**Conceptual Pedestrian Improvements**

**Kalanianaole Highway Improvements, Phase 1 and Phase 2**

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**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)

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**Bus Stop to be Consolidated and Moved**
- Low existing ridership
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- Existing transit riders may use Flamingo bus stop (~1000 feet to east)
Conceptual Pedestrian Improvements
Kalanianaole Highway Improvements, Phase 1 and Phase 2

- **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)

- **Retained Bus Stop**
  - Provides accessibility to transit riders within 1/2-mile radius

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

- **Curb Extensions**
  - Minimizes pedestrian crossing distance
  - Aligns curb ramp

- **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

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

- **Existing Bus Stop**
  - To be Consolidated

- **Existing Bus Stop**
  - To remain

- **New Road Sign**
  - 2 of 21
Conceptual Pedestrian Improvements
Kalanianaole Highway Improvements, Phase 1 and Phase 2

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

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

Weinberg Village
Waimanalo

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

Existing Bus Stop
- To be Consolidated
- New Road Sign

Proposed Sidewalk (Orange)
Proposed Driveway (Purple)
Existing Driveway (Red)
Existing Sidewalk (Yellow)
Existing Landscaped Buffer (Green)
Existing Driveway (Red)
Proposed Raised Median with Landscaping
Proposed Berm Median Island
Proposed Raised Berm Curbing (Red)
Proposed Asphalt Path (Light Grey)
Proposed Ramp (Blue)
Marked Crossing (White)
Conceptual Pedestrian Improvements
Kalanianaole Highway Improvements, Phase 1 and Phase 2

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

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 Kalanianaole Hwy and off Mekia Street

Curb Extensions
- Minimizes Pedestrian Crossing Distance
- Aligns Curb Ramp

Reconfigure Intersection
- Shortens Pedestrian Crossing Distance

Phase I Construction Limits

Weinberg Village
Waimanalo

Waimanalo Town Center

Jack in the Box
Shima's Supermarket
L & L Drive-Inn
Waimanalo Feed Supply
7-Eleven

Existing Bus Stop
To be Consolidated
Existing Bus Stop to remain
Relocated Bus Stop
New Road Sign

Proposed Sidewalk (Orange)
Existing Sidewalk (Yellow)
Proposed Driveway (Purple)
Existing Driveway (Red)
Proposed Ramp (Blue)
Existing Landscaped Buffer (Green)
Proposed Asphalt Path (Light Grey)
Proposed Raised Median with Landscaping
Proposed Berm Curb (Red)
Proposed Raised Berm Curbing (Red)
Proposed Berm Median Island

Match Line C
0' 50' 100'

Match Line D
0' 50' 100'

MATCH LINE C
MATCH LINE D
Conceptual Pedestrian Improvements
Kalanianaole 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
Kalanianaole Highway Improvements, Phase 1 and Phase 2

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)

Install 25 mph School Speed Limit Sign in Expanded School Zone

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

Relocate Crosswalk
- Shortens crossing distance
- Makes pedestrians more visible

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

MATCH LINE E
KALANIANAOLE HIGHWAY
Moole St

MATCH LINE F
Kuhimana Street
Student Accessible Path/Gate

MATCH LINE G

6 of 21
Conceptual Pedestrian Improvements
Kalanianaole Highway Improvements, Phase 1 and Phase 2

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

Install Marked Crossings
- Provides access to bus stop and school

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

Install 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

Student Accessible Path/Gate
Kuhimana Street

Waimanalo Elementary and Intermediate school

Waimanalo Health Center
St George Church
Waimanalo Fire Station
Waimanalo Health Center
St George Church
Waimanalo Fire Station
Conceptual Pedestrian Improvements
Kalanianaole Highway Improvements, Phase 1 and Phase 2

Relocate Crosswalk and Install Back-to-Back Signage
- Provides direct access to bus stop
- Increases sight distance
- Remove stop bar

Install Berm Curbing and Mark Crossing
- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps

Repair “Your Speed is” Sign
- The “Your Speed is” sign is currently not working
- Add speed limit sign to same pole

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

Install Berm Curbing and Mark Crossing
- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps

Repair “Your Speed is” Sign
- The “Your Speed is” sign is currently not working
- Add speed limit sign to same pole
Conceptual Pedestrian Improvements
Kalanianaole 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
- Proposed Berm Curbing (Red)
- Proposed Asphalt Path (Light Grey)

- Proposed Ramp (Blue)
- Marked Crossing (White)

- Existing Bus Stop To be Consolidated
- Existing Bus Stop to remain
- Relocated Bus Stop
- New Road Sign

Waimanalo Bay Beach Park
Conceptual Pedestrian Improvements
Kalanianaole 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
Proposed Berm Curbing (Red)
Proposed Asphalt Path (Light Grey)
Proposed Berm Median Island
Existing Bus Stop To be Consolidated
Existing Bus Stop to remain
Relocated Bus Stop
New Road Sign

Remove Stop Bar

Waimanalo Bay Beach Park
Relocate Crosswalk and Install Back-to-Back Signage
• Shortens crossing distance
• Removes pedestrian conflict with bus pull out

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

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

- 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 Aloilo bus stop (~520 feet to west) or Hihimanu bus stop (~300 feet to east)

- Install Berm Curbing and Asphalt Path
  - Provides continuous physical protection for pedestrians
  - Connects sidewalk gaps
  - Delineates pedestrian space

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

- 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)

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

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

Install Back-to-Back Signage
Conceptual Pedestrian Improvements
Kalanianaole Highway Improvements, Phase 1 and Phase 2

**Install Back-to-Back Signage**

**Relocate Crosswalk and Signage**
- Relocate crosswalk to Alaihi Street
- Move pedestrian signs
- Remove Stop bar

**Install Berm Curbing and Asphalt Path**
- Provides continuous physical protection for pedestrians
- Connects sidewalk gaps
- Delineates pedestrian space
Conceptual Pedestrian Improvements
Kalanianaole Highway Improvements, Phase 1 and Phase 2

- **Install Berm Curbing**
  - Provides extended physical protection for pedestrians
  - Delineates pedestrian space
  - Reduces crossing distance

- **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

- **Relocate Crosswalk and Signage**
  - Relocate crosswalk and pedestrian signs
  - Remove Stop bar

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

- **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
Kalanianaole Highway Improvements, Phase 1 and Phase 2

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

Proposed Marked Crossings

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

Proposed Driveway (Purple)
Existing Driveway (Red)
Existing Landscaped Buffer (Green)
Existing Driveway (Red)
Proposed Raised Median with Landscaping
Proposed Berm Median Island
Proposed Asphalt Path (Light Grey)
Existing Bus Stop
Existing Bus Stop to remain
Relocated Bus Stop
New Road Sign
**Install Z-Crossing with Raised Berm Median Island**
- Reduces pedestrian crossing exposure

**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.

**Retain School Crossing Signs**

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**Conceptual Pedestrian Improvements**
Kalanianaole Highway Improvements, Phase 1 and Phase 2

17 of 21
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)
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
Relocate Crosswalk and Install Back-to-Back Signage

- Relocate crosswalk and pedestrian signs
- Remove Stop bar

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