



Bus Stop to be Consolidated and Moved

- Low existing ridership
- Excess stops adds delay to bus route
- Existing transit riders may use Flamingo bus stop (~500 feet to east)

Bus Stop to be Consolidated and Moved

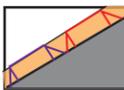
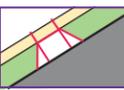
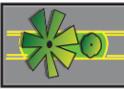
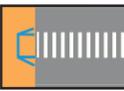
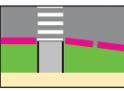
- Low existing ridership
- Excess stops adds delay to bus route
- Existing transit riders may use Flamingo bus stop (~1000 feet to east)

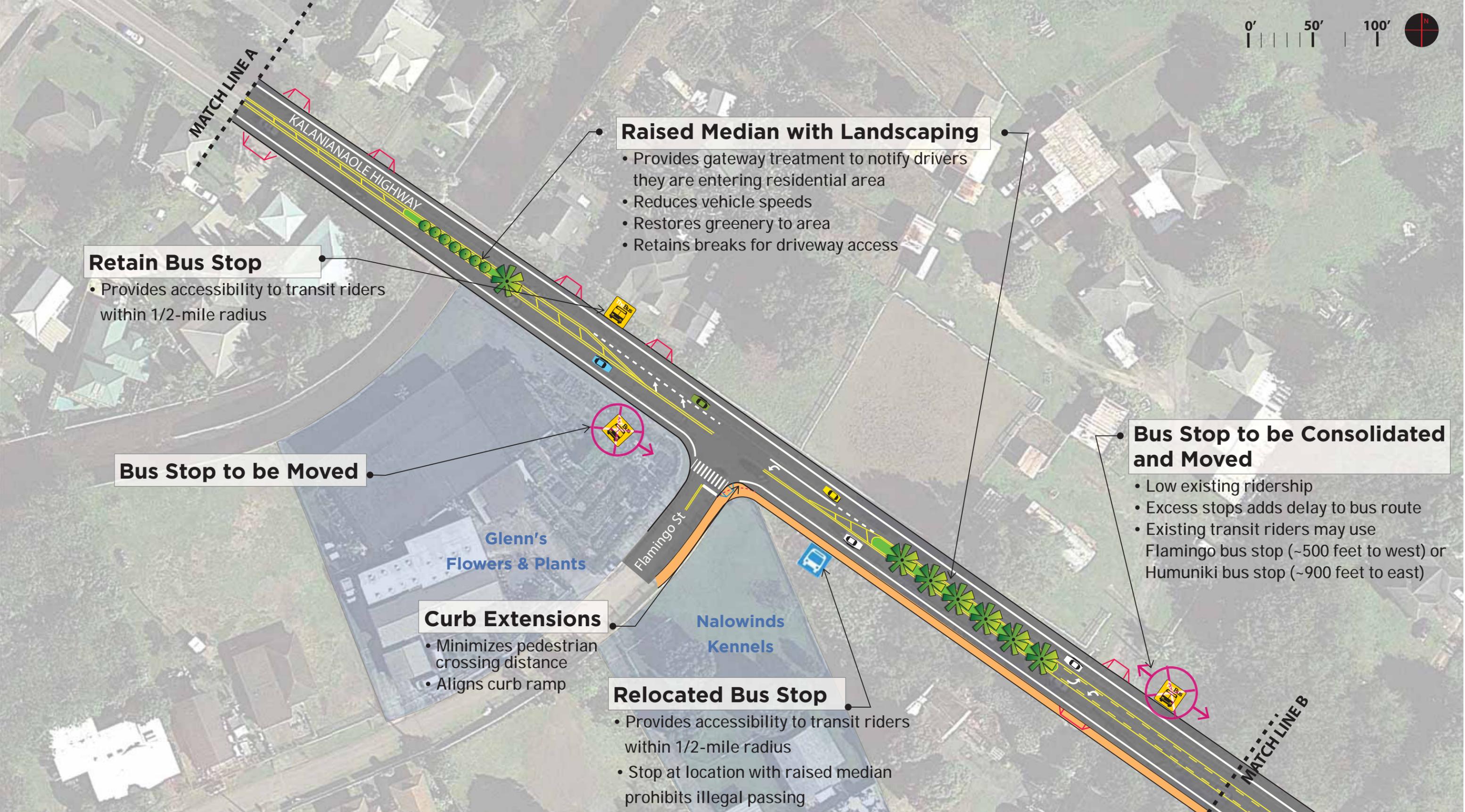
KALANIANA'OLE HIGHWAY

MATCH LINE

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



	Proposed Sidewalk (Orange) Proposed Driveway (Purple) Existing Driveway (Red)		Existing Sidewalk (Yellow) Existing Landscaped Buffer (Green) Existing Driveway (Red)		Proposed Raised Median with Landscaping		Existing Bus Stop To be Consolidated		Existing Bus Stop to remain
	Proposed Ramp (Blue) Marked Crossing (White)		Proposed Raised Berm Curbing (Red) Proposed Asphalt Path (Light Grey)		Proposed Berm Median Island		Relocated Bus Stop		New Road Sign



Retain Bus Stop

- Provides accessibility to transit riders within 1/2-mile radius

Raised Median with Landscaping

- Provides gateway treatment to notify drivers they are entering residential area
- Reduces vehicle speeds
- Restores greenery to area
- Retains breaks for driveway access

Bus Stop to be Moved

Curb Extensions

- Minimizes pedestrian crossing distance
- Aligns curb ramp

Relocated Bus Stop

- Provides accessibility to transit riders within 1/2-mile radius
- Stop at location with raised median prohibits illegal passing

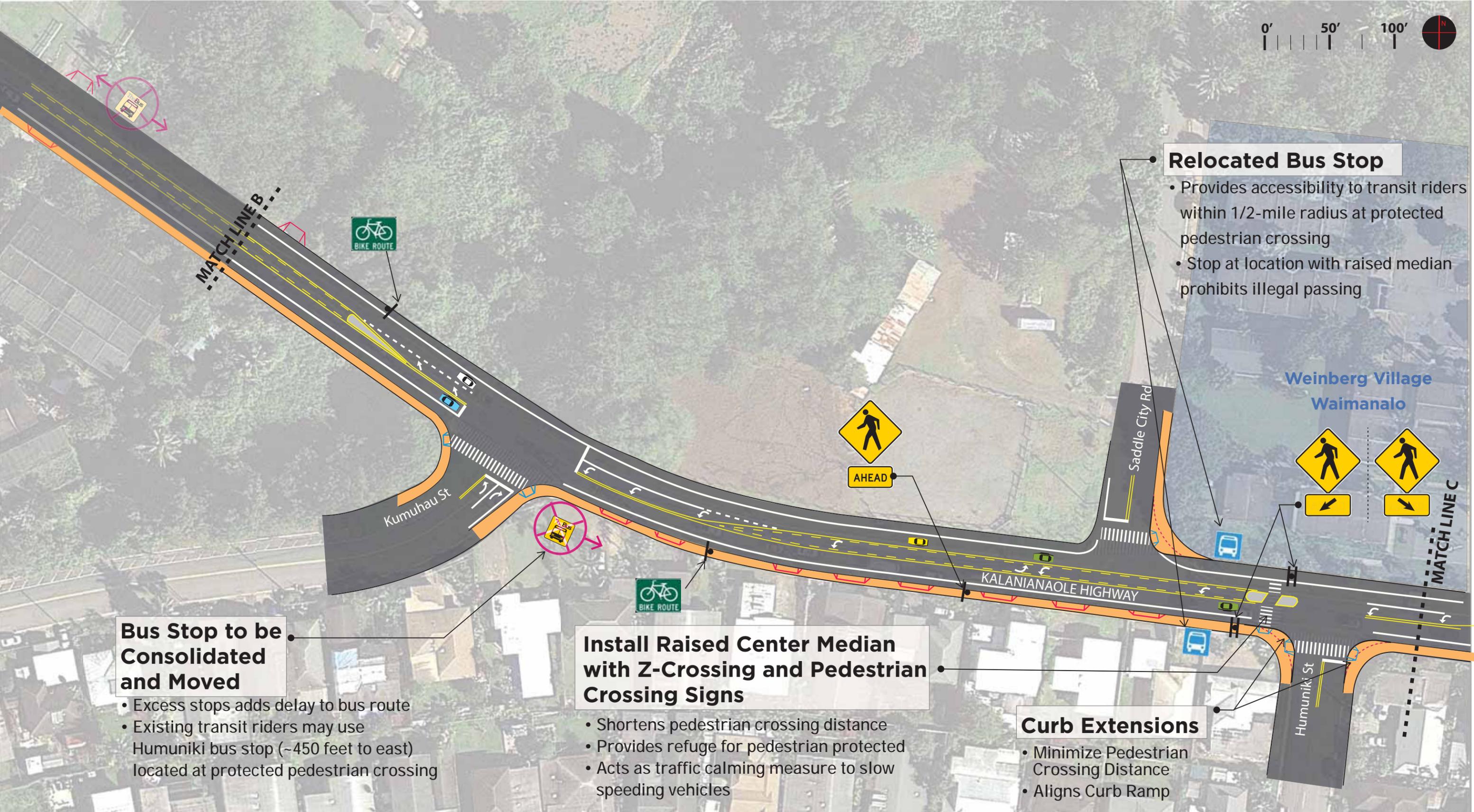
Bus Stop to be Consolidated and Moved

- Low existing ridership
- Excess stops adds delay to bus route
- Existing transit riders may use Flamingo bus stop (~500 feet to west) or Humuniki bus stop (~900 feet to east)

Conceptual Pedestrian Improvements
Kalanianaʻole Highway Improvements, Phase 1 and Phase 2



	Proposed Sidewalk (Orange)		Existing Sidewalk (Yellow)		Proposed Raised Median with Landscaping		Existing Bus Stop To be Consolidated		Existing Bus Stop to remain
	Proposed Driveway (Purple)		Existing Landscaped Buffer (Green)		Proposed Raised Berm Curbing (Red)		Relocated Bus Stop		New Road Sign
	Existing Driveway (Red)		Existing Driveway (Red)		Proposed Asphalt Path (Light Grey)				
	Proposed Ramp (Blue)		Proposed Berm Median Island						
	Marked Crossing (White)								



Relocated Bus Stop

- Provides accessibility to transit riders within 1/2-mile radius at protected pedestrian crossing
- Stop at location with raised median prohibits illegal passing

Bus Stop to be Consolidated and Moved

- Excess stops adds delay to bus route
- Existing transit riders may use Humuniki bus stop (~450 feet to east) located at protected pedestrian crossing

Install Raised Center Median with Z-Crossing and Pedestrian Crossing Signs

- Shortens pedestrian crossing distance
- Provides refuge for pedestrian protected
- Acts as traffic calming measure to slow speeding vehicles

Curb Extensions

- Minimize Pedestrian Crossing Distance
- Aligns Curb Ramp

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



	Proposed Sidewalk (Orange)		Existing Sidewalk (Yellow)		Proposed Raised Median with Landscaping		Existing Bus Stop To be Consolidated		Existing Bus Stop to remain
	Proposed Driveway (Purple)		Existing Landscaped Buffer (Green)		Proposed Raised Berm Curbing (Red)		Relocated Bus Stop		New Road Sign
	Existing Driveway (Red)		Existing Driveway (Red)		Proposed Asphalt Path (Light Grey)				
	Proposed Ramp (Blue)		Proposed Berm Median Island						
	Marked Crossing (White)								

Weinberg Village
Waimanalo

Bus Stop to be Moved

- Existing transit riders may use Humuniki bus stop (~200 feet to west) located at protected pedestrian crossing



Curb Extensions

- Minimizes Pedestrian Crossing Distance
- Aligns Curb Ramp

Reconfigure Intersection

- Shortens Pedestrian Crossing Distance

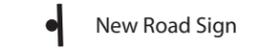
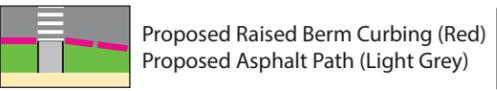
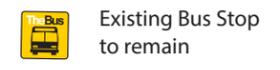
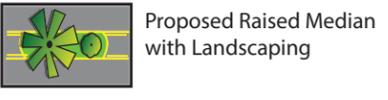
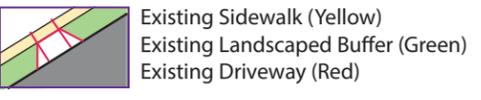
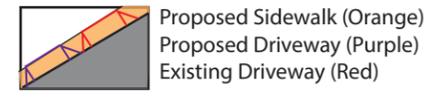
Restrict Driveway Access

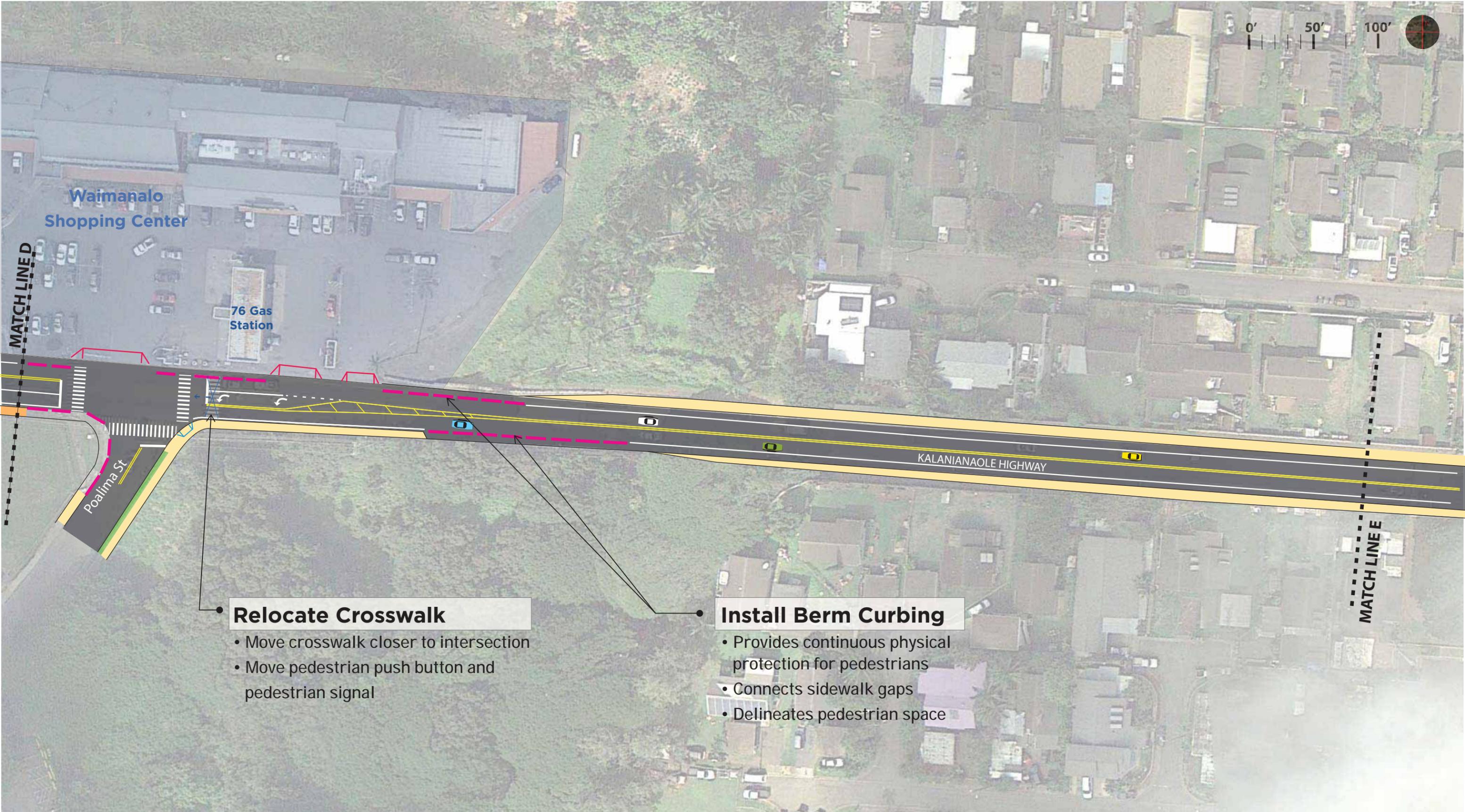
- Consolidate vehicle movements to right-in/right-out only
- Reduces conflicts with pedestrians along sidewalk
- Reduces vehicle conflicts with turning traffic on Kalaniana'ole Hwy and off Mekia Street

MATCH LINE C

MATCH LINE D

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2





Relocate Crosswalk

- Move crosswalk closer to intersection
- Move pedestrian push button and pedestrian signal

Install Berm Curbing

- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps
- Delineates pedestrian space

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



	Proposed Sidewalk (Orange)		Existing Sidewalk (Yellow)		Proposed Raised Median with Landscaping		Existing Bus Stop To be Consolidated		Existing Bus Stop to remain
	Proposed Driveway (Purple)		Existing Landscaped Buffer (Green)		Proposed Raised Berm Curbing (Red)		Relocated Bus Stop		New Road Sign
	Existing Driveway (Red)		Existing Driveway (Red)		Proposed Asphalt Path (Light Grey)				
	Proposed Ramp (Blue)		Proposed Berm Median Island						
	Marked Crossing (White)								

Install Pedestrian Activated Solar RRFB

- Install back-to-back pedestrian school crossing signs and arrows
- Provides warning for safe school crossing
- Three pedestrian collisions over four years (2010-2014)

Relocate Crosswalk

- Shortens crossing distance
- Makes pedestrians more visible

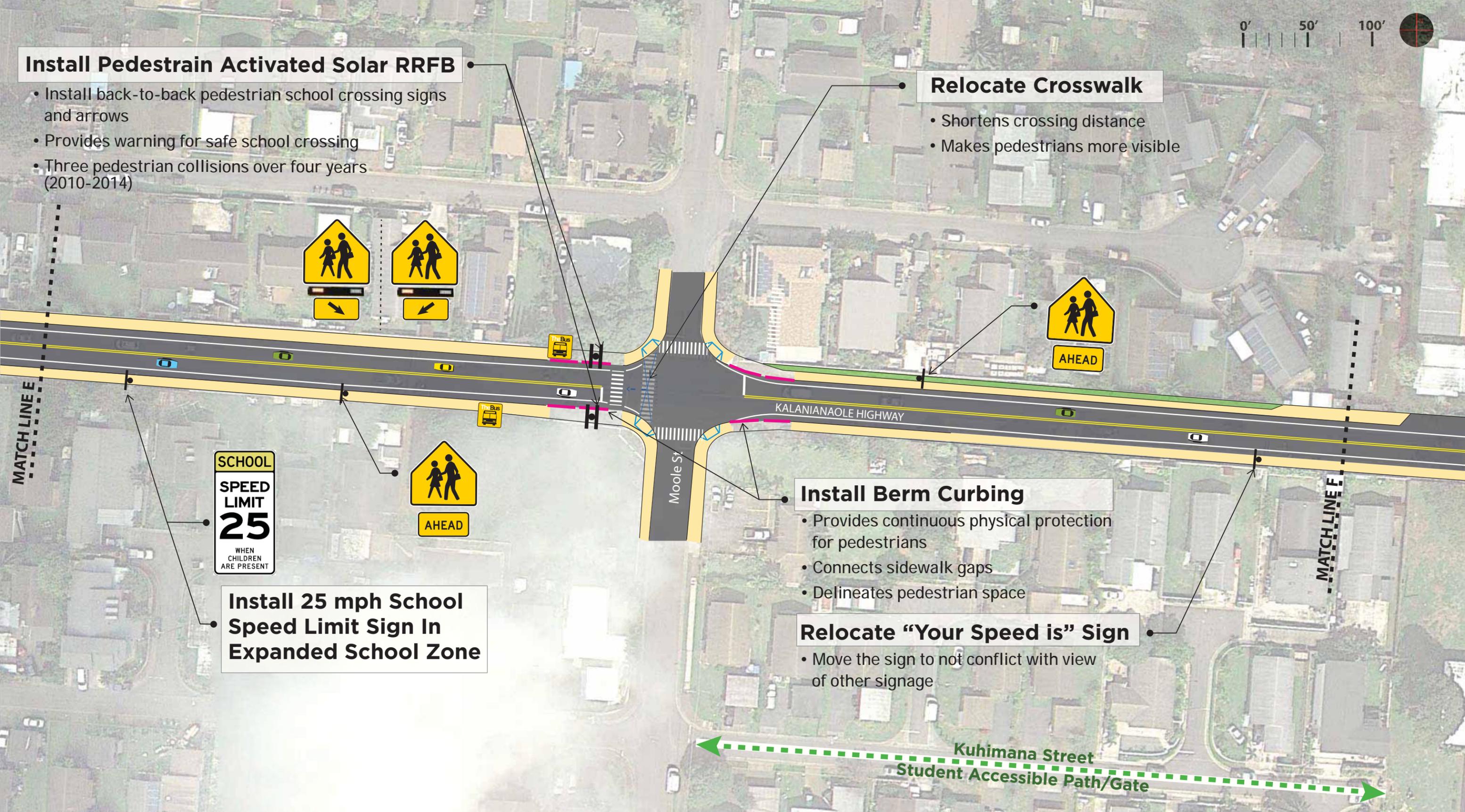
Install Berm Curbing

- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps
- Delineates pedestrian space

Relocate "Your Speed is" Sign

- Move the sign to not conflict with view of other signage

Install 25 mph School Speed Limit Sign In Expanded School Zone

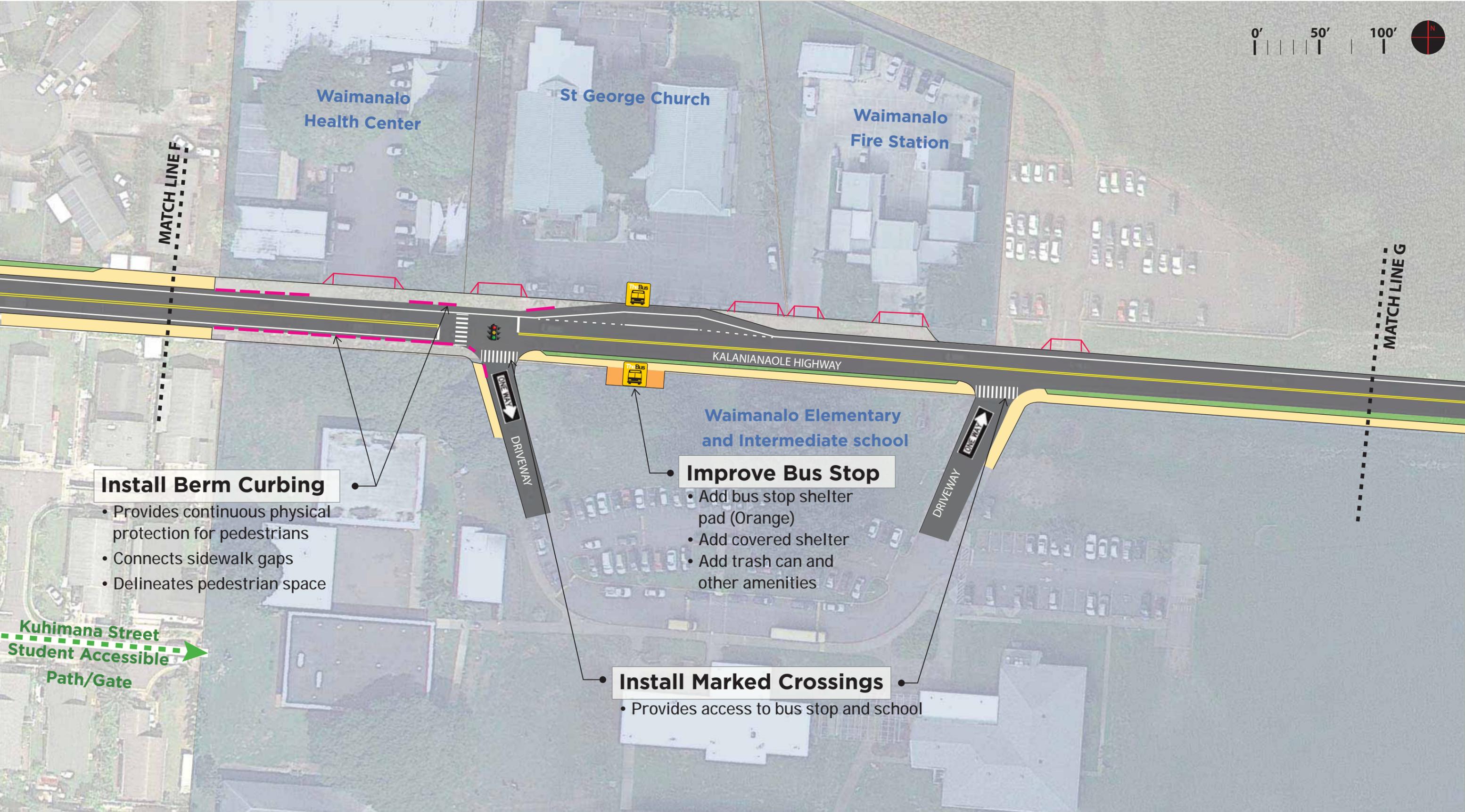


Conceptual Pedestrian Improvements

Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



	Proposed Sidewalk (Orange) Proposed Driveway (Purple) Existing Driveway (Red)		Existing Sidewalk (Yellow) Existing Landscaped Buffer (Green) Existing Driveway (Red)		Proposed Raised Median with Landscaping		Existing Bus Stop To be Consolidated		Existing Bus Stop to remain
	Proposed Ramp (Blue) Marked Crossing (White)		Proposed Raised Berm Curbing (Red) Proposed Asphalt Path (Light Grey)		Proposed Berm Median Island		Relocated Bus Stop		New Road Sign



Install Berm Curbing

- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps
- Delineates pedestrian space

Improve Bus Stop

- Add bus stop shelter pad (Orange)
- Add covered shelter
- Add trash can and other amenities

Install Marked Crossings

- Provides access to bus stop and school

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



	Proposed Sidewalk (Orange)		Existing Sidewalk (Yellow)		Proposed Raised Median with Landscaping		Existing Bus Stop To be Consolidated		Existing Bus Stop to remain
	Proposed Driveway (Purple)		Existing Landscaped Buffer (Green)		Proposed Relocated Bus Stop		New Road Sign		
	Existing Driveway (Red)		Proposed Ramp (Blue)		Proposed Berm Curbing (Red)				
	Proposed Asphalt Path (Light Grey)		Marked Crossing (White)		Proposed Berm Median Island				

Relocate Crosswalk and Install Back-to-Back Signage

- Provides direct access to bus stop
- Increases sight distance
- Remove stop bar



Repair "Your Speed is" Sign

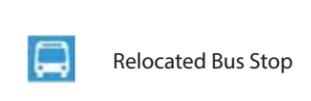
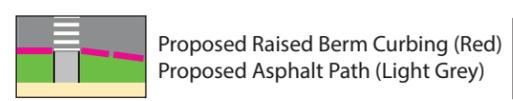
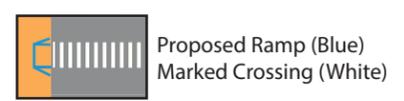
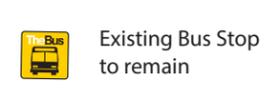
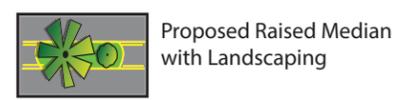
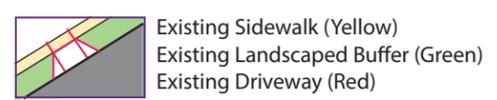
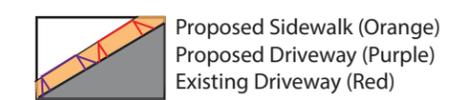
- The "Your Speed is" sign is currently not working
- Add speed limit sign to same pole

Install Berm Curbing and Mark Crossing

- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps

Waimanalo Elementary and Intermediate school

Kuahale Ohana Public Housing (Hawaii Housing Authority)



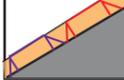
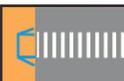
Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



Conceptual Pedestrian Improvements

Kalanianaʻola Highway Improvements, Phase 1 and Phase 2



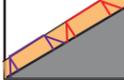
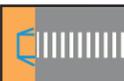
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|--|---|---|---|---|--|---|---|---|--------------------------------|
|  | Proposed Sidewalk (Orange)
Proposed Driveway (Purple)
Existing Driveway (Red) |  | Existing Sidewalk (Yellow)
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with Landscaping |  | Existing Bus Stop
To be Consolidated |  | Existing Bus Stop
to remain |
|  | Proposed Ramp (Blue)
Marked Crossing (White) |  | Proposed Raised Berm Curbing (Red)
Proposed Asphalt Path (Light Grey) |  | Proposed Berm
Median Island |  | Relocated Bus Stop |  | New Road Sign |

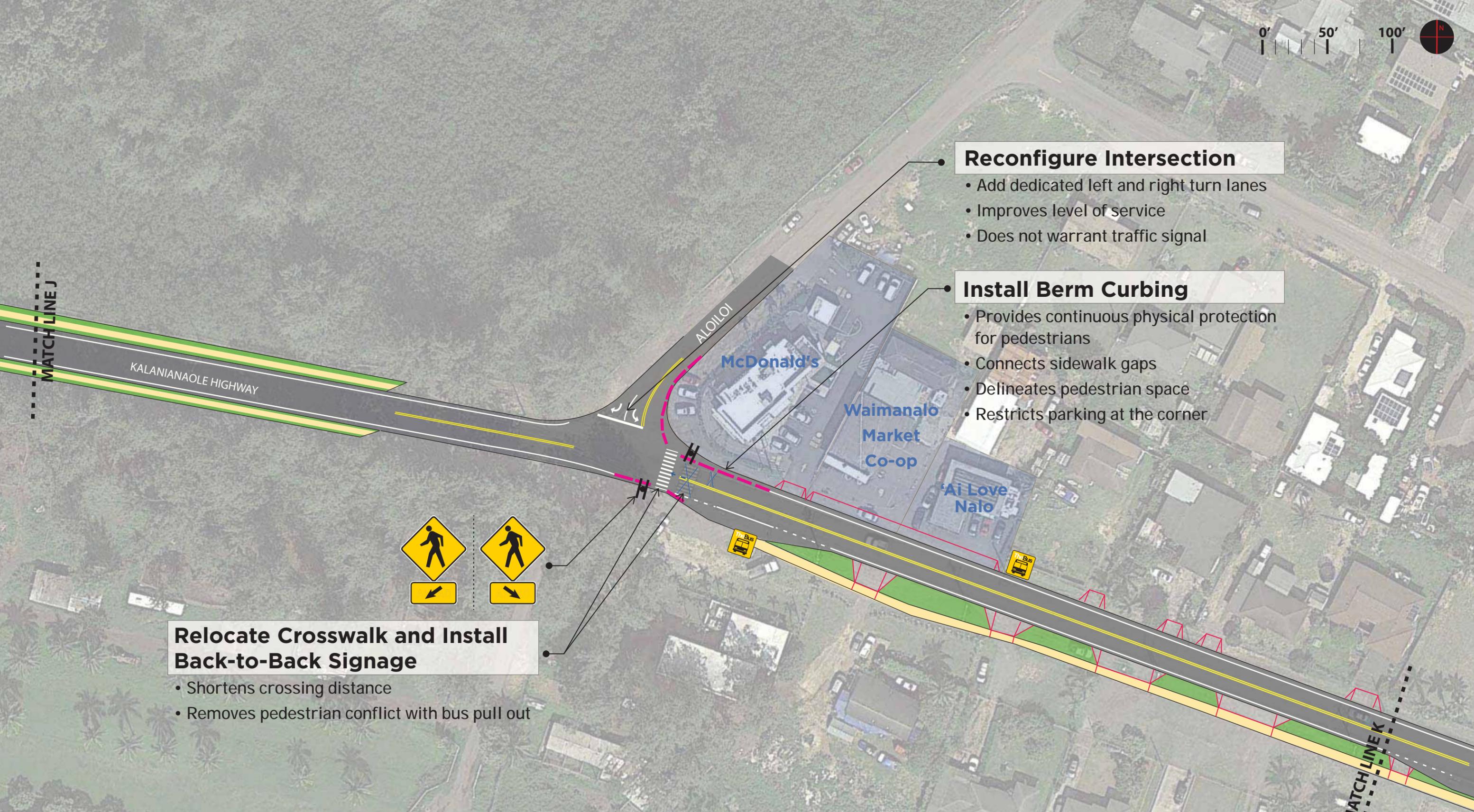


Conceptual Pedestrian Improvements

Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



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|--|---|---|---|---|--|---|---|---|--------------------------------|
|  | Proposed Sidewalk (Orange)
Proposed Driveway (Purple)
Existing Driveway (Red) |  | Existing Sidewalk (Yellow)
Existing Landscaped Buffer (Green)
Existing Driveway (Red) |  | Proposed Raised Median
with Landscaping |  | Existing Bus Stop
To be Consolidated |  | Existing Bus Stop
to remain |
|  | Proposed Ramp (Blue)
Marked Crossing (White) |  | Proposed Raised Berm Curbing (Red)
Proposed Asphalt Path (Light Grey) |  | Proposed Berm
Median Island |  | Relocated Bus Stop |  | New Road Sign |



Reconfigure Intersection

- Add dedicated left and right turn lanes
- Improves level of service
- Does not warrant traffic signal

Install Berm Curbing

- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps
- Delineates pedestrian space
- Restricts parking at the corner

Relocate Crosswalk and Install Back-to-Back Signage

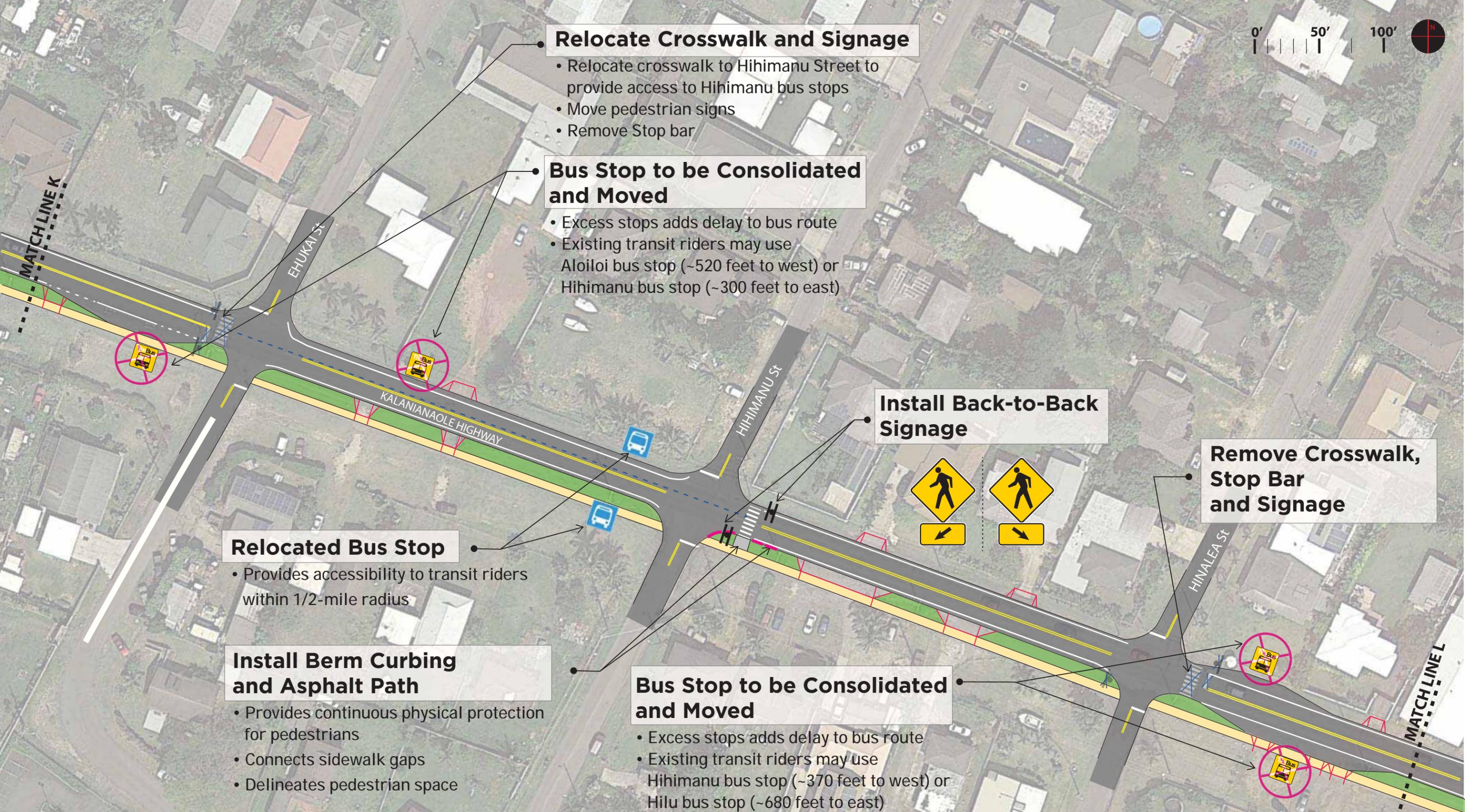
- Shortens crossing distance
- Removes pedestrian conflict with bus pull out



Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



Proposed Sidewalk (Orange)	Proposed Driveway (Purple)	Existing Sidewalk (Yellow)	Existing Landscaped Buffer (Green)	Existing Driveway (Red)	Proposed Raised Median with Landscaping	Existing Bus Stop To be Consolidated	Existing Bus Stop to remain
Proposed Ramp (Blue)	Marked Crossing (White)	Proposed Raised Berm Curbing (Red)	Proposed Asphalt Path (Light Grey)	Proposed Berm Median Island	Relocated Bus Stop	New Road Sign	



Relocate Crosswalk and Signage

- Relocate crosswalk to Hihimanu Street to provide access to Hihimanu bus stops
- Move pedestrian signs
- Remove Stop bar

Bus Stop to be Consolidated and Moved

- Excess stops adds delay to bus route
- Existing transit riders may use Aloiloi bus stop (~520 feet to west) or Hihimanu bus stop (~300 feet to east)

Relocated Bus Stop

- Provides accessibility to transit riders within 1/2-mile radius

Install Berm Curbing and Asphalt Path

- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps
- Delineates pedestrian space

Install Back-to-Back Signage

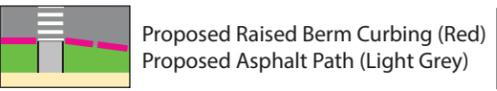
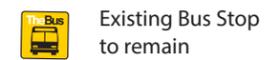
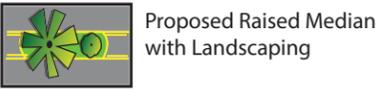
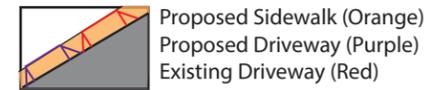


Remove Crosswalk, Stop Bar and Signage

Bus Stop to be Consolidated and Moved

- Excess stops adds delay to bus route
- Existing transit riders may use Hihimanu bus stop (~370 feet to west) or Hilu bus stop (~680 feet to east)

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



Install Berm Curbing and Asphalt Path

- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps
- Delineates pedestrian space

Install Back-to-Back Signage

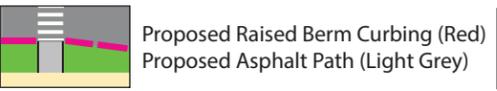
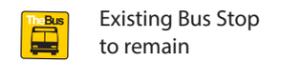
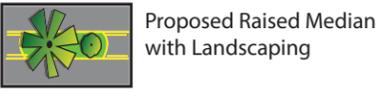
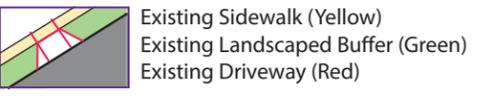
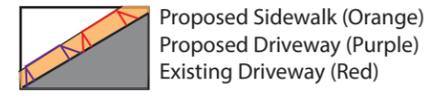


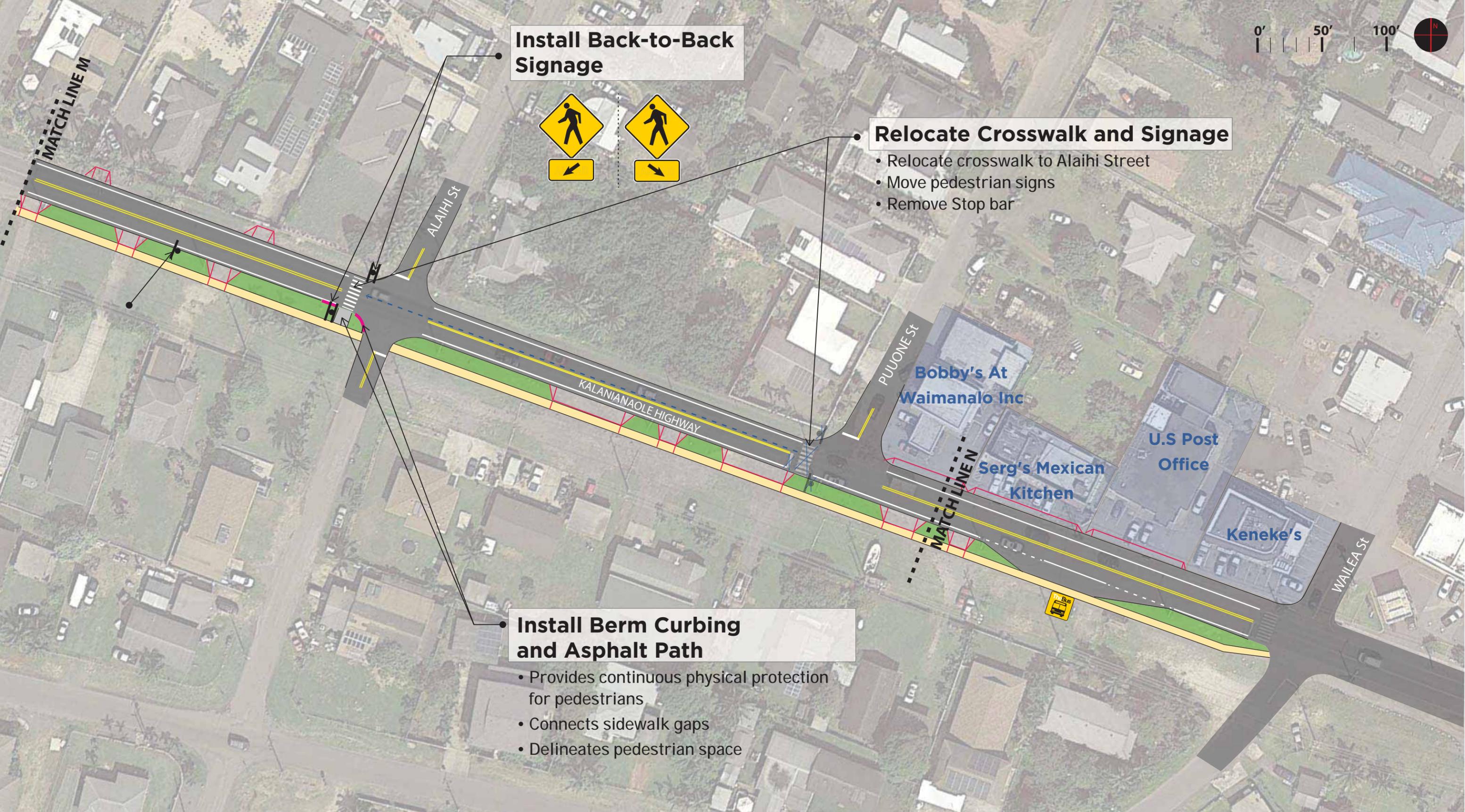
Relocated Bus Stop

- Provides accessibility to transit riders within 1/2-mile radius

Conceptual Pedestrian Improvements

Kalaniana'ole Highway Improvements, Phase 1 and Phase 2





Conceptual Pedestrian Improvements

Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



Proposed Sidewalk (Orange)
Proposed Driveway (Purple)
Existing Driveway (Red)

Existing Sidewalk (Yellow)
Existing Landscaped Buffer (Green)
Existing Driveway (Red)

Proposed Raised Median
with Landscaping

Existing Bus Stop
To be Consolidated

Existing Bus Stop
to remain

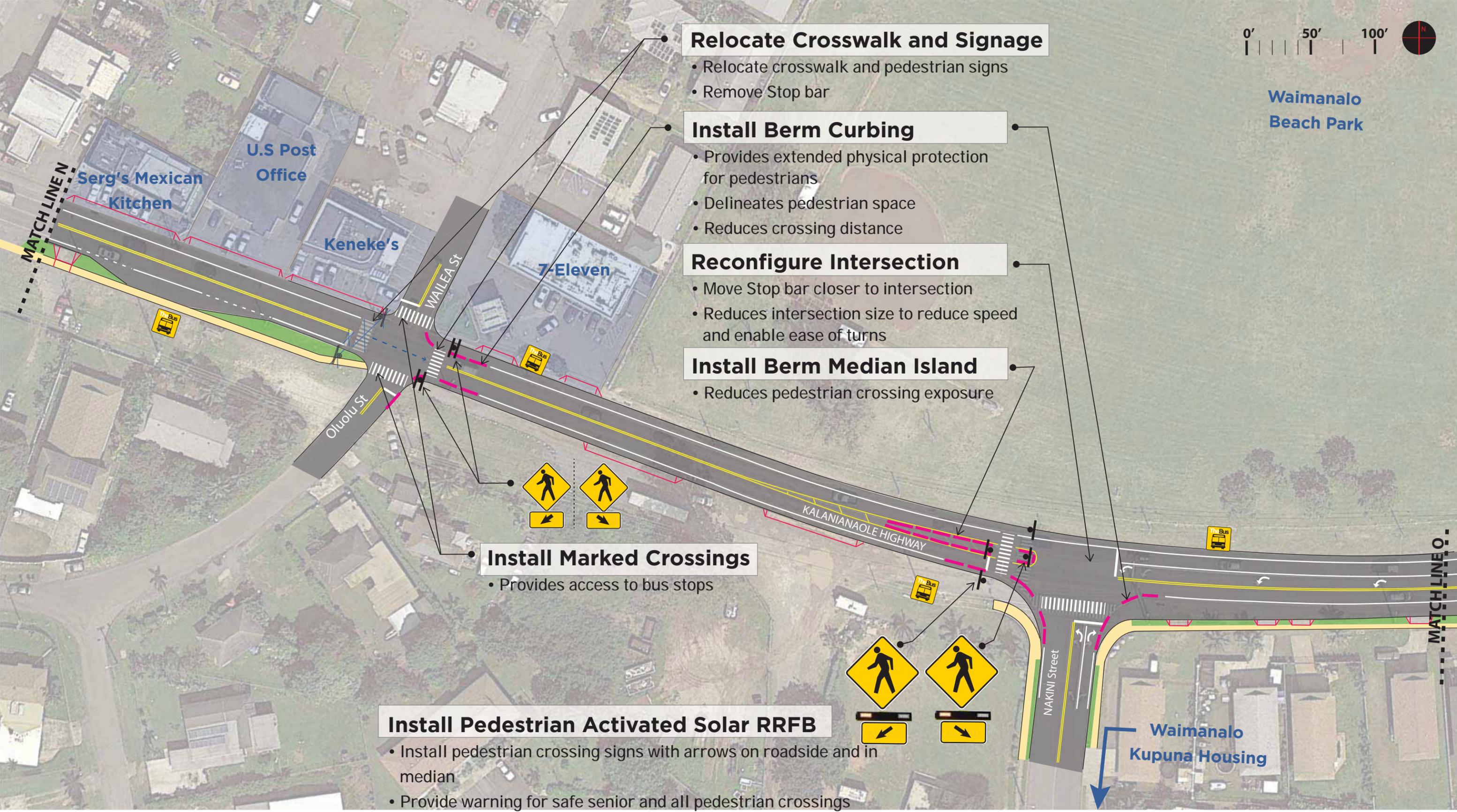
Proposed Ramp (Blue)
Marked Crossing (White)

Proposed Raised Berm Curbing (Red)
Proposed Asphalt Path (Light Grey)

Proposed Berm
Median Island

Relocated Bus Stop

New Road Sign



Relocate Crosswalk and Signage

- Relocate crosswalk and pedestrian signs
- Remove Stop bar

Install Berm Curbing

- Provides extended physical protection for pedestrians
- Delineates pedestrian space
- Reduces crossing distance

Reconfigure Intersection

- Move Stop bar closer to intersection
- Reduces intersection size to reduce speed and enable ease of turns

Install Berm Median Island

- Reduces pedestrian crossing exposure

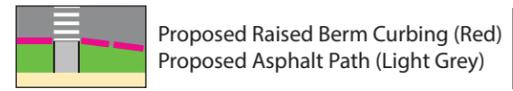
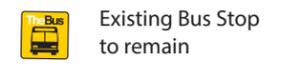
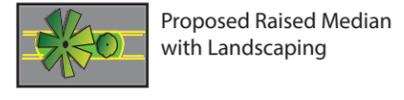
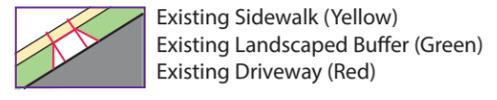
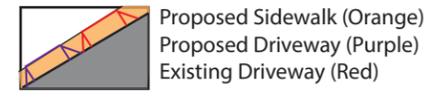
Install Marked Crossings

- Provides access to bus stops

Install Pedestrian Activated Solar RRFB

- Install pedestrian crossing signs with arrows on roadside and in median
- Provide warning for safe senior and all pedestrian crossings

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



Waimanalo Beach Park

Parking Lot

Waimanalo Beach Park

Proposed Marked Crossings

Install Z-Crossing with Raised Berm Median

- Reduces pedestrian crossing exposure

MATCH LINE O

MATCH LINE P

Bus Stop to be Consolidated and Moved

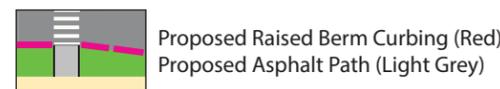
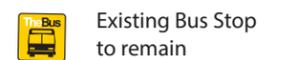
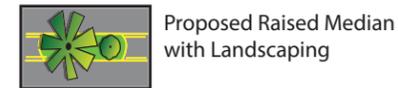
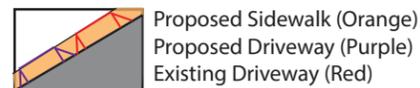
- Low existing ridership
- Excess stops adds delay to bus route
- Existing transit riders may use Nakini bus stop (~400 feet to west) located at protected pedestrian crossing

Relocate Crosswalk and Signage

- Relocate crosswalk and pedestrian signs
- Remove Stop bar



Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2





Install Z-Crossing with Raised Berm Median Island
 • Reduces pedestrian crossing exposure

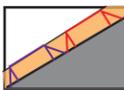
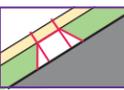
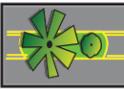
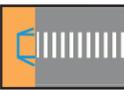
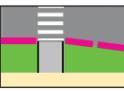
Retain School Crossing Signs

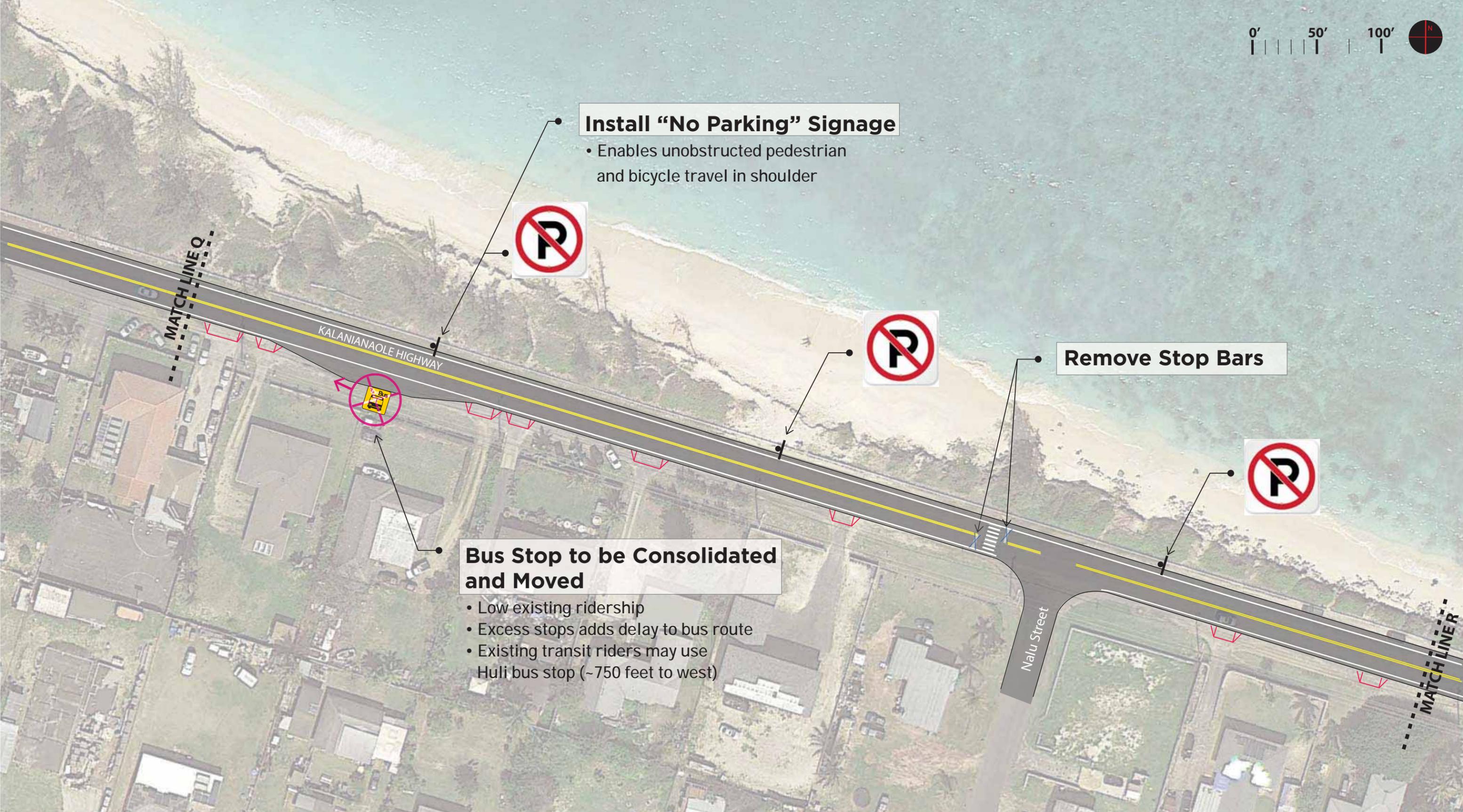
Install "No Parking" Signage

- Enables unobstructed pedestrian and bicycle travel in shoulder
- Future plans to consider wider shoulder that permits parking and bike/pedestrian use.

Conceptual Pedestrian Improvements
 Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



 Proposed Sidewalk (Orange) Proposed Driveway (Purple) Existing Driveway (Red)	 Existing Sidewalk (Yellow) Existing Landscaped Buffer (Green) Existing Driveway (Red)	 Proposed Raised Median with Landscaping	 Existing Bus Stop To be Consolidated	 Existing Bus Stop to remain
 Proposed Ramp (Blue) Marked Crossing (White)	 Proposed Raised Berm Curbing (Red) Proposed Asphalt Path (Light Grey)	 Proposed Berm Median Island	 Relocated Bus Stop	 New Road Sign



Install "No Parking" Signage

- Enables unobstructed pedestrian and bicycle travel in shoulder



Remove Stop Bars

Bus Stop to be Consolidated and Moved

- Low existing ridership
- Excess stops adds delay to bus route
- Existing transit riders may use Huli bus stop (~750 feet to west)

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



Proposed Sidewalk (Orange)	Proposed Driveway (Purple)	Existing Sidewalk (Yellow)	Existing Landscaped Buffer (Green)	Existing Driveway (Red)	Proposed Raised Median with Landscaping	Existing Bus Stop To be Consolidated	Existing Bus Stop to remain
Proposed Ramp (Blue)	Marked Crossing (White)	Proposed Raised Berm Curbing (Red)	Proposed Asphalt Path (Light Grey)	Proposed Berm Median Island	Relocated Bus Stop	New Road Sign	



Install "No Parking" Signage

- Enables unobstructed pedestrian and bicycle travel in shoulder

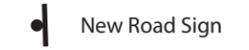
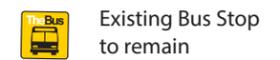
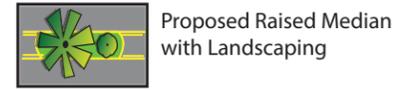
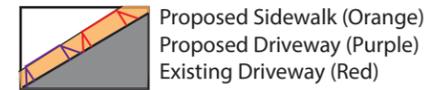


Install New Crosswalk with Berms and Back-to-Back Signage

- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps
- Delineates pedestrian space



Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



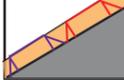
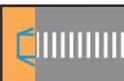


Relocate Crosswalk and Install Back-to-Back Signage

- Relocate crosswalk and pedestrian signs
- Remove Stop bar

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



 Proposed Sidewalk (Orange)	 Existing Sidewalk (Yellow)	 Proposed Raised Median with Landscaping	 Existing Bus Stop To be Consolidated	 Existing Bus Stop to remain
 Proposed Driveway (Purple)	 Existing Landscaped Buffer (Green)	 Proposed Raised Berm Curbing (Red)	 Relocated Bus Stop	 New Road Sign
 Existing Driveway (Red)	 Proposed Asphalt Path (Light Grey)	 Proposed Berm Median Island		

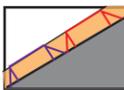
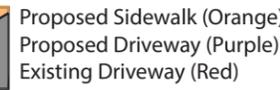
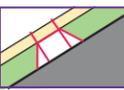
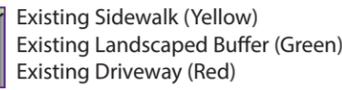
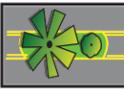
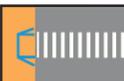
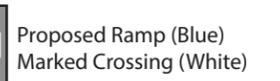
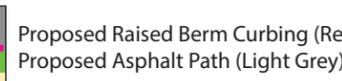


Bus Stop to be Consolidated and Moved

- Low existing ridership
- Excess stops adds delay to bus route
- Existing transit riders may use Kainoa Beach Park bus stop (~600 feet to west)

Conceptual Pedestrian Improvements
Kalaniana'ole Highway Improvements, Phase 1 and Phase 2



 Proposed Sidewalk (Orange)	 Proposed Driveway (Purple)	 Existing Sidewalk (Yellow)	 Existing Landscaped Buffer (Green)	 Existing Driveway (Red)	 Proposed Raised Median with Landscaping	 Existing Bus Stop To be Consolidated	 Existing Bus Stop to remain
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