



# SR 5/US 1 Long Key Bridge over Long Key Channel (Bridge #900094)

Project Development and Environment (PD&E) Study

FPID 448206-1-22-01 | ETDM 14451

[www.southflroads.com/LongKeyBridge](http://www.southflroads.com/LongKeyBridge)

## Alternatives Public Meeting

*September 12, 2023 (Virtual)*

*September 14, 2023 (In-person)*



## ALTERNATIVES PUBLIC MEETING

# How to Participate



## Virtual

Virtually via a computer, tablet, or smartphone using GoToWebinar

Attendees will remain **muted** throughout the meeting except for the public comment period at the end of the presentation.



## Dial-in

Dial-in Attendees are in “**listen only**” mode.

If you are calling via a smart phone, you will be able to raise your hand to provide comments at the end of the presentation.



## In-Person on September 14, 2023, from 5:30 p.m. to 7:30 p.m.

Marathon Government Center – BOCC  
2798 Overseas Highway, 2<sup>nd</sup> Floor  
Marathon, FL 33050

*Si necesita traducción durante la reunión por favor comuníquese con nosotros. Si estas participando virtualmente, puede pedir ayuda utilizando el botón de mano levantada, o puedes pedir ayuda de traducción a través del chat y un miembro de nuestro equipo lo asistirá.*

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**ALTERNATIVES PUBLIC MEETING**

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## Technical Assistance

Type your issue in the **Question Pane** of the control panel

Yanet.Baez@stantec.com

+1 786-437-6255

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# Public Notice



**Property owner/tenant notifications**



**Emails to project contacts list**



**FDOT Website**



**Florida Administrative Register**



**Newspaper Advertisements**



**Social Media**

## ALTERNATIVES PUBLIC MEETING

# Title VI Compliance

The proposed project is being developed in accordance with the Civil Rights Act of 1964. Under Title VI of the Civil Rights Act, public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status.

**Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting either:**

**Tish Burgher**

FDOT District 6 Title VI Coordinator

1000 NW 111 Avenue

Miami, FL 33172

(305) 470-5277

**Tish.Burgher@dot.state.fl.us****Stefan Kulakowski**

State Title VI Coordinator

605 Suwannee Street

Tallahassee, Florida 32399-0450

(850) 414-4742

**Stefan.Kulakowski@dot.state.fl.us**

## ALTERNATIVES PUBLIC MEETING

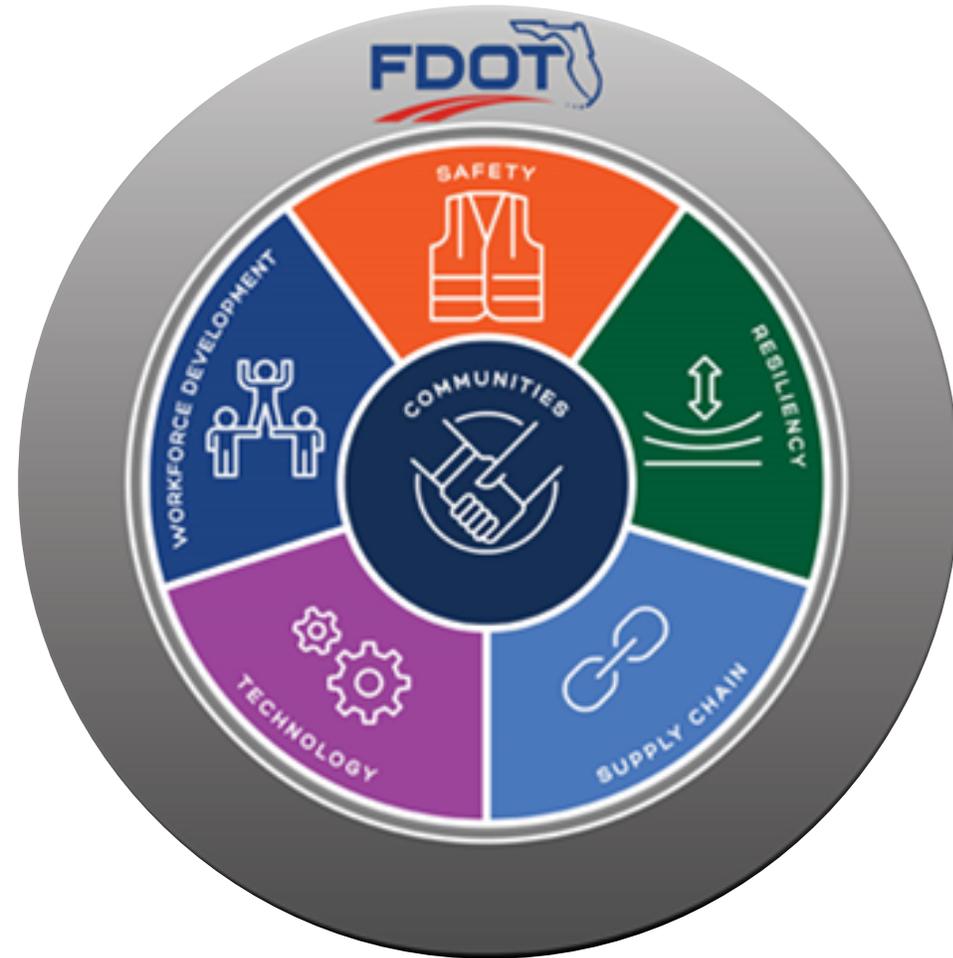
# Federal-State Partnership

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration (FHWA) and FDOT.

ALTERNATIVES PUBLIC MEETING

# FDOT Compass Pillars

- Safety
- Resiliency
- Supply Chain
- Technology
- Workforce Development



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## ALTERNATIVES PUBLIC MEETING

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## ALTERNATIVES PUBLIC MEETING



# Meeting Agenda

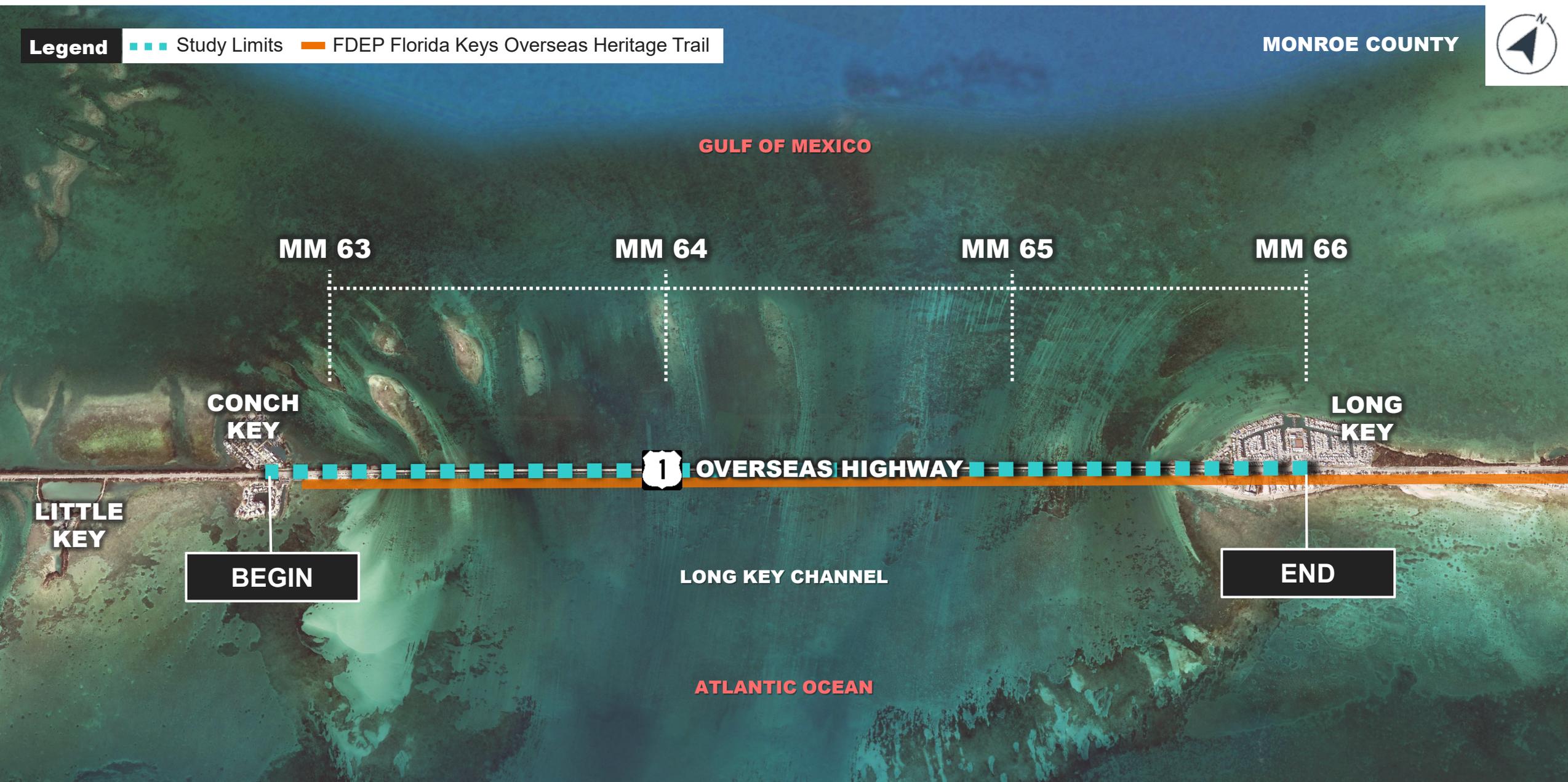
- Project Location
- Transportation Project Delivery Process
- Project Development and Environment (PD&E) Study Process
- Long Key Bridge Facts
- Project Purpose and Need
- Agency Coordination
- Engineering and Environmental Analysis
- Alternatives Evaluated
- Schedule
- Q&A

# ALTERNATIVES PUBLIC MEETING

## Legend

- Study Limits
- FDEP Florida Keys Overseas Heritage Trail

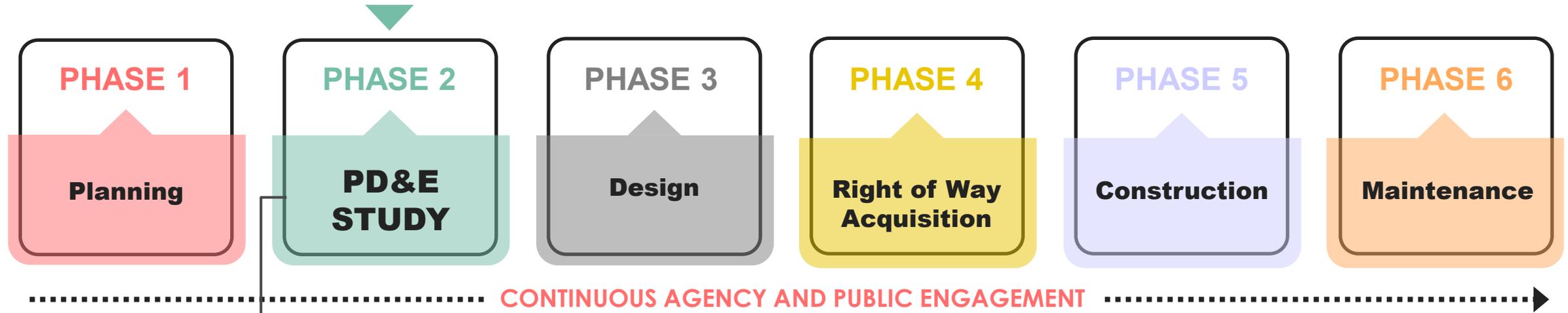
MONROE COUNTY



ALTERNATIVES PUBLIC MEETING

# Transportation Project Delivery Process

WE ARE HERE



**Evaluate:**

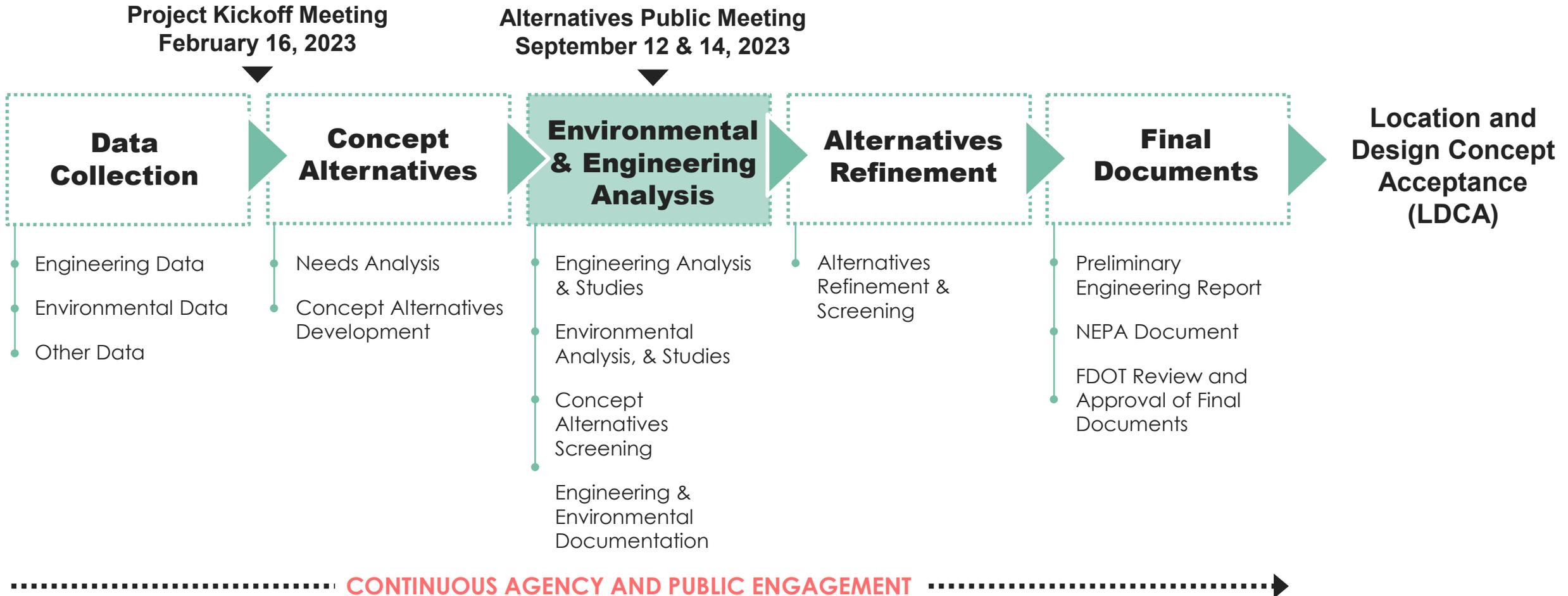
- Engineering Alternatives
- Environmental Impacts (Social, Cultural, Natural, and Physical Resources)

**Comply with:**

- National Environmental Policy Act (NEPA)
- Federal and State Environmental Laws
- Requirements Involving Federal Funding

ALTERNATIVES PUBLIC MEETING

# Project Development and Environment (PD&E) Study Process



ALTERNATIVES PUBLIC MEETING

# Long Key Bridge Facts

Part of 110-mile Florida Keys Scenic Highway and All-American Road



View: North/Northwest



FDOT Existing Long Key Bridge

FDEP Existing Florida Keys Overseas Heritage Trail

Also known as the **Dante B. Fascell Bridge**



**Year Constructed:** 1981



**Bridge Type:** Precast Segmental Box Bridge



**Vertical Clearance:** 25.54 feet



**Horizontal Clearance:** 111.0 feet between piers



**Bridge Length:** 12,152 feet (2.3 miles)



**Travel Lanes:** Two 12-foot travel lanes



**Shoulders:** 6-foot paved shoulders on both sides of the bridge also function as undesignated bicycle lanes



**Sidewalks:** No existing sidewalks

## ALTERNATIVES PUBLIC MEETING

## Bridge Sufficiency Rating Factors

Current Sufficiency Rating = 34.7

### 1. Structural Adequacy & Safety

Looks at the structural components of the bridge

### 2. Serviceability and Functionality

Looks at travel lane/shoulder widths, bicycle/pedestrian facilities, and flooding

### 3. Importance of the Bridge

Looks at the importance of the bridge to the community at large

### 4. Special Reductions

Reduces the bridge rating due to detour length, bridge railings, and structure type



ALTERNATIVES PUBLIC MEETING

# Replacement vs Repair

- ✓ **Bridge Structure**
- ✗ **Bridge Function – does not meet shoulder widths**
  - **Long Key Bridge Maintenance**
    - Recurring bridge corrosion has led to 5 major repair projects
    - **The most recent Long Key Bridge Repair project began in February 2023 (FPID 441964-1)**

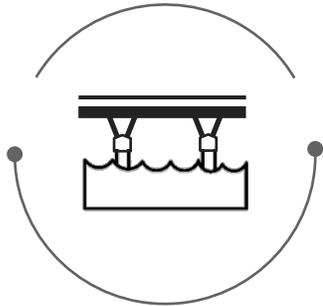
An April 2021 FDOT bridge replacement report recommended replacing the bridge rather than rehabilitating it and noted that a new bridge could be designed to minimize corrosion and maintenance costs. Furthermore, a new bridge would be designed to meet the FDOT 75-year bridge service life requirement.



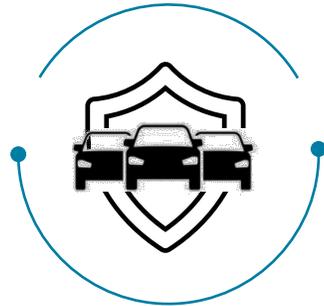
**ALTERNATIVES PUBLIC MEETING**

# Why is this Study Needed?

The purpose and need for this project is to evaluate the replacement of the Long Key Bridge to:



**Address  
Bridge  
Deficiencies**



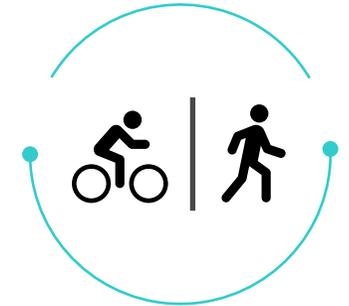
**Assess  
Roadway  
Capacity and  
Safety Needs**



**Evaluate  
Mobility**



**Improve  
Evacuation &  
Emergency  
Response Times**



**Evaluate  
Bicycle &  
Pedestrian  
Needs**

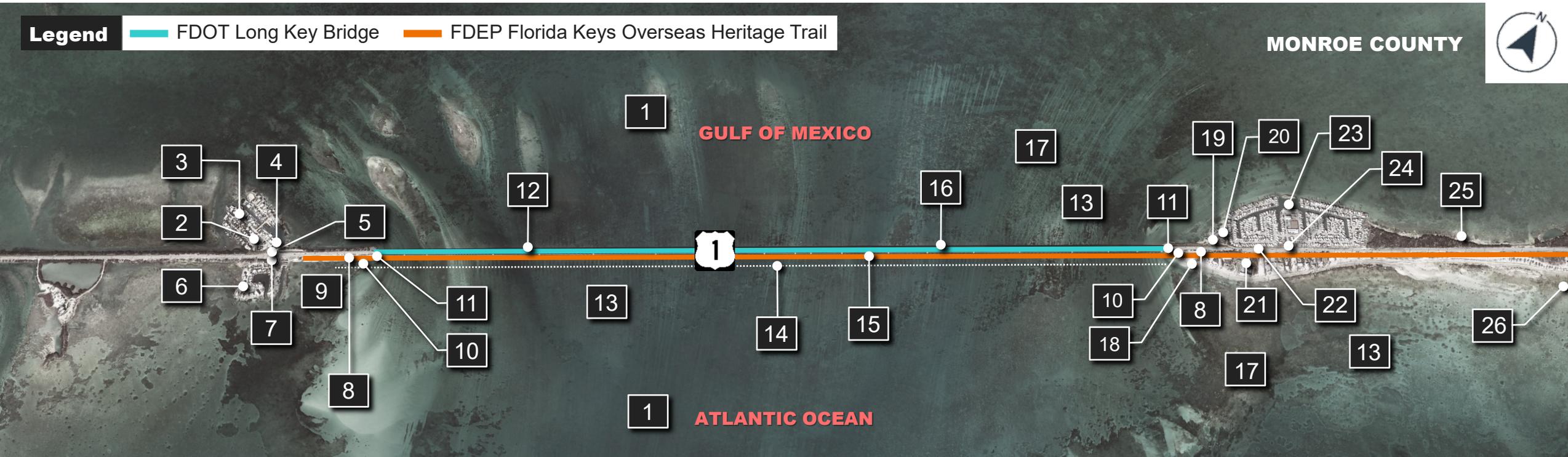
**Anticipated Class of Action: Environmental Assessment**

## ALTERNATIVES PUBLIC MEETING

### Legend

- FDOT Long Key Bridge
- FDEP Florida Keys Overseas Heritage Trail

MONROE COUNTY



- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li>1. Florida Keys National Marine Sanctuary</li> <li>2. Conch Key Fire Department</li> <li>3. Conch Key Historic District</li> <li>4. Conch Key Fishing Lodge &amp; Marina</li> <li>5. Conch Ave/Coral Key Entrance/US-1 Intersection</li> <li>6. Coral Key Village</li> <li>7. Driveway/US-1 Intersection</li> <li>8. FDEP Overseas Heritage Trail Parking</li> <li>9. Discontinuous Seagrass</li> </ul> | <ul style="list-style-type: none"> <li>10. Seawall and Abandoned Water Main</li> <li>11. FDEP Trailhead</li> <li>12. FDOT Long Key Bridge SR 5/US-1</li> <li>13. Florida Circumnavigational Saltwater or Florida Keys Paddling Trail</li> <li>14. Florida Keys Electric Cooperative (OH Electric)</li> <li>15. FDEP Overseas Heritage Trail Historic Bridge</li> <li>16. Florida Keys Aqueduct Authority 30" Water Main Below Bridge Deck &amp; Bridge Mounted Utility Conduit</li> </ul> | <ul style="list-style-type: none"> <li>17. Continuous Seagrass</li> <li>18. Possible Sea Turtle Nesting Area</li> <li>19. Edgewater Lodge Entrance/US-1 Intersection</li> <li>20. Edgewater Lodge</li> <li>21. Long Key Fishing Club</li> <li>22. Long Key Fishing Club Entrance/US-1 Intersection</li> <li>23. Outdoor Resorts Long Key</li> <li>24. Pelican Court/US-1 Intersection</li> <li>25. FDEP Long Key State Park</li> <li>26. USACE Shoreline Stabilization Project (under construction)</li> </ul> |
|--|---|--|

ALTERNATIVES PUBLIC MEETING

# Agency Coordination

JAN 2023

MAR 2023

APR 2023

MAY 2023

JUL 2023



**Jan 18:**  
South Florida Water  
Management District

**Mar 2:**  
USCG Coordination  
Meeting

**Apr 19:**  
Environmental Forum  
#1 (USCG,USACE,  
USEPA, FKNMS,  
NMFS, FFWCC,  
SFWMD, Monroe  
County, City of Layton)

**May 23:**  
FDEP Overseas  
Heritage Trail  
Coordination Meeting  
**May 24:**  
FKNMS/NMFS  
Benthic Survey  
Methodology  
Coordination Meeting

**July 10:**  
NMFS Coordination  
Meeting  
**Jul 16:**  
Florida Keys Scenic  
Corridor Alliance  
Coordination Meeting  
**Jul 26:**  
South Florida Water  
Management District



ALTERNATIVES PUBLIC MEETING

# US Coast Guard Coordination

**WE WANT TO HEAR FROM YOU!**

**LONG KEY BRIDGE NAVIGATION SURVEY**

SR 5/US 1 Long Key Bridge over Long Key Channel (Bridge # 90094) Project Development and Environment (PD&E) Study, Monroe County, FL  
FPID No.: 448206-1-22-01 | ETDM No.: 14451

The Florida Department of Transportation (FDOT) District Six is conducting a Project Development and Environment (PD&E) Study to evaluate the replacement of the SR 5/US 1 Long Key Bridge over Long Key Channel in Monroe County. The purpose of this project is to address bridge deficiencies, assess capacity and safety needs, evaluate mobility, improve evacuation and emergency response, and evaluate bicycle and pedestrian needs.

To determine the appropriate bridge navigational clearance needs for the bridge, an understanding of those who navigate under the bridge is key to making informed decisions about the project.

To take the quick survey scan the QR Code below or use the following link <https://www.surveymonkey.com/r/QPM6Y27>.

The survey closes April 2, 2023.

STAY CONNECTED

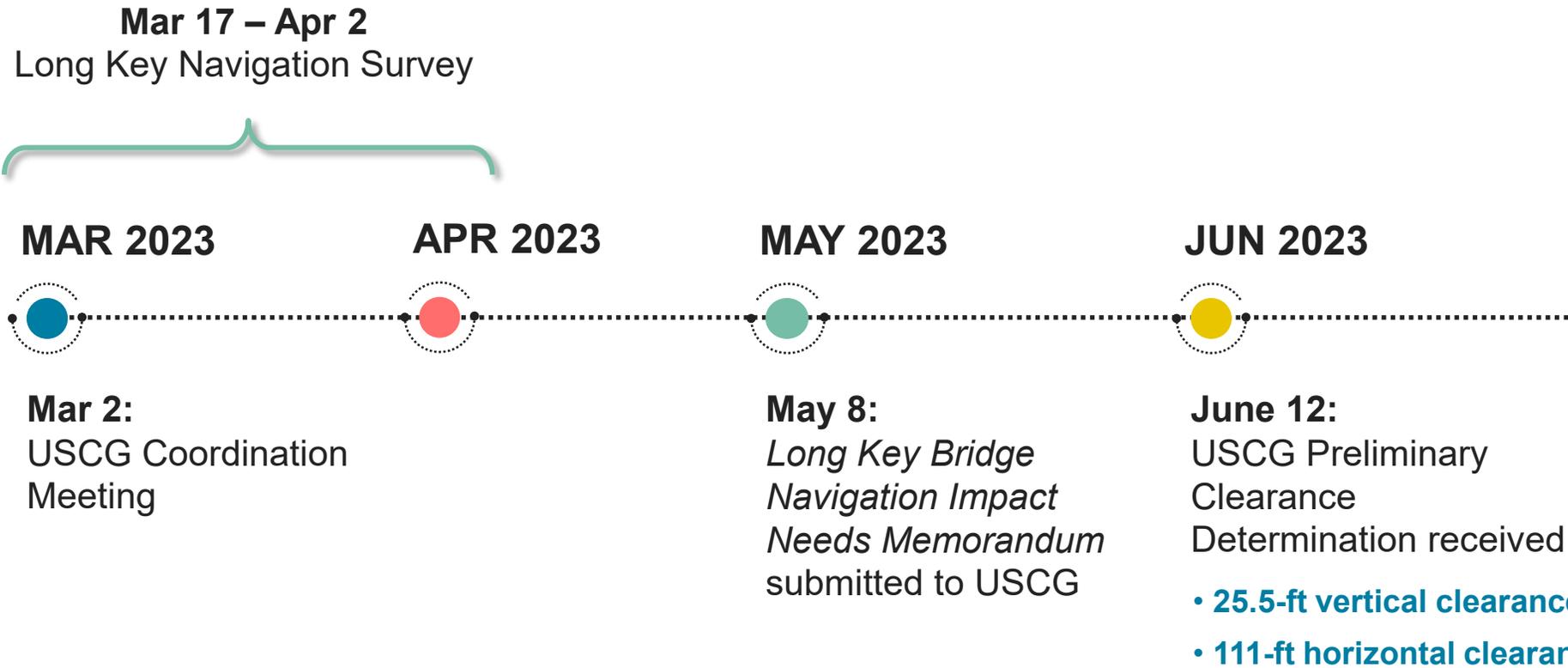
**BAO-YING WANG, P.E.**  
Project Manager  
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Baoying.Wang@dot.state.fl.us

**BETH BEAM, MS, AICP**  
Consultant Project Manager  
Startec  
Beth.Beam@startec.com

**VERONICA PAREDES**  
Community Outreach Specialist  
Startec  
Veronica.Paredes@startec.com

Public involvement is a critical component of the PD&E Study process and we encourage you to become and stay involved throughout the entire project. Please visit the project website often to get current information, provide comments, and register for future public meetings.

[www.fdotmiamidadc.com/LongKeyBridge.html](http://www.fdotmiamidadc.com/LongKeyBridge.html)



ALTERNATIVES PUBLIC MEETING

# Alternatives Evaluation Process



## Data Collection & Analysis

- Land & Water Surveys
- Traffic
- Roadway
- Drainage
- Natural
- Physical
- Cultural
- Social



## Typical Section Analysis

- Process is Repeated
- Drives Concept Development

## Traffic and Safety Analysis

- Traffic Methodology
- Existing Conditions
- Future Demand Forecasting
- Build Conditions
- Safety Analysis
- Intersection Control Evaluation
- Project Traffic Analysis Report

## Engineering Analysis

- Bridge
- Roadway
- Drainage/Coastal Influences
- Geotechnical
- Constructability

## Environmental Analysis

- **Cultural Resources**
- Natural Resources
- Physical Resources
- Agency Consultations
- Documentation

## Section 4 (f) Resources

- Project adjacent to Overseas Heritage Trail and historic trail bridge
- Florida Keys Circumnavigational Saltwater Paddling Trail
- Florida keys Paddling Trail
- Alternatives minimize impacts to these resources

## Section 106 Resources

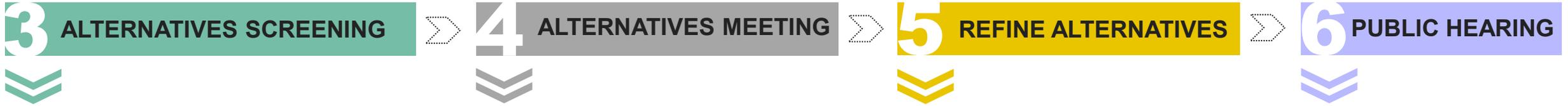
- Cultural Resource Assessment will evaluate effects to resources

**Views on the improvements and their potential effects are welcomed**



ALTERNATIVES PUBLIC MEETING

# Alternatives Evaluation Process



## Screen Alternatives Against Project Criteria

- ✓ No Action (or No Build) Alternative
- ✗ Transportation System Management and Operations (TSM&O) Alternative
- ✗ Rehabilitation/Repair Alternative
- ✓ Build Alternatives
  - Alternative 1: Existing
  - Alternative 2: East (Atlantic)
  - Alternative 3: West (Gulf)

## Alternatives moving forward and presented to the public

- Alternative 2: East (Atlantic)
- Alternative 3: West (Gulf)

Following the Alternatives Public Meeting and review of comments and input received, alternatives may be further refined

Preferred Alternative Identified and presented to the public

Spring 2025

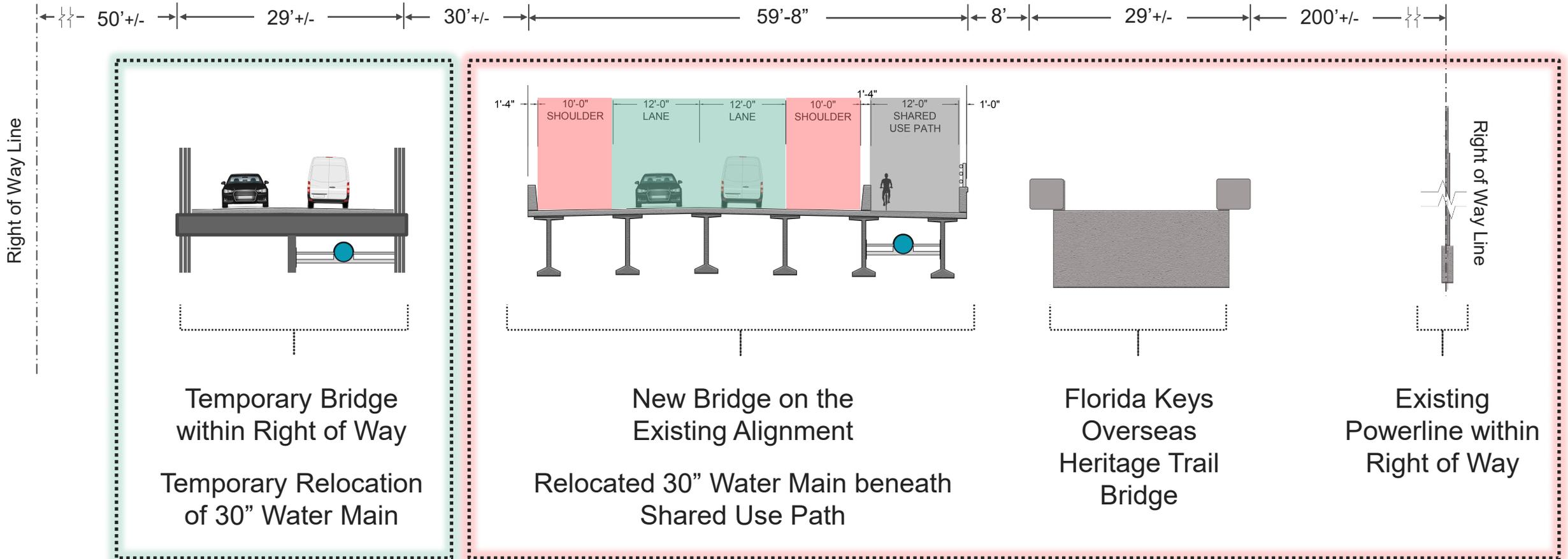
*We are  
HERE!*



ALTERNATIVES PUBLIC MEETING

# Alternative 1: Existing Alignment

View looking North



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# ✘ Alternative 1: Existing Alignment Dismissed

**Legend**   ● Positive   ● Negative   ● No Change

**TEMPORARY BRIDGE**

Environmental impacts from temporary bridge, demolition of existing bridge, and construction of new bridge



Additional environmental mitigation requirements from temporary bridge



Relocation of water main from existing bridge, to temporary bridge, and back to new bridge



Time and cost to construct temporary bridge



Impacts to navigation from temporary bridge reduced vertical and horizontal clearances



No bicycle access



Additional permitting



Evacuation and emergency response disruptions/delays due to lack of shoulders (increased temporary bridge width to include shoulders will increase impacts)



**NEW BRIDGE**

New bridge proximity to Overseas Heritage Trail Bridge = 8 feet +/-



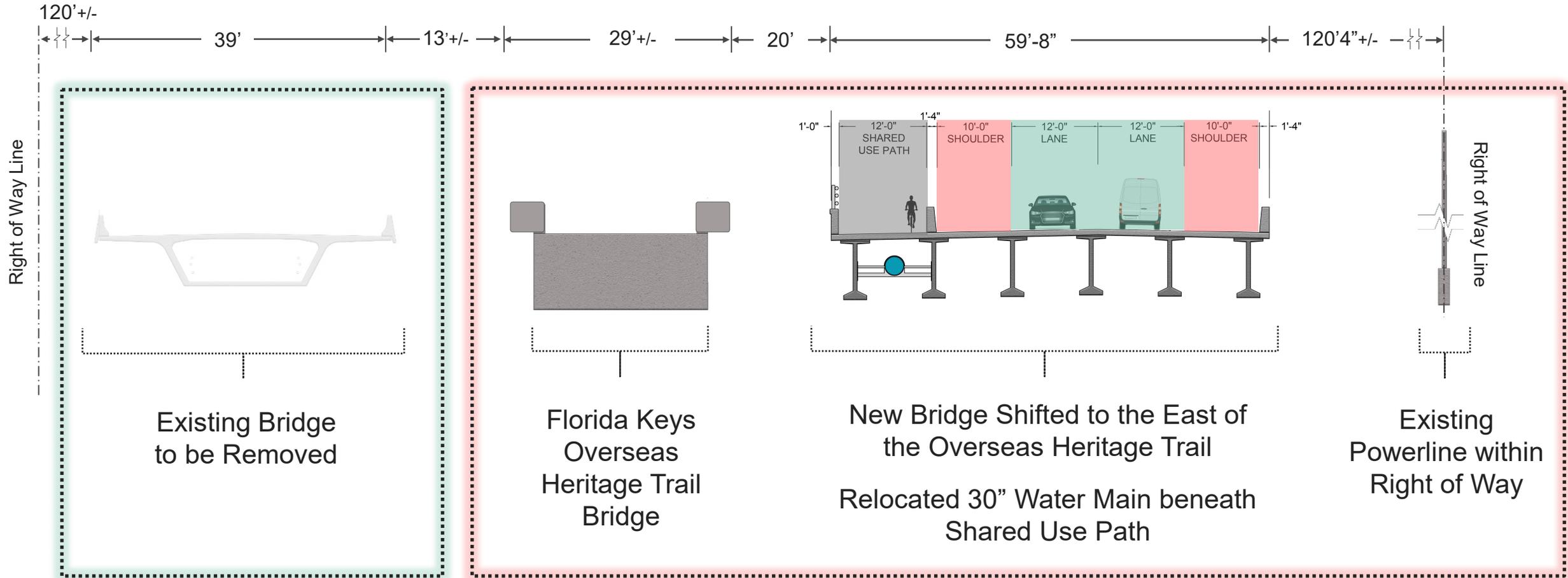
Potential construction vibration impacts to Overseas Heritage Trail Bridge



ALTERNATIVES PUBLIC MEETING

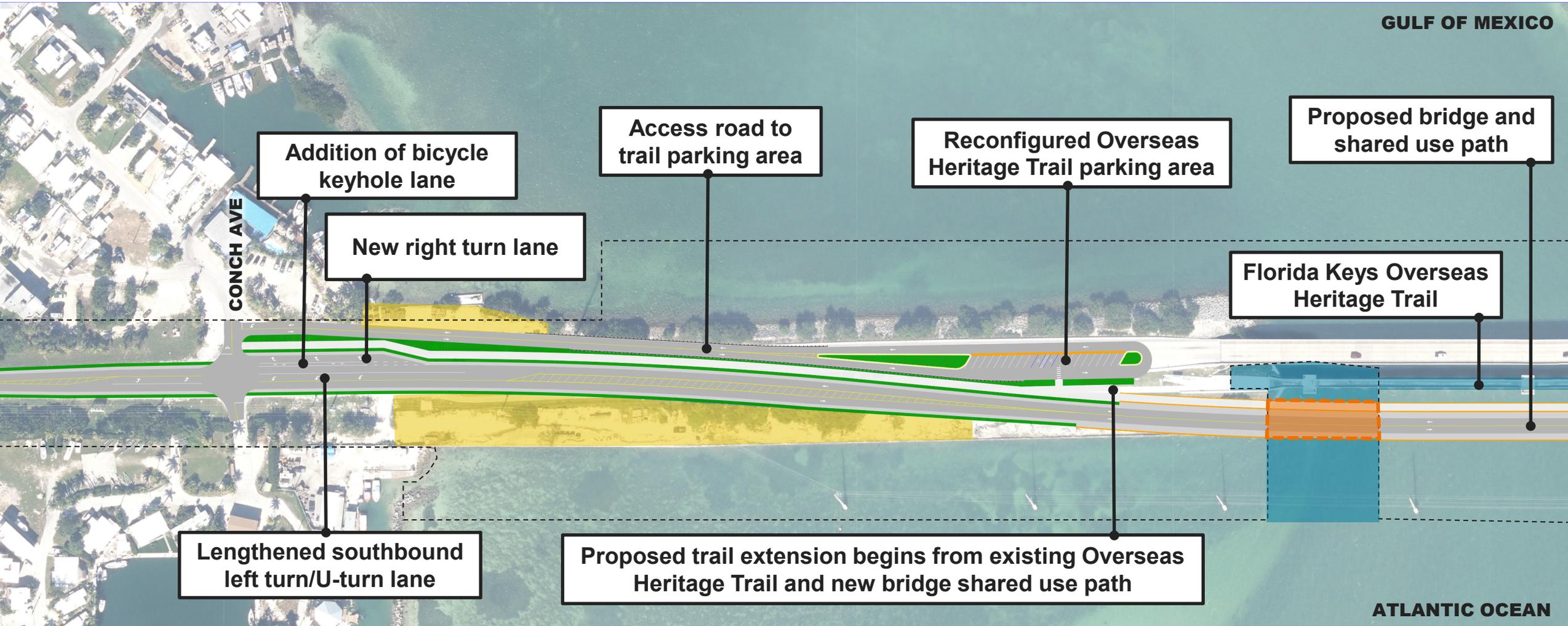
# Alternative 2: East Alignment – Atlantic Ocean

View looking North



ALTERNATIVES PUBLIC MEETING

Alternative 2: East Alignment at Conch Key



GULF OF MEXICO

CONCH AVE

Addition of bicycle keyhole lane

New right turn lane

Access road to trail parking area

Reconfigured Overseas Heritage Trail parking area

Proposed bridge and shared use path

Florida Keys Overseas Heritage Trail

Lengthened southbound left turn/U-turn lane

Proposed trail extension begins from existing Overseas Heritage Trail and new bridge shared use path

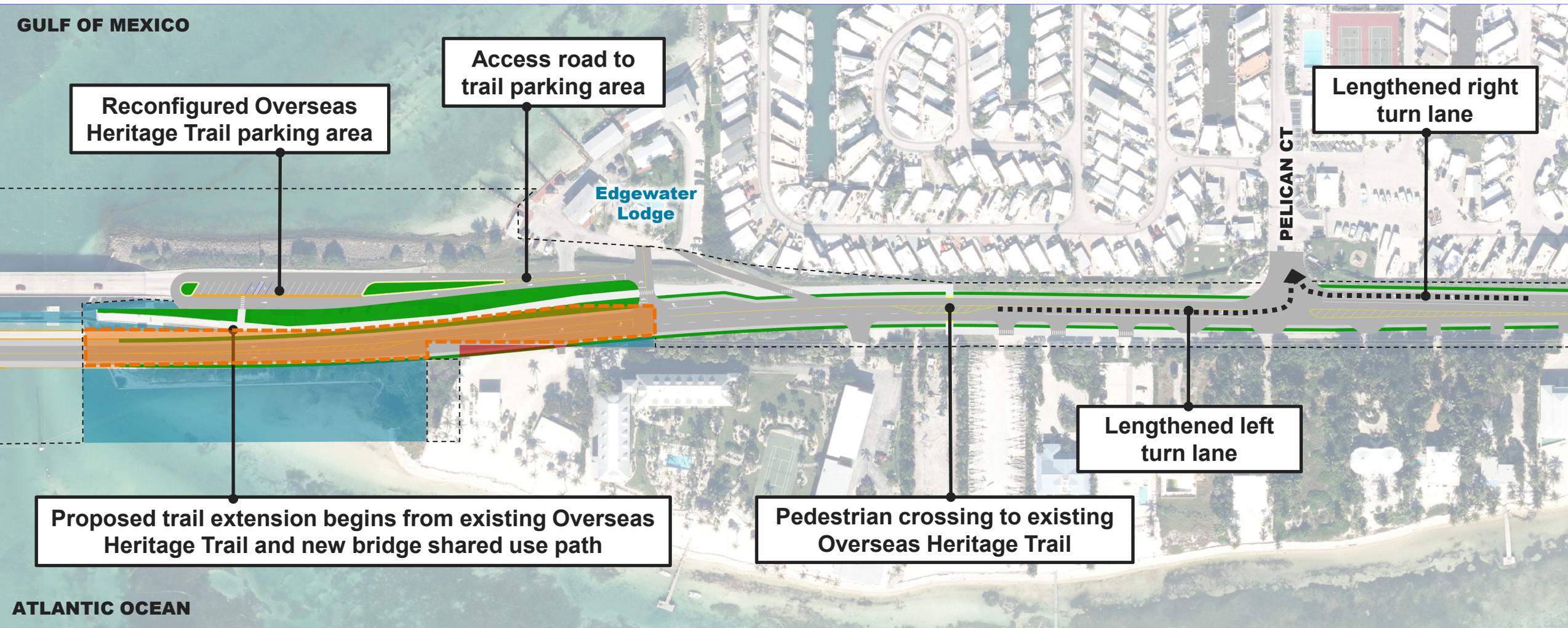
ATLANTIC OCEAN

Legend

- Existing right of way
- Florida Department of Environmental Protection (FDEP) Land
- Local fisherman organization trap storage area to remain
- Section 4(f) impacts

### ALTERNATIVES PUBLIC MEETING

## Alternative 2: East Alignment at Long Key



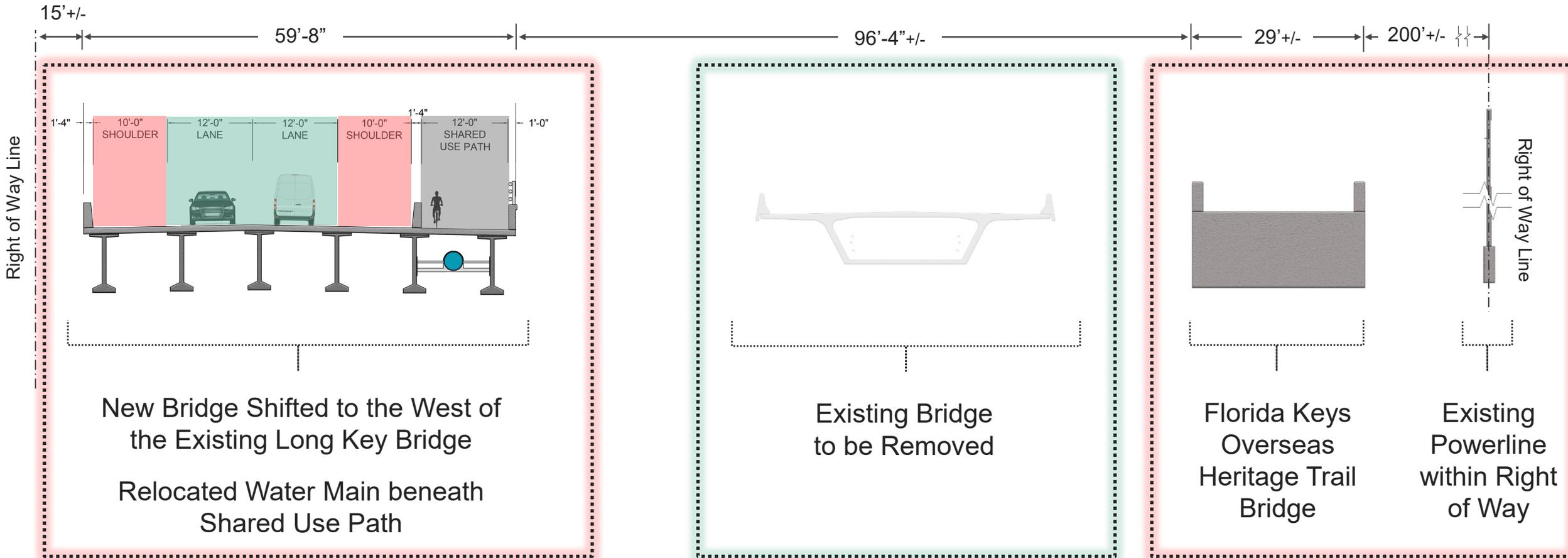
#### Legend

- Existing right of way
- Florida Department of Environmental Protection (FDEP) Land
- Approximate required right of way
- Section 4(f) impacts

ALTERNATIVES PUBLIC MEETING

# Alternative 3: West Alignment – Gulf of Mexico

View looking North



New Bridge Shifted to the West of the Existing Long Key Bridge

Relocated Water Main beneath Shared Use Path

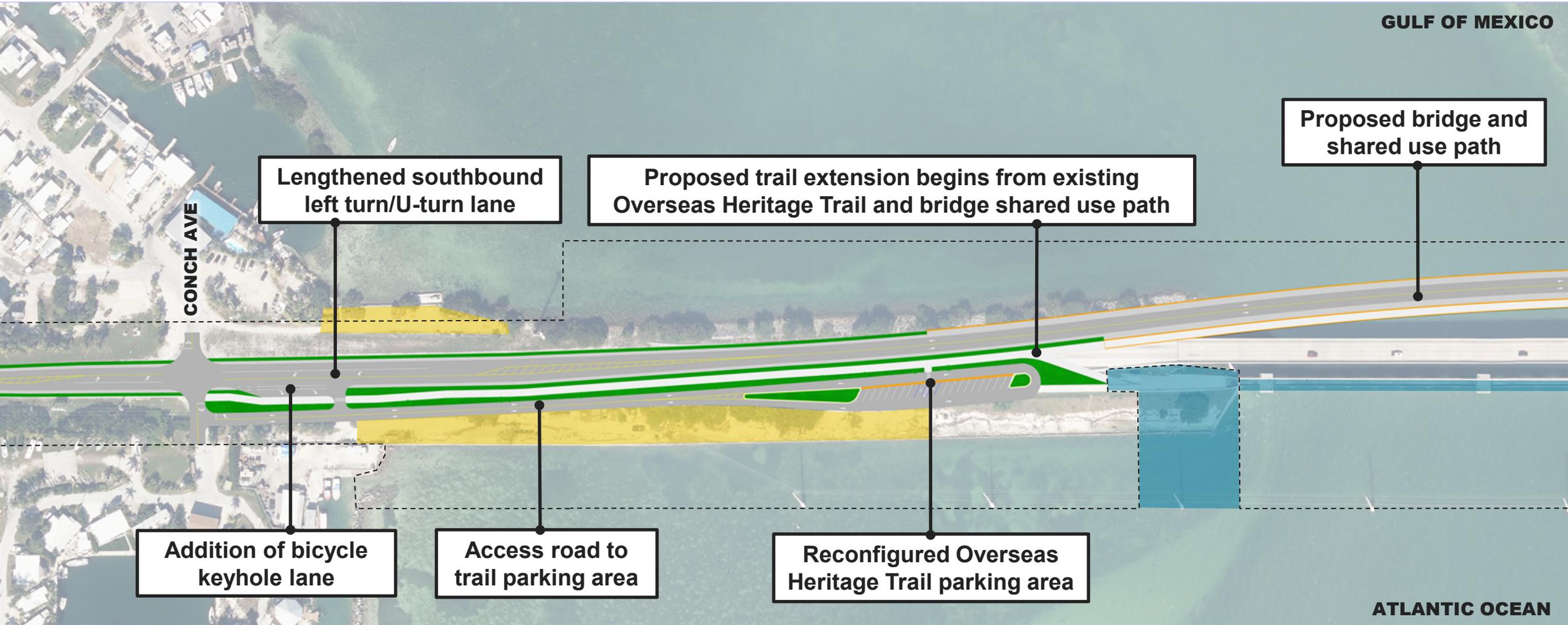
Existing Bridge to be Removed

Florida Keys Overseas Heritage Trail Bridge

Existing Powerline within Right of Way

ALTERNATIVES PUBLIC MEETING

Alternative 3: West Alignment at Conch Key



GULF OF MEXICO

CONCH AVE

Lengthened southbound left turn/U-turn lane

Proposed trail extension begins from existing Overseas Heritage Trail and bridge shared use path

Proposed bridge and shared use path

Addition of bicycle keyhole lane

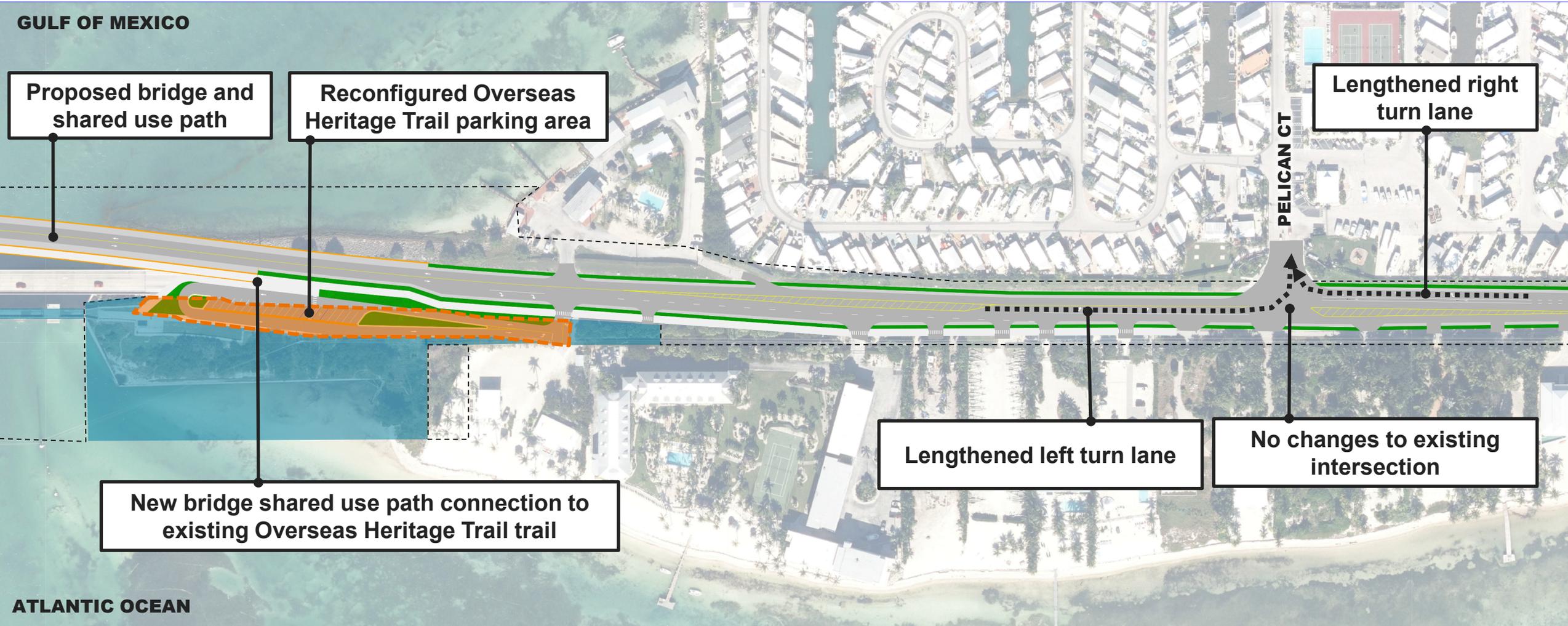
Access road to trail parking area

Reconfigured Overseas Heritage Trail parking area

ATLANTIC OCEAN

ALTERNATIVES PUBLIC MEETING

Alternative 3: West Alignment at Long Key



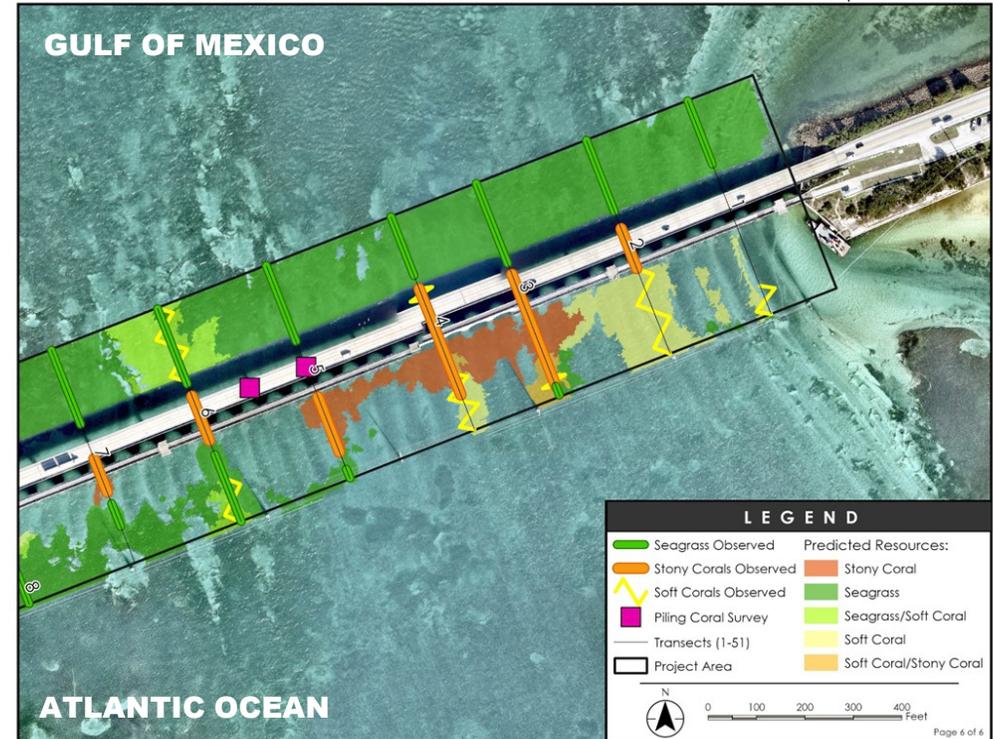
ALTERNATIVES PUBLIC MEETING

# Environmental Impacts



CONCH KEY

LONG KEY



**ALTERNATIVES PUBLIC MEETING**

# Environmental Impacts



**Minimal Impact:**

- Coastal wetlands/mangroves
- Water Quality
- Historic Resources
- Recreational Resources

**No Impact Anticipated:**

- Noise
- Air Quality
- Contamination
- Archaeological Resources
- Community Resources

**NEXT STEPS:**

- Section 7 Consultation for Listed Species
- Essential Fish Habitat Consultation
- Section 106 Consultation for Historic Resources
- Continued coordination with state and federal permitting agencies
- Mitigation Plan Development

### ALTERNATIVES PUBLIC MEETING

**Legend**

- Positive
- Negative
- No Change

	<b>No Build Alternative</b>	<b>Alternative 2: East Alignment</b>	<b>Alternative 3: West Alignment</b>
<b>PLANNING &amp; STANDARDS</b>	Meets purpose and need for the project	● No	● Yes
	Meets planning consistency	● No	● Yes
	Meets FDOT Design manual (current edition)	● No	● Yes
	Meets FDOT Structures Design Manual (current edition)	● No	● Yes
<b>BRIDGE</b>	Vertical navigational clearance above mean high water	● 25.4-feet - Existing	● 25.4-feet - Existing
	Horizontal navigational clearance between piers	● 111-feet - Existing	● 177-feet
	Benefit to marine traffic	●	● Yes
	Temporary bridge required	● No	● No
	Bridge closure or detour during construction	● No	● No
	Life of alternative (estimated in years)	● 7 years	● 75 years
<b>TRAFFIC OPERATIONS &amp; SAFETY</b>	Improved vehicular traffic	●	● Yes
	Improved evacuation/emergency response	●	● Yes
	Improved Overseas Heritage Trail north and south trailhead entrances	●	● Yes
<b>NATURAL RESOURCES</b>	Impacts to terrestrial wetlands/surface waters (acres)	●	● Yes – Coastal wetlands (0.75) / Surface Waters (22.78)
	Impacts to species and habitat	●	● Yes – Listed species and critical habitat
	Impacts to essential fish habitat	●	● Yes – Direct/Indirect impacts to corals and seagrass
<b>SOCIAL &amp; CULTURAL RESOURCES</b>	Impacts to Section 4(f) resources	●	● Yes – Florida Keys Overseas Heritage Trail
	Impacts to Section 106 eligible or listed historic resources	●	● Yes – Florida Keys Overseas Heritage Trail
	Impacts to local businesses	●	● No
	Improved bicycle and pedestrian facilities	●	● Yes
	Closure of Overseas Heritage Trail during construction	●	● Yes
<b>PHYSICAL RESOURCES</b>	Utility relocations	●	● Yes
	Impacts from Contamination sites	●	● No
	Enhanced visual resources and physical characteristics	●	● No
<b>RIGHT OF WAY</b>	Parcels impacted (number)	●	● Yes (5)
	Additional Right of Way required	●	● No
<b>COSTS</b>	Design, Right of Way, Construction	●	● \$\$\$

ALTERNATIVES PUBLIC MEETING

# Bridge Foundation Detail



- Florida I-beams
- Hammerhead pier cap
- V-shaped pier
- Pier foundation  
Rectangular concrete footing and piles

# Proposed Bridge



**ALTERNATIVES PUBLIC MEETING**

Schedule is subject to change.

# Where are We?



**ALTERNATIVES PUBLIC MEETING**



**BAO-YING WANG, P.E., CPM**  
**Project Manager**

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 1000 NW 111 Avenue, Miami, FL 33172

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**Consultant Project Manager**  
 Stantec

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**[www.southflroads.com/LongKeyBridge](http://www.southflroads.com/LongKeyBridge)**



[instagram.com/MYFDOT\\_Miami](https://www.instagram.com/MYFDOT_Miami)



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[facebook.com/MyFDOTMiami](https://facebook.com/MyFDOTMiami)



[youtube.com/user/MyFDOTMiami](https://youtube.com/user/MyFDOTMiami)

ALTERNATIVES PUBLIC MEETING

# Public Comment Period



## Virtual Attendees

1. Type in **Question pane** on the Control Panel
2. Select the **Raise Hand** button on the control panel
  - Unmute your microphone when your name is called



## Dial-in

Dial-in Attendees are in “**listen only**” mode.

If you are calling via a smart phone, you will be able to raise your hand to provide comments at the end of the presentation.



## In-Person

Line up at the microphone to provide comments.

*On upper left of  
GoToWebinar  
Control Panel*



## ALTERNATIVES PUBLIC MEETING

## NHTSA Child Passenger Safety Week

9/17/2023 – 9/23/2023

Visit <https://www.nhtsa.gov/road-safety/child-safety> for prevention tips and information about vehicle features to avoid:

- Vehicle Rollaway
- Backover
- Heatstroke
- Power Windows
- Seat Belt Entanglement
- Trunk Entrapment



## ALTERNATIVES PUBLIC MEETING



**THANK YOU FOR ATTENDING!**  
Alternatives Public Meeting

## SR 5/US 1 Long Key Bridge over Long Key Channel

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Please complete our **exit survey**  
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