

# SR A1A Long Term Improvements Feasibility Study South of S. 28<sup>th</sup> Street to South of Osprey Drive

FLAGLER COUNTY



The Florida Department of Transportation welcomes you to the public information meeting for the State Road A1A Long Term Improvements Feasibility Study.

Thank you for attending this important event. There will be no formal presentation during this meeting. This is an open house format from 2:30 pm till 6:30 pm. This presentation will loop throughout the meeting. Please take the time to review the documents, maps, and plans on display. Feel free to speak with a member of the study team if you have any questions. We ask that you please fill out a comment form or talk with a team member about your concerns.

## Title VI and Title VIII



- Title VI, Civil Rights Act of 1964
- Title VIII, Civil Rights Act of 1968  
(as amended)

without regard to...

Race	Sex
Color	Religion
National origin	Disability
Age	Family status

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This meeting is being held in accordance with Title VI of the Civil Rights Act of 1964 and Title VIII of the Civil Rights Act of 1968, as amended.

Anyone who feels he or she has been discriminated against with regard to race, color, national origin, age, sex, religion, disability or family status may express their concerns by contacting the Florida Department of Transportation.

Forms are available for you to contact both the local and state Title VI coordinator. All inquiries or complaints will be handled according to FDOT procedure and in a prompt and courteous manner. The Title VI coordinators contact information is available this evening.

## Purpose of the Study



The State Road A1A Long Term Improvements Feasibility Study is being conducted by the Florida Department of Transportation in association with several federal, state and local partners.

# Purpose of the Study



- Components
  - Engineering requirements
  - Natural, human, and built environments
  - Costs
  - Public and agency input
- Provides a basis for future phases
- Purpose is to identify long term permanent solutions to protect future damage and erosion to SR A1A



A Feasibility Study is a planning study that assesses components such as engineering requirements, impacts and enhancements to the natural, human and built environments, costs, and public and agency input. A feasibility study vets all options and provides a basis for future phases such as preliminary engineering studies, final design, right of way acquisition (as needed) and ultimately, construction.

The purpose of this study is to identify and assess potential long term solutions to protect State Road A1A along this segment in Flagler County from future storm damage and erosion.

## Purpose of this Meeting



- Present the wide range of improvement options under consideration
- Get your input on the improvement options



This meeting is being held to present the wide range of improvement options being considered and to get your input on the various options so that future actions can be determined.



The limits of this study are a 5.2-mile section of State Road A1A from south of South 28<sup>th</sup> Street to south of Osprey Drive.

This section of State Road A1A was identified in previous studies conducted by both the Florida Department of Transportation and the US Army Corp of Engineers. A small section in this area has had temporary reconstruction of the roadway, beach, and dune stabilization elements.



# Identification of the Problem



- SR A1A has been damaged by storms events
  - Most recently with Hurricane Matthew
- Impacts
  - Millions of dollars for repairs and maintenance
  - Tourism and commerce
  - Quality of life
- Coordination with other agencies
  - Florida Department of Transportation
  - Federal Highway Administration
  - Florida Department of Environmental Protection
  - US Fish and Wildlife Service
  - Florida Fish and Wildlife Conservation Commission
  - National Marine Fisheries Service
  - US Army Corps of Engineers
  - Flagler County, City of Flagler Beach, and the Town of Beverly Beach



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Over the years, State Road A1A has been affected by storm events, including most recently, Hurricane Matthew.

These damages to State Road A1A have cost several millions of dollars for roadway repair and maintenance, and has greatly affected tourism, commerce, and quality of life for the areas residents and visitors.

# Identification of the Problem



- SR A1A has been damaged by storms events
  - Most recently with Hurricane Matthew
- Impacts
  - Millions of dollars for repairs and maintenance
  - Tourism and commerce
  - Quality of life
- Coordination with other agencies
  - Future needs
  - Environmental sensitivity
  - Community feedback
  - Costs
  - Engineering



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The information presented today has involved close coordination and partnerships between the Florida Department of Transportation, the Federal Highway Administration, the Florida Department of Environmental Protection, US Fish and Wildlife Service, National Marine Fisheries Service, the US Army Corp of Engineers, Flagler County, the City of Flagler Beach, and the Town of Beverly Beach.

Moving forward, this partnership will continue. A project of this magnitude involves a delicate balance between future needs, environmental sensitivity, community feedback, costs, and engineering elements.



## Status of Temporary Construction



- SR A1A was damaged by Hurricane Matthew on October 7, 2016 causing sections to be closed
- FDOT repaired the road and dunes so that SR A1A could be re-opened to traffic on November 7, 2016
- The new construction is considered a temporary emergency repair
- Additional areas of erosion have been identified and additional temporary repairs will be made in the near future



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As a result of the damage to State Road A1A from Hurricane Matthew, temporary improvements have been constructed and include the addition of rock, known as revetments, as well as adding new sand to the dunes. Also, an approximately 1-mile segment of State Road A1A has been rebuilt and shifted to the west within the FDOT right of way.

This is not the first time this has happened. In fact, these types of improvements have been made to several sections of State Road A1A over the past several years and some are still in place. These temporary improvements were never intended to be left in place permanently. There are still areas along Flagler Beach experiencing severe erosion and FDOT will be making additional emergency repairs at these locations in the near future.

## Previously Completed Studies



Issues with beach erosion and damage to State Road A1A have been an ongoing problem along this section of Flagler Beach.

There have been more than a dozen studies conducted by different government agencies related to this issue since about 1980.

Part of this current study includes reviewing and updating information on alternatives from the previous studies, plus consideration of several new options. Any long term solution will involve a partnership among many federal, state, and local agencies.

## Interests of Government Stakeholders



- Environmental agencies
  - Beach and dunes
  - Sea turtle nesting habitat
- Local governments
  - Residents and businesses
  - Maintain viable tourism
  - Safety
  - Parking
- FDOT
  - Protect and maintain SR A1A



The various governmental agencies have differing interests along Flagler Beach given the focus of each agency.

The environmental permitting agencies are focused on elements such as protecting sea turtle nesting habitat. Local government agencies like Flagler County, the City of Flagler Beach, and the Town of Beverly Beach also have interests in the beach related to the community, local economy, tourism, and the overall quality of life.

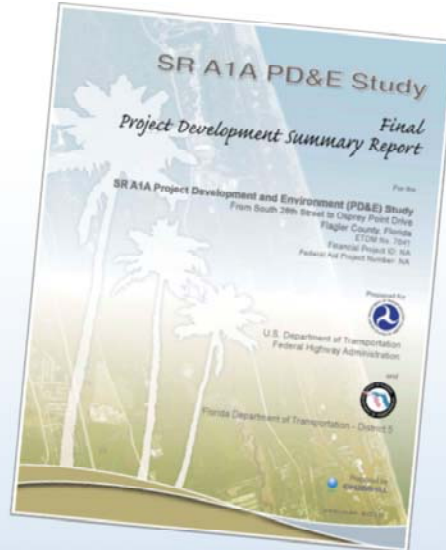
FDOT's focus is protecting and maintaining State Road A1A.

It is important that all of these are considered in the process.

# FDOT PD&E Study



- Approved in 2011
- Resulting improvements
  - Two interim
  - One long term
- Interim improvements
  - Revetment using coquina rock
  - Revetment using granite rock
- Long term improvement
  - Retaining wall with sand covering
  - Adding natural vegetation



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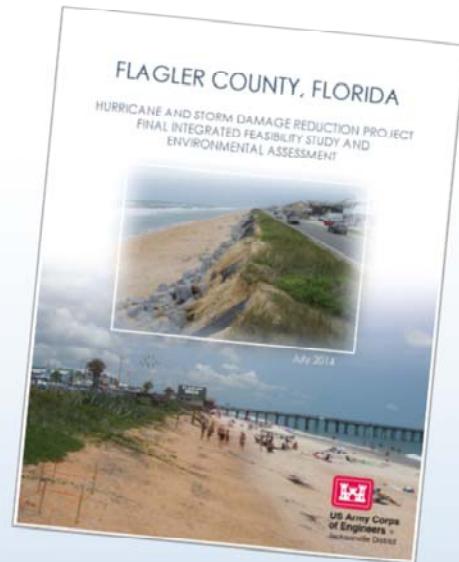
Two of the previously completed studies are most relevant to this study. The first is the FDOT Project Development and Environment, or PD&E Study that was approved in 2011. As a result of the study, two interim improvements and one long term improvement were approved by the FDOT and the Federal Highway Administration.

The two interim improvements included adding rock revetments or stabilization - using either coquina or granite rock. The long term improvement included a potential retaining wall that would involve burying the wall with sand, as well as the addition of natural vegetative features – which also helps with stabilization.

# US Army Corps of Engineers Study



- Conducted in 2014
- Included
  - Engineering
  - Environmental
  - Economic
- Goal to protect Flagler Beach and infrastructure
- Recommended option
  - Rebuilding the dune
  - Beach re-nourishment every 11 years
  - 50-year life cycle cost of \$42 million
- Does not protect SR A1A from major storm damage

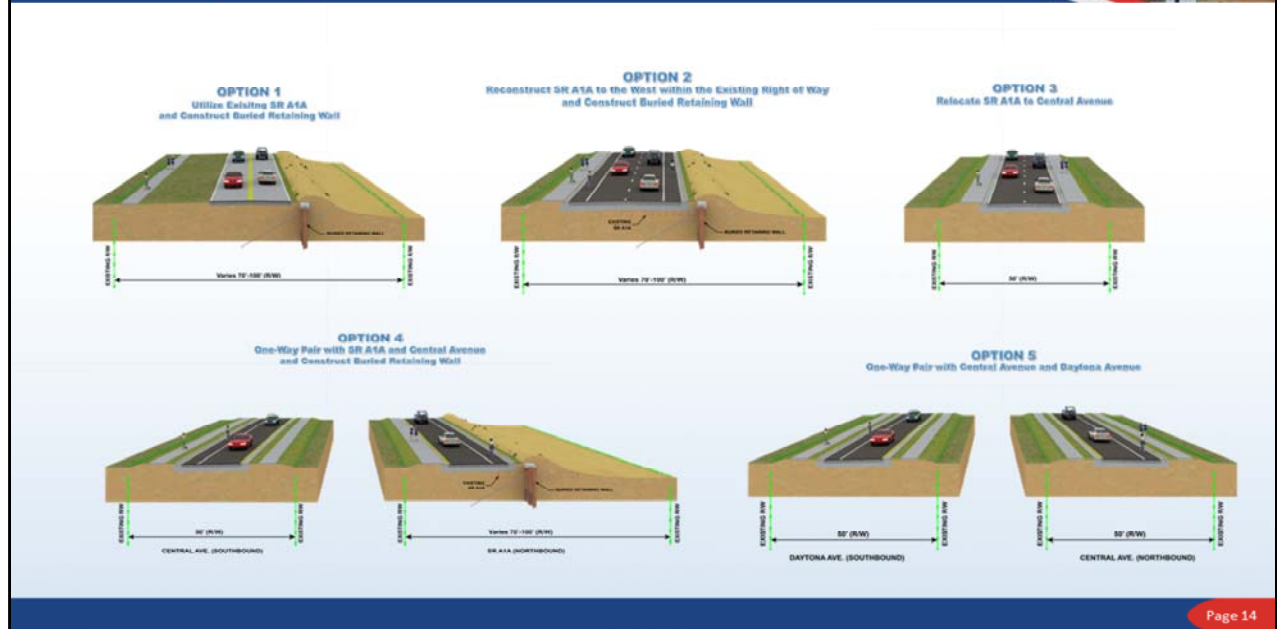


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A 2014 US Army Corps of Engineers study focused on reducing hurricane and storm damage to Flagler Beach and its infrastructure. The study involved engineering, environmental, and economic components. The results of the study was a beach nourishment plan that would require the beach to be re-nourished every 11 years. This option does not protect State Road A1A from major storm damage.



# Roadway Improvement Options



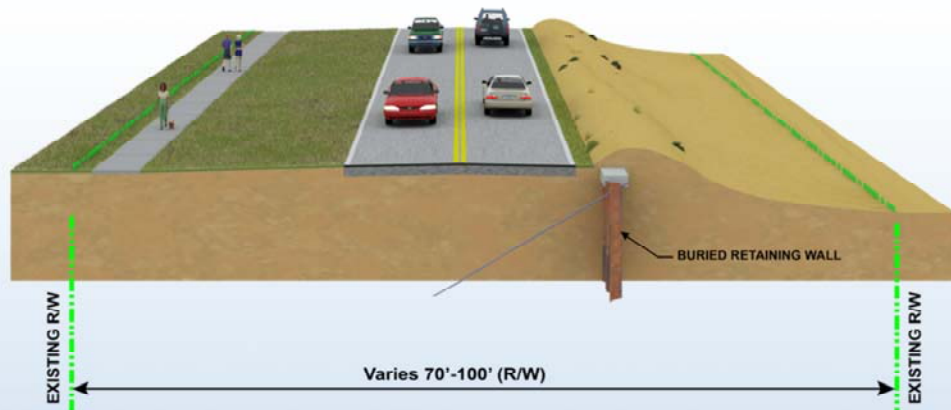
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We have several different roadway improvement options on display. It is important to note that all options have distinct advantages and limitations, but at this point the analysis is considering all options which could meet the objectives of all agencies and local governments.

## Roadway Improvement Options



### **OPTION 1** **Utilize Existing SR A1A** **and Construct Buried Retaining Wall**



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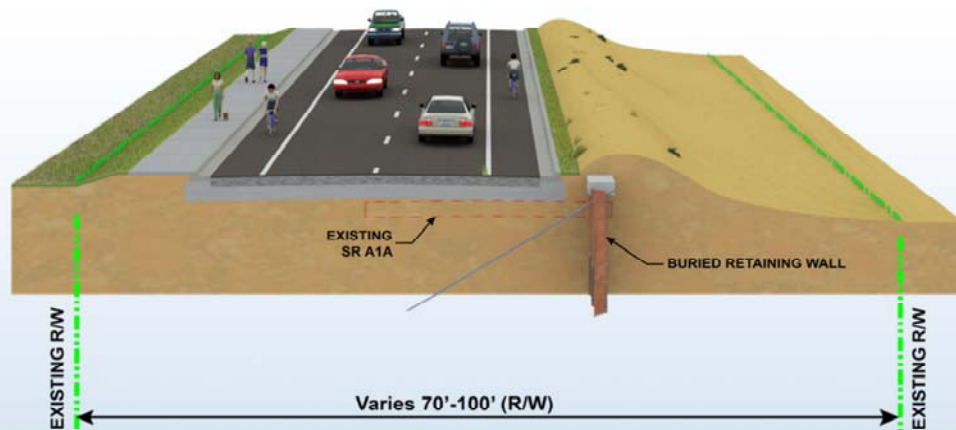
The first option would be to leave State Road A1A in its current location and construct a retaining wall that is covered with sand and native vegetation.

## Roadway Improvement Options



### OPTION 2

**Reconstruct SR A1A to the West within the Existing Right of Way  
and Construct Buried Retaining Wall**



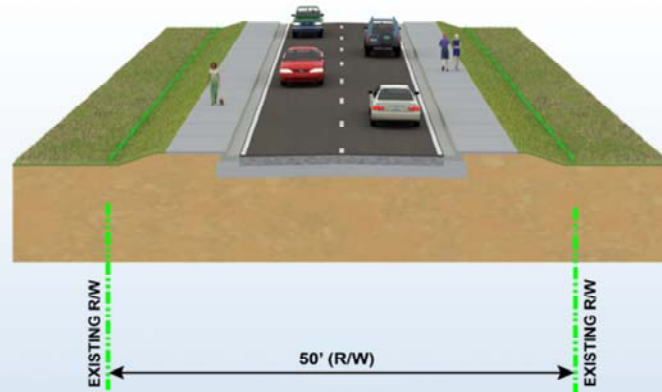
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The second option would be re-construct State Road A1A as far to the west as possible within the existing right-of-way. A buried retaining wall would also be used in this option.

## Roadway Improvement Options



### OPTION 3 Relocate SR A1A to Central Avenue



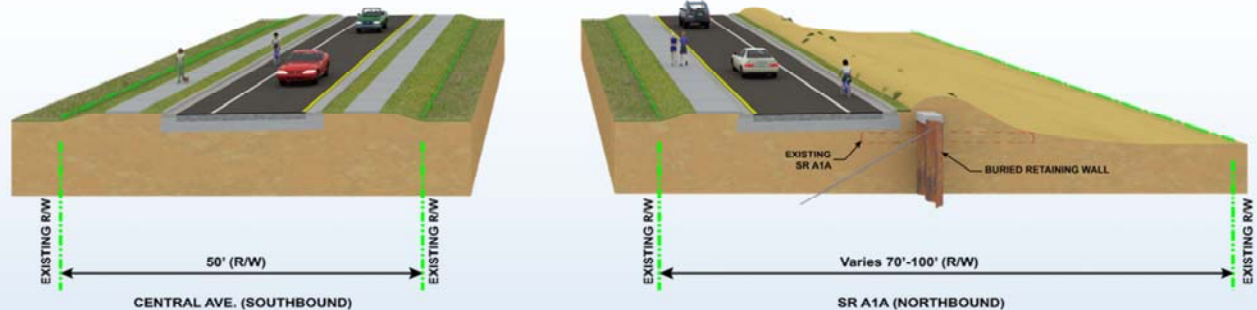
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The third option would be to relocate State Road A1A to Central Avenue and potentially removing the existing roadway along the beach

## Roadway Improvement Options



### OPTION 4 One-Way Pair with SR A1A and Central Avenue and Construct Buried Retaining Wall



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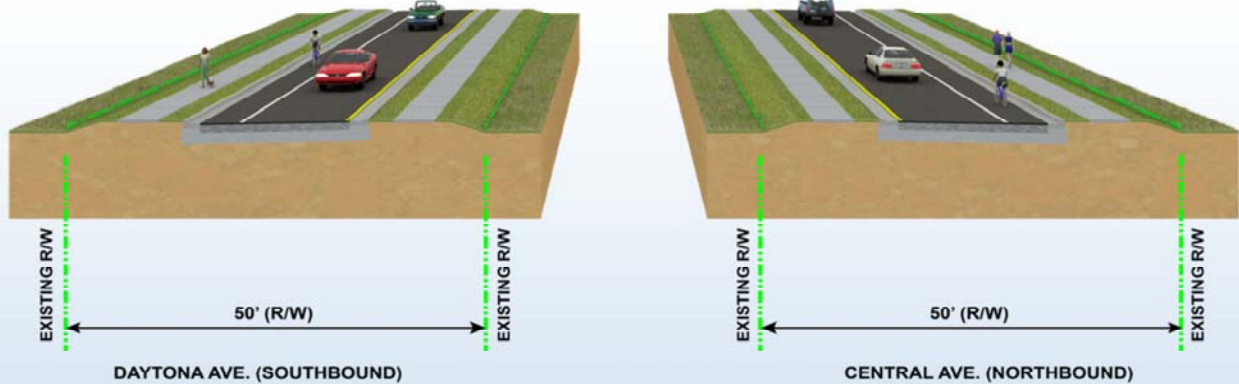
Option 4 involves creating one-way pairs using the existing State Road A1A right-of-way to construct the new northbound lane and converting Central Avenue to the southbound lane. This option also includes a buried retaining wall to protect the northbound lane.



# Roadway Improvement Options



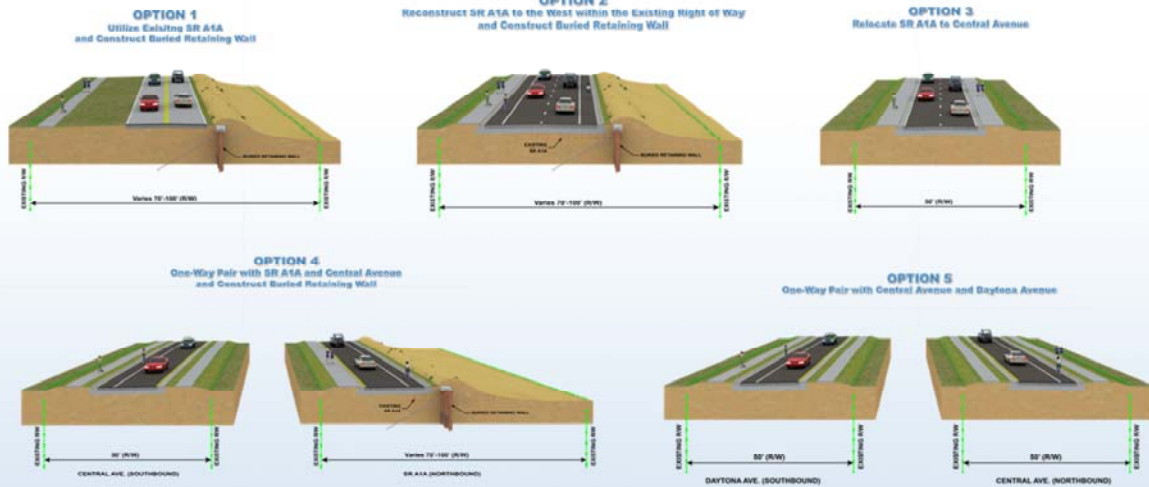
## OPTION 5 One-Way Pair with Central Avenue and Daytona Avenue



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Option 5 would create one-way pairs using Central Avenue as the northbound lane and Daytona Avenue as the southbound. The existing State Road A1A would be removed and potentially replaced with a trail or other feature.

# Roadway Improvement Options



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Any ultimate improvements could be one of these specific options, any combination of them, or perhaps even other options to consider.

## The “No-Build” Alternative



- No-Build is a viable alternative
- Leaves SR A1A in its current condition
- Requires reconstruction of repaired section damaged during Hurricane Matthew
- Repairs and maintenance as required



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The “No-Build” or do nothing option is also considered a viable alternative. The no-build alternative would leave State Road A1A in its current condition. If the “No-Build” option was ultimately selected, the section of roadway that was rebuilt following Hurricane Matthew would need to be reconstructed back to its original location. After restoring the repaired section of roadway, only maintenance and general repairs would be performed.

# Comparative Matrix



- Preliminary analysis
  - Costs
  - Environmental permitting
  - Engineering elements
  - Local support

Option	Cost	Environmental Permitting	Engineering Elements	Local Support
Option 1: (The alternative includes construction of 10,000 sq ft of new parking spaces)	High	Low	Low	Low
Option 2: (The alternative includes construction of 10,000 sq ft of new parking spaces and a new parking lot)	High	Low	Low	Low
Option 3: (The alternative includes construction of 10,000 sq ft of new parking spaces and a new parking lot and a new parking lot)	High	Low	Low	Low
Option 4: (The alternative includes construction of 10,000 sq ft of new parking spaces and a new parking lot and a new parking lot and a new parking lot)	High	Low	Low	Low
Option 5: (The alternative includes construction of 10,000 sq ft of new parking spaces and a new parking lot and a new parking lot and a new parking lot and a new parking lot)	High	Low	Low	Low

The options on display tonight have considered a variety of factors such as costs, environmental permitting constraints, engineering elements, and local support. The options being considered are included in a matrix that compares the advantages and limitations of each option.

While not all options may seem favorable, it is important that all options are explored and considered, which is the focus of today's meeting.

## How you can help



Please provide your comments by:  
**December 19, 2016**



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As a member of the community, your input is extremely valuable. Team members are ready to discuss the various options with you and answer your questions.

We encourage you to fill out a comment form and drop it in the box provided. Comment forms are available at the sign-in table and the comment tables. If you would like to take a comment form with you and mail it back to us, please do so before December 19, 2016. The address is shown on the comment form. You may also email us your comments. The email address is provided on the comment form.



# SR A1A Long Term Improvements Feasibility Study South of S. 28<sup>th</sup> Street to South of Osprey Drive

FLAGLER COUNTY

The video presentation will replay shortly...



Thank You.

**Public Information Meeting**

December 15, 2016

Thank you again for attending and for your interest in State Road A1A. We look forward to answering your questions and receiving your comments.