

Ke'eauwoku

COMPLETESTREETS



PUBLIC MEETING #2

MARCH 23, 2023



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 proposed roadway safety improvements for Ke'eumoku Street.

We will be presenting updated 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 14-18)

*“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

1. Ke'eaumoku Complete Streets Presentation

- *Project Context*
- *Community Outreach*
- *Safety Improvement Toolbox*
- *Challenges and Solutions*
- *Updated Design Concepts*
- *Zoom Polling*

2. Breakout Sessions

3. 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

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Tom Fee
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Claire Fukuoka
Kristin Hamaguchi

Toole Design Group



Adrian Witte

ETIQUETTE

This meeting is being 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.**

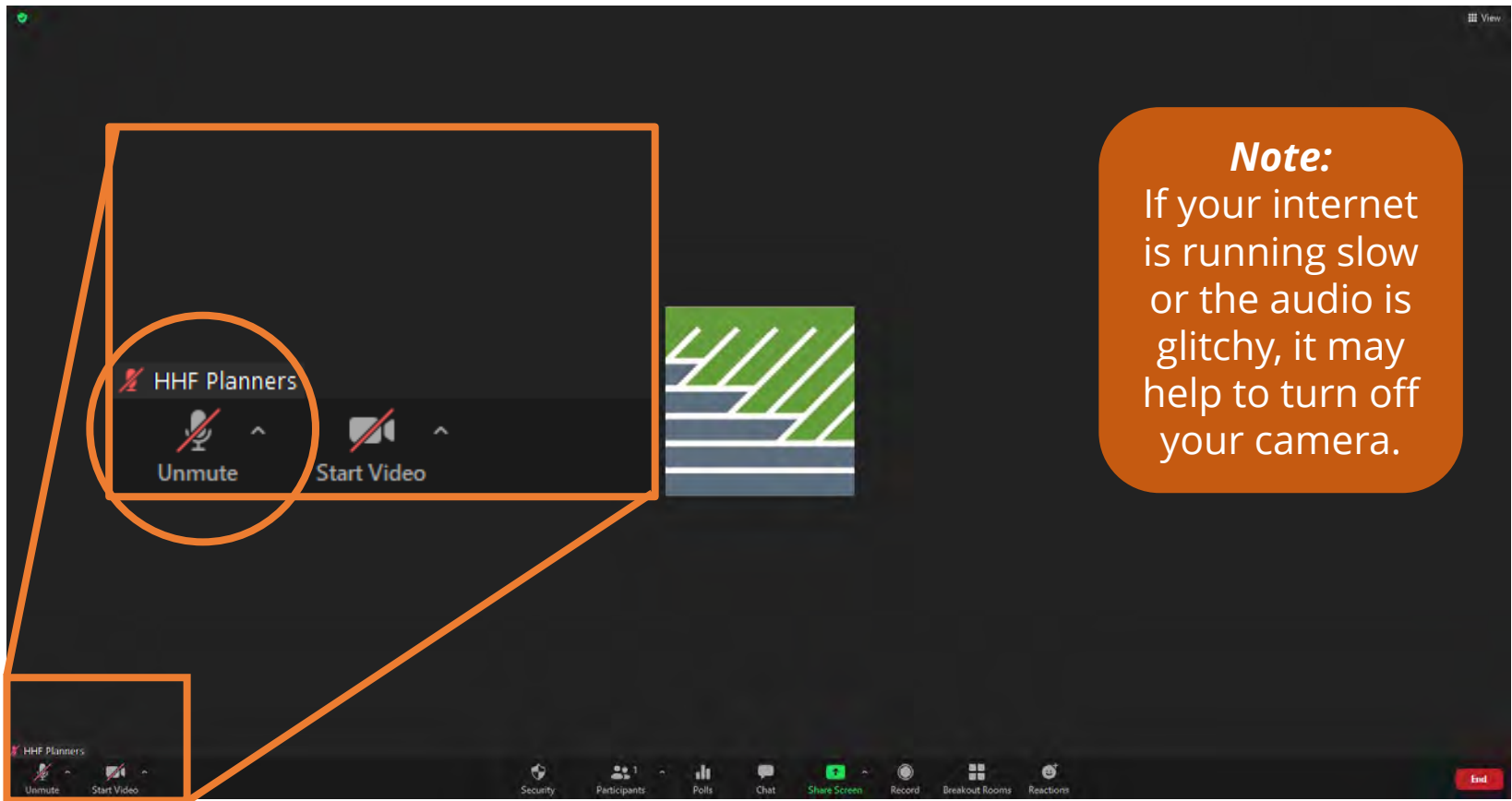
Impersonating or mocking people or institutions are not allowed.

Neither are blatantly false statements or foul language.

Participants who engage in this behavior will be removed.

Mahalo for your kokua!

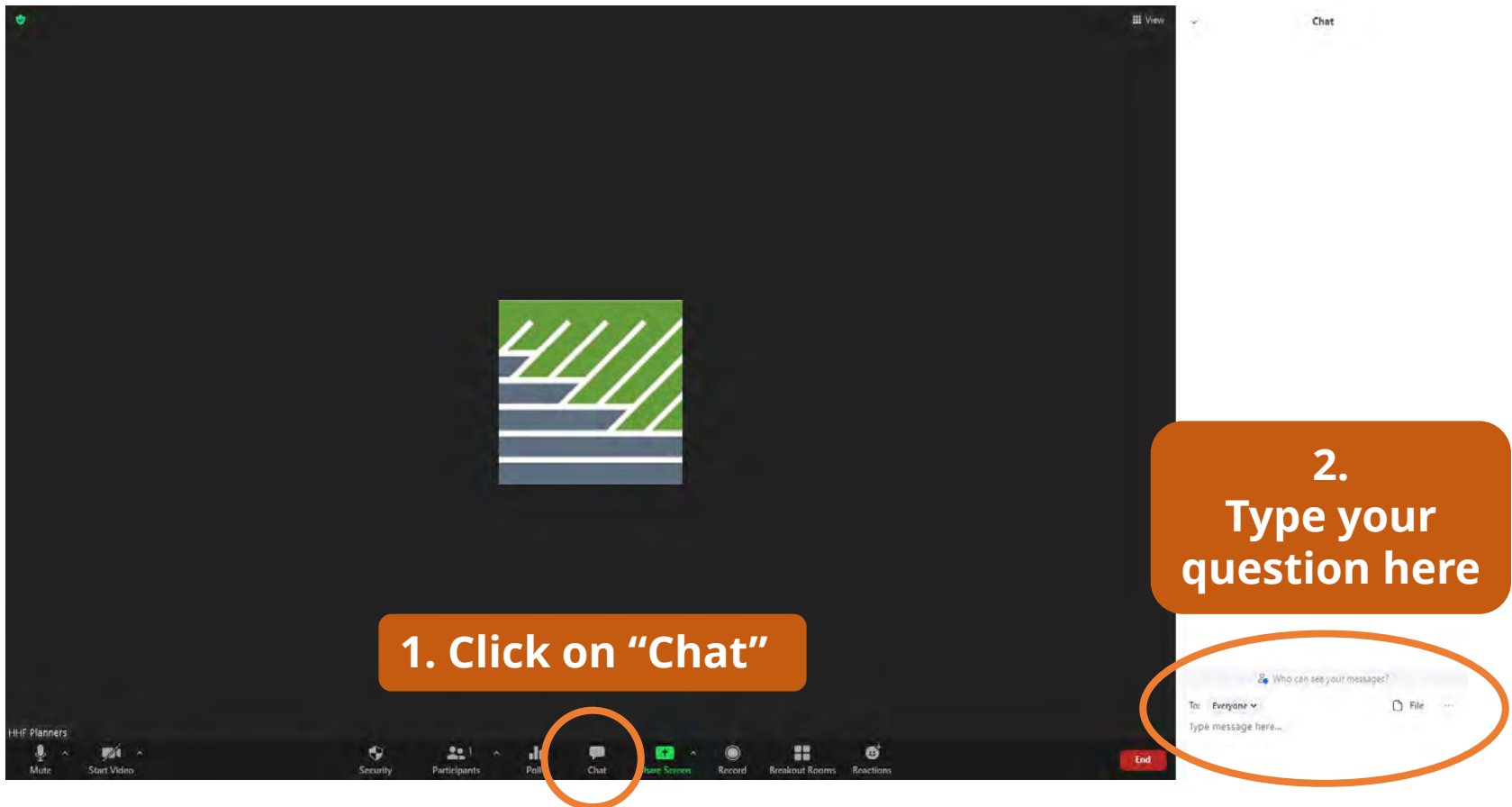
HOW TO MUTE AND UNMUTE



The image shows a Zoom meeting interface. A callout box highlights the 'Unmute' button for the user 'HHF Planners'. The 'Unmute' button is currently disabled, indicated by a red slash through the microphone icon. The 'Start Video' button is also visible. The bottom toolbar includes icons for Security, Participants, Polls, Chat, Share Screen, Record, Breakout Rooms, Reactions, and End.

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

HOW TO CHAT



The image shows a Zoom meeting interface. At the bottom, the 'Chat' icon in the toolbar is circled in orange. A callout box with the text '1. Click on "Chat"' points to this icon. On the right side, the chat window is open, and its title bar 'Chat' is also circled in orange. A callout box with the text '2. Type your question here' points to the chat input area. The chat window shows a dropdown menu for 'Who can see your messages?' set to 'Everyone', a 'File' icon, and a text input field with the placeholder 'Type message here...'. The main meeting area in the background is dark with a green and white striped graphic.

LIVE POLLING – WARM UP

How do you typically get around on Ke'eumoku Street?
(please select all that apply)

Walk

TheBus or TheHandi-Van

Bike

Drive (or ride in a car)

Wheelchair

Other

LIVE POLLING – WARM UP

How often do you use Ke'eaumoku Street?

Daily

2-3 times per month

2-3 times per week

About once a month

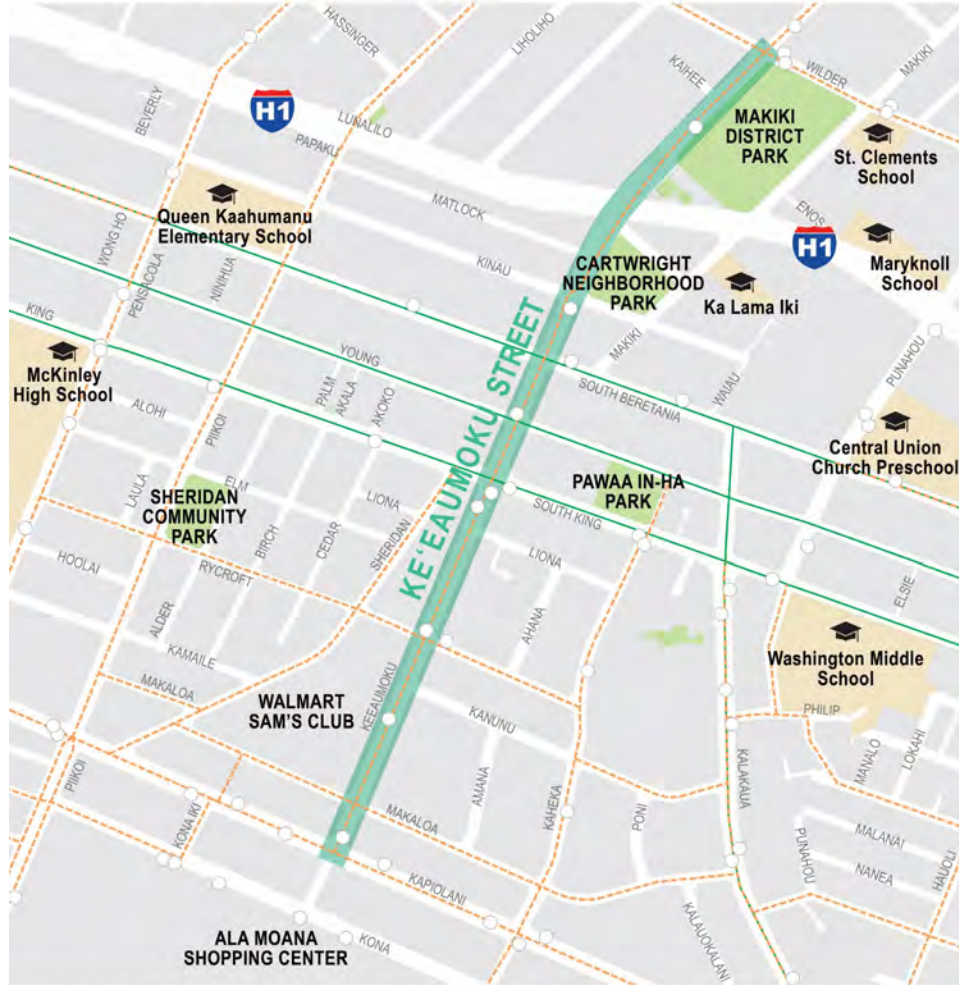
About once a week

Less than once a month

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



Why Ke'eaumoku?

- There are known safety and multimodal needs along the corridor.
- 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 2025 or later.

PLANNING PHASE TIMELINE



Overall Project Schedule

- The Ke'eaumoku Complete Streets Project is currently in the planning phase.
- Following planning, the project will be moved into detailed design.
- Construction of proposed improvements would not be completed until 2025 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.

ALA MOANA TOD PLAN

“Eliminate one mauka-bound travel lane and one makai-bound travel/park lane each way to gain bicycle lanes and a permanent parking lane.”

Public Outreach

- Three community workshops
- Dozens of stakeholder meetings
- Steering committee meetings
- Resident survey



TOD PROJECTS – ALA MOANA NEIGHBORHOOD

The Ke'eaumoku Neighborhood is undergoing significant redevelopment and infill following City growth policies. Ala Moana Center is a key regional transit hub and is gradually shifting from a regional car-centric mall to more finer-grained, mixed use community (live/work/play).

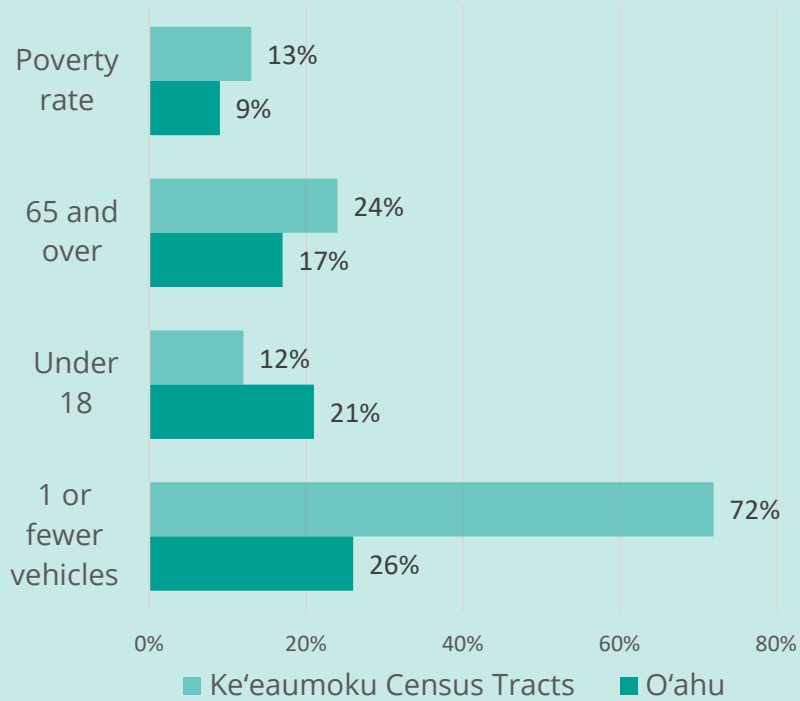


Gold: IPD-T projects **Blue:** 201H projects (State zoning)
 IPD-T = Interim Planned Development-Transit zoning permit

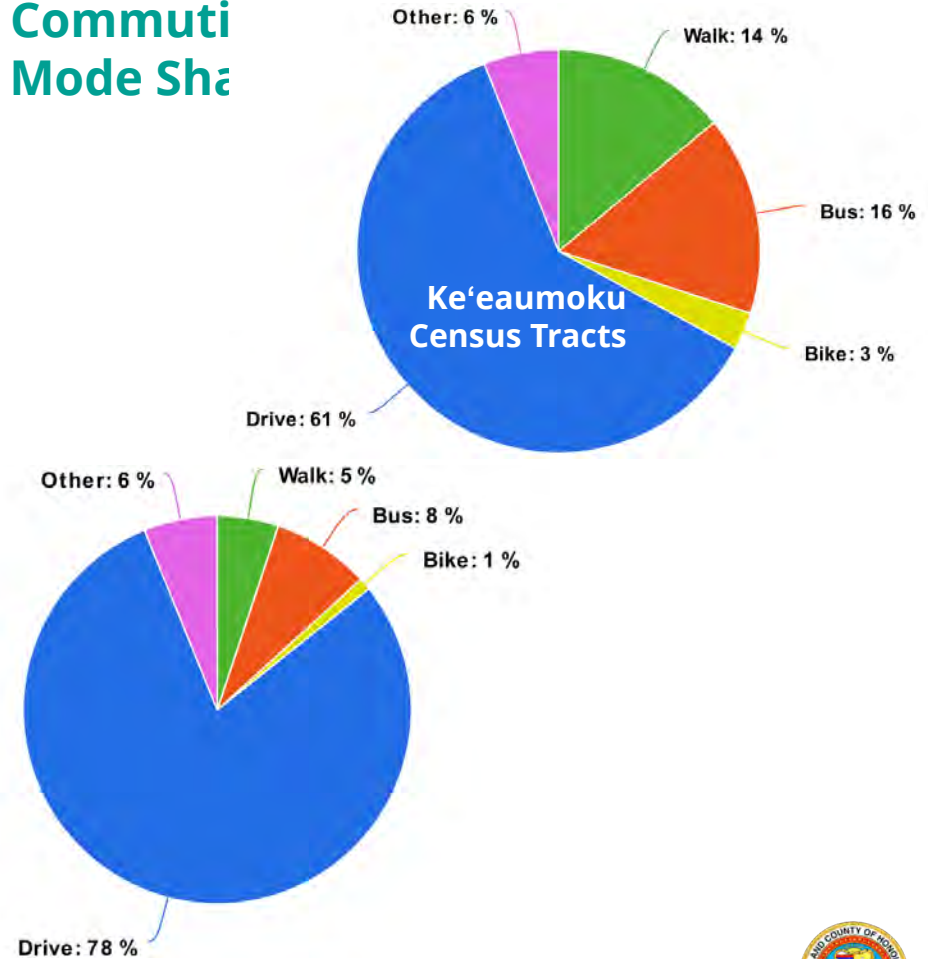
Item No.	Project name	Height bonus	FAR bonus	Status
1	902 Alder St	28.5'	1.26	Const.
2	The Park on Keeaumoku	250'	4.5	Approved
3	Hawaii City Plaza	100'	2.5	Approved
4	The Azure (ProsPac Tower)	150'	7.4	Built
5	Hawaii Ocean Plaza	150'	7.5	Permit lapsed
6	The Sky Ala Moana	150'	7.01	Const.
7	1500 Kapiolani	150'	6.715	Approved
8	The Central Ala Moana	150'	7.5	Built
9	Kapiolani Residence	50'	N/A	Built
10	KCR Development	50'	7.5	Not approved
11	Mana'olana Place	50'	7.5	Approved
12	Ala Moana Plaza	300'	4.5	Approved
13	Hale Kewalo (State)	N/A	N/A	Built

NEIGHBORHOOD CHARACTERISTICS

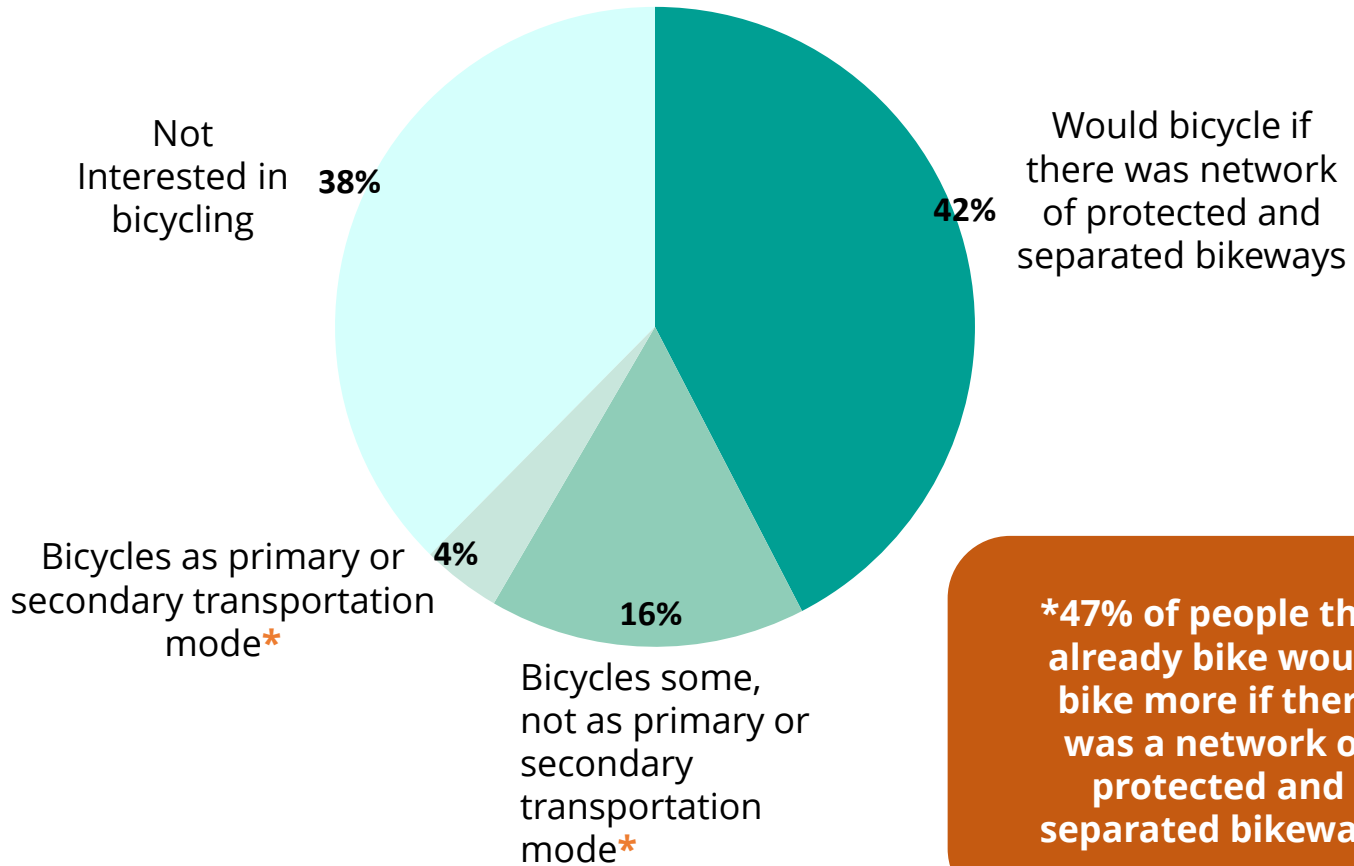
Demographics



Commuti Mode Sha



BICYCLING ON O'AHU



SAFETY REVIEW

Ke'eaumoku is a high crash corridor.

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



PEDESTRIAN CRASHES

Honolulu Vision Zero

High Injury Network

Select Layer

- High crash segments - unweighted
- High crash segments - weighted
- High crash intersections

Select Mode

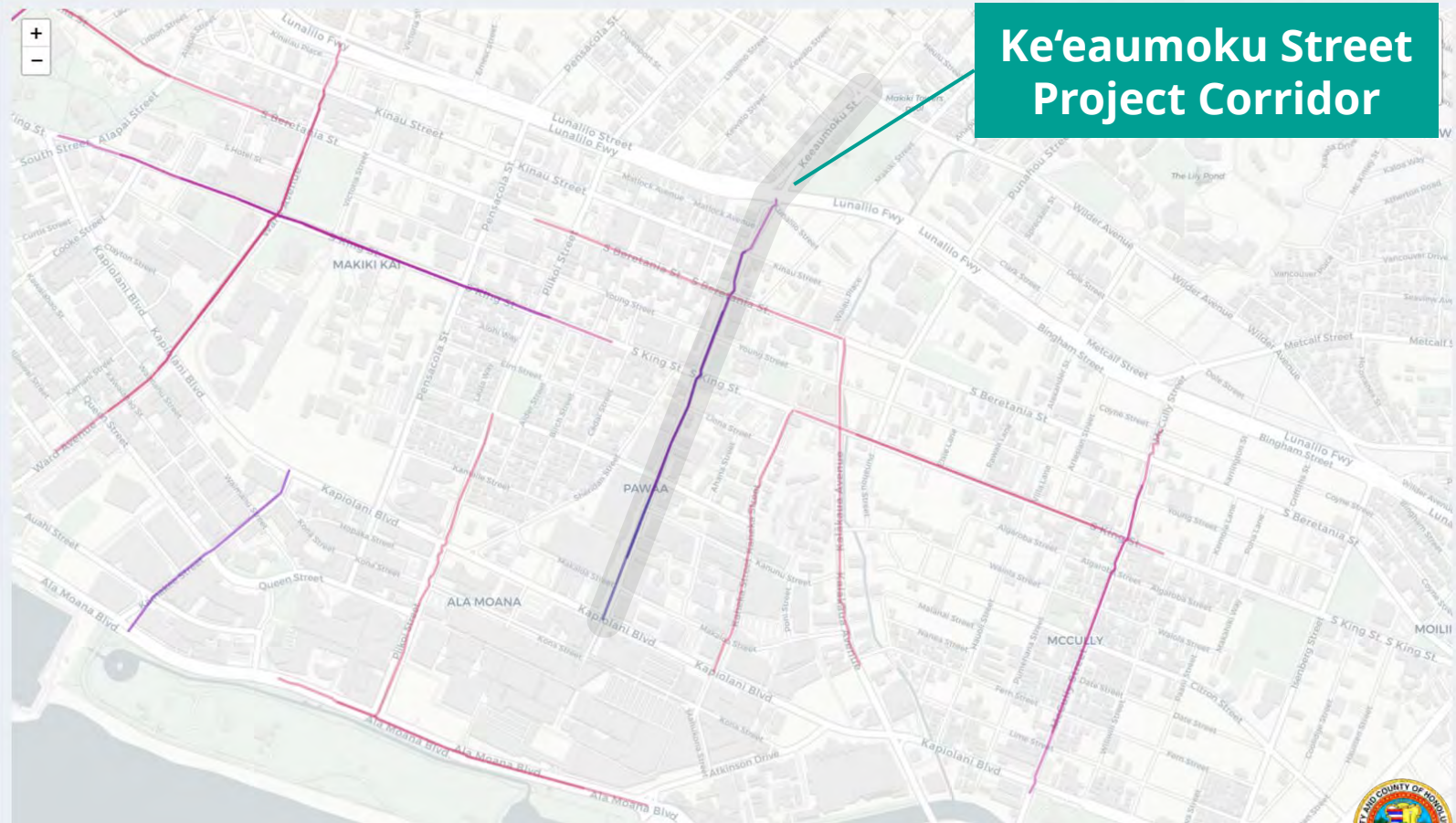
- Pedestrian
- Bicyclist
- Motor

Move the slider below to change the segments or intersections showed in the map

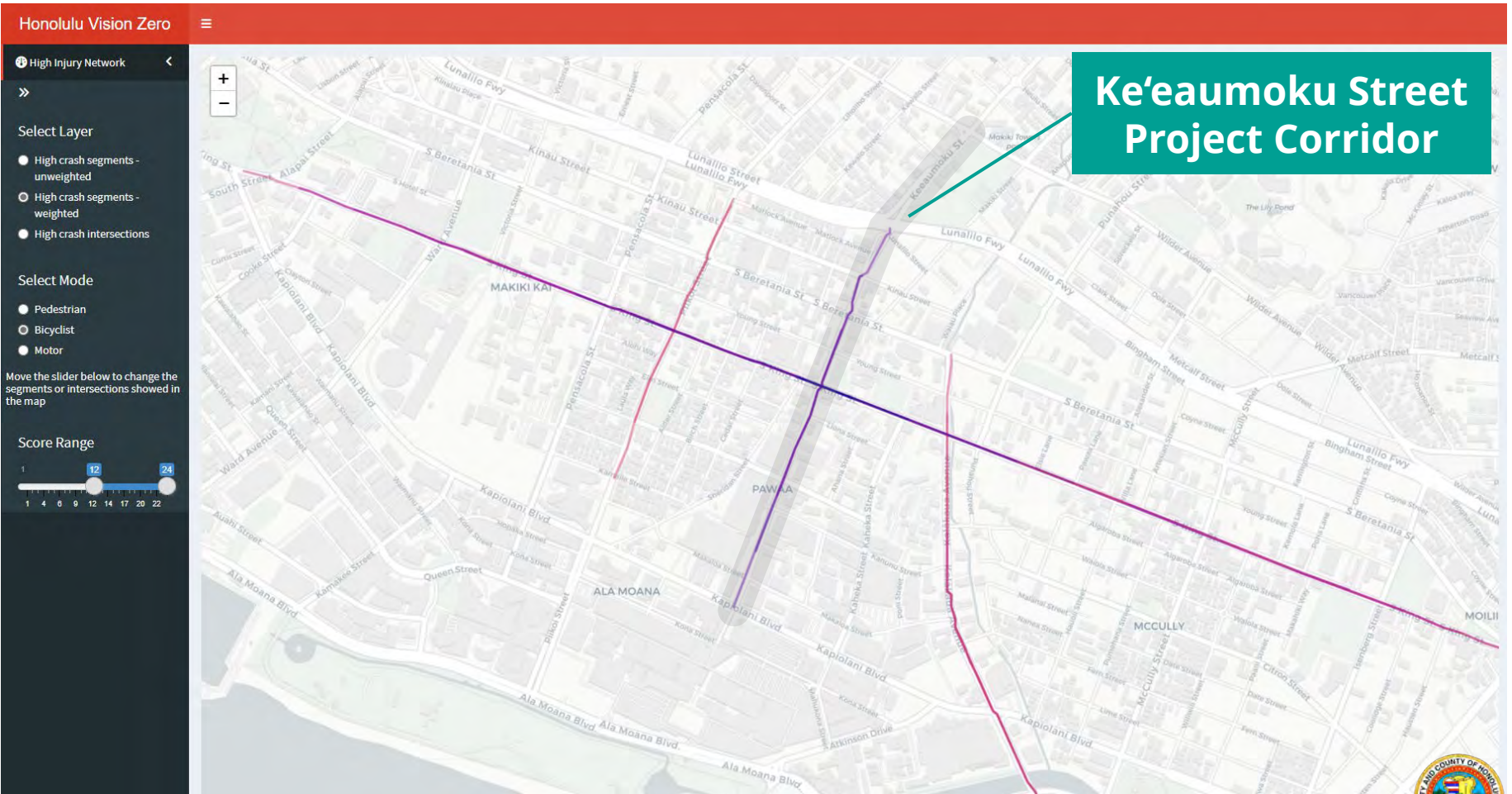
Score Range

1 13 26

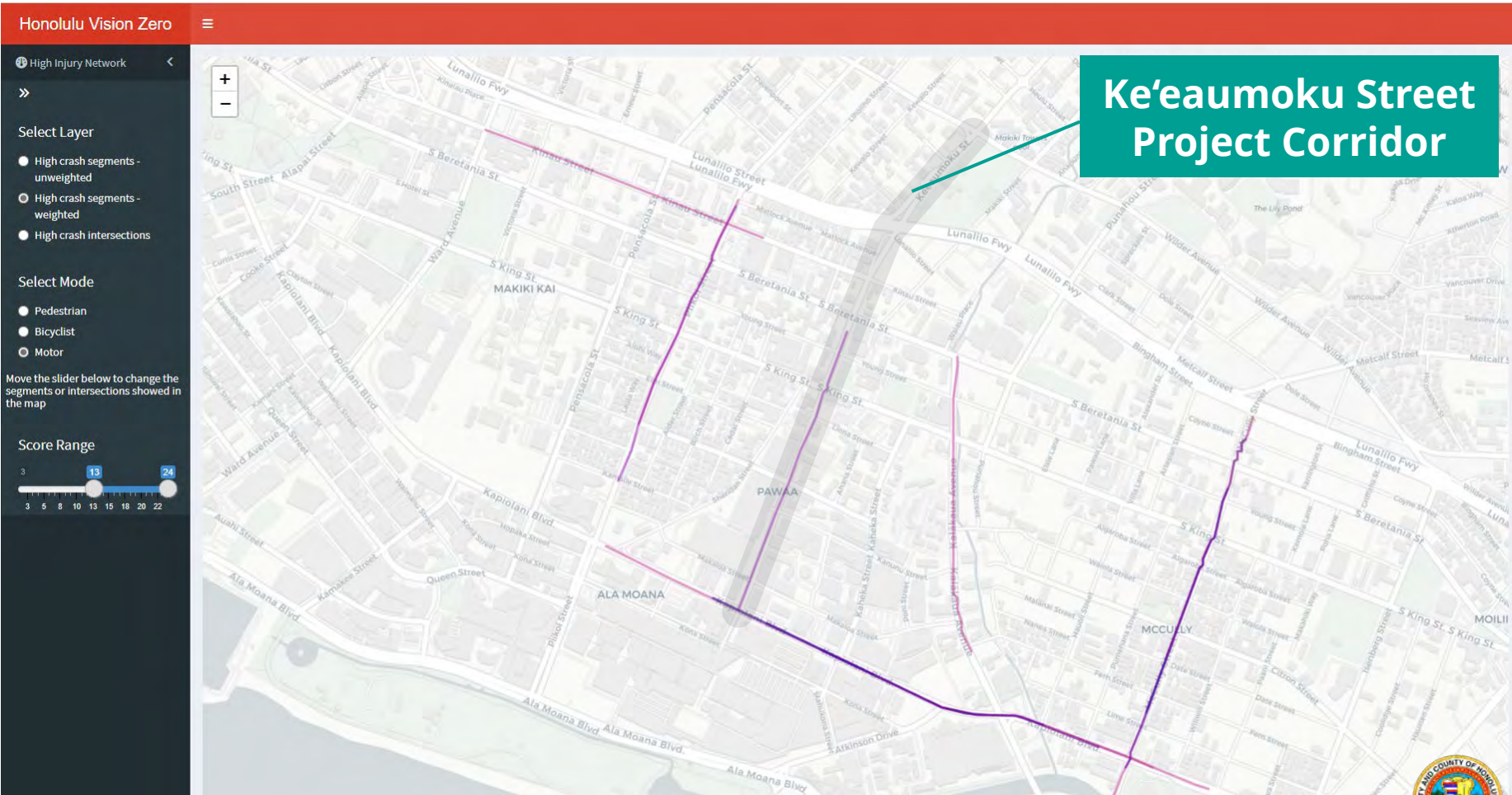
1 4 7 10 13 18 21 24



BICYCLE CRASHES



MOTOR VEHICLE CRASHES



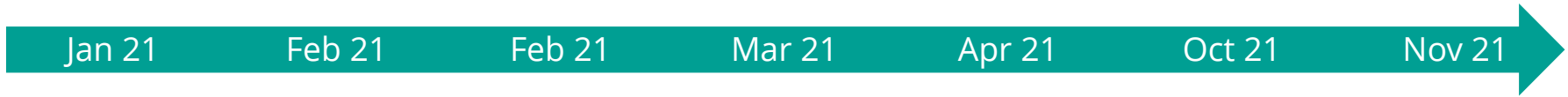
COMMUNITY OUTREACH





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 Charrette
3
Charrettes Stakeholders and City Staff

Stakeholder Preview
15
Community Stakeholders

Community Meeting #1
42
Community Participants



COMMON OUTREACH THEMES

- Turning vehicles often fail to yield to pedestrians
- Improve pedestrian 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

COMMUNITY MEETING #1

Virtual meeting conducted in Nov 2021 followed by a month-long public comment period.

Two preliminary design concepts presented for public feedback:

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.

The majority of participants preferred **Option A**



LIVE POLLING

Did you participate in Community Meeting #1?

Yes

No

IMPROVEMENT TOOLBOX



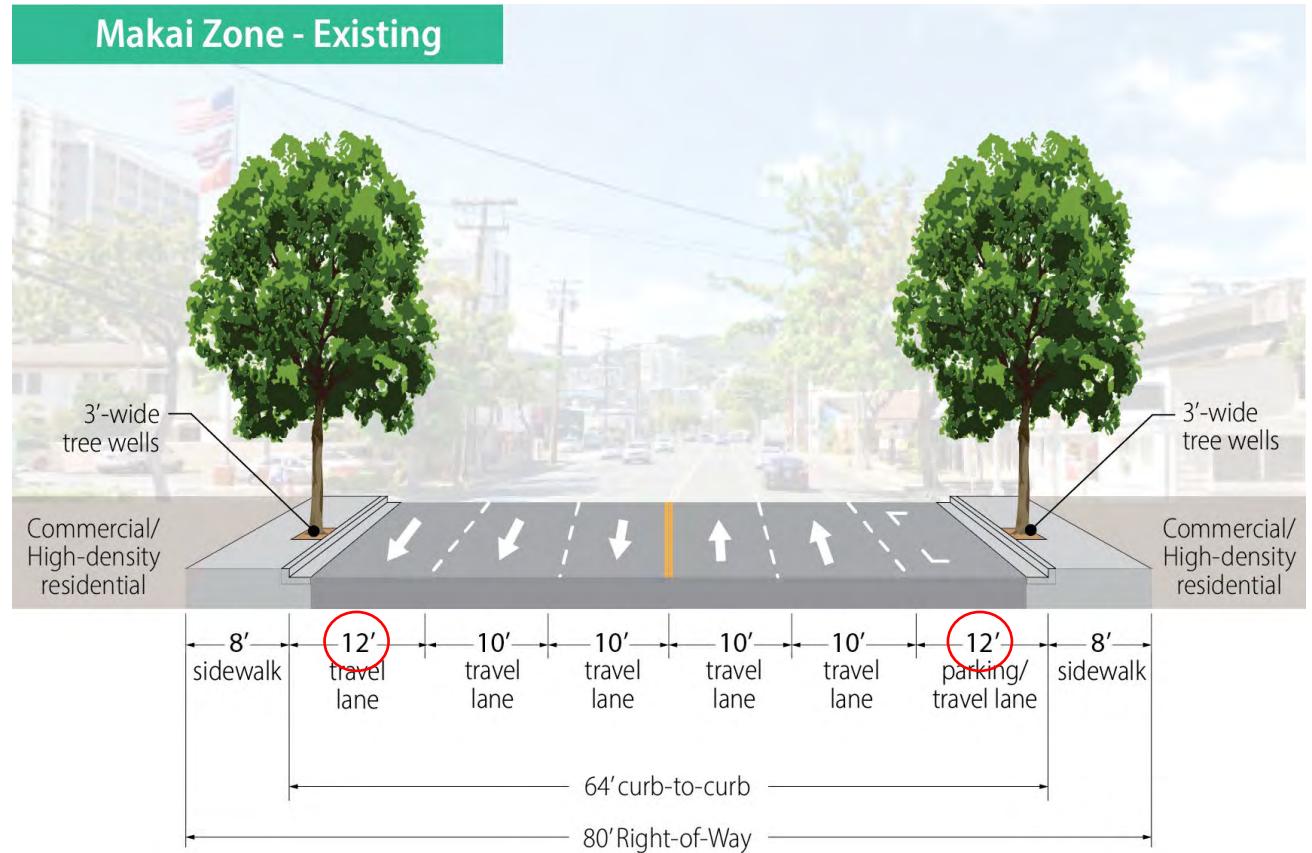
FINDING SPACE FOR COMPLETE STREETS IMPROVEMENTS

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



IMPROVED PEDESTRIAN CROSSINGS

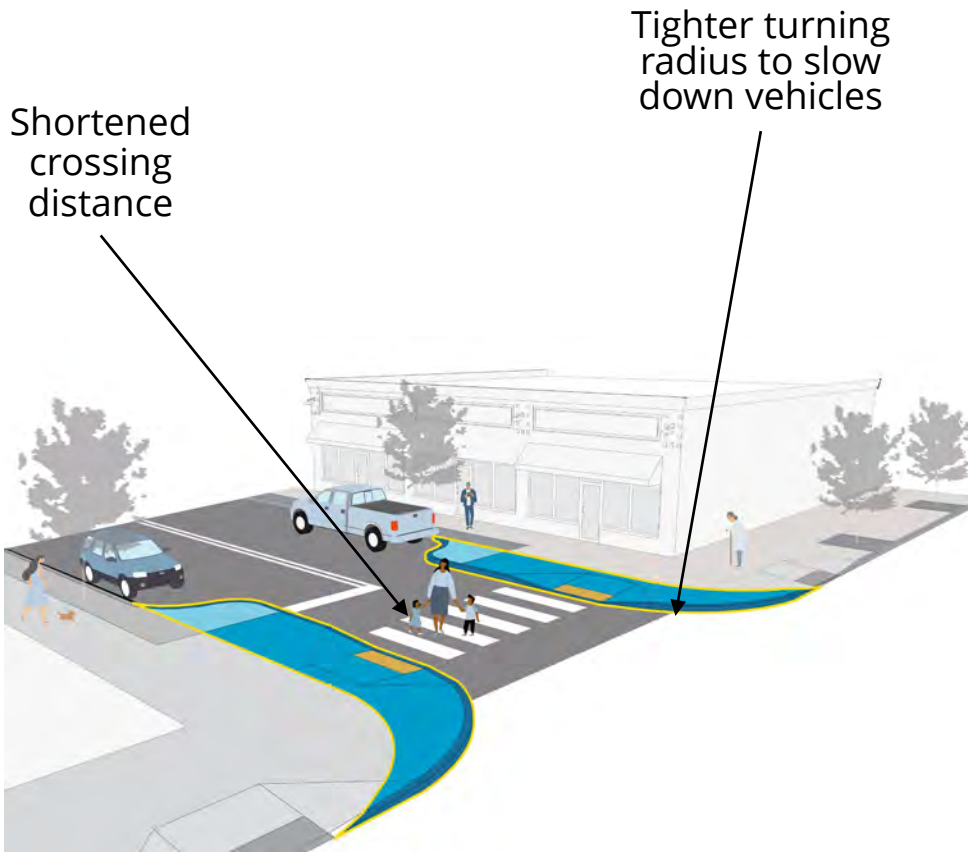
Median
refuge island

Rectangular Rapid
Flashing Beacons
(RRFBs)



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

CURB EXTENSIONS / BULBOUTS

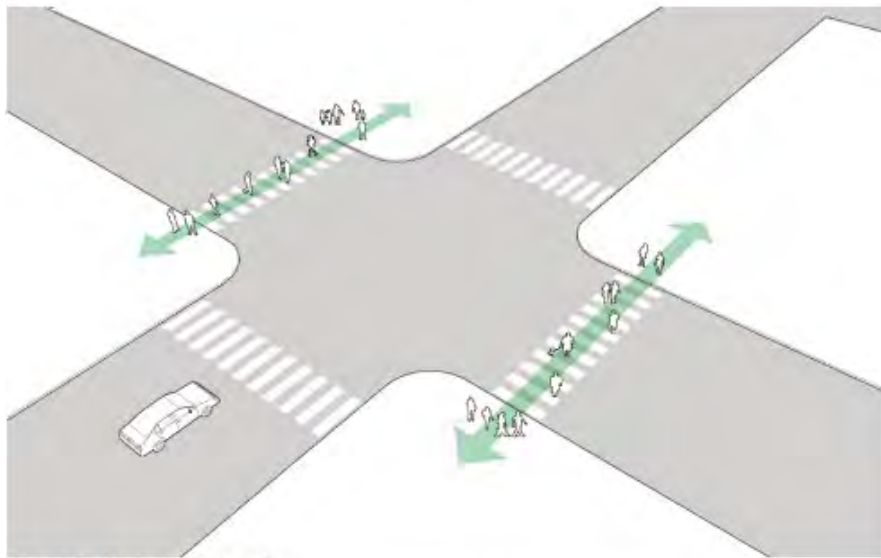


Curb extensions, Wai'alaie Ave.



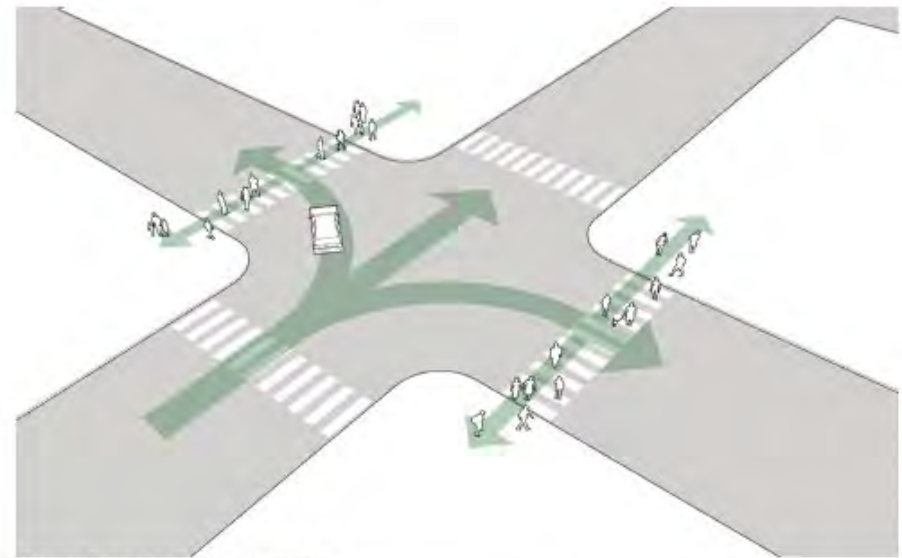
Painted bulbouts, Nu'uaniu Ave.

LEADING PEDESTRIAN INTERVAL



Phase 1: Pedestrians only

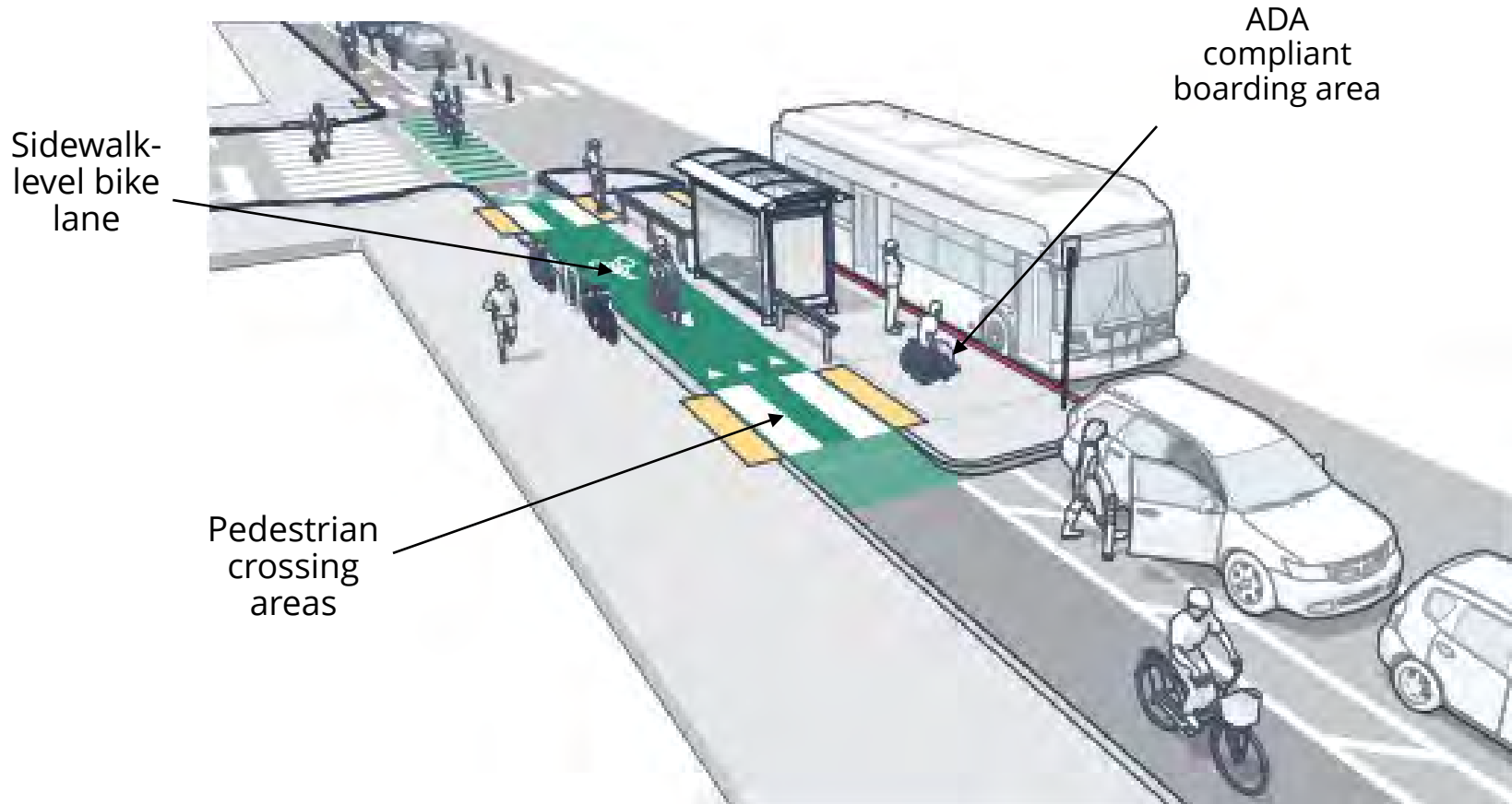
Pedestrians are given a minimum 3–7 second head start entering the intersection.



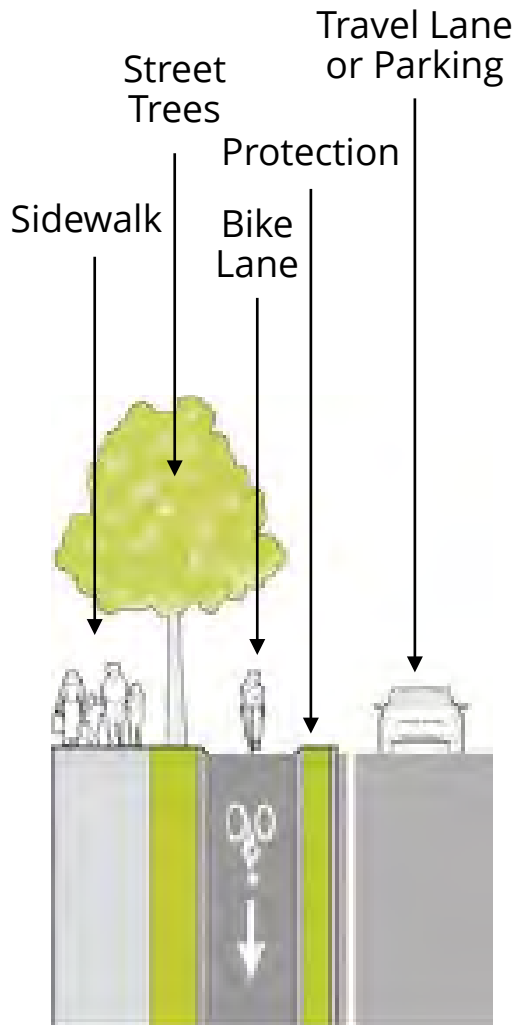
Phase 2: Pedestrians and cars

Through and turning traffic are given the green light. Turning traffic yields to pedestrians already in the crosswalk.

TRANSIT ISLAND



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 CONFLICT ZONE MARKINGS

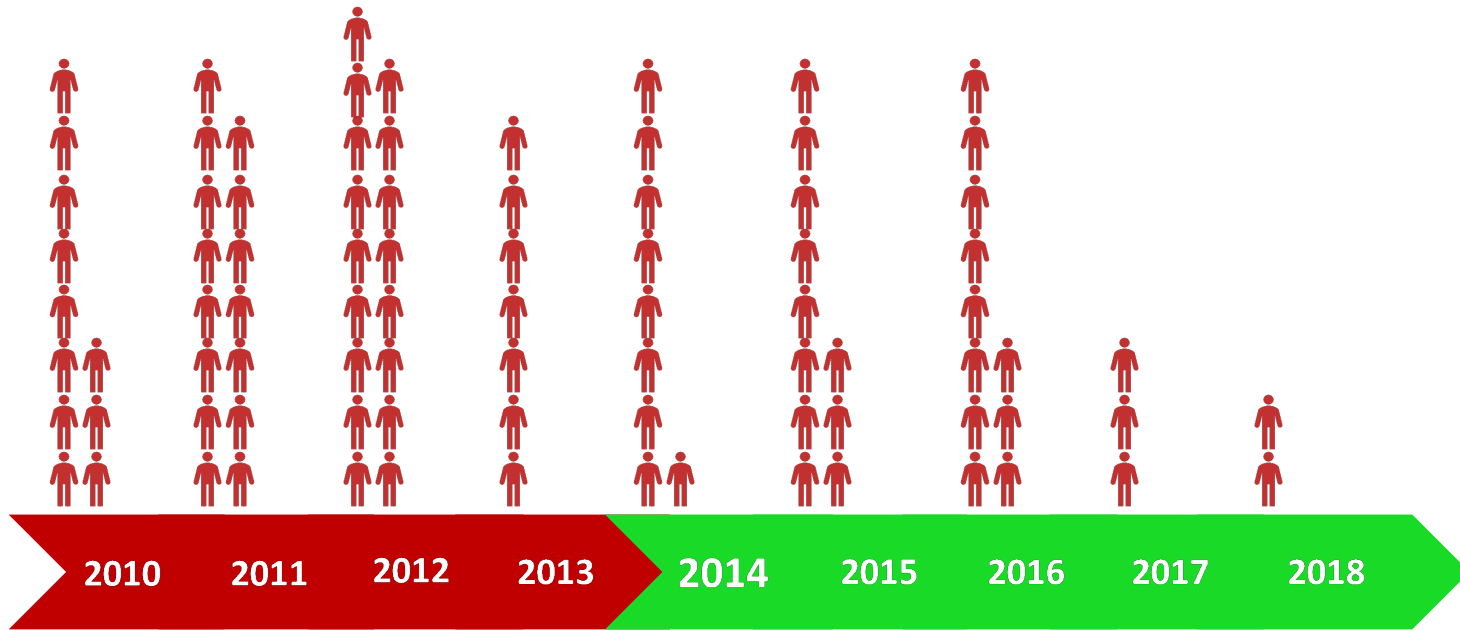


Ward Avenue at King Street

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)

UPDATED DESIGN CONCEPT



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.



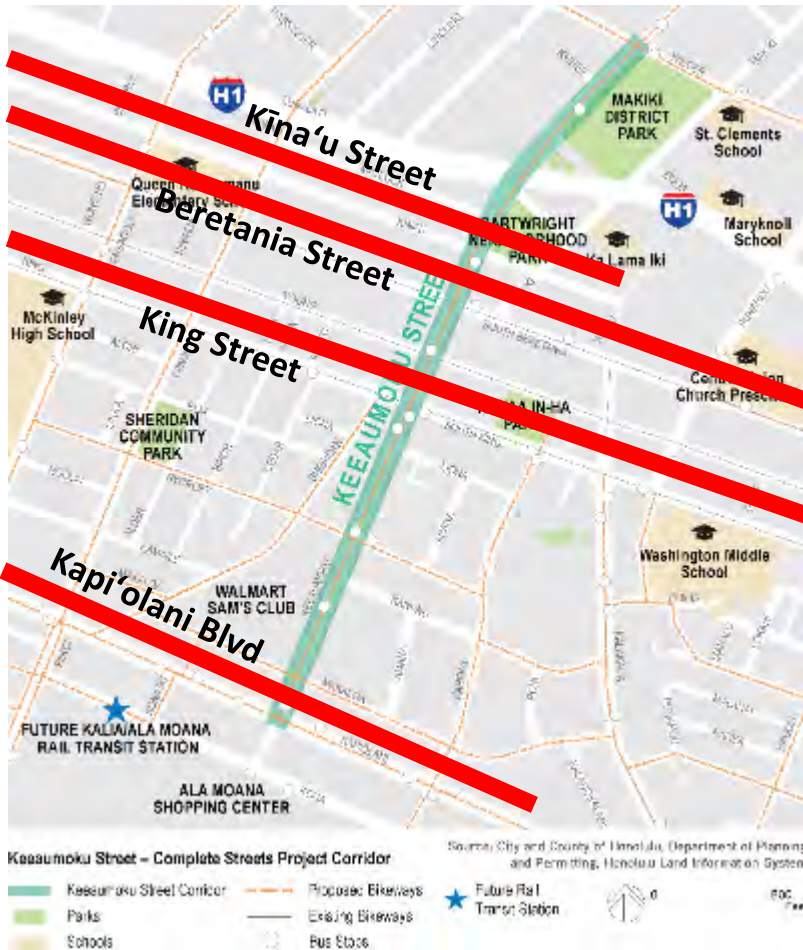
Increase safety and efficiency of vehicle operations.



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

DESIGN CONSTRAINTS

Traffic Signal Timing



Challenge

- Traffic signals along Ke'eaumoku are coordinated on the major E-W corridors (i.e., Kapi'olani, King, Beretania, and Kina'u) to prioritize E-W traffic flow.

Proposed Solution

- Take a phased approach on changes to signal cycle lengths and green time for the coordinated E-W corridors until they can be assessed comprehensively.

Impacts

- Ke'eaumoku is limited to existing green time for the LT movements from Ke'eaumoku onto Beretania and King.
- Using a phased approach, adjustments could be made at those intersections as those corridors are studied/improved.

DESIGN CONSTRAINTS

Traffic Signal Infrastructure

Kapi'olani BLVD - MAUKA BOUND



Kapi'olani BLVD - MAKAI BOUND



Challenge

- Traffic signal infrastructure is dated (e.g., mostly pedestal or streetlight mounted) and signal improvements would greatly expand the scope/cost of the project.
- The cost to replace signal infrastructure at one intersection is estimated at \$1 million. There are 9 signalized intersections along the project corridor.

Proposed Solution

- Upgrade the signal at the Kapi'olani Intersection (required for the proposed mauka bound left turn).
- Postpone changes to movements/timings/protection at the other signalized intersections to align with future signal infrastructure upgrades.

Impacts

- Bike signals and protected-only left turns were removed from consideration.



FIGURE 1A

KEEAUMOKU STREET CORRIDOR
AM QUEUE COMPARISON

DESIGN CONSTRAINTS

Vehicle Traffic Volumes

Challenge

- Vehicle traffic volumes are already high on Ke'eaumoku at peak travel hours. New developments will add additional traffic.

Proposed Solution

- Prioritize safety improvements where they are most needed.
- To the extent possible, minimize potential impacts to vehicular traffic.

Impacts

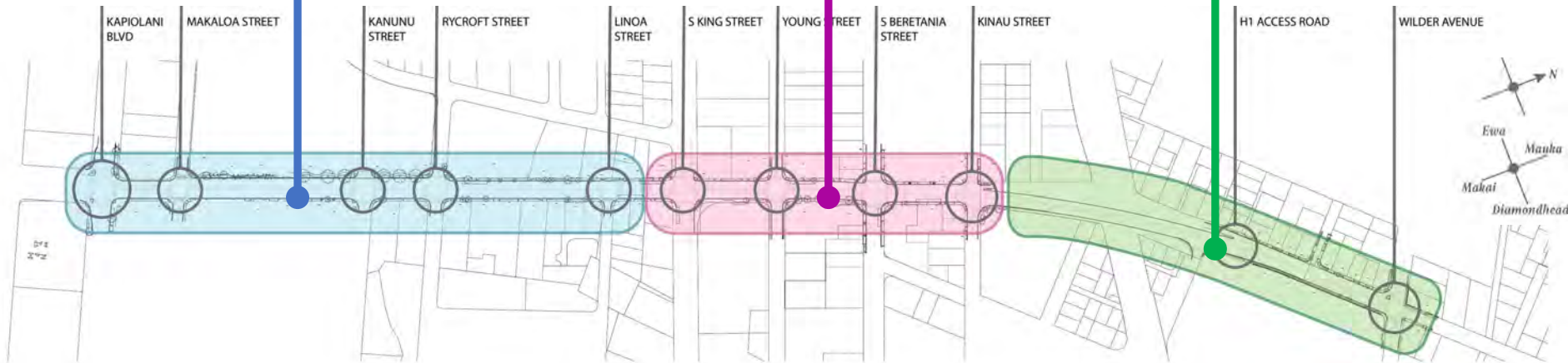
- Increased travel times for vehicular users (i.e., approximately 1 – 3 minutes at peak travel hours for cars traveling the whole corridor [Kapi'olani to Wilder]).
- Improved safety for all roadway users.

CHARACTER ZONES

Makai Zone
Kapi'olani to King

Middle Zone
King to Kīna'u

Mauka Zone
Kīna'u to Wilder



MAKAI CHARACTER ZONE



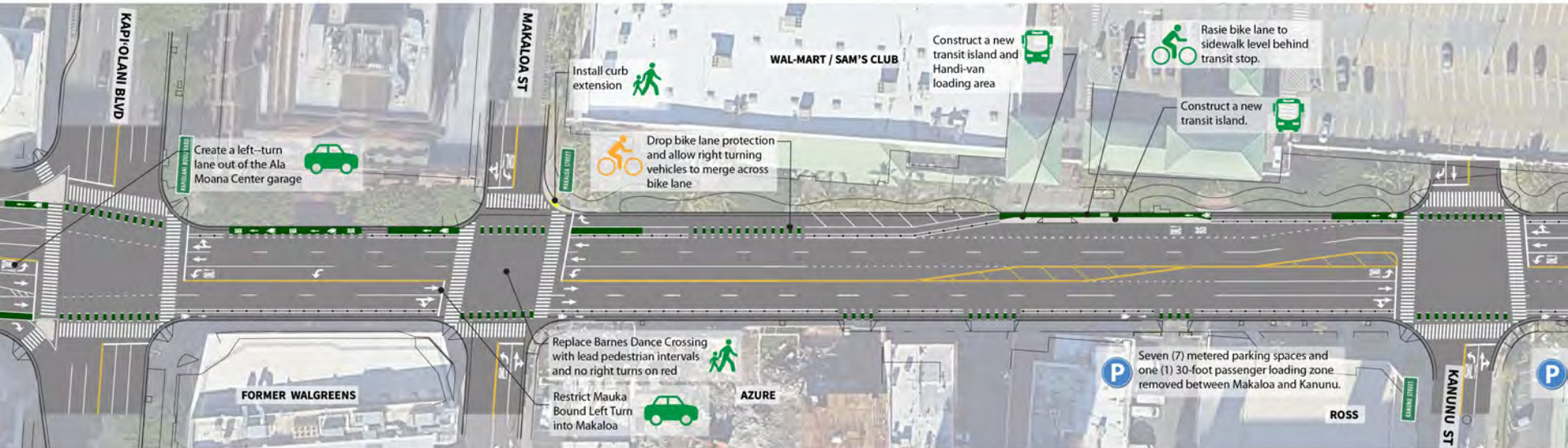
Makai Zone - Existing



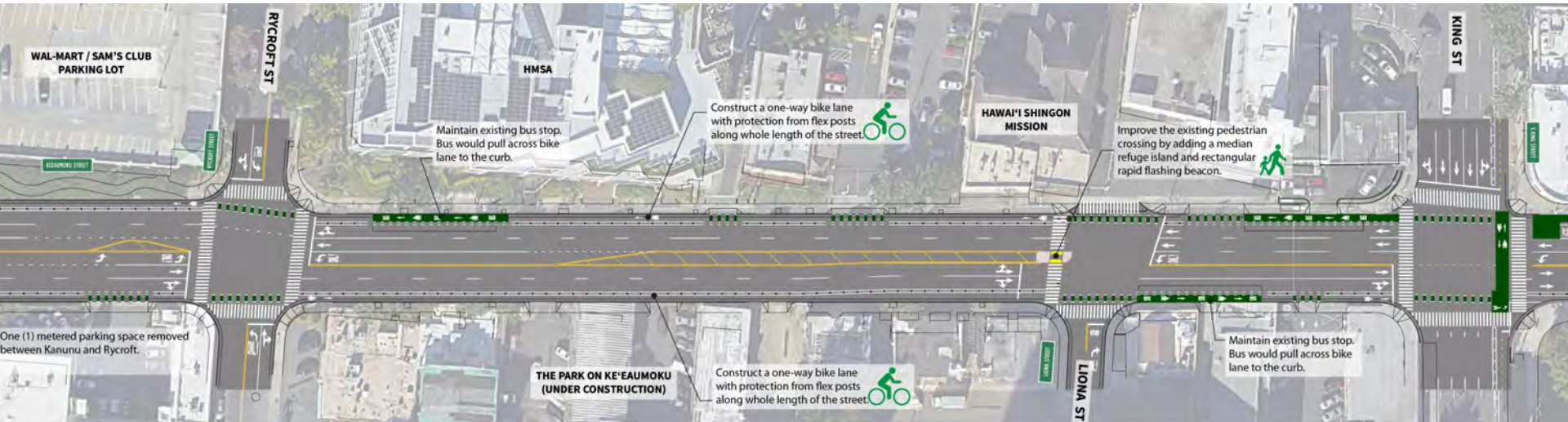
Makai Zone - Proposed



KAPI'OLANI TO KANUNU



KANUNU TO KING



MAKAI ZONE

Improvements considered but not carried out at this time

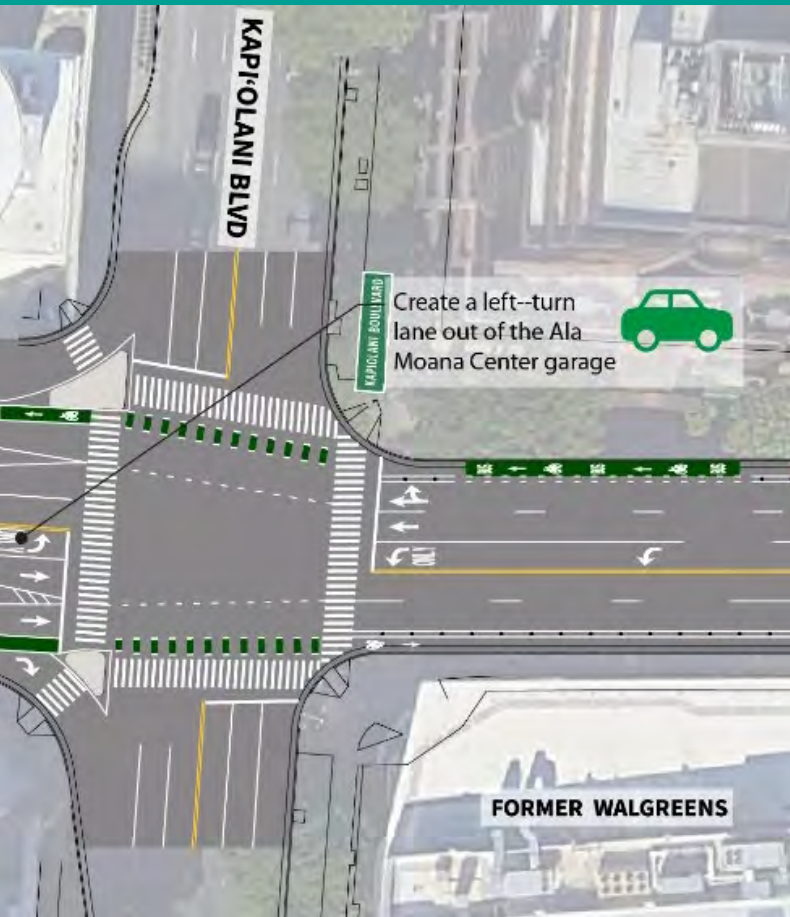
Improvement	Reason for dismissal
Kapi'olani Barnes Dance Crossing	<ul style="list-style-type: none">• Long pedestrian wait times• Traffic modelling indicated significant traffic operations impacts
New midblock crossings	<ul style="list-style-type: none">• Design challenges associated with transit stop and driveways near Wal-Mart.• Community priority to improve pedestrian crossings at unsignalized intersection (i.e., Liona)
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

ZOOM POLLING

Kapi'olani to King

KAPI'OLANI BOULEVARD LEFT TURN

The updated design concept includes a new left turn onto Kapi'olani coming out of Ala Moana Center. How do you feel about this proposed change?



Advantages for adding new left turn:

- H-1 bound traffic can access other mauka-makai connections (i.e., Piikoi)
- Reduces mauka-bound traffic to two thru lanes

Disadvantages for adding new left turn:

- Requires signal infrastructure upgrades
- One less lane going straight out of Ala Moana Center

MAKALOA BARNES DANCE CROSSING



Photo Credit: Dept. Transportation Services

Challenge

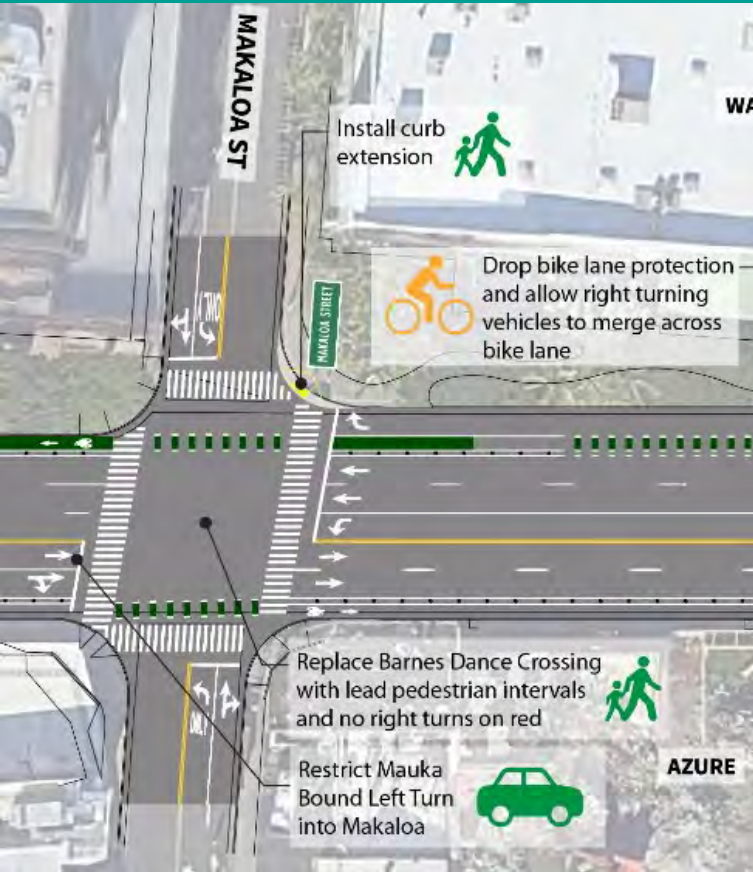
The traffic model indicates that vehicle capacity at the Makaloa Street Barnes Dance Crossing will be exceeded in the base year (2035) with or without the proposed Complete Streets improvements.

Possible Solution

Replace the Barnes Dance with “no right turn on red” and three-second leading pedestrian intervals for all legs.

MAKALOA STREET BARNES DANCE

The updated design concept proposes to replace the existing Barnes Dance Crossing at Makaloa Street with Leading Pedestrian Intervals and "No Right Turn on Red." Do you support this proposed change?



Advantages for replacing the Barnes Dance:

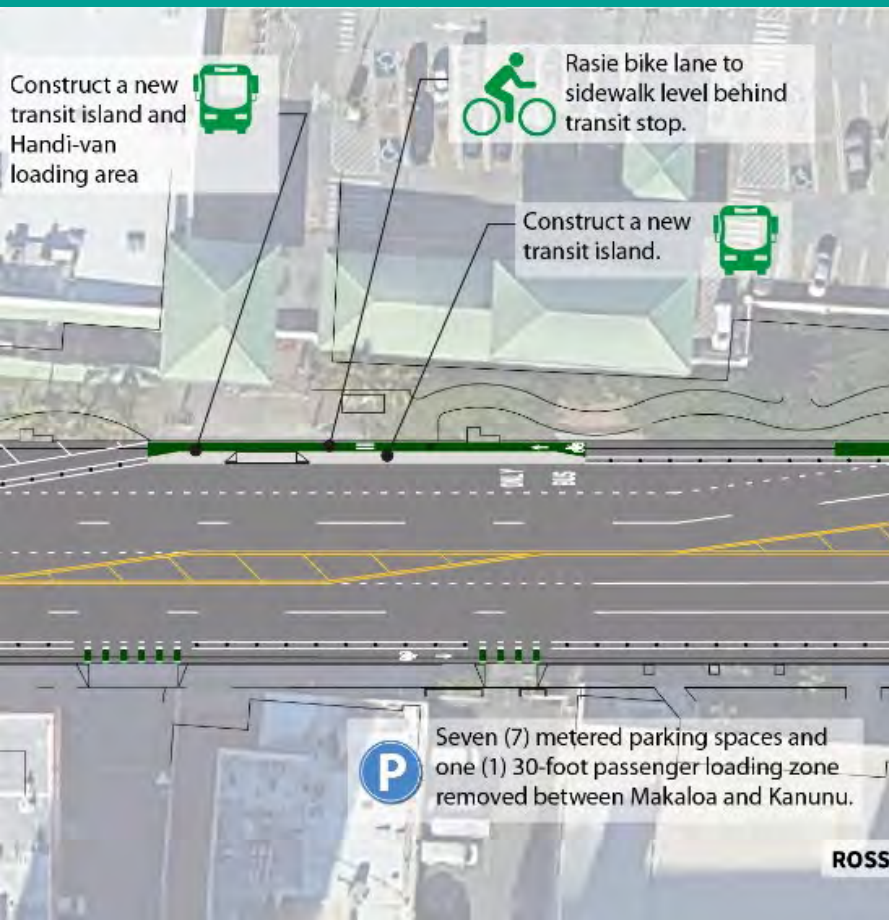
- Increased driver and pedestrian compliance
- Decreases wait time for pedestrians crossing one direction
- Improved vehicle traffic operations, especially once future developments are completed
- The Barnes Dance creates complications for visually impaired community members

Disadvantages for replacing the Barnes Dance:

- No diagonal crossing
- It would remove the fully dedicated pedestrian phase
- Higher risk of pedestrian/vehicle conflict

WAL-MART TRANSIT ISLAND

The updated design concept includes a new transit island near Wal-Mart. How do you feel about this proposed change?

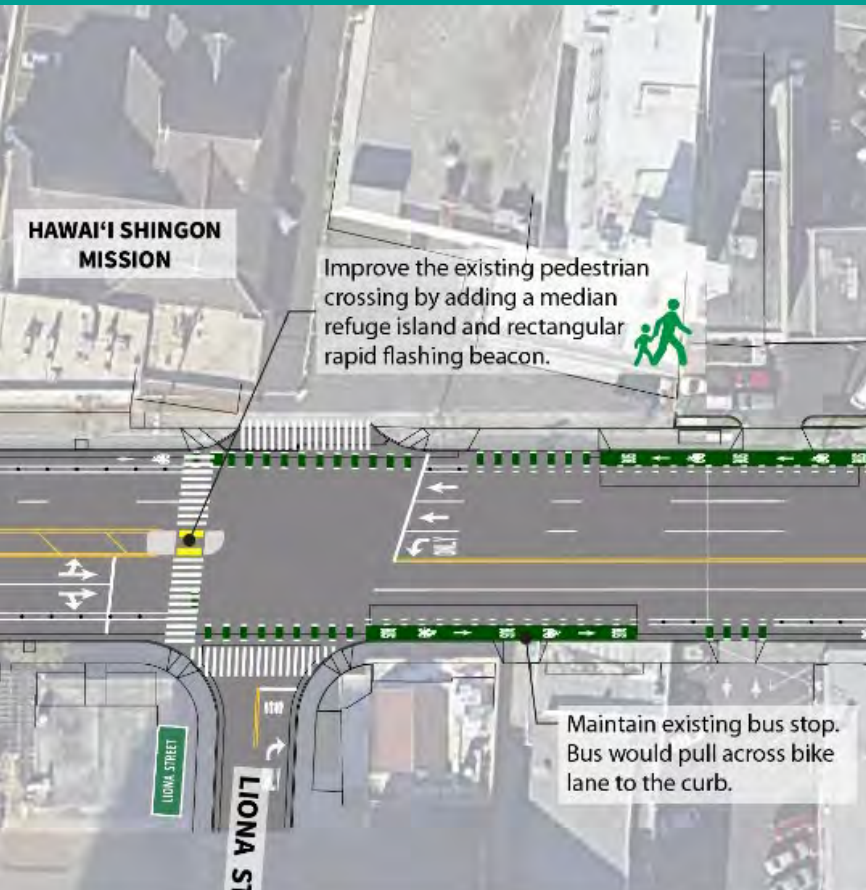


Additional information

- The Bus and The Handi-Van would have a dedicated space to stop (i.e., not blocking a travel lane)
- The bike lane would be raised to sidewalk level between the sidewalk and transit island.
- Bikes would be required to yield to pedestrians

LIONA STREET PEDESTRIAN CROSSING

The updated design concept includes pedestrian crossing improvements at Liona Street (i.e., pedestrian crossing island and rectangular rapid flashing beacon). How do you feel about this proposed change?

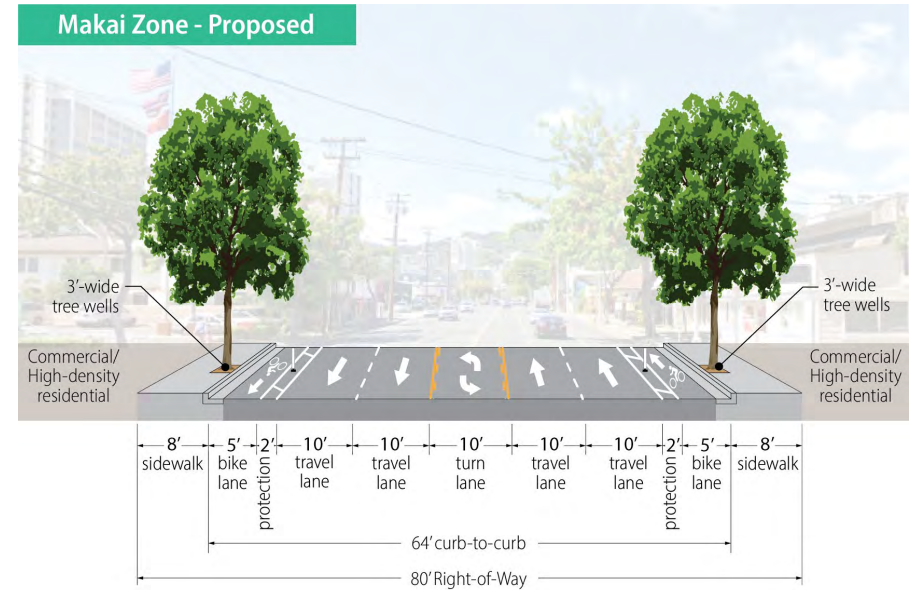


Additional information

- Replaces an existing unsignalized crosswalk across six lanes of traffic
- Existing mauka leg of crosswalk would be removed
- Paired with a new left turn only lane onto Liona Street

PROTECTED BIKE LANES MAKAI ZONE

The updated design concept includes protected bike lanes in the makai zone.
How do you feel about this proposed change?



Additional information

- Reduction from six to five vehicle travel lanes
- Requires removal of eight peak hour restricted parking stalls in the makai zone

CONCEPT DESIGN FOR MAKAI ZONE

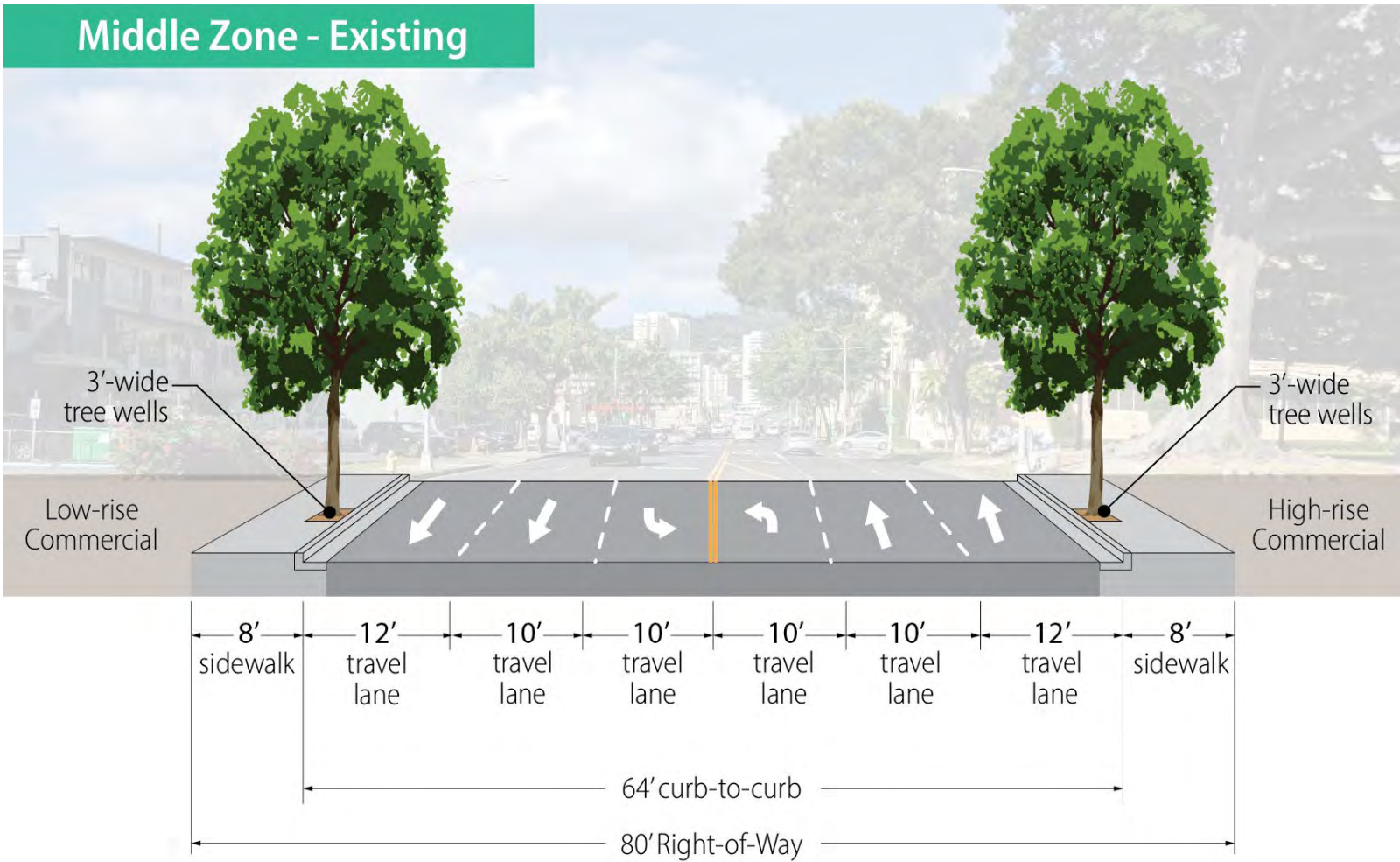
In general, how do you feel about the updated design concept for the makai zone?



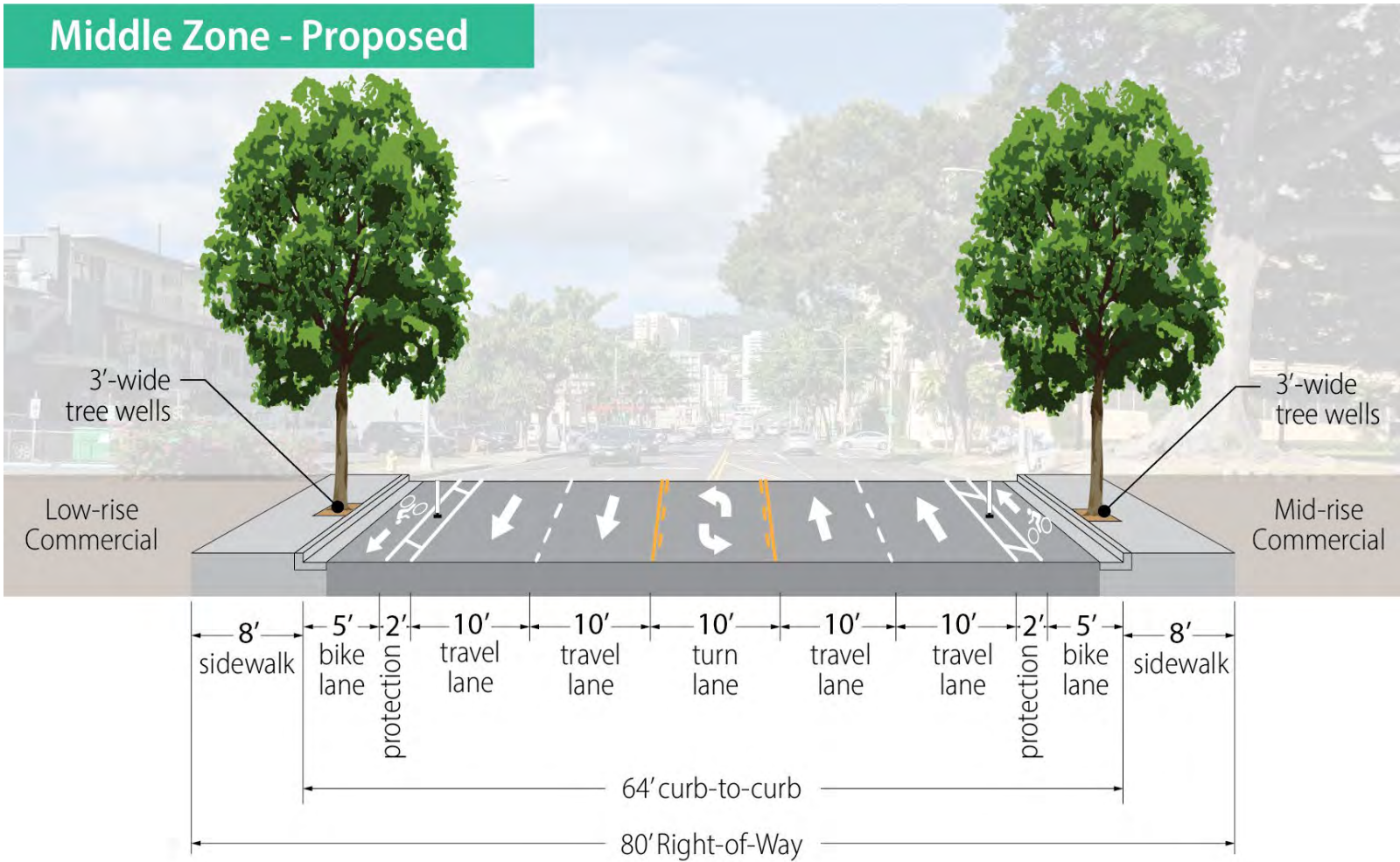
MIDDLE CHARACTER ZONE

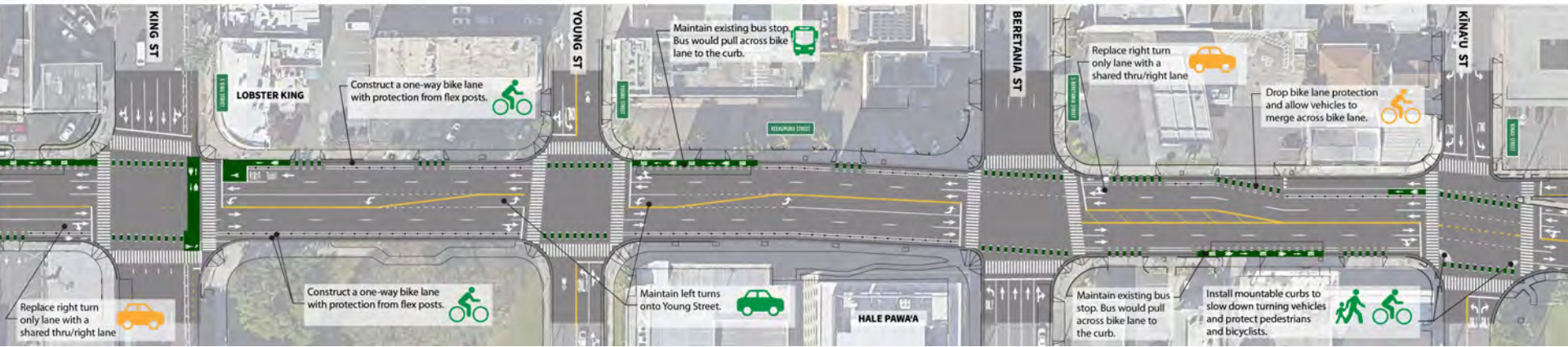


Middle Zone - Existing



Middle Zone - Proposed





KING TO KĪNA'U

Challenge

- Short blocks and high vehicle turning volumes.

Proposed Solution

- Maintain left turns onto Young St. and at King and Beretania.
- Remove right turn only lanes at King (mauka bound) and Beretania (makai bound).

Impacts

- Reduced queue storage for left turning vehicles at King (makai bound) and Beretania (mauka bound).
- Shared thru/right turn lanes at King (mauka bound) and Beretania (makai bound).

DESIGN IMPROVEMENTS CONSIDERED BUT NOT CARRIED FORWARD AT THIS TIME

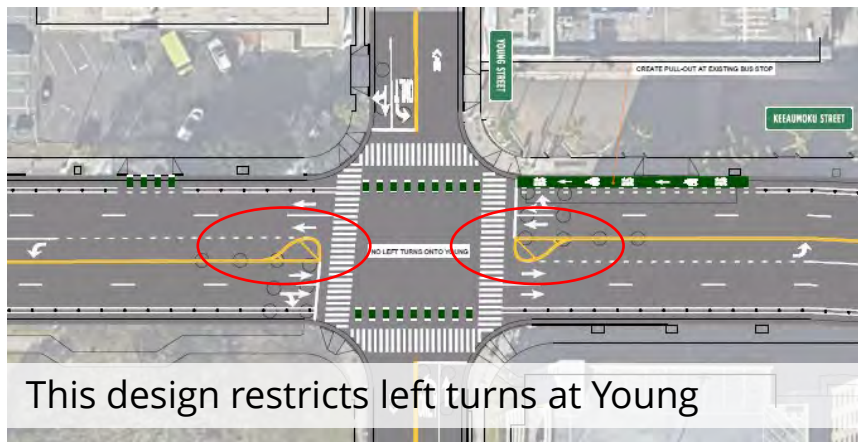
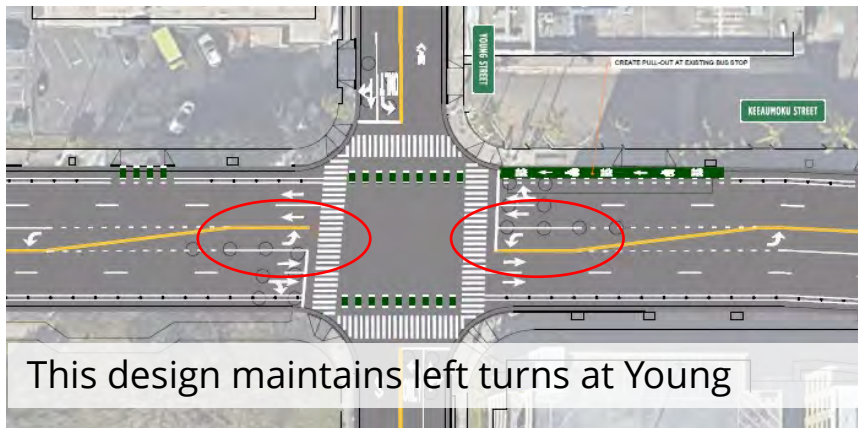
Improvement	Reason for dismissal
4 Lane Cross Section from Beretania – King	<ul style="list-style-type: none"> Traffic modelling indicated significant traffic operations impacts
Dedicated bicycle signals and protected-only left turn phasing	<ul style="list-style-type: none"> Significant traffic operations impacts due to signal timing on major east-west corridors (i.e., Kapi'olani, King, Beretania, and Kīna'u) Requires full signal infrastructure replacement, which is outside the scope of this resurfacing/rehabilitation project.
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

ZOOM POLLING

King to Kīna'u

YOUNG STREET

Do you prefer to maintain left turns at Young Street?



Advantages for maintaining left turns:

- Access - Vehicles will continue to have access to Young St. from Ke'eaumoku St.

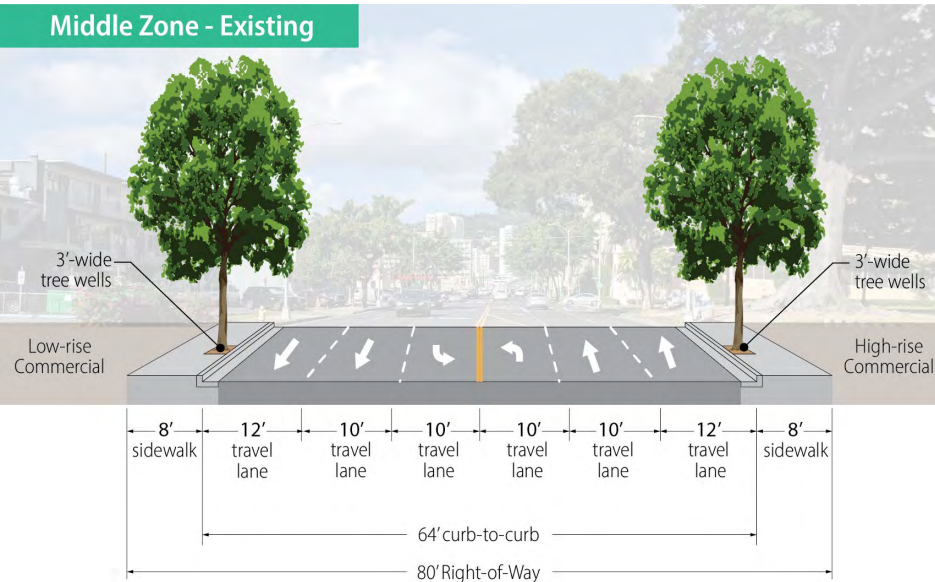
Disadvantages for maintaining left turns:

- Safety - Left turning vehicles must yield to oncoming traffic, bikes, and pedestrians.
- Traffic operations - Less queuing space for Beretania and King St. left turns.

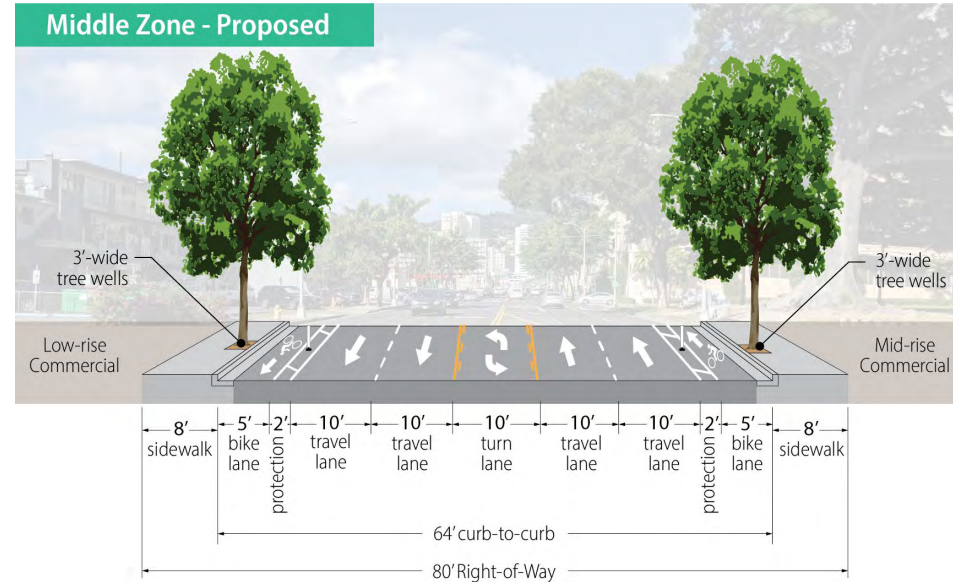
PROTECTED BIKE LANES MIDDLE ZONE

The updated design concept includes protected bike lanes in the middle zone. How do you feel about this proposed change?

Middle Zone - Existing



Middle Zone - Proposed

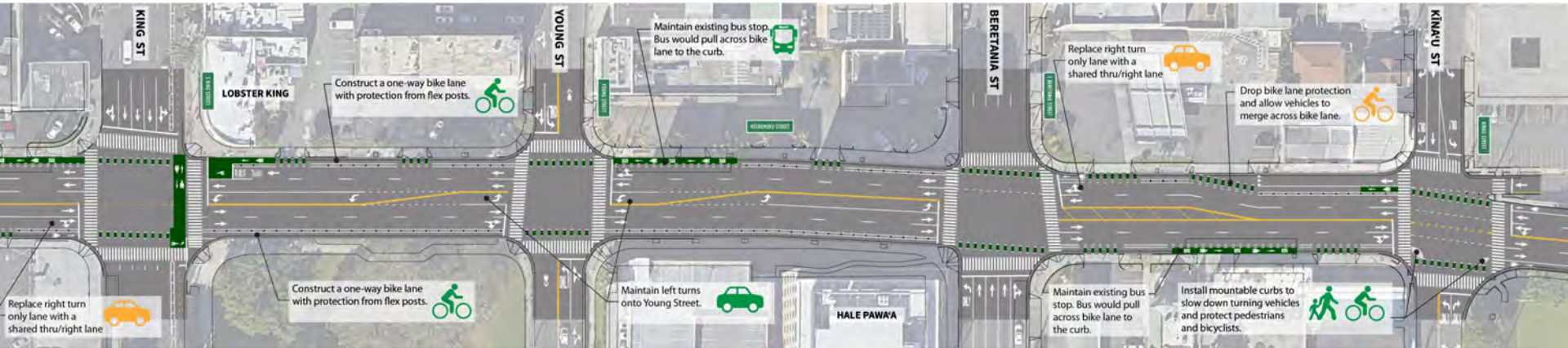


Additional information

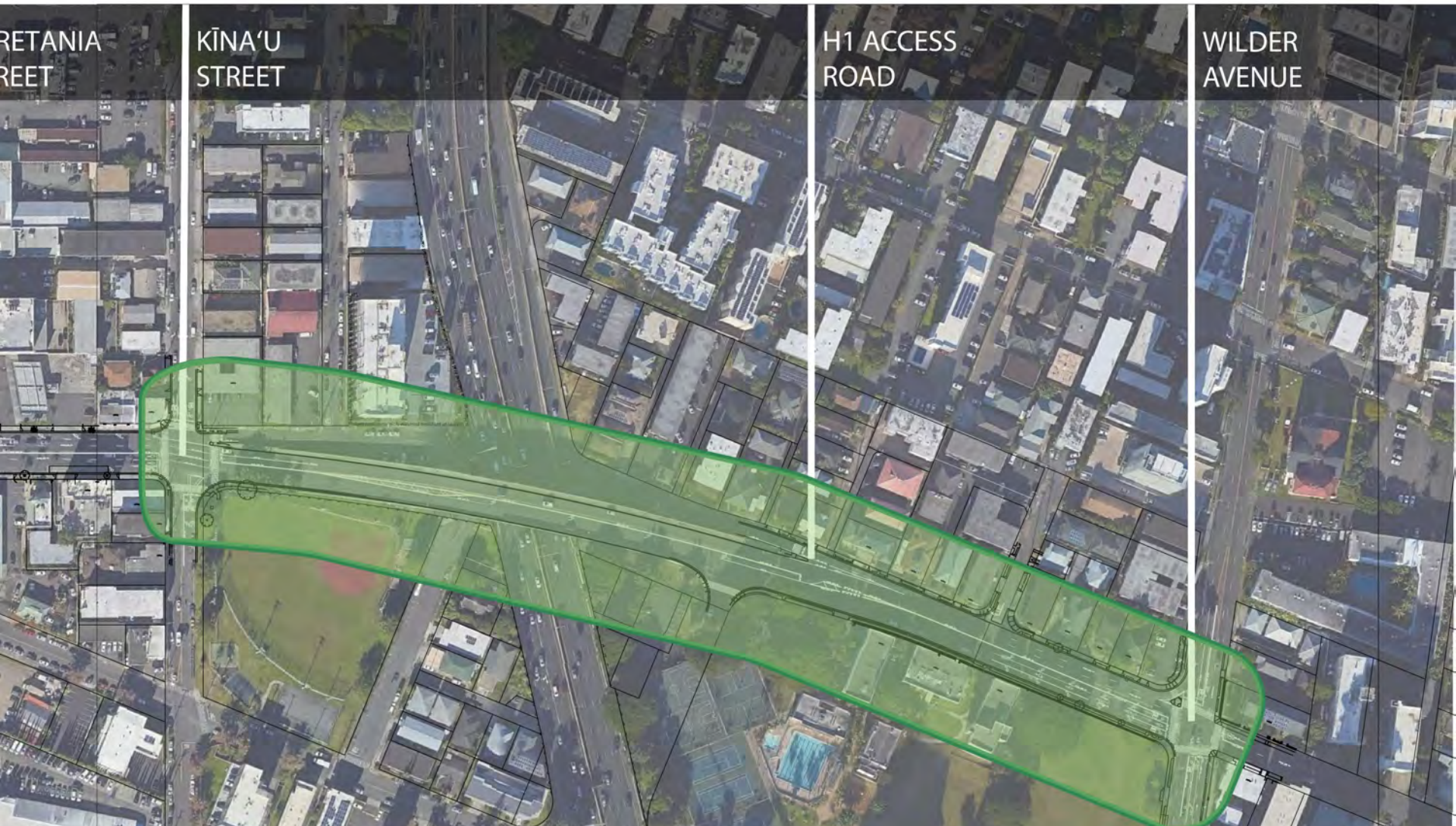
- Reduction from six to five vehicle travel lanes
- Requires removal of right turn only lanes at King (mauka bound) and Beretania (makai bound)
- Requires removal of peak-hour restricted parking between Kīna'u and Beretania

CONCEPT DESIGN FOR MIDDLE ZONE

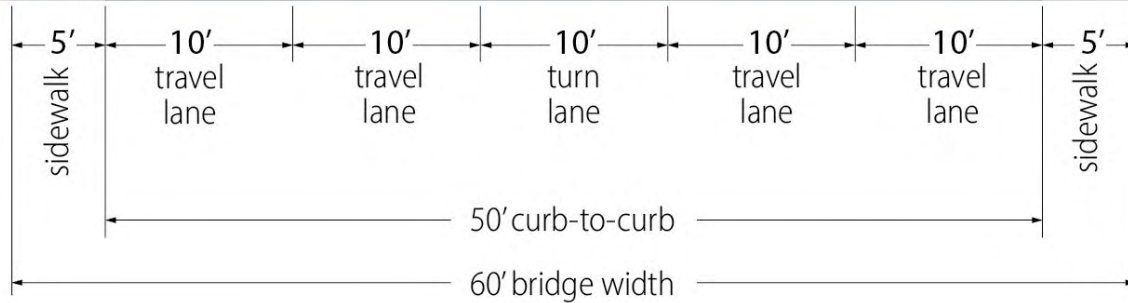
In general, how do you feel about the proposed design concept for the middle zone?



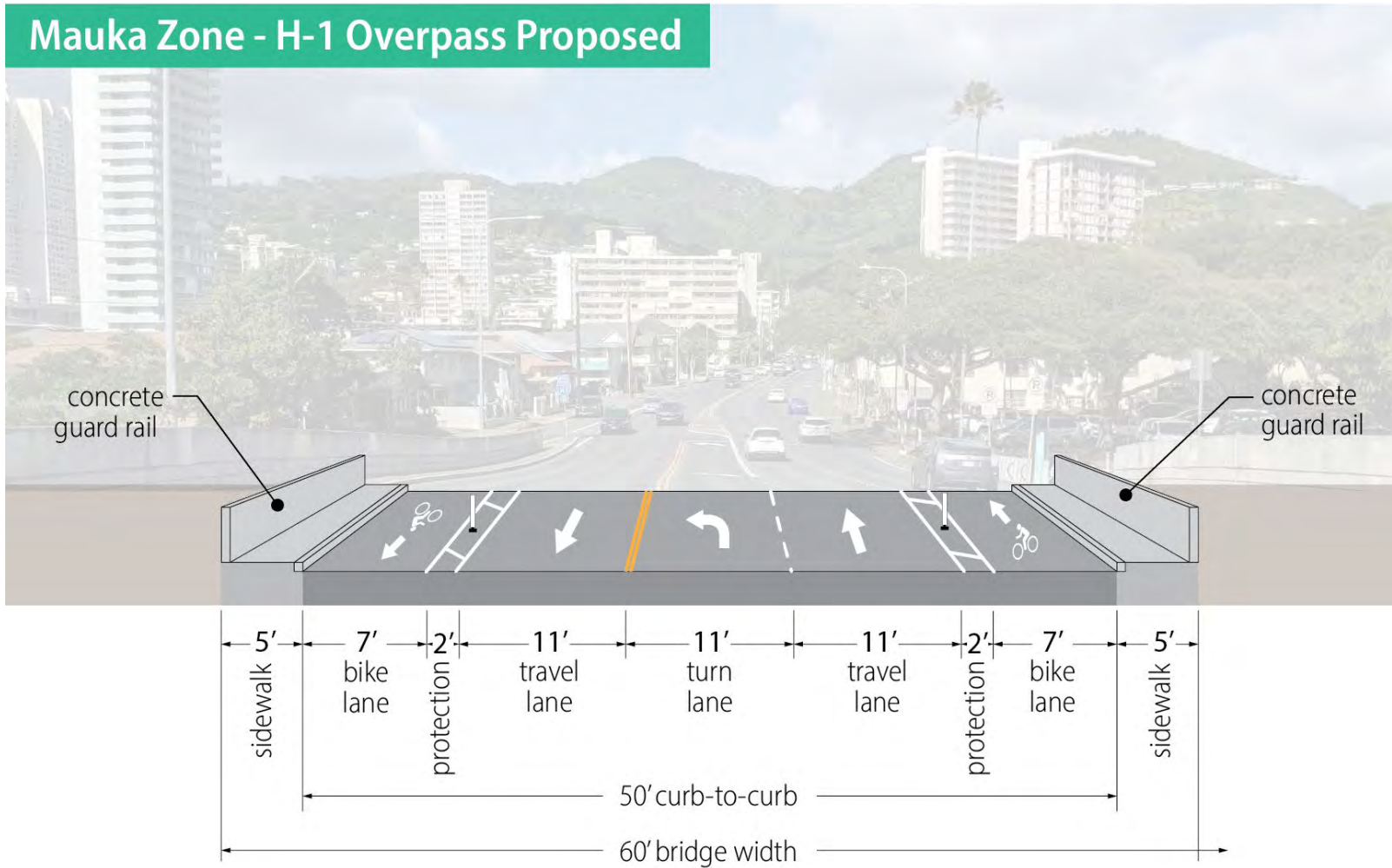
MAUKA CHARACTER ZONE



Mauka Zone - H-1 Overpass Existing



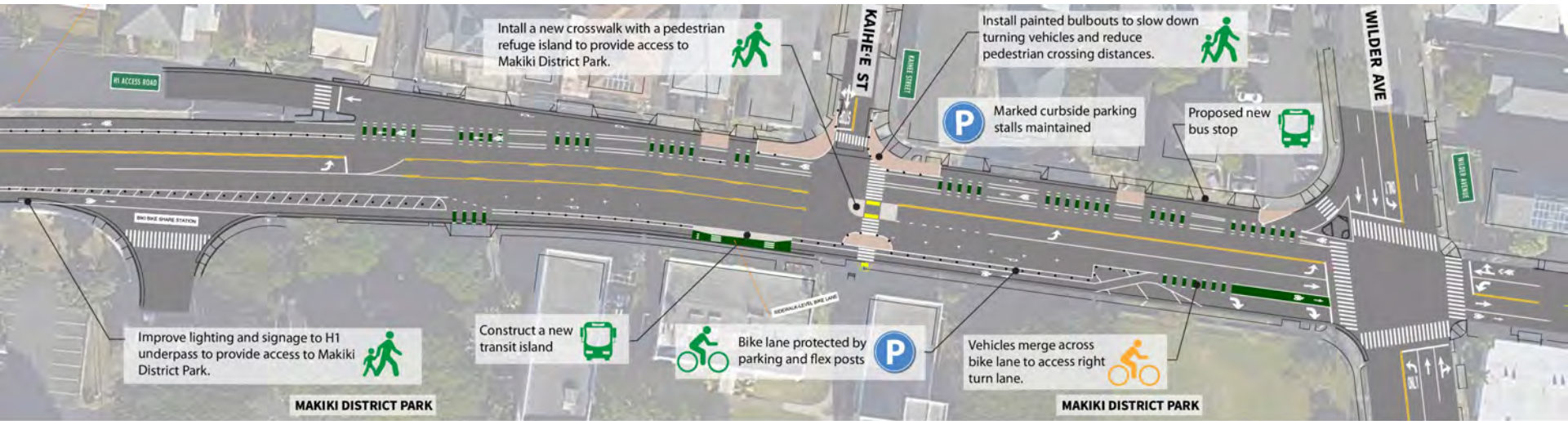
Mauka Zone - H-1 Overpass Proposed



KĪNA'U TO H-1 OVERPASS



H-1 OVERPASS TO WILDER



IMPROVEMENTS CONSIDERED BUT NOT CARRIED FORWARD AT THIS TIME

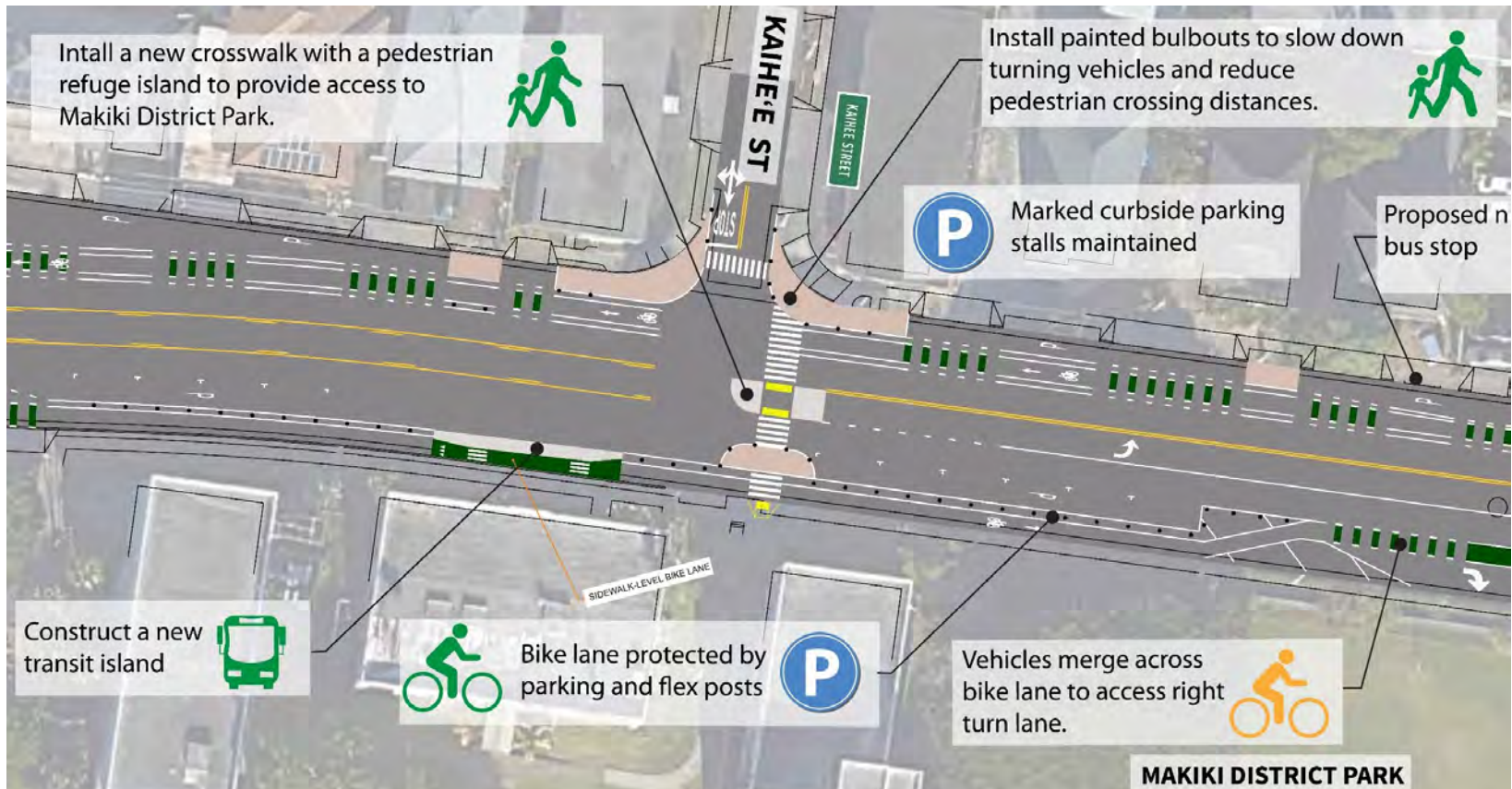
Improvement	Reason for dismissal
Sidewalk expansion over H-1 Overpass	<ul style="list-style-type: none"> • Wide sidewalk may encourage bicyclists to use the sidewalk, leading to increased conflict with pedestrians • Adding a bike lane will provide a buffer between pedestrians and vehicles
2-way Protected 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
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.
New pedestrian crossing at the Lunalilo St. U-turn	<ul style="list-style-type: none"> • Design/safety challenges locating a pedestrian crossing near the U-turn. • Community priority to improve pedestrian crossings at Kaihe'e St.

ZOOM POLLING

Kīna'u to Wilder

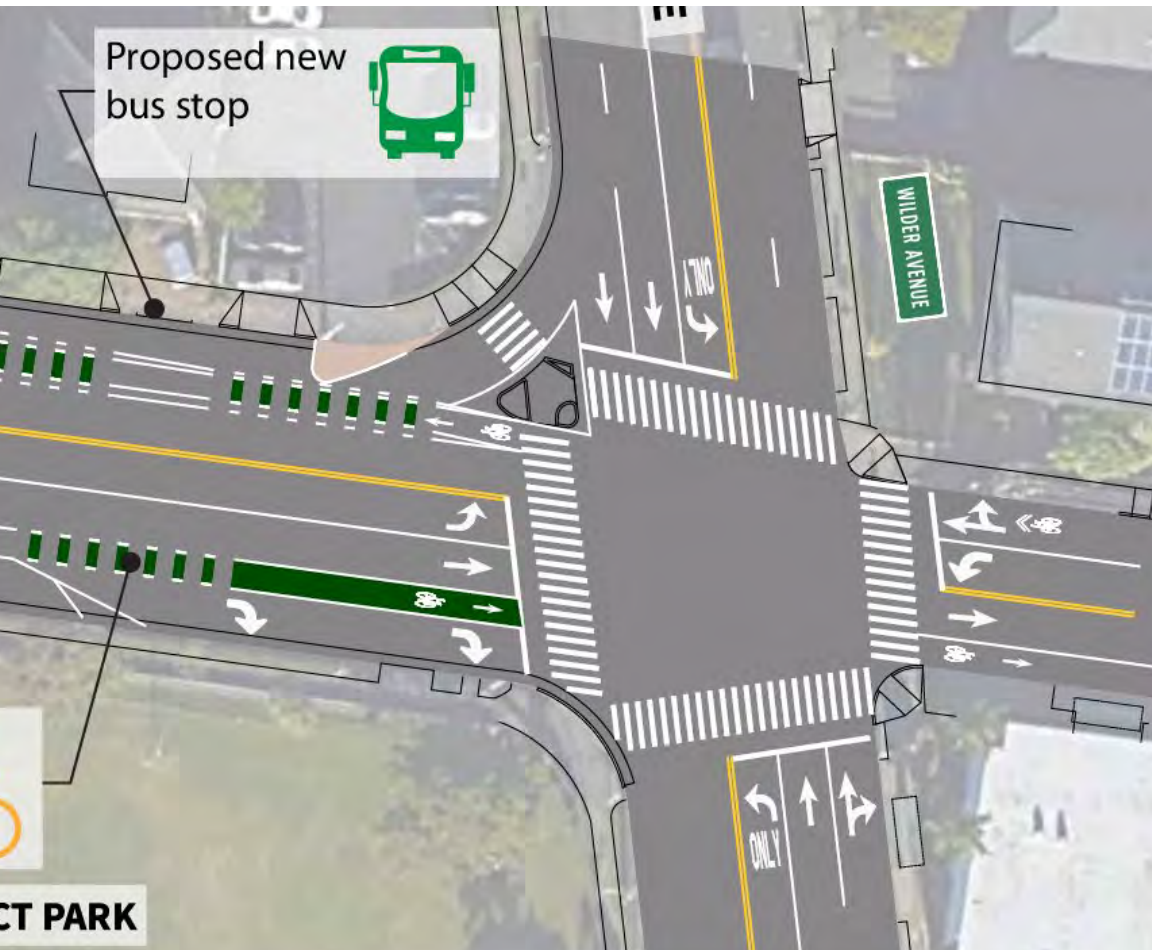
KAIHE'E STREET PEDESTRIAN CROSSING

The updated design concept includes pedestrian crossing improvements at Kaihe'e Street (i.e., pedestrian crossing island and rectangular rapid flashing beacon). How do you feel about this proposed change?



WILDER AVENUE INTERSECTION

The team is considering including Lead Pedestrian Intervals (LPI) and “No Right Turn on Red” (NRTOR) at the Wilder Avenue Intersection. How do you feel about this potential change?



Advantages for LPIs and NRTOR:

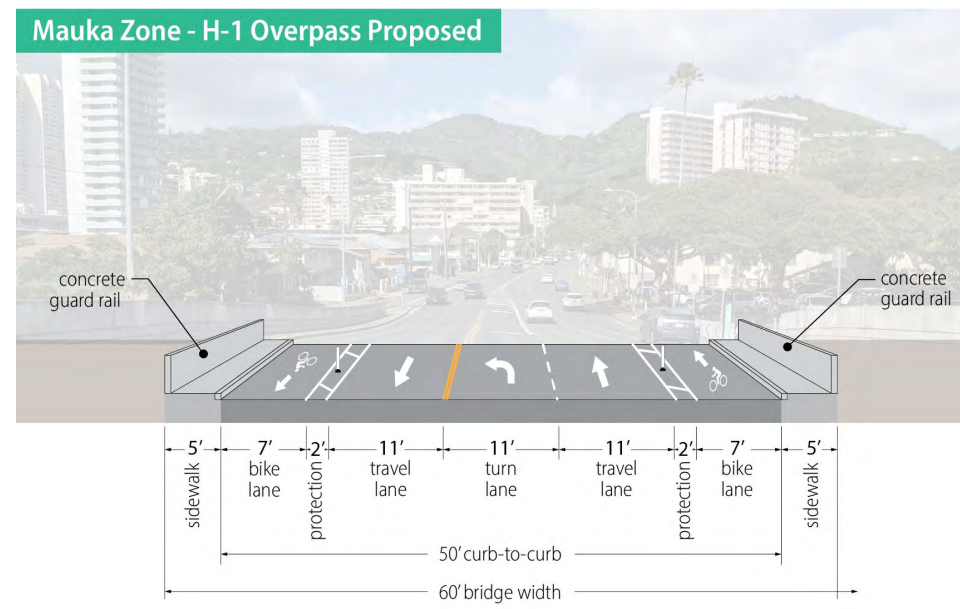
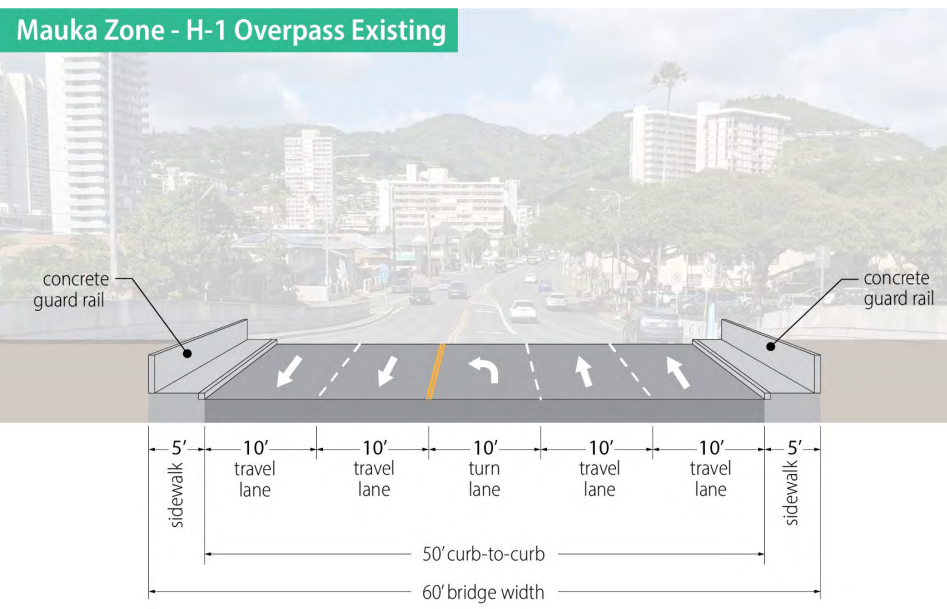
- Safety – Allows pedestrian to begin crossing before turning vehicles.

Disadvantages for LPIs and NRTOR:

- Traffic operations – Preliminary traffic analysis shows that it would likely result in significant queuing for mauka bound vehicles at Wilder during peak travel times.

PROTECTED BIKE LANES MAUKA ZONE

The updated design concept includes protected bike lanes in the mauka zone. How do you feel about this proposed change?



CONCEPT DESIGN FOR MAUKA ZONE

In general, how do you feel about the proposed design concept for the mauka zone?



BREAKOUT SESSION

- **4 breakout rooms, each with a facilitator and note taker**
 - **Breakout rooms will be randomly assigned**
 - **30 minutes long**
- **Come back to the main room for closing remarks**

NEXT STEPS

The project team will upload this presentation and the design concept plans to the project website by Tuesday, March 28, 2023.

Provide additional feedback via the project website:

www.Honolulu.gov/completestreets/Ke'eumoku

Public comment period open until April 30, 2023

Following the public comment period, the project team will refine the updated design concept based on public input and move the project forward for detailed design.

MAHALO!

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