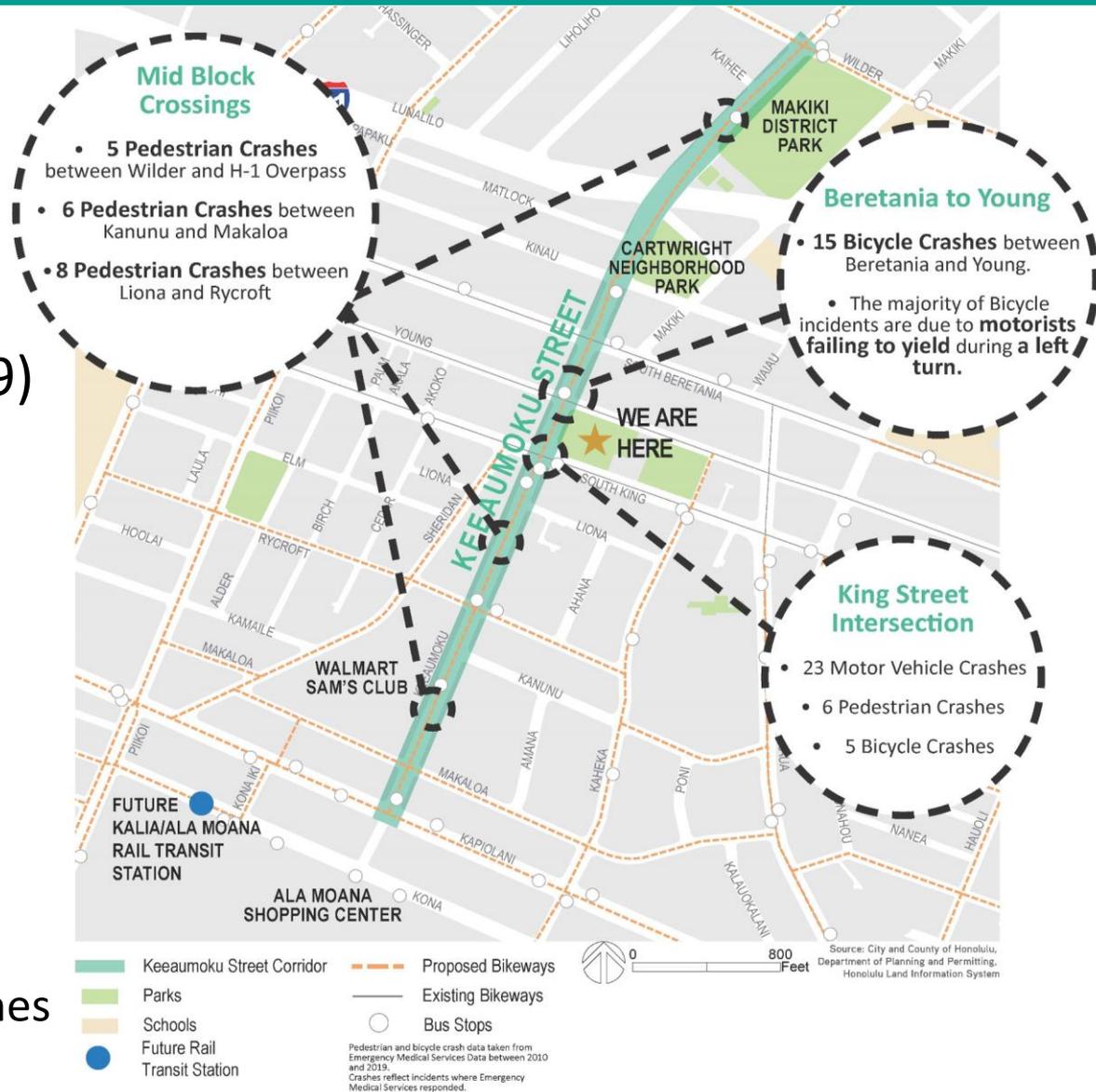
Source: 2018 American Community Survey 5-year estimates
(Census Tracts 34.06, 34.07, 35.02, 36.01, 36.03, 36.04)



Safety Review

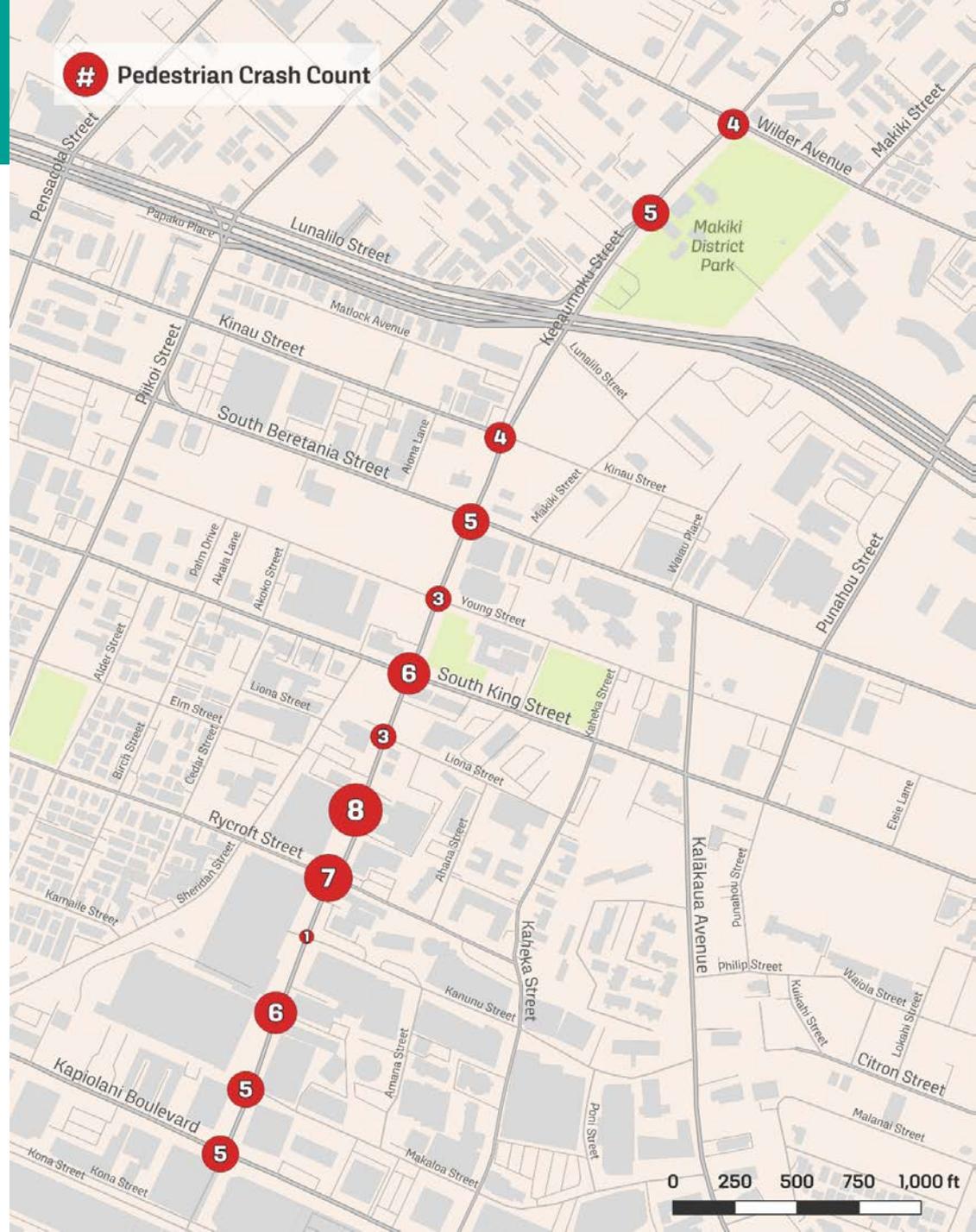
Data sources

- EMS / DOH (2010 – 2019)
 - 299 crashes
- FARS (2010 – 2019)
 - 1 fatal crash
- HPD (2015 – 2020)
 - 38 pedestrian-involved crashes
 - 19 bicycle-involved crashes



Safety

- 62 pedestrian-involved crashes from 2010 – 2019 (EMS attended)
- 65% at signalized intersections
- 35% at midblock or unsignalized crossings



Existing and In-Process Conditions



Pedestrian Conditions

- Sidewalks exist along the entire corridor, but are narrow in the mauka zone, especially across the H-1 bridge
- Lack of buffer from traffic
- Street trees are inconsistent
- Unprotected turning movements create conflicts at intersections/driveways
- Sections with long distances between crossings



Bicycle Conditions

- No existing bicycle facility along Ke'eumoku.
- Bicyclists ride both in the roadway and on the sidewalk
- Ke'eumoku connects to key cross-city bikeways (i.e., Beretania, Young, and King)
- 5 Biki stops along Ke'eumoku
- Ke'eumoku identified for a protected bike lane in the O'ahu Bike Plan 2019 Update



Transit Conditions

- Ke'eaumoku is served by The Bus routes 5,6,17,18 and the Handi-Van
 - 4 bus stops makai-bound
 - 3 bus stops mauka-bound
- Future bus service expansion
- Ala Moana Transit Center is the busiest transit center on O'ahu



Traffic

- AM Peak Hour
 - Traffic generally flows smoothly with no major points of congestion.
- PM Peak Hour
 - Congestion is mostly caused by permissive left- and right-turning vehicles (vehicles turning without a dedicated arrow/phase)
 - Main points of congestion
 - Kapi'olani Blvd/Ke'eumoku St
 - King St/Ke'eumoku St
 - Beretania St/Ke'eumoku St

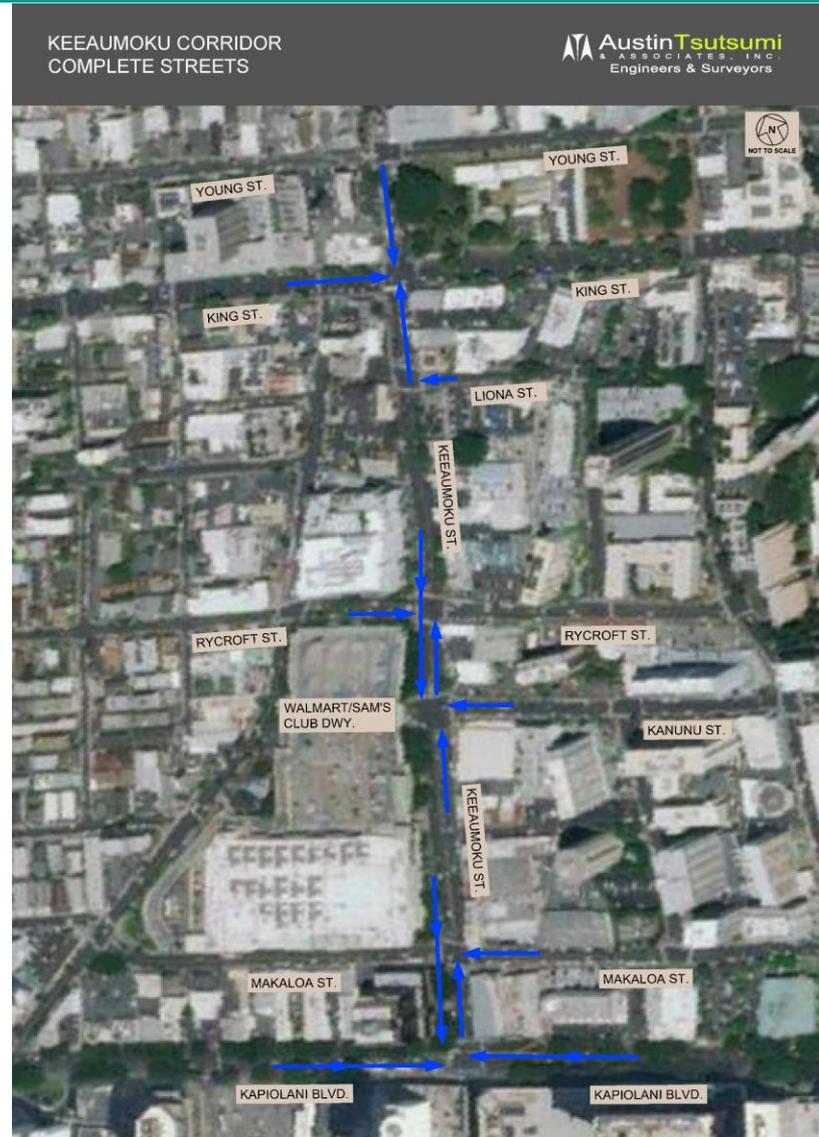
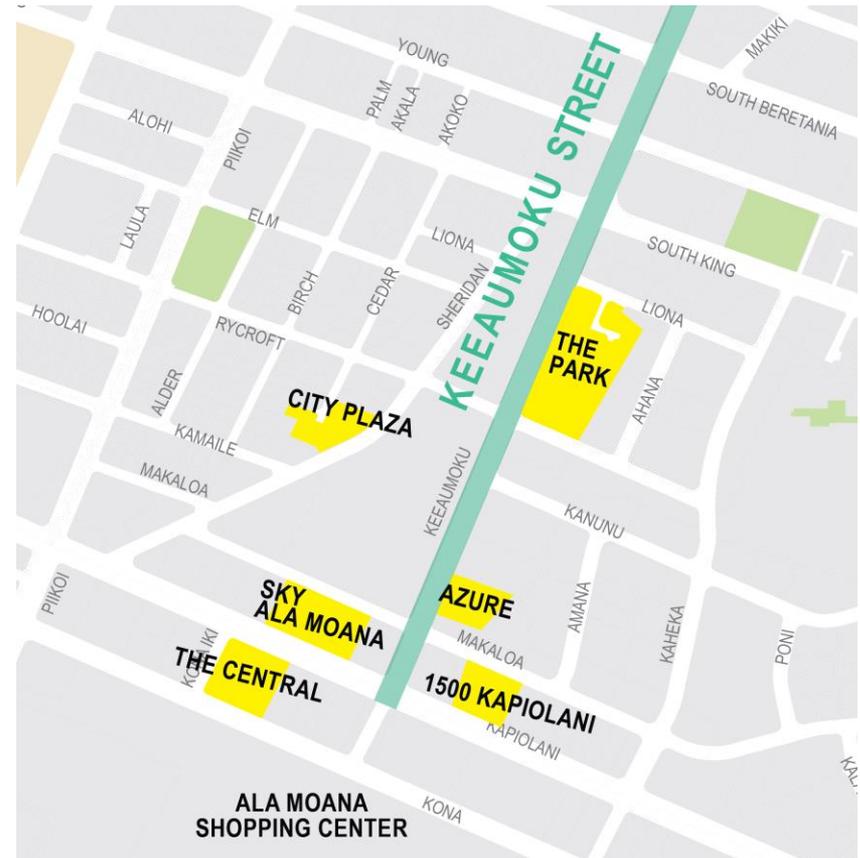


FIGURE 2

KEEAUMOKU STREET CORRIDOR -
KAPIOLANI BOULEVARD TO KING STREET
EXISTING AVERAGE PM QUEUES

Planned Development near Ke'eaumoku

- Large, mixed use, mixed income housing projects.
- Increased density: people and destinations
- Streetscape improvements
- Additional off-street parking



On-Street Parking and Loading

- 46 Total Spaces
- 22 Marked Spaces¹
- 24 Unmarked Spaces²
- One 30' passenger loading zone
- One 60' freight loading zone¹
- All parking/loading spaces are subject to peak hour restrictions.

¹ 14 marked spaces and loading zone to be removed fronting "The Park" Development

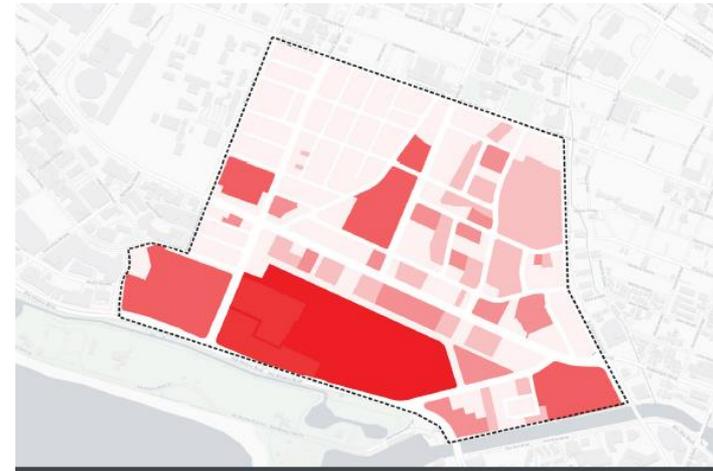
² Assumes 20ft / space



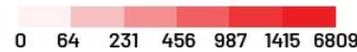
Off-Street Parking

- 32,212 off-street parking stalls
- Sufficient off-street parking along the corridor
- Additional off-street parking will be installed with new developments

Source: Columbia University Parking Study (2019)



Parking Stall Quantity



Parking Sufficiency



Makaloa Barnes Dance Crossing



- All way pedestrian crossing at Makaloa St.
- Installed October 2021.
- Design and construction funded by the Azure developer as part of their development requirements.

Initial Community Outreach





KEEAUMOKU

www.honolulu.gov/completestreets/Keeaumoku

Business Canvassing

65 businesses
along
Ke'eaumoku
Corridor

Virtual Walk Audit Survey

365
respondents

Online Wiki Map

168
comments

In-Person Walk Audit

19
community
stakeholders

Design Charette

3 Charettes
Stakeholders
and City Staff



Common Outreach Themes

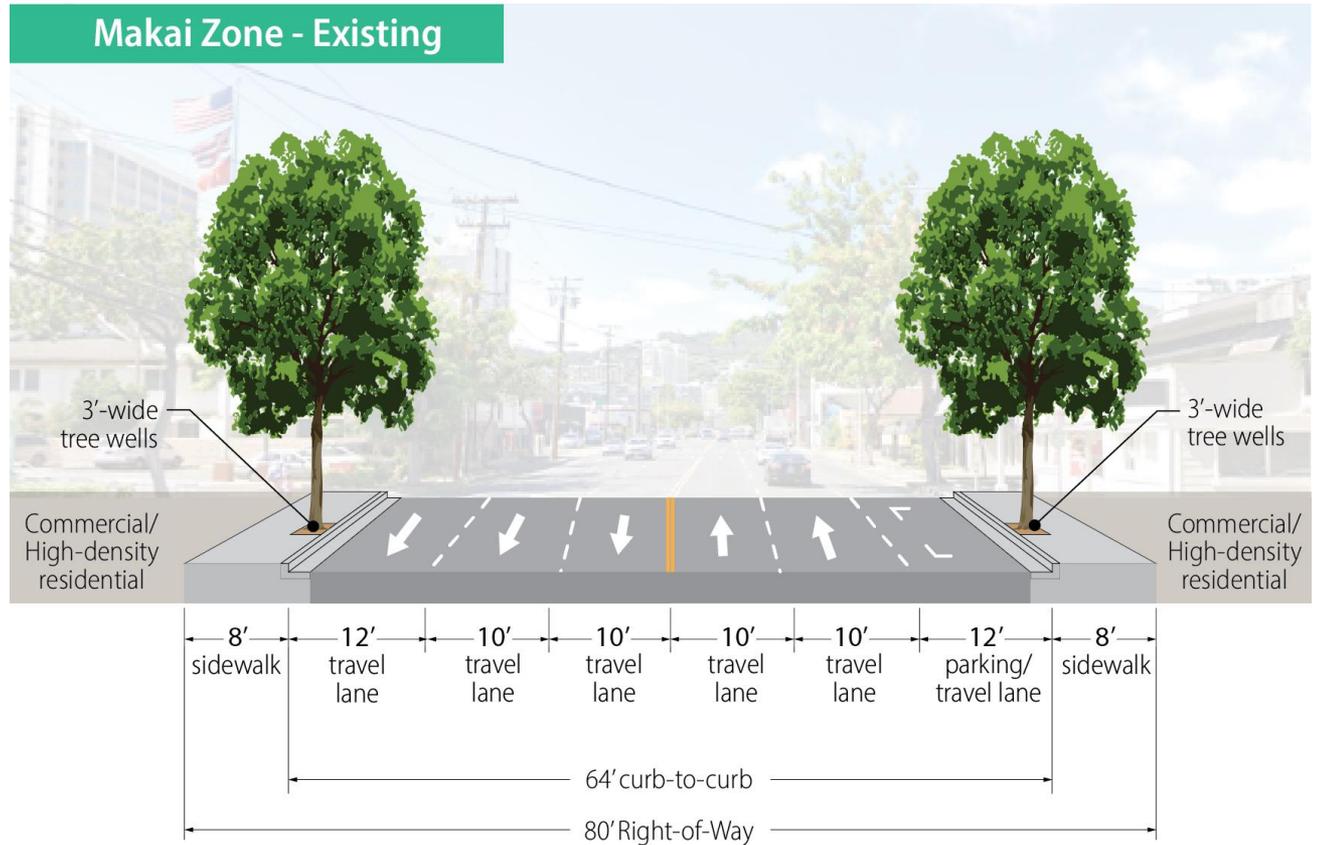
- Turning vehicles often fail to yield to pedestrians
- Add/improve mid-block crossings
- Make it safer to bike
- Add more shade trees and better lighting
- Improve the connection between Makiki District Park and Cartwright Neighborhood Park
- Perceived safety concerns due to houseless individuals

Improvement Toolbox



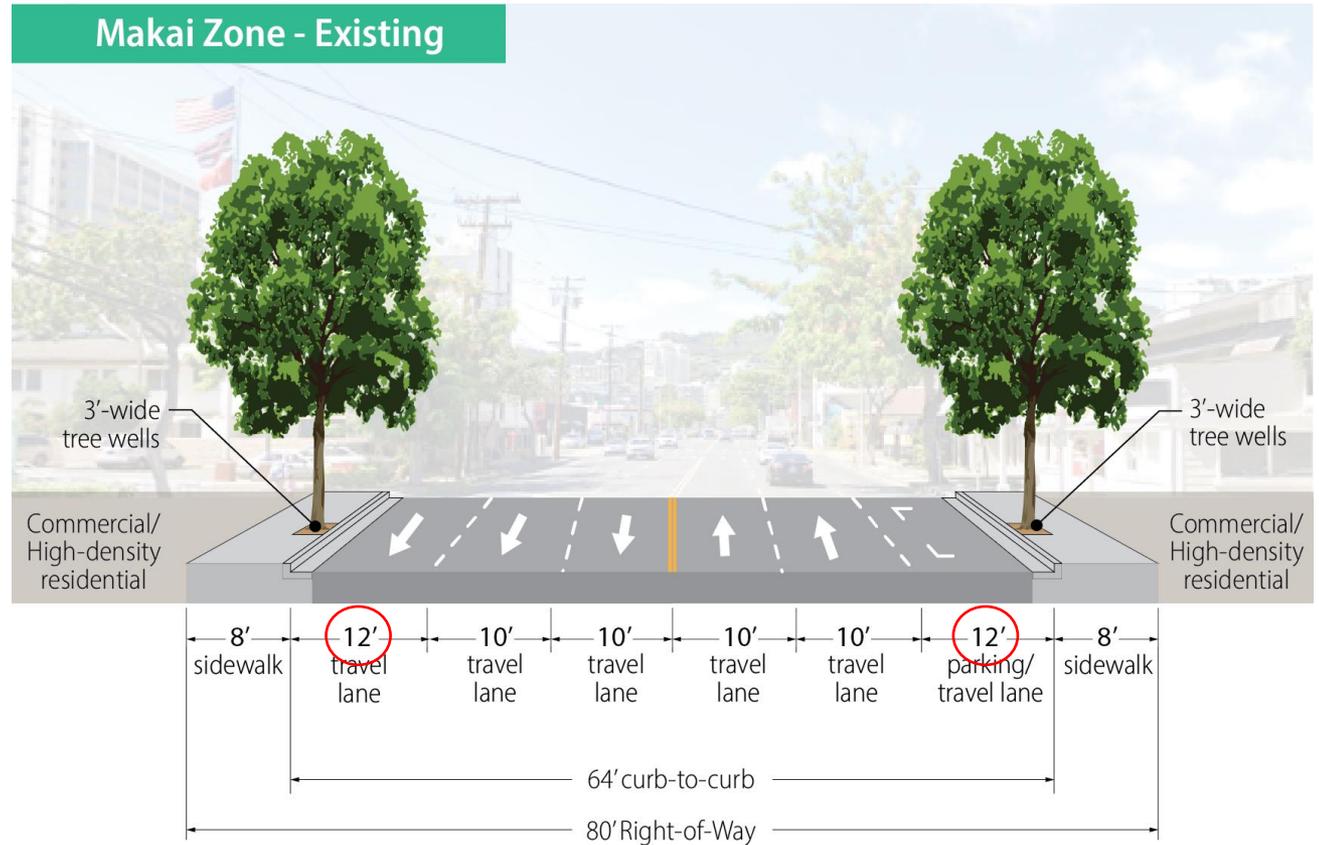
Finding Space for Complete Streets Improvements

1. Expand the Right-of-Way?



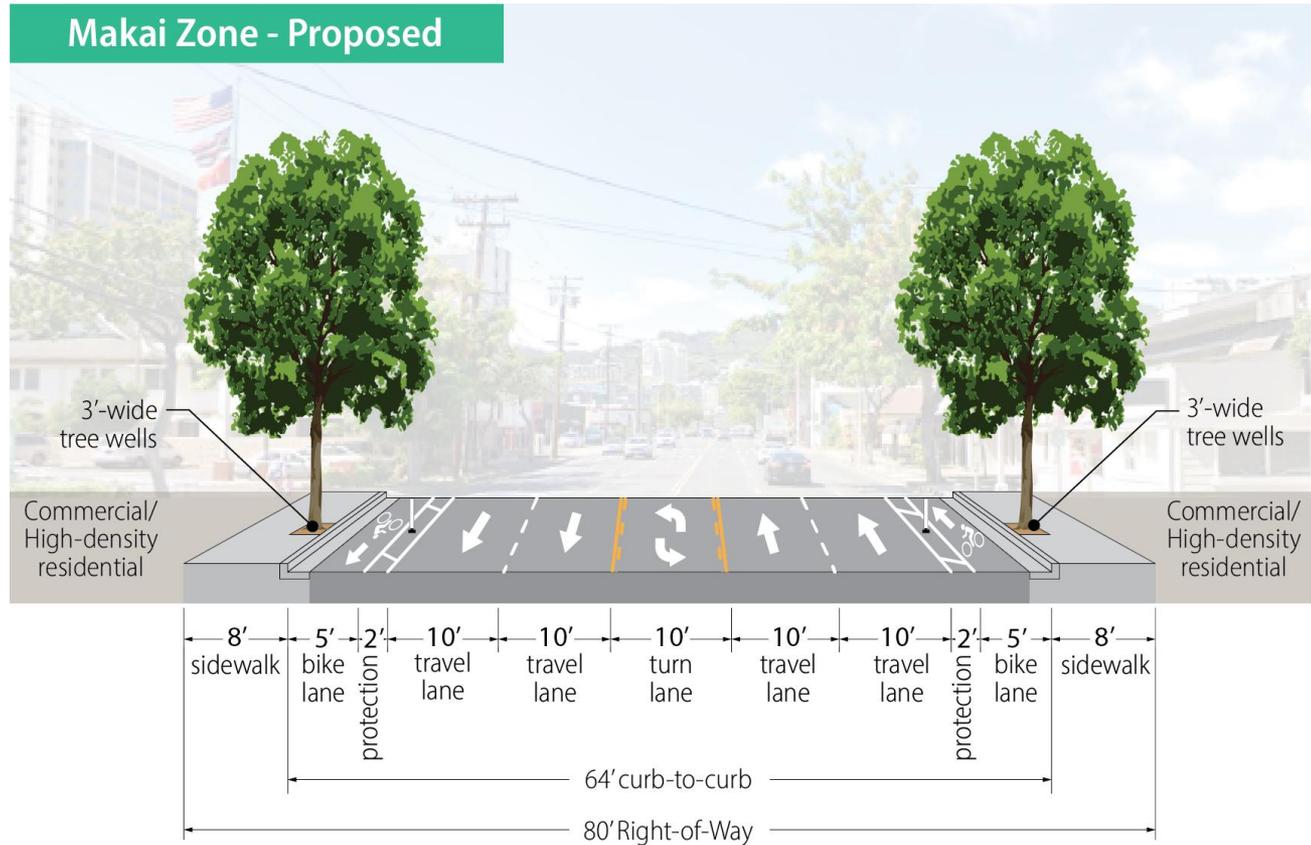
Finding Space for Complete Streets Improvements

1. Expand the Right-of-Way?
2. Reduce Lane Width



Finding Space for Complete Streets Improvements

1. Expand the Right-of-Way?
2. Reduce Lane Width
3. Repurpose parking/travel lanes



Mid-Block Pedestrian Crossings

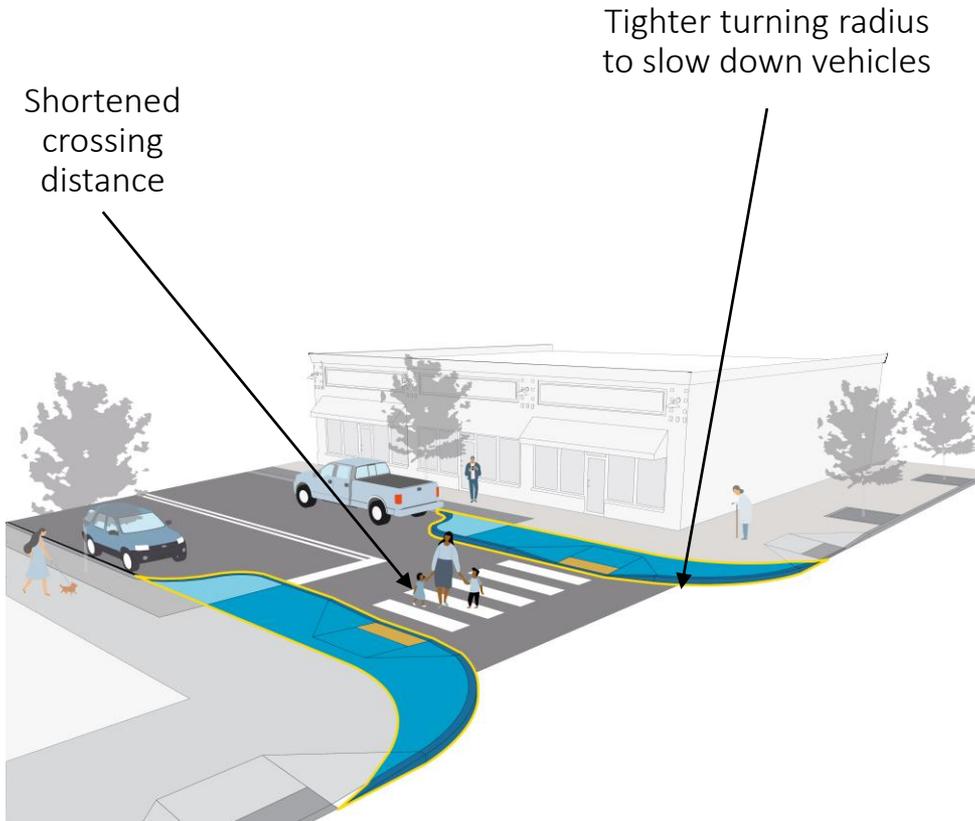
Median refuge
island

Rectangular Rapid
Flashing Beacons
(RRFBs)



RRFB crossing with a median refuge island, Kamake'e St.

Curb Extensions / Bulbouts



Curb extensions, Wai'alaie Ave.



Painted bulbouts, Nu'uuanu Ave.

Barnes Dance (Improved Striping)

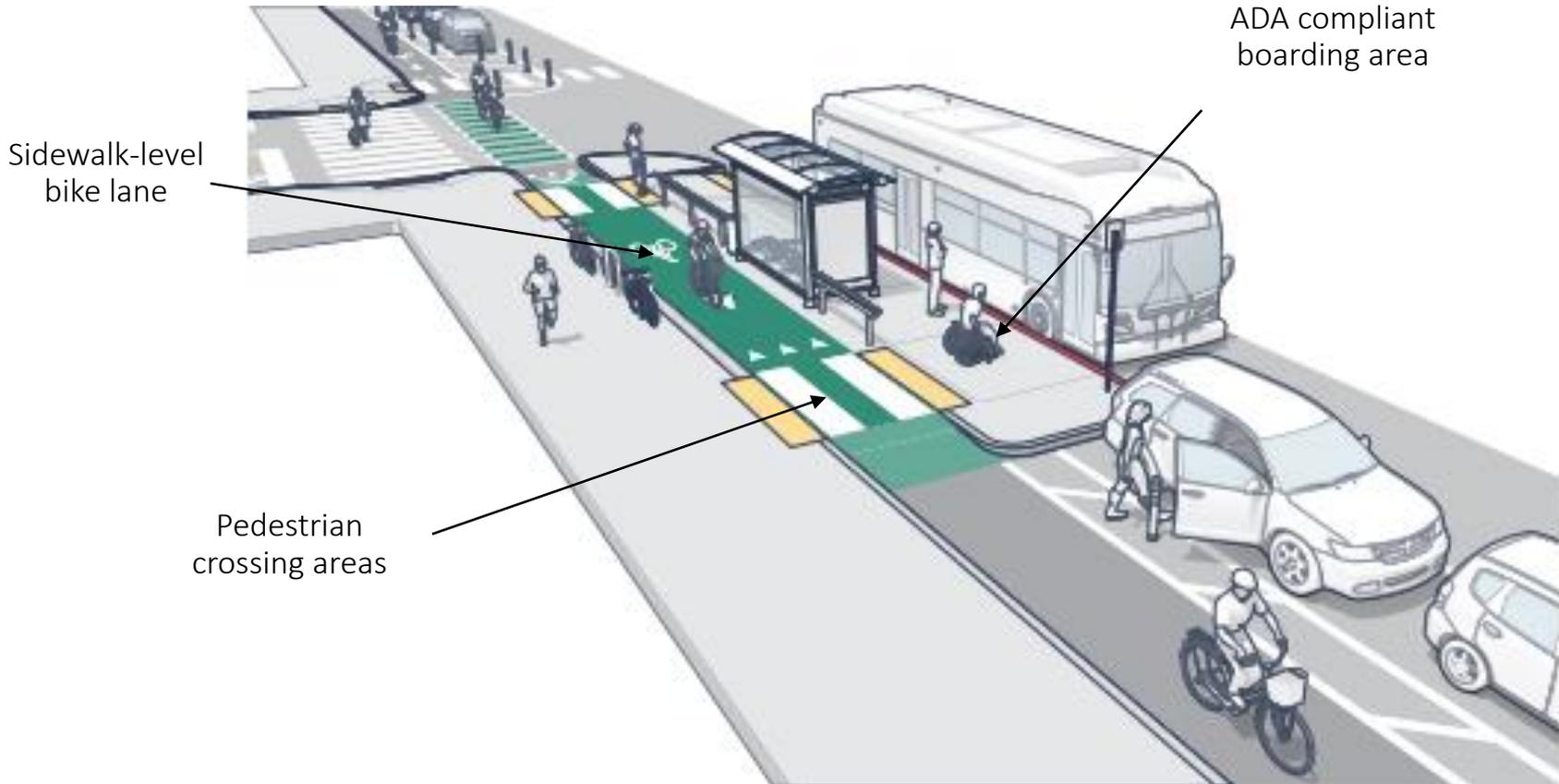


Existing Striping



Potential striping improvements

Transit Island



Protected-Only Left Turn Phasing

Green Arrow Phase (Ke'eumoku)

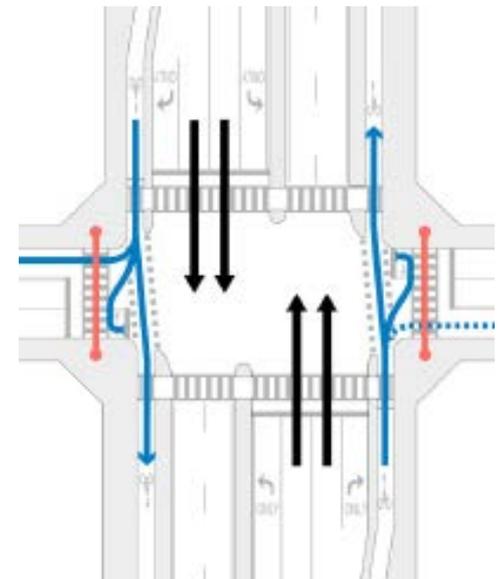
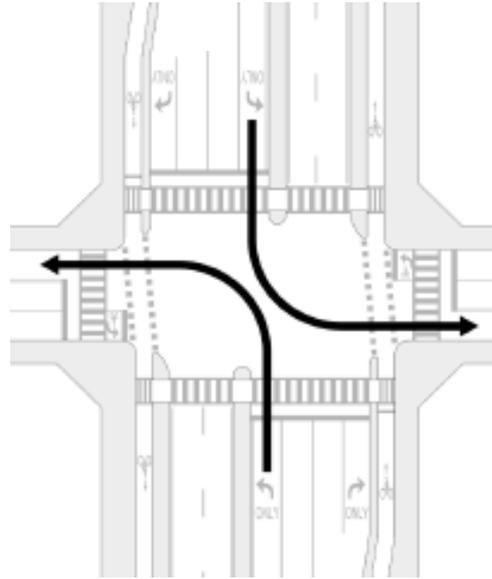
Left-turns run unopposed on the green arrow.

Green Ball Phase (Ke'eumoku)

Permissive left turns are not allowed so there is no conflict between the left turns and bikes, pedestrians, or through traffic.

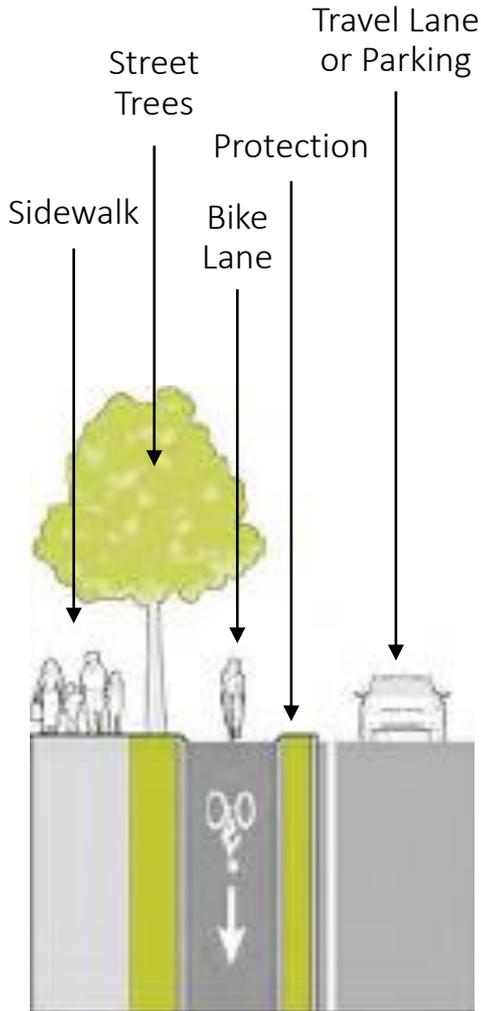


Existing protected-only left turn at Ke'eumoku and Kanunu.



- protected vehicle movement
- permitted vehicle movement
- protected bicycle movement
- permitted bicycle movement
- protected pedestrian movement

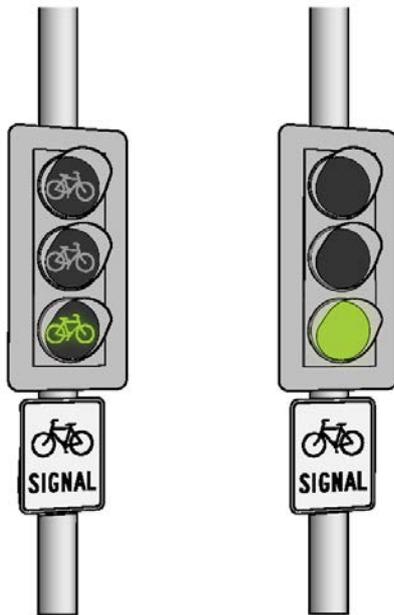
One-Way Protected Bike Lanes



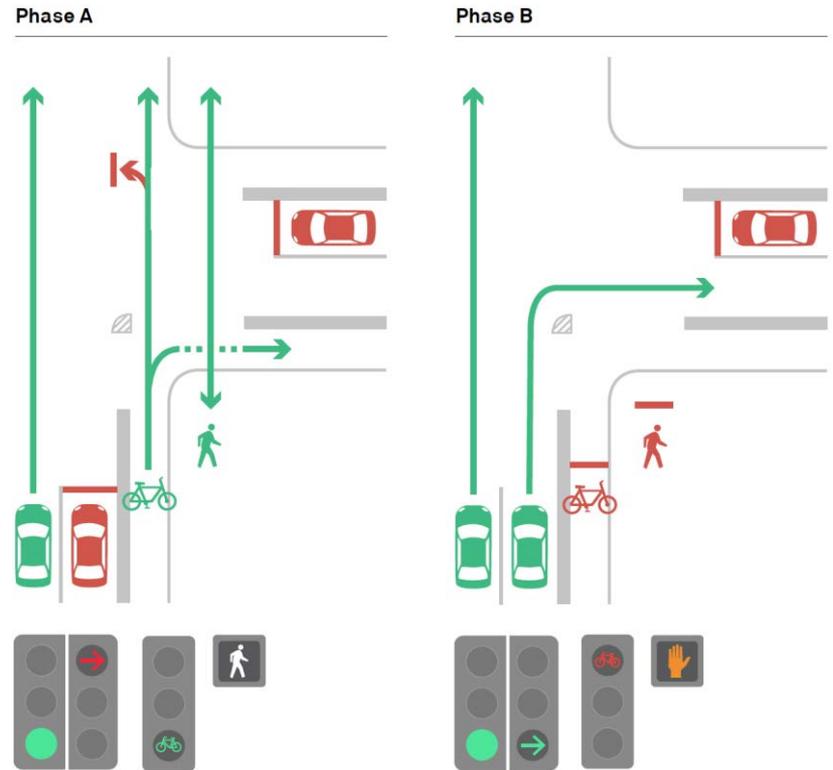
Striped Buffer	Flexible Bollards	Parking Stops & Flexible Bollards	K71 Bollards	Planters	Cast in Place Curb	Precast Barrier Curb
						
LEAST PROTECTION			MOST PROTECTION			

Bicycle Signals

Bicycle Signal Display



Bicycle Signal Phasing



Removes conflict between turning vehicles and bikes/pedestrians

Bicycle Conflict Zone Markings

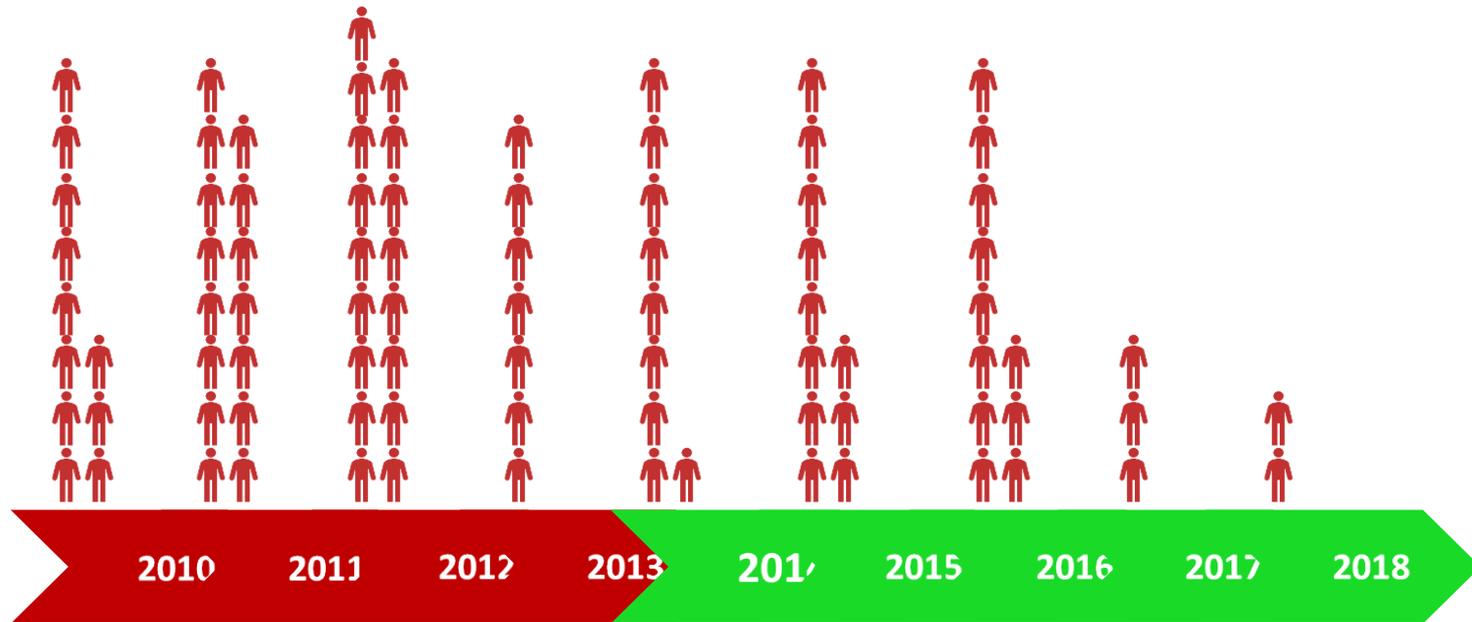


Ward Avenue at King Street

Green paint signifies potential areas of conflict between bicycles and vehicles and reinforces bicyclist priority

Bicycle Facility Benefits For All Users

- Reduced pedestrian crossing distances.
- Increased pedestrian visibility.
- Better organized and dedicated street space for all users.
- Lower pedestrian-vehicle crashes.



Pedestrian-Motor Vehicle Crashes on King Street - EMS attended Before and After Protected Bike Lane (2014)

Design improvements considered but dismissed

Improvement	Reason for dismissal
Kapi'olani Barnes Dance Crossing	<ul style="list-style-type: none"> • Long pedestrian wait times • Preliminary modelling indicated significant traffic operations impacts
4 Lane Cross Section from Beretania – King	<ul style="list-style-type: none"> • Preliminary modelling indicated significant traffic operations impacts
2-way Protected Bike Lane	<ul style="list-style-type: none"> • Not feasible makai of King St. due to large number of driveways. • Transitions to one-way bicycle facilities can create additional delays for bicyclists
Sidewalk expansion over H-1 Overpass	<ul style="list-style-type: none"> • Wide sidewalk may encourage bicyclists to use the sidewalk, leading to increased conflict with pedestrians • Adding a bike lane will provide a buffer between pedestrians and vehicles
Closing the Lunalilo St. U-turn	<ul style="list-style-type: none"> • Traffic counts indicate high level of use for mauka bound drivers accessing H-1 to go Ewa.

Preliminary Design Concepts



Design Principles



Improve pedestrian safety and comfort by reducing conflicts.



Create a dedicated bicycle facility.



Improve transit stops and allow for potential bus service expansion.



Increase safety and efficiency of vehicle operations.



Minimize impacts to the availability of parking in the mauka zone.

Preliminary Design Concept Alternatives

Option A

- Highest level of bicycle, pedestrian, and transit improvements.

Option B

- Slightly scaled back bicycle, pedestrian, and transit improvements.
- Less potential impact to vehicle congestion.



Preliminary Design Concepts Summary

	Pedestrians	Bicyclists	Transit
<p>2035 Baseline (includes new development but no roadway changes)</p>	 Identified as a high pedestrian crash corridor. Pedestrian conflicts with turning vehicles, and long blocks with no crossings.	 No dedicated bike facility so bikes must ride with traffic in a high-stress environment.	 Four (4) bus stops makai-bound and three (3) bus stops mauka-bound. Limited bus stop amenities.
<p>Proposed Option A</p>	 Protected-only left turns at all major intersections. New midblock crossings proposed.	 Protected bike lane with bike signals to eliminate vehicle right turn conflicts at Makaloa, Kanunu, King and Beretania.	 New transit islands proposed at three (3) bus stops.
<p>Proposed Option B</p>	 Protected-only left turns at King and Beretania only. New midblock crossings proposed.	 Protected bike lane, but protection drops and vehicles merge across bike lane to make right turns at Makaloa, Kanunu, King, and Beretania.	 New transit islands proposed at three (3) bus stops

Preliminary Design Concepts Summary

	Motor Vehicles	Motor Vehicles	Cost
<p>2035 Baseline (includes new development but no roadway changes)</p>	 <p>By 2035, estimated 30 seconds delay makai-bound during weekday PM and Saturday midday peaks, with existing lane allocation. Minimal change for mauka bound traffic and makai-bound AM peak.</p>	 <p>All on-street parking is subject to peak hour restrictions. There is substantial off-street parking available in the makai and middle zones.</p>	 <p>Resurface/rehabilitate the corridor and replace striping as street is currently configured.</p>
<p>Proposed Option A</p>	 <p>By 2035, estimated 90 seconds additional delay makai-bound during weekday PM peak. Less delay mauka-bound and during the makai-bound AM peak hour .</p>	 <p>Net loss of eight (8) marked stalls in the makai zone, and ten (10) unmarked stalls in the mauka zone. All lost parking is peak hour limited.</p>	 <p>Resurface/rehabilitate the corridor and update striping. Additional costs for Complete Streets features (delineators, transit islands, crossing improvements, etc.), and major traffic signal upgrades.</p>
<p>Proposed Option B</p>	 <p>By 2035, estimated 30 seconds additional delay makai-bound during weekday PM and Saturday midday peaks. Minimal change for mauka bound traffic and makai-bound AM peak.</p>	 <p>Net loss of eight (8) marked stalls in the makai zone, and eight (8) unmarked stalls in the mauka zone. All lost parking is peak hour limited.</p>	 <p>Resurface/rehabilitate the corridor and update striping. Additional costs for Complete Streets features (delineators, transit islands, crossing improvements, etc.).</p>

Note: Vehicle delay estimates are for a vehicle travelling the whole corridor, from Wilder Ave to Kapi'olani Blvd.

Character Zones

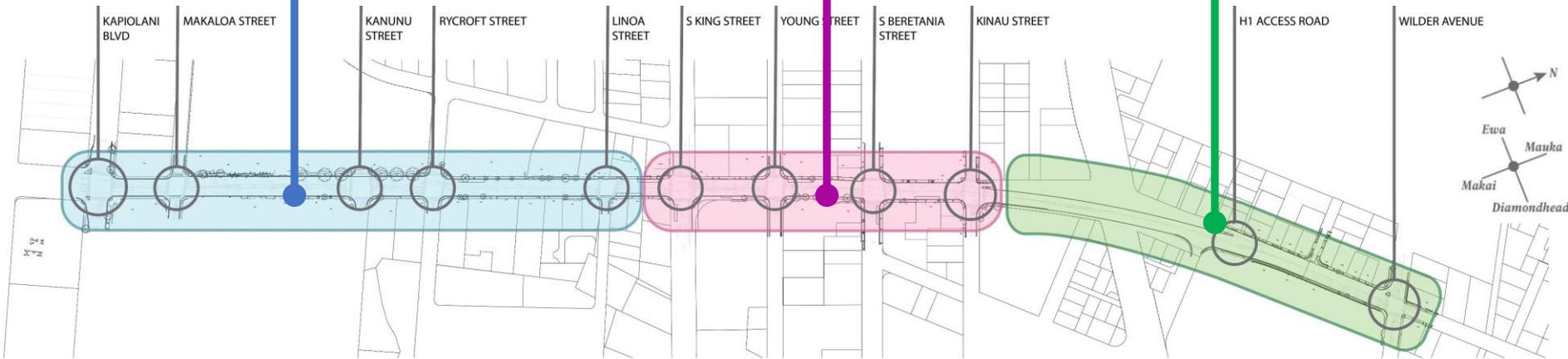
Breakout Session #1

Breakout Session #2

Makai Zone
Kapi'olani to King

Middle Zone
King to Kīna'u

Mauka Zone
Kīna'u to Wilder



Breakout Session #1

Makai Zone (Kapi'olani to King Street)

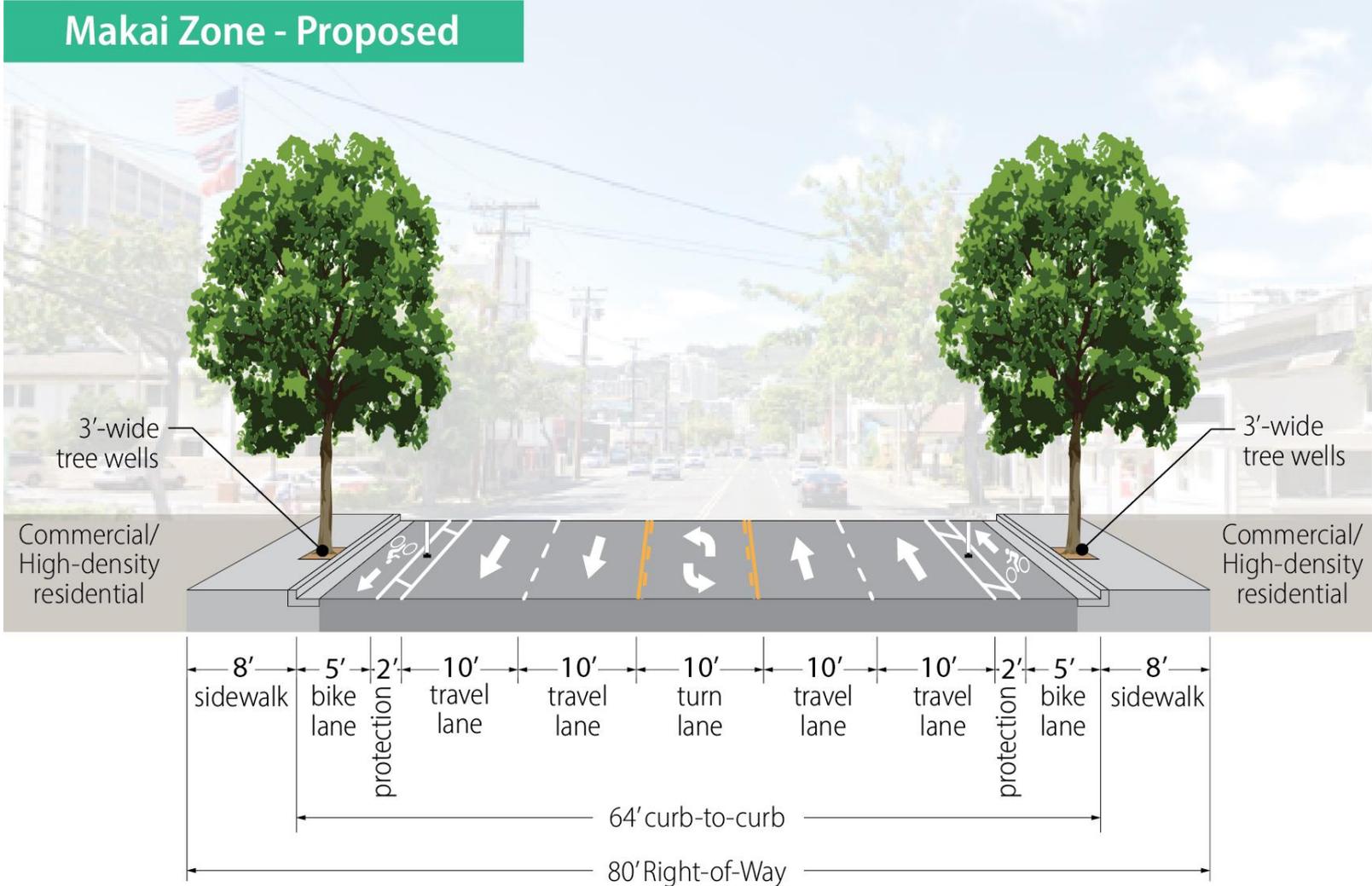
Makai Character Zone



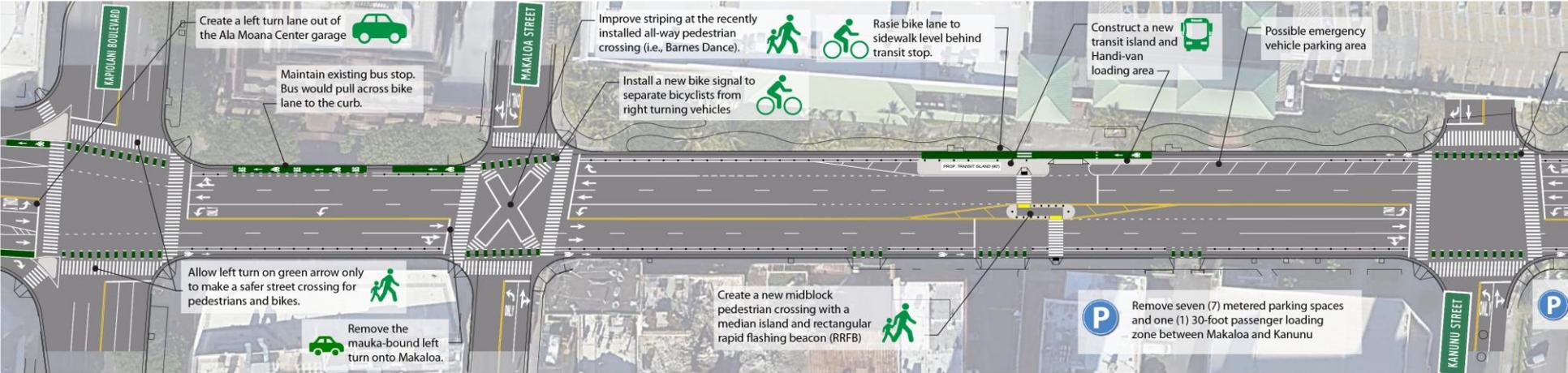
Makai Zone - Existing



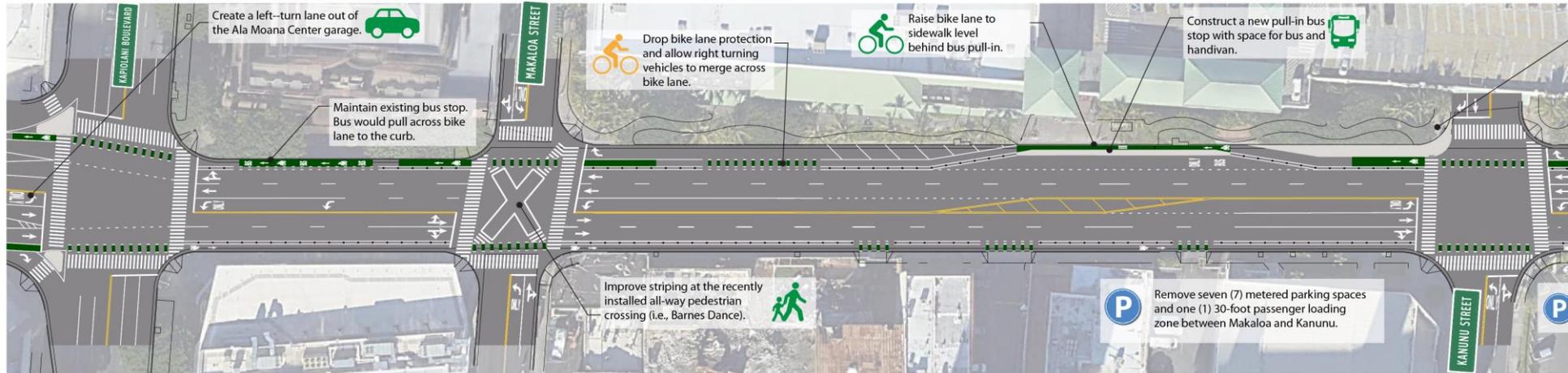
Makai Zone - Proposed



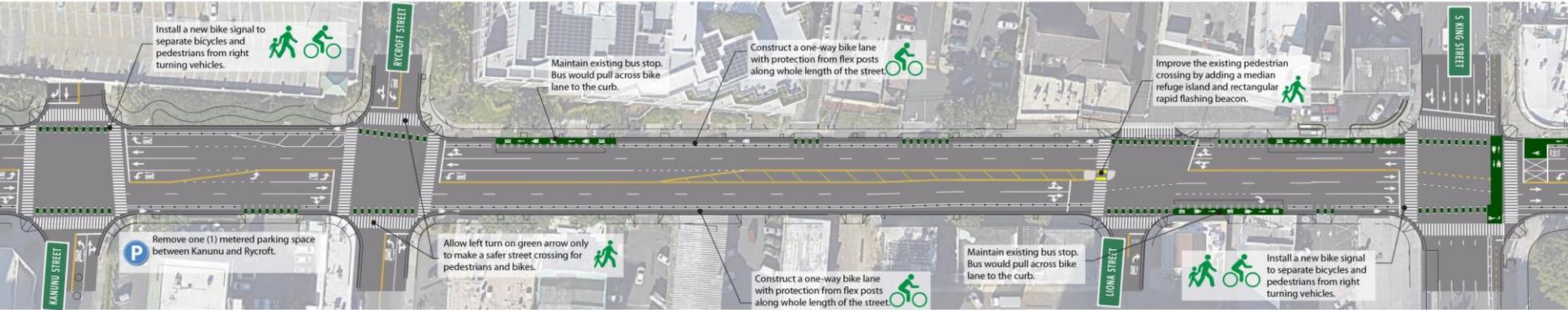
Option A (Kapi'olani to Kanunu)



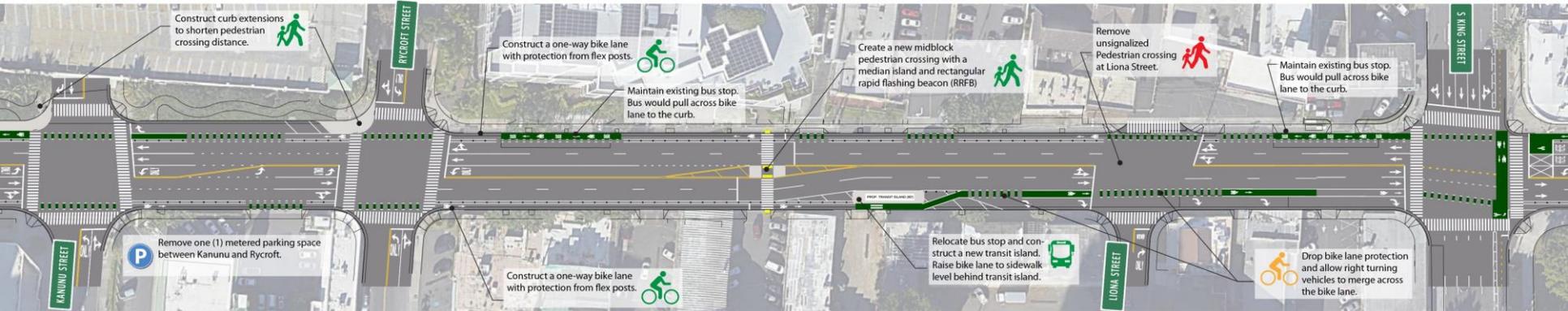
Option B (Kapi'olani to Kanunu)



Option A (Kanunu to King)



Option B (Kanunu to King)



Breakout Groups

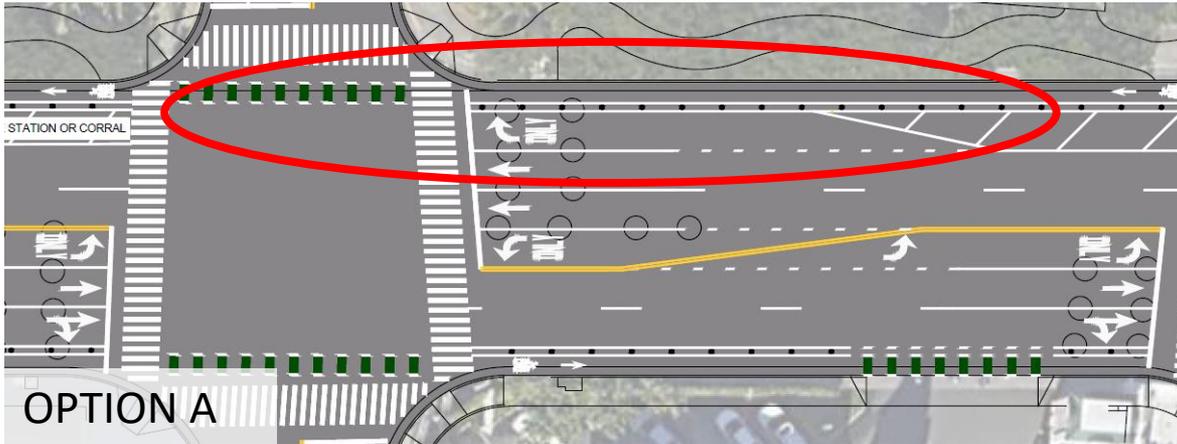
Polling Questions

Option A suggests prohibiting mauka bound left turns at Makaloa St. How do you feel about this potential change?

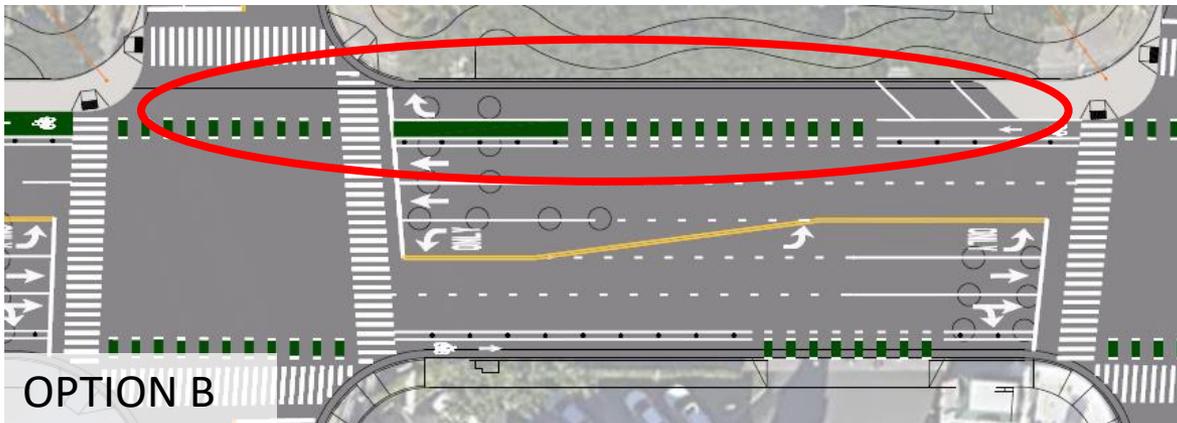


- Pros for prohibiting left turns
 - Safety – removes conflict between left turning vehicles and oncoming traffic, bikes, and peds.
 - Traffic operations – removes potential for queuing behind left turning vehicles
- Cons for prohibiting left turns
 - Access – vehicles wanting to access Makaloa St. would have to plan for another route.

There are multiple locations in the makai zone where there are conflicts between right turning vehicles and bikes/pedestrians (e.g., Makaloa, Kanunu, and King). In general, would you prefer:

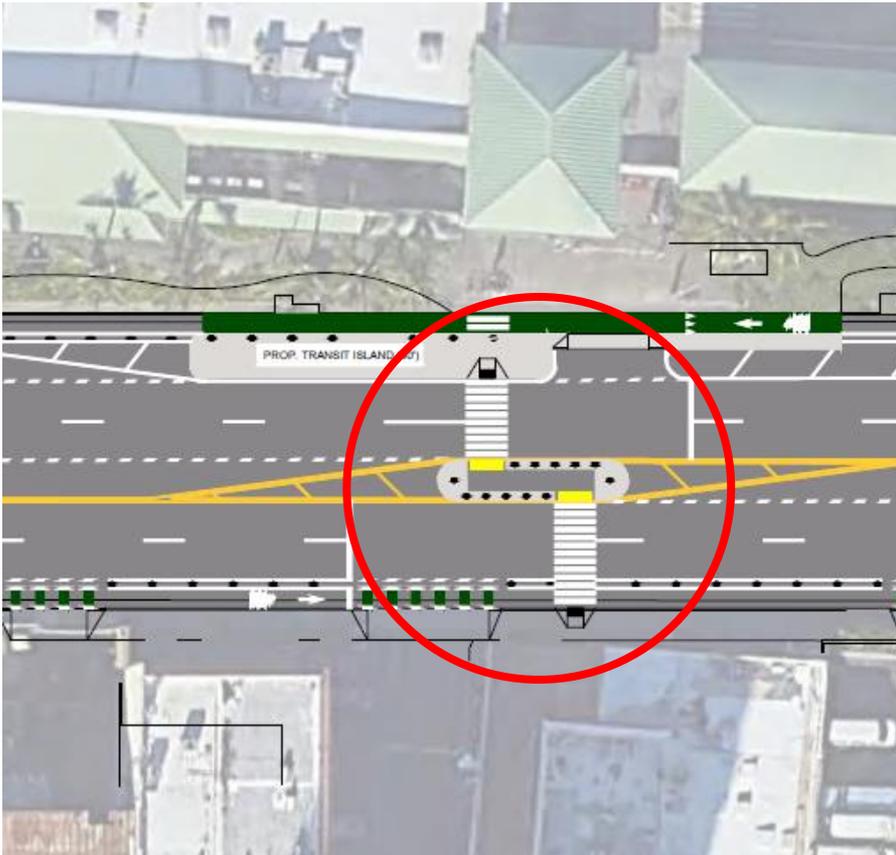


- More separation between uses.
 - Protected bicycle lanes
 - Right turn signal phase separate from bike/ped signal.



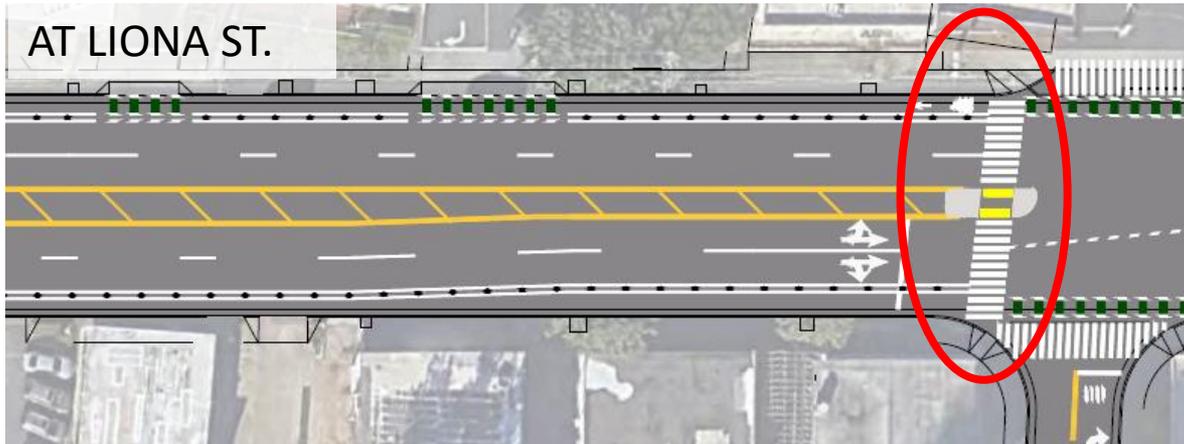
- Less separation between uses.
 - Vehicles merge across bike lane.
 - Vehicles yield to crossing pedestrians.

Should there be a midblock crossing at Walmart?

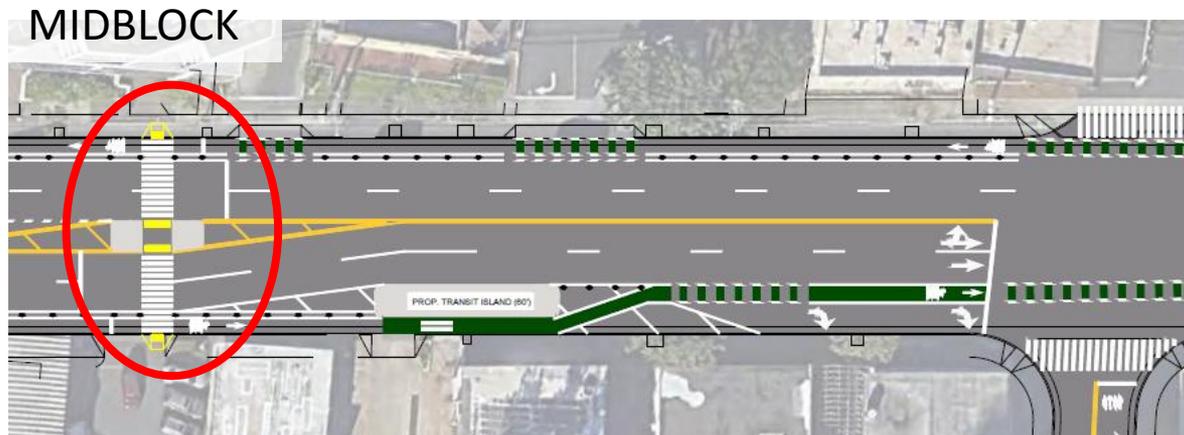


- Yes, a midblock crossing is needed at Walmart
- No, a midblock crossing is not needed at Walmart

Where would you prefer a pedestrian crossing between Rycroft and King Street?



- At Liona Street



- Midblock between Liona Street and Rycroft Street.

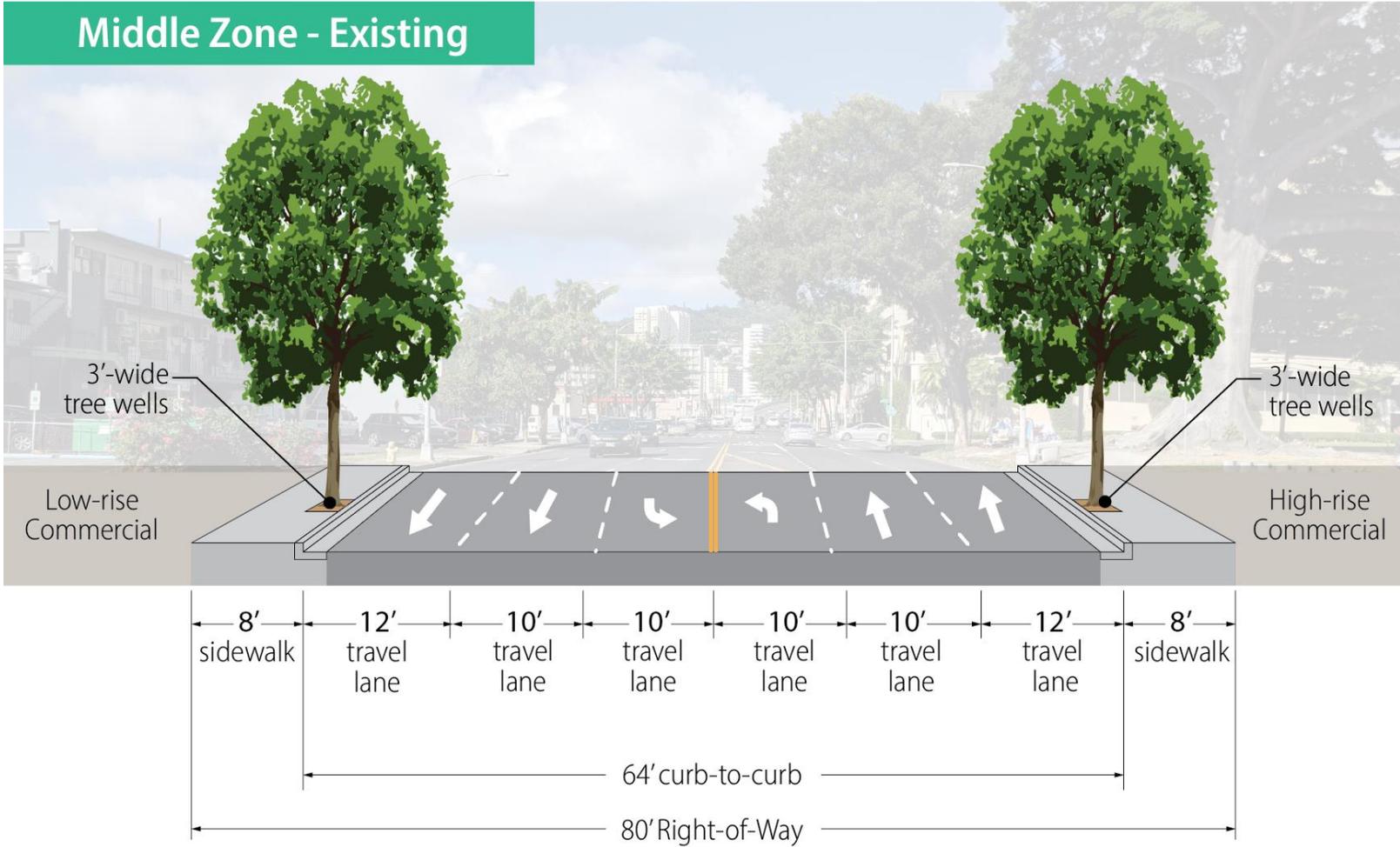
Breakout Session #2

Middle and Mauka Zones (King to Wilder)

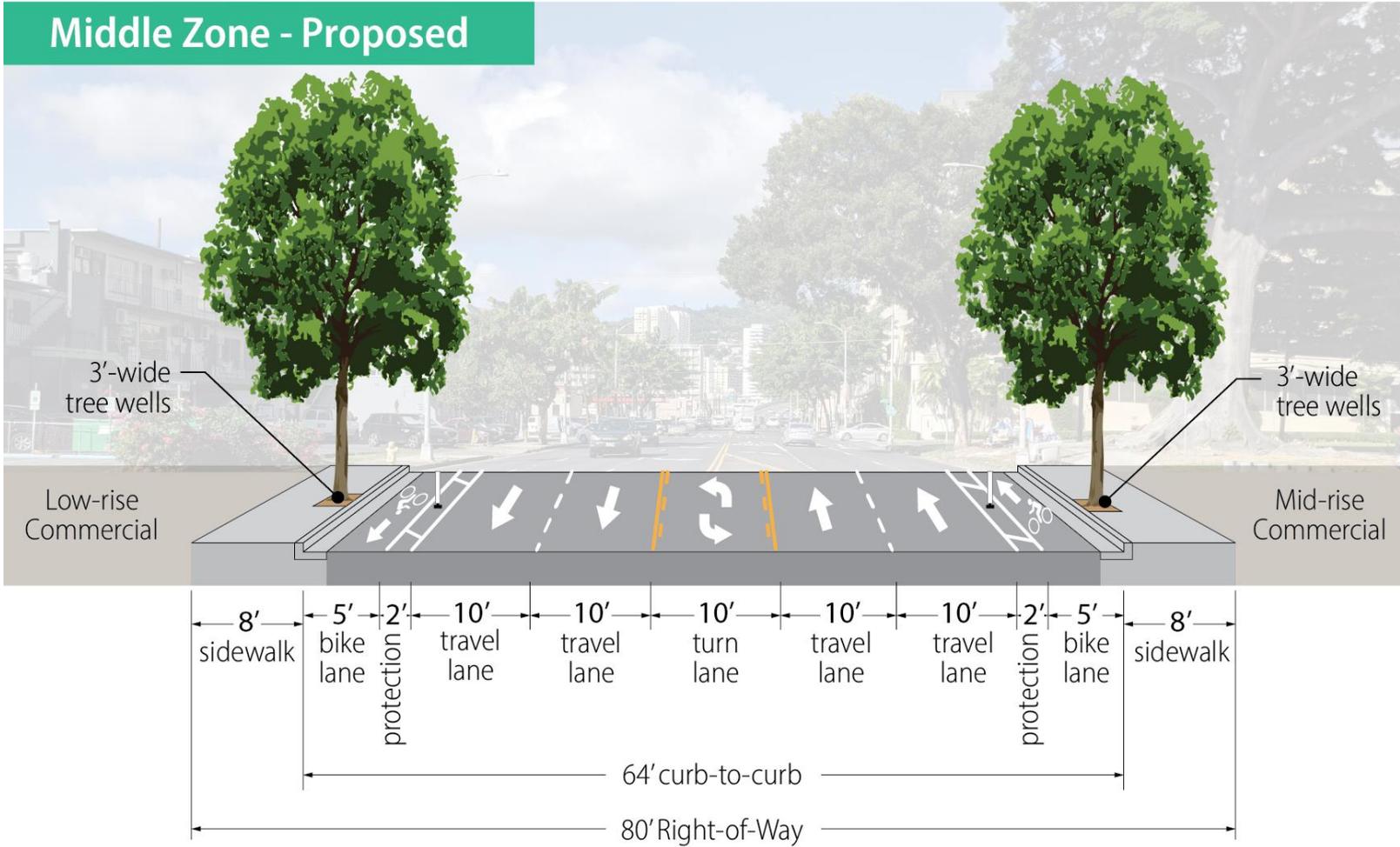
Middle Character Zone



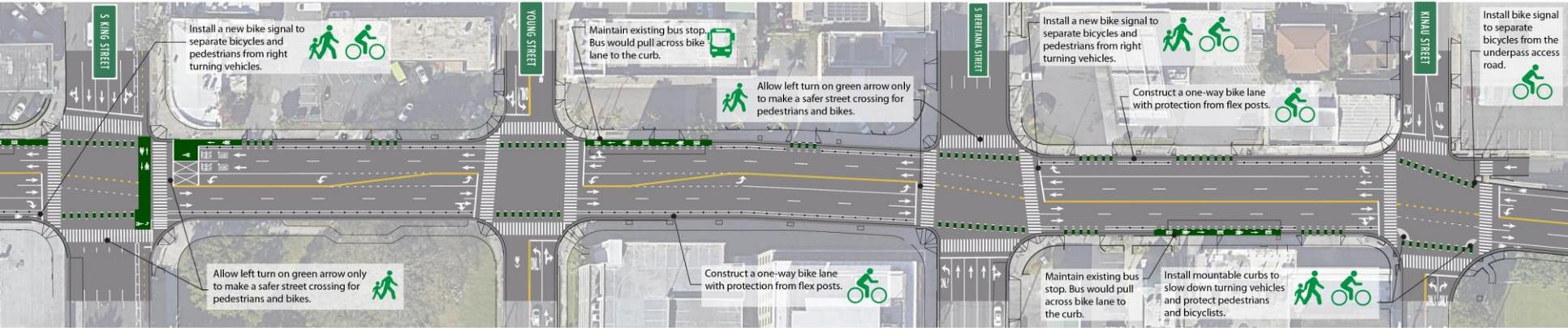
Middle Zone - Existing



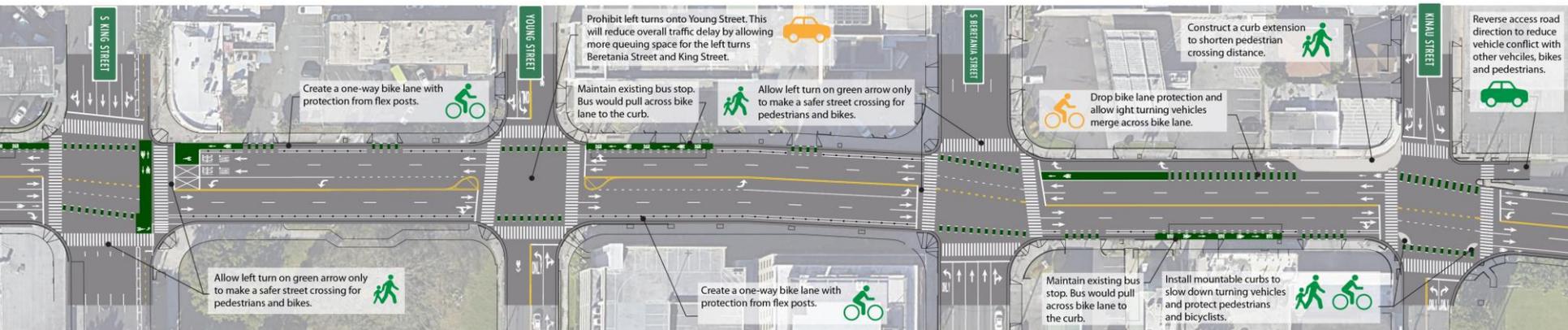
Middle Zone - Proposed



Option A (King to Kīna'u)



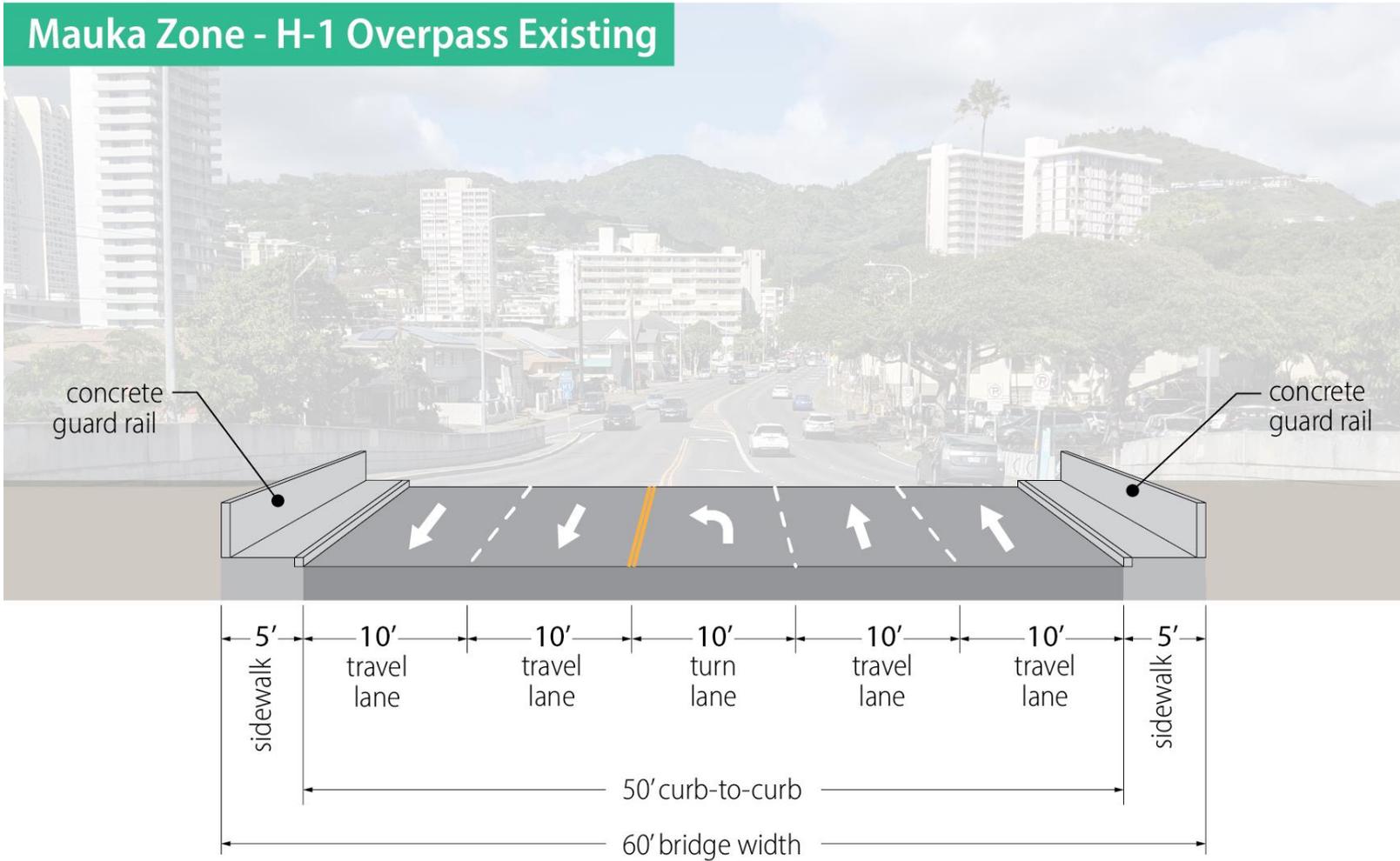
Option B (King to Kīna'u)



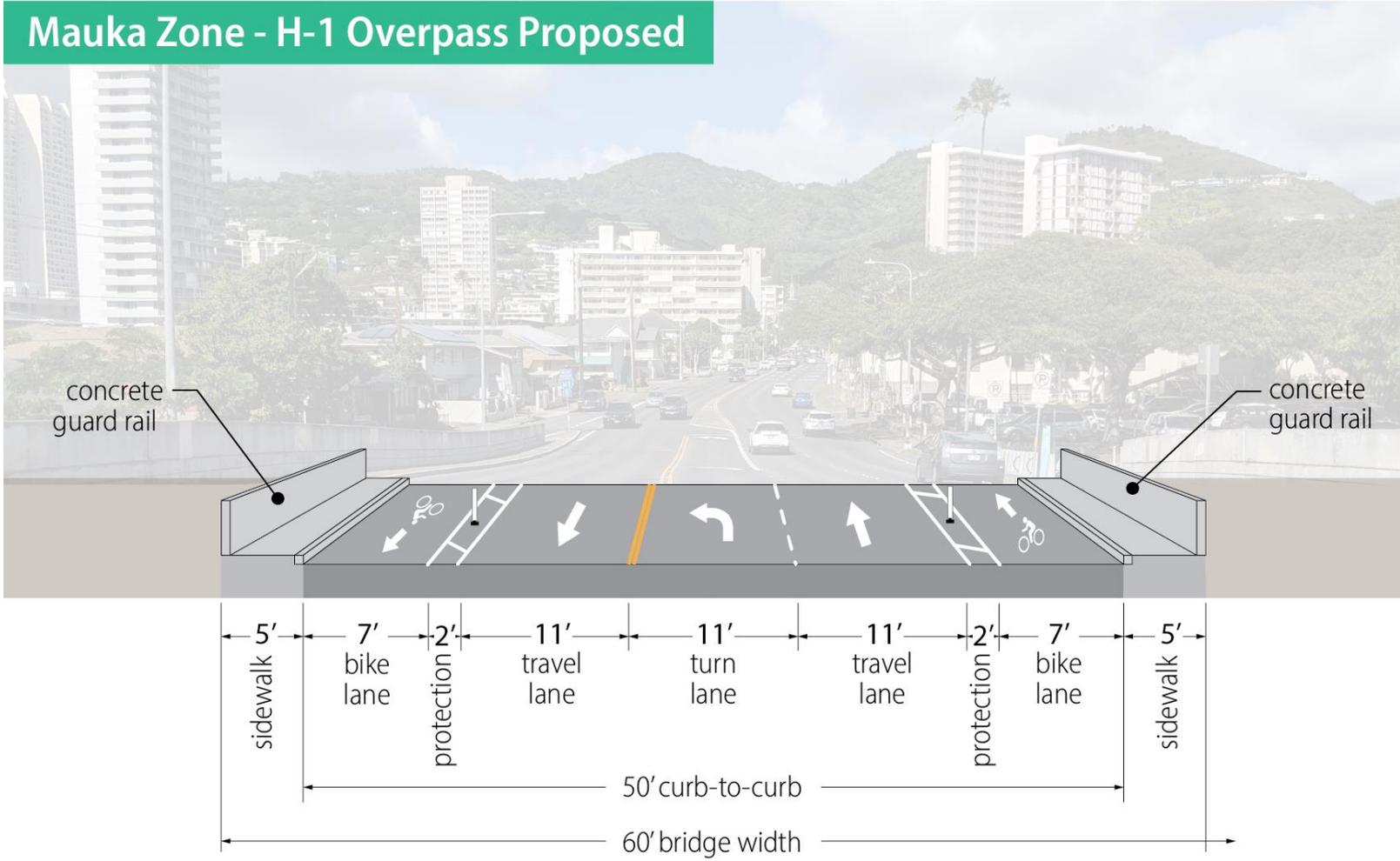
Mauka Character Zone



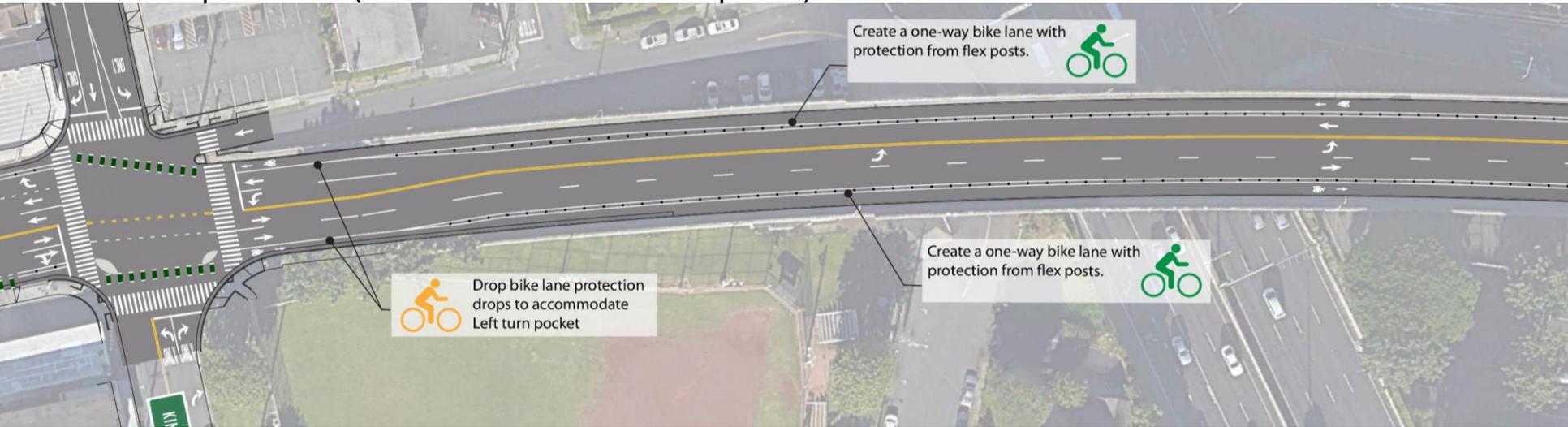
Mauka Zone - H-1 Overpass Existing



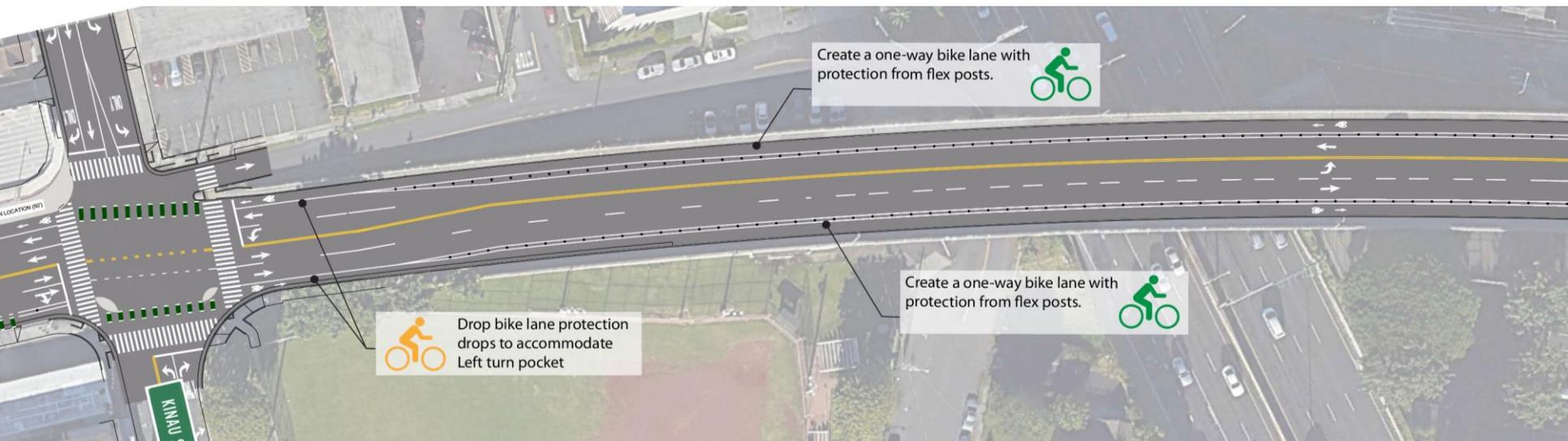
Mauka Zone - H-1 Overpass Proposed



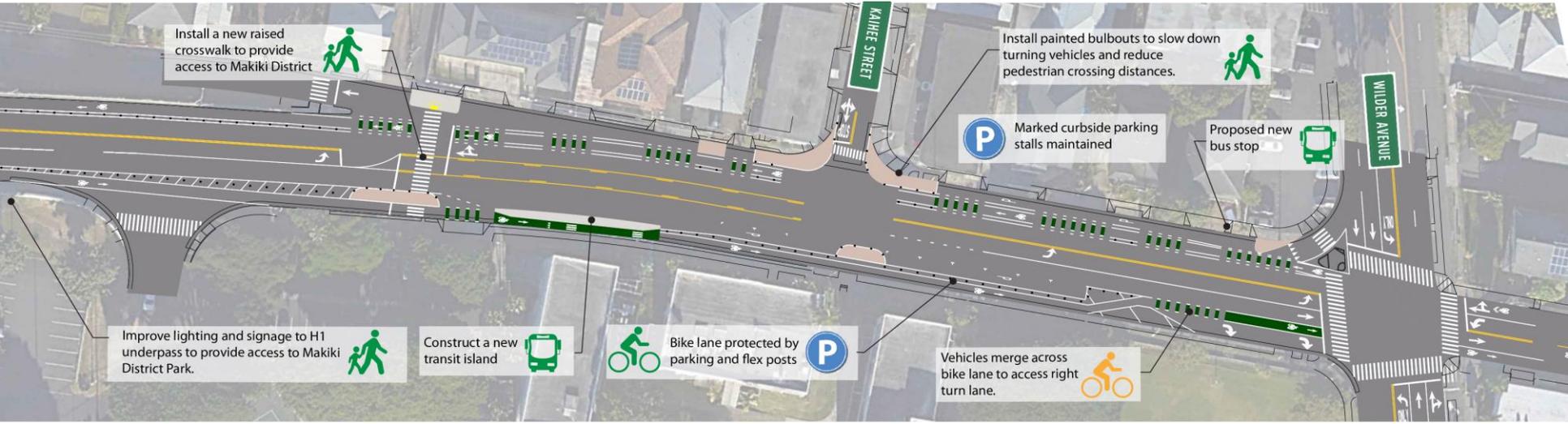
Option A (Kīna'u to H-1 Overpass)



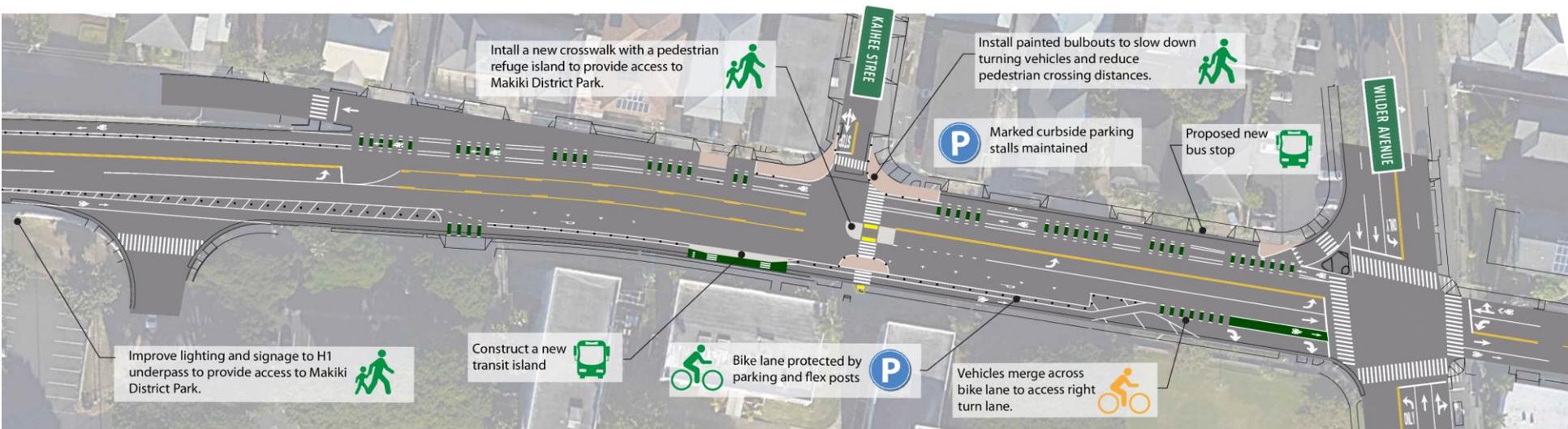
Option B (Kīna'u to H-1 Overpass)



Option A (H-1 Overpass to Wilder)



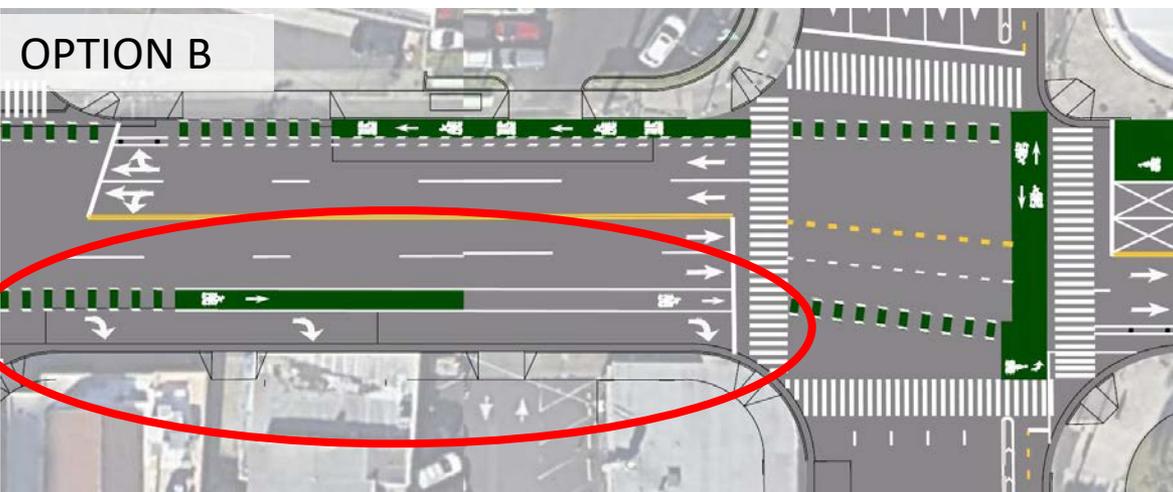
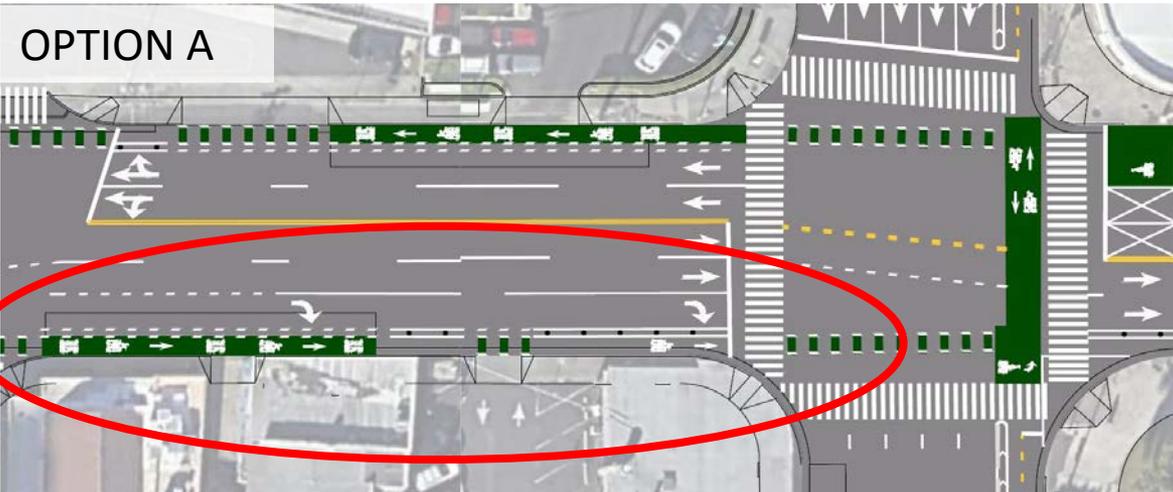
Option B (H-1 Overpass to Wilder)



Breakout Groups

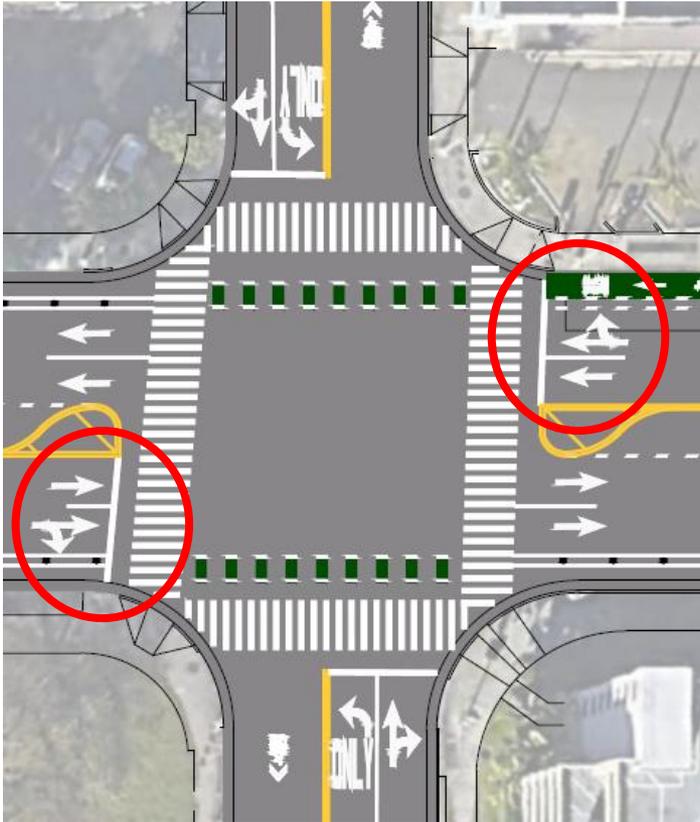
Polling Questions

There are multiple locations in the middle zone where there are conflicts between right turning vehicles and bikes/pedestrians (e.g., King and Beretania). In general, would you prefer:



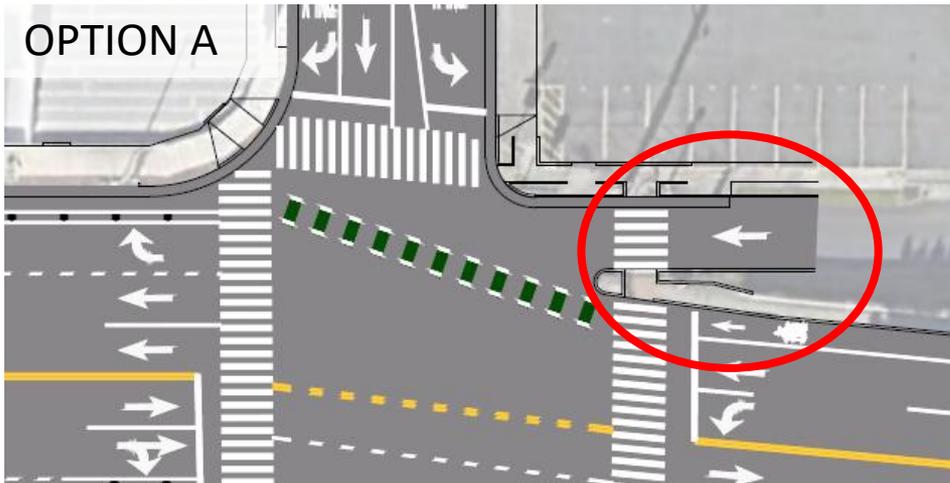
- More separation between uses.
 - Protected bicycle lanes
 - Right turn signal phase separate from bike/ped signal.
- Less separation between uses.
 - Vehicles merge across bike lane.
 - Vehicles yield to crossing pedestrians.

Option B suggests prohibiting left turns onto Young St in both directions. How do you feel about this potential change?

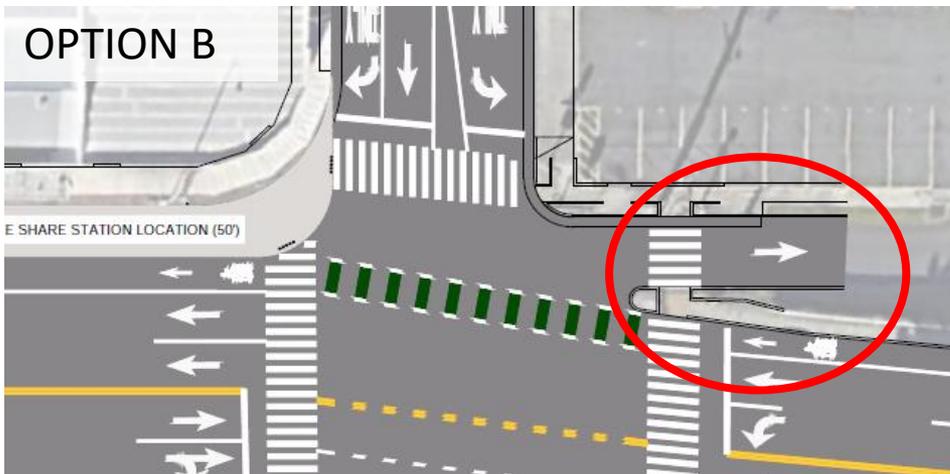


- Pros for prohibiting left turns :
 - Safety – remove conflict between left turning vehicles and oncoming traffic, bikes, and pedestrians.
 - Traffic operations – More queuing space for Beretania and King St. left turns.
- Cons for prohibiting left turns:
 - Access - Vehicles will have to reroute to access Young St.

Option B suggests reversing the access lane from the underpass at Kīna'u. How do you feel about this potential change?



- Pros for reversing access lane:
 - Safety – remove conflict between access lane and bike/vehicle traffic coming down the bridge.
 - Traffic Operations – Separate bike signal phase not required.



- Cons for reversing access lane:
 - Access – Vehicles that use the access in its current direction would have to reroute.

What is your preferred solution to create a safer pedestrian crossing mauka of H-1?



Next Steps

- Provide additional feedback via the project website, www.Honolulu.gov/completestreets/keeaumoku
- Public comment period open until December 31, 2021
- The project team will identify and refine the preferred design concept.
- Community Meeting #2 – Date TBD, 2022

MAHALO!

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