



# Appendix T

## Newsletters



June 2021



# Newsletter

ISSUE 1 - WINTER 2019

## Introducing the US 278 Corridor Improvement Project

The South Carolina Department of Transportation (SCDOT) is proposing improvements to the US 278 corridor between Bluffton and Hilton Head Island, from Moss Creek Drive to Squire Pope Road. The goal of these improvements will be to increase capacity, with resulting improvements in mobility and traffic congestion. Additional studies from Squire Pope Road to the Cross Island Parkway will be conducted to identify improvements needed between these two roadways.

The eastbound Mackay Creek Bridge will be replaced; it was originally built in 1956 and is scheduled for replacement. Additional studies for potential improvements include:

- Modifications to the remaining three bridges;
- Improved access to Pinckney Island National Wildlife Refuge; and
- Improved access to the C.C. Haigh, Jr. boat ramp.



Community involvement and communication will be a primary focus of the project to ensure successful development of the environmental process. Additionally, SCDOT will be working hand-in-hand with the Federal Highway Administration and Beaufort County. The project is to be funded using federal, state, and local funds.

## What is NEPA, and where are we in this process?

The National Environmental Policy Act (NEPA) provides a national framework for environmental planning and decision-making. When planning projects using federal funds, an agency must conduct certain environmental reviews to understand any potential impacts the proposed project might have on the human and natural environments.

SCDOT will progress this project through the planning phase with an environmental assessment (EA), with the eventual goal of acquiring right-of-way and construction. Working alongside FHWA and Beaufort County, SCDOT will develop the EA, which will include reviewing alternatives and comparing impacts on the natural and human environments.



An EA includes a brief discussion of the need for the project, alternatives, environmental impacts of the proposed action and alternatives, and a listing of additional agencies consulted.

# Where is all this traffic coming from?

The Federal Highway Administration (FHWA) defines congestion as “an excess of vehicles on a portion of roadway at a particular time resulting in speeds that are slower-sometimes much slower- than normal or ‘free flow’ speeds. Congestion often means stopped or stop-and-go traffic”

There are three factors that cause congestion:

- Traffic-influencing events: construction, traffic accidents, or weather-related delays;
- Traffic demand: commuter traffic, tourism traffic, or special events; and
- Physical highway features: number of lanes, traffic signals, or roadway alignment.

To understand the traffic situation on the US 278 corridor, the project team has evaluated traffic growth over the past five years. Between 2013 and 2017, total traffic growth has increased by 8% which comes to an average of 56,300 vehicles per day.

The project team will use traffic forecasts to the year 2050 for this project.

Using the Lowcountry Area Transportation Study (LATS) Regional Travel Demand Model, which comprises the Lowcountry Council of Governments Region (Colleton, Hampton, Jasper, and Beaufort counties), we can see that there is a projected:

- 41% total population growth from 2010 to 2040.
- 42% total household growth from 2010 to 2040.
- 61% total employment growth from 2010 to 2040.

VARIABLE	2010	2020	2030	2040
Total Population	247,000	282,000	317,000	349,000
Households	96,000	110,000	124,000	136,000
Total Employment	88,000	104,000	123,000	142,000

[www.lowcountrycog.org](http://www.lowcountrycog.org)

*LATS Regional Travel Demand Model*



## Public Information Meeting in Review

The first Public Information Meeting was held on September 27th, 2018 at the Hilton Head Island High School cafeteria from 6:00-8:00 pm. There were 203 total attendees at the meeting.

102 comments were received from online, email, in-person, and mailed-in comment submissions. Comments ranged in topic from bike lanes, preserving Gullah heritage, and road widening.

Over the next several months, the project team will be diving into a technical analysis of the traffic, roadways and environment to develop project alternatives. These alternatives will be presented to the public in at the next in-person and online Public Information Meetings in the fall of 2019.

## Ways to Get Involved

Stay informed by following us on Facebook and Twitter; request a presentation from our [Speakers Bureau](#); and invite us to your [Community Meetings](#).



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# Newsletter

ISSUE 2 - SUMMER 2019

## NEPA: Understanding the Alternative Development Process

The National Environmental Policy Act (NEPA) process is an approach to balanced transportation decision-making that requires the examination and avoidance of potential impacts to the social and natural environment. This process allows the best overall alternative to be chosen based upon a balanced consideration of the need for safe and efficient transportation; of the social, economic, and environmental impacts.

During the Alternative Development Process a range of alternatives will be considered and evaluated, including the no-build option, mass transit, high-occupancy vehicle lanes, and ridesharing. The alternatives analysis will explain how alternatives were evaluated and why each alternative was eliminated from consideration. The range of alternatives and results of the analysis will be presented for your review and comment in the Fall of 2019.



## Exploring What's Underneath through a Geotechnical Investigation

The project team has been hard at work completing the geotechnical investigation, both on land and under water, for the US 278 Corridor Improvements project. A geotechnical investigation includes the exploration of the surface and underground conditions of a site and is generally completed at the beginning of a project. This investigation provides a better understanding of the existing physical conditions of the project site and may inform the team of any potential challenges or limitations to consider when designing a roadway or bridge.

For this project, a diving service helped locate and protect underwater utilities in both Skull and Mackay Creeks, while the geotechnical team collected traditional soil samples. Currently, laboratory testing of samples collected, including those gathered from both land and underwater



locations, is underway. Additionally, the site specific soil p-y method, a test to analyze the ability of local soils to resist pressure and provide support for project features, such as roads and bridges, is in progress.

This data will be used to develop seismic models that will provide valuable information about the existing bridges as well as the needed information for the design of the new Mackay Creek bridge. Lastly, this same geotechnical data will be used to calculate potential settlement and overall seismic stability of the roadway approaches to ensure the improvements can withstand specific seismic thresholds.

# Improving Traffic Along US 278 through Growth Modeling

Traffic grows in relationship to several factors such as: population growth, changes in employment and economic development opportunities, tourism activity, and the movement of goods in to, out of, and through a region. All these factors play a role in estimating future traffic. Understanding how traffic volumes have changed over the past five years is beneficial to understanding the current environment; however, historical growth trends do not tell the full story of future traffic conditions.

This project has a horizon year of 2040, and the project team used the Lowcountry Area Transportation Study (LATS) Regional Travel Demand Model to help estimate what future traffic would look like along US 278 and the surrounding roadways. The regional model, which includes data for Beaufort, Colleton, Jasper and Hampton Counties, is used to forecast future traffic because it includes information such as estimated population and employment growth and the influence of tourist activity on traffic and travel patterns on a regional basis.

To account for the consistently high summer tourist volumes, while balancing the off season, the project team determined that the "30th highest day" volumes would be used for the

analysis of the intersections. For example, if you ranked all the traffic volumes (number of cars on the road) for a year from highest to lowest, the number of vehicles estimated on the 30th from the top would be used to assess the transportation needs. This value represents more cars on the road than under "average daily" conditions. Additionally, it accounts for the seasonal tourists without over-designing the roadway for the busiest day of the year, which could result in constructing too many lanes and using more public infrastructure dollars than appropriate for the community's needs. This method is consistent with traditional traffic engineering practices and accounts for the fluctuation in traffic conditions throughout the year in a community that experiences heavy tourist traffic.

Through the ongoing traffic studies, the project team is making determinations about how many lanes are needed through the corridor, as well as the traffic operations improvements that may support the safe and efficient movement of cars. **In other words, the traffic engineering team is working to reach a balance between widening roads and managing traffic through improved traffic signals, access management, and signage.**



## Where We Have Been

In February, the project team attended the Gullah Celebration Market to provide information about the project and learn more about the Hilton Head Island and Bluffton communities. In March, we held a meeting with area stakeholders to understand the unique concerns of the local residents and businesses and to share insight into the project development process. We are using the information heard at these events to put together the Community Impact Assessment to understand the impacts the project may have on the community and to inform the roadway improvements design process.

**Complete Our Community Impact Survey:** [www.scdot278corridor.com](http://www.scdot278corridor.com)

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## Save the Date

Our next Public Information Meeting will be held on September 19th, 2019; look out for more information on this coming soon.





# Newsletter

ISSUE 3 - FALL 2019

## OVERVIEW OF THE PROJECT

SCDOT is proposing to make improvements to the US 278 corridor between Moss Creek Drive in Bluffton and Spanish Wells Road on Hilton Head Island. The purpose of this project is to address structural deficiencies at the existing eastbound Mackay Creek bridge, and to increase capacity and reduce congestion within the project limits.

The eastbound Mackay Creek Bridge (constructed in 1956) is nearing the end of its service life and is scheduled for replacement. Additional studies for potential improvements within these project limits include:

- Modifications of the remaining three bridges, and
- Improved access to Pinckney Island National Wildlife Refuge and to the C.C. Haigh, Jr. boat ramp.

In association with FHWA and Beaufort County, SCDOT will develop an 'Environmental Assessment' (EA) document for the proposed project. The EA will include

review of all proposed alternatives and will evaluate potential impacts to the natural and human environment. SCDOT will complete the EA process prior to acquiring any right-of-way or beginning construction for the proposed project.

Efforts have been focused on community involvement and communication to ensure the successful development of the environmental process. Due to the major roles state and federal resource agencies play, the project team will work closely with them in completing the environmental review process. The project is to be financed using federal, state, and local funds. Right-of-way acquisition for this project is tentatively scheduled to begin in 2021.

## STUDY AREA

The US 278 Corridor Improvements project runs along the US 278 corridor from Moss Creek Drive in Bluffton to Spanish Wells Road on Hilton Head Island.



## WHERE WE ARE IN THE PROCESS

SCDOT is taking this important project through an Environmental Assessment (EA) as part of the National Environmental Policy Act, or NEPA, process. We are currently at step five of this process (the second public information meeting). Following this public information meeting, the project team will incorporate the received public input into the development of the preferred alternative. The preferred alternative will be presented at the public hearing, tentatively scheduled for late 2020.

## THE NEPA PROCESS | US 278 CORRIDOR

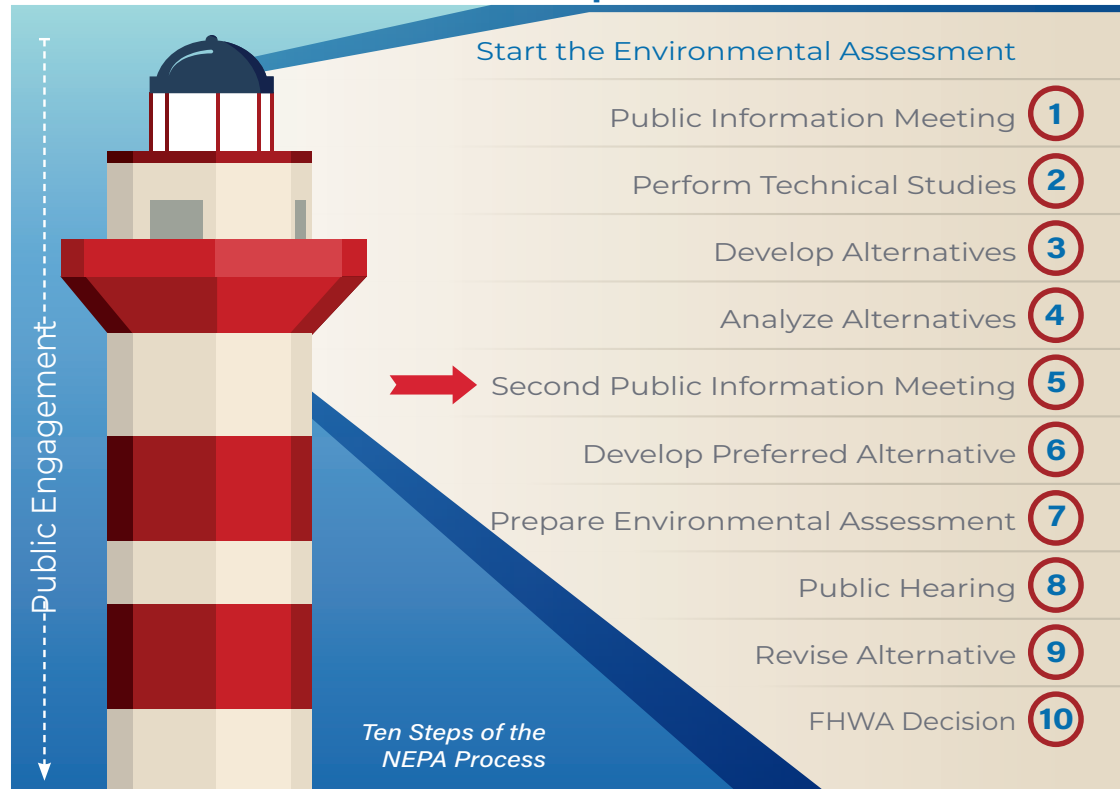


FIGURE 2. NEPA PROCESS

## PRELIMINARY RANGE OF ALTERNATIVES

Incorporating feedback from the community, and considering known constraints and challenges, the engineering team developed seventeen (17) alternatives called the "Preliminary Range of Alternatives" shown in Figure 3.



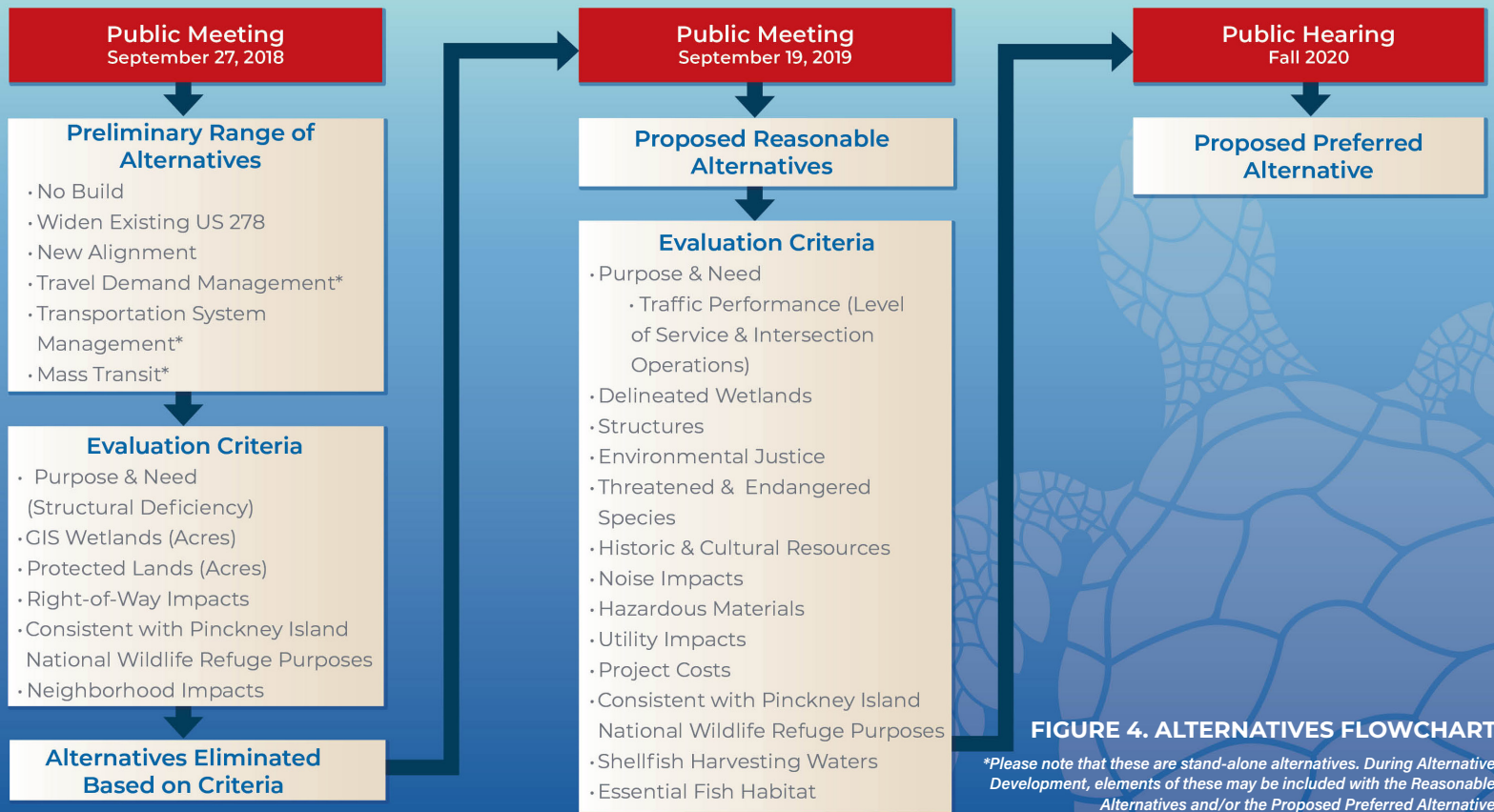
## Save the Date

Our next Community Event will be held on October 19th, 2019 at the Bluffton Arts and Seafood Festival; look for members of our project team at the Street Fest from 10:00 AM - 5:00 PM.

# ALTERNATIVES DEVELOPMENT EVALUATION CRITERIA

The preliminary range of alternatives has been systematically evaluated using the criteria shown in Figures 4 and 5 below. These criteria were used to filter seventeen (17) alternatives, the preliminary range of alternatives, down to the reasonable alternatives. These criteria include the projected number of properties that may be impacted, as well as potential impacts to neighborhoods, protected lands, and wetlands. Potential impacts were quantified using Geographical Information Systems (GIS) and the best available data from federal, state, and local government sources.

## ALTERNATIVES DEVELOPMENT FLOWCHART



## REASONABLE ALTERNATIVES

Below are the resulting six (6) reasonable alternatives. These are the alternatives remaining after applying the initial criteria to the preliminary range of alternatives.

### Reasonable Alternative 1 (RA 1)

- Build new eastbound Mackay Creek bridge south of the existing bridge
- Recondition and widen existing westbound Mackay Creek bridge
- Recondition and possibly widen Skull Creek bridges
- Use existing alignment as much as possible

### Reasonable Alternative 2 (RA 2)

- Build a new bridge to the north of existing westbound Mackay Creek bridge
- Recondition existing westbound Mackay Creek bridge and convert to eastbound traffic
- Use newly constructed bridge for westbound traffic over Mackay Creek
- Recondition and possibly widen Skull Creek bridges

### Reasonable Alternative 3 (RA 3)

- Build 2 new eastbound bridges south of the existing alignments, one over Mackay Creek and one over Skull Creek
- Recondition and widen westbound Mackay Creek Bridge
- Recondition existing Skull Creek Bridges and convert to westbound traffic only

### Reasonable Alternative 4 (RA 4)

- Replace all 4 existing bridges with one new bridge immediately south of the existing alignment
- Build a new access to the Pinckney Island National Wildlife Refuge and CC Haigh Jr. Boat Ramp
- Use existing alignment east of the new bridges
- Remove existing bridges



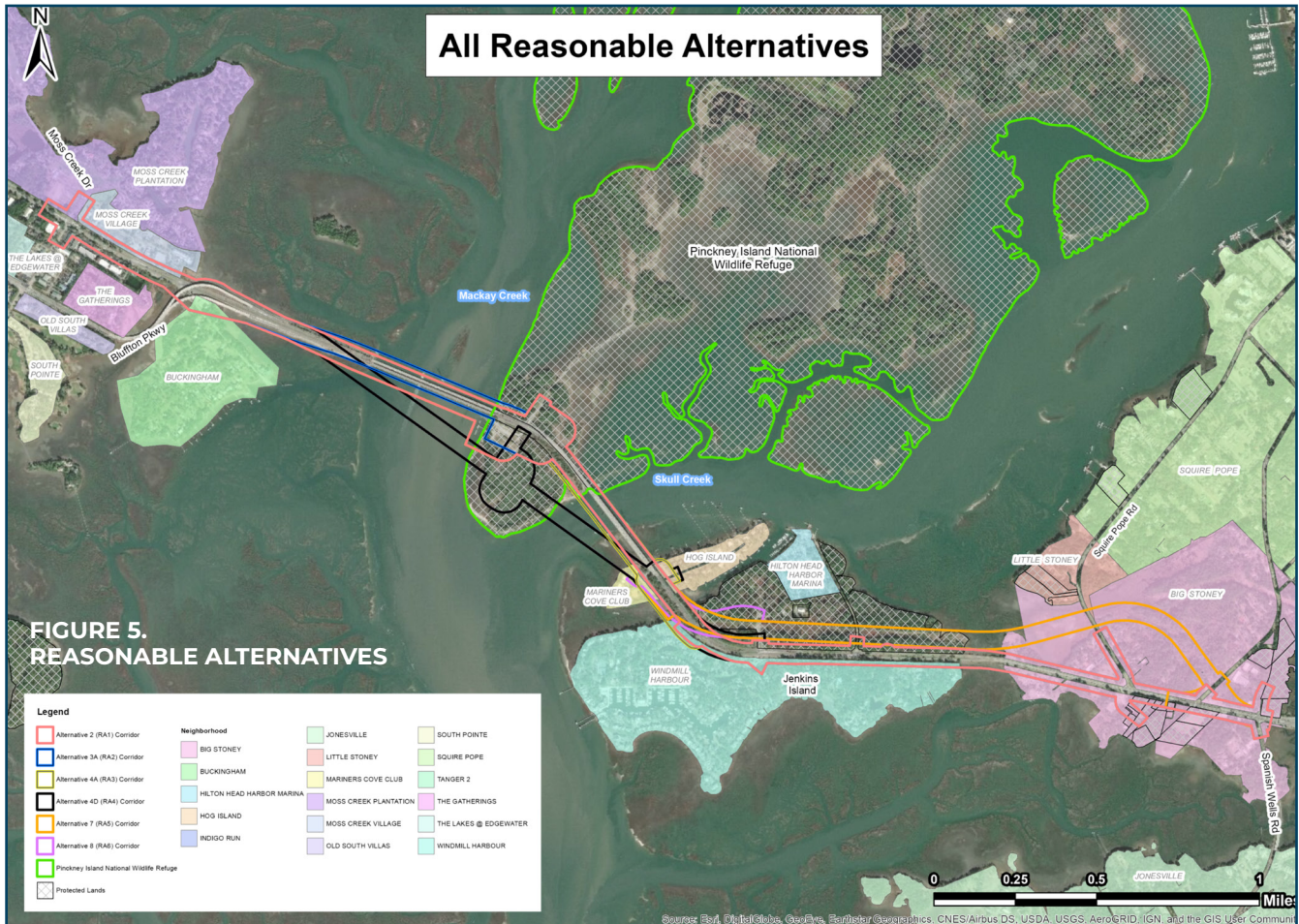
# REASONABLE ALTERNATIVES (CONTINUED)

## Reasonable Alternative 5 (RA 5)

- Build 2 new eastbound bridges just south of the existing
- Recondition westbound bridges and widen in place
- Improve access to the Pinckney Island National Wildlife Refuge and CC Haigh Jr. Boat Ramp
- Utilize the existing transmission line easement for US 278 running from Jenkins Island through Spanish Wells Road

## Reasonable Alternative 6 (RA 6)

- Replace all 4 existing bridges with one new bridge just south of the existing US 278 alignment
- Build a new access to the Pinckney Island National Wildlife Refuge and CC Haigh Jr. Boat Ramp
- Utilize the existing transmission line easement running from Jenkins Island through Spanish Wells Road
- Remove existing bridges



PROJECT INFORMATION CAN BE FOUND ON THE WEBSITE: [WWW.SCDOT278CORRIDOR.COM](http://WWW.SCDOT278CORRIDOR.COM)

## STAY INVOLVED

Comments can be provided at the meeting, submitted online, or mailed to SCDOT at the address below. While we welcome your input at any time, the official public comment period for after the second public information meeting is now open until **October 25th**. Submitting your comments by the end of the comment period ensures they make it to the full project team before the preferred alternative is developed.

Look for the project team at community events around town. Invite us to present project information at your neighborhood or community group's meeting as part of our speaker's bureau. Reach out using one of the various contact methods below!



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# Newsletter

ISSUE 4 - WINTER 2020

## Fall 2019 Public Involvement

Fall 2019 was an eventful time, filled with many public engagement opportunities for the US 278 Corridor Improvements project. One highlight was the project's second public information meeting held on September 19, 2019 from 5-7 p.m. at the Boys & Girls Club of Hilton Head Island. This meeting was extremely well attended, with a total of 330 actively engaged participants. Earlier that day, SCDOT project manager, Craig Winn, presented the public information materials to the Town of Hilton Head Island's US 278 Gateway Committee as well as the project stakeholder committee.

Along with the in-person meeting, a virtual meeting was available on the project website throughout the official public comment period, from September 4 to October 25. During this time, approximately 6,000 people visited the website. Thank you to everyone who participated in both meetings and especially to our partners who went above and beyond to ensure their respective communities were well informed about these opportunities—the Boys & Girls Club of Hilton Head Island, the Towns of Hilton Head Island and Bluffton, as well as Beaufort County. Your comments will help shape this project.



PUBLIC INFORMATION MEETING

During the fall, the project team was also very active in the community. On October 17, the project team attended a Town of Hilton Head Island US 278 Gateway Committee open house at the Hilton Head Island Library. This provided the public with an additional opportunity to view the public information materials and talk through the alternatives one-on-one with the project team. SCDOT Project Manager, Craig Winn, had the opportunity to speak at the Hilton Head Island – Bluffton Chamber of Commerce on October 29th and at the Daufuskie Island Council on November 19th. Both meetings were well attended and allowed the public additional opportunities for questions and comments.

If you would like our project team to speak at your community's event, email [info@scdot278corridor.com](mailto:info@scdot278corridor.com). Engaging with the community and hearing YOUR questions and concerns is integral to the success of this project.



PUBLIC INFORMATION MEETING SMARTBOARDS

Public Information Meeting Statistics (Sept. 4 - Oct. 25, 2019)

330 Total Attendees

~6,000 Web Visitors

# We Heard You! Frequently Asked Questions

Your input is influencing the alternatives analysis



## Are there more aesthetically pleasing options for safety, other than the typically used “Jersey Barrier,” that exist for the low-profile bridge design?

Jersey Barriers are the only known products crash tested for the potential speed limit under consideration for this structure. However, SCDOT will research and consider new options that adhere to the crash requirements. If a multiuse path is constructed on the bridge, there may be additional options on the side with the path since the multiuse path will be separated from traffic with a Jersey Barrier, or something that adheres to the crash requirements. SCDOT can only consider a more aesthetically pleasing outside barrier as long as it meets the standards for bike and pedestrian safety.



## Are speed limits less than 55 MPH an option for the US 278 corridor? Slower speeds may offer more opportunities for aesthetic improvements, but would that be at the expense of improving capacity and reducing congestion?

The posted speed will be a part of the traffic evaluation of the recommended preferred alternative. The recommended preferred alternative is not necessarily going to be designed for 55 MPH. The team will evaluate volumes, mainline performance, intersection needs, and how best to manage the entire corridor, including the sections beyond the project study area.



## Are the powerlines crossing the Mackay and Skull Creeks being addressed aesthetically? Is it possible to bury or attach the lines underneath the bridge structure?

SCDOT is working with Santee Cooper, the owner of the powerlines, to address the impacts. The powerlines cannot be buried underwater because of the amount of heat generated by the lines themselves. This is important to protect the stability of service and the overall safety of the public. For the same reason, the powerlines cannot be attached to the underside of the bridge, even with chemically infused conduit attempting to control the heat. SCDOT cannot support attaching these types of electrical transmission lines to an SCDOT-owned and -maintained bridge because of public safety concerns.



## Will SCDOT be implementing improvements to address resiliency during major storm events?

While the hydraulic and hydrology efforts for this project are still in their early stages, these areas will be fully studied as we analyze the reasonable alternatives. SCDOT has a strong stormwater design standard requirement for all our projects. These standards can be viewed on the SCDOT Website at: [www.scdot.org/business/storm-water.aspx](http://www.scdot.org/business/storm-water.aspx). SCDOT is also investigating new alternative methods of strengthening causeways and limiting the environmental impacts of any improvements planned for projects in the area.



## What data is still being collected on the six reasonable alternatives?

There will be additional data collected for the reasonable alternatives that includes data on natural resources, potential community impacts, and estimated costs among others. It is not efficient or cost effective to conduct this research on the full range of alternatives. All data and related technical reports will be hosted on the project website and in the form of appendices to the Environmental Assessment.



## **Is mass transit being evaluated? Could it have a major impact on addressing the goals of this project?**

The project team is evaluating the current transit services/carpooling resources available in the corridor. Part of this evaluation is understanding the demand for such services, available funding, and the potential performance of providing additional services within the corridor. This evaluation utilizes data such as housing and employment densities along with the potential reduction in automobile traffic resulting from the modal shift from auto transportation to transit transportation. The results of this evaluation will be included in the Environmental Assessment along with the evaluation of the other reasonable alternatives.

In the case that additional mass transit service would not meet the capacity needs in the corridor, the US 278 evaluation currently underway may result in the incorporation of design guidelines that accommodate safer access to transit facilities. This could include more sidewalks connecting destinations to a bus shelter, bus pull-outs near those destinations, or the provision of bus shelters at those locations. Mass transit alone will not have enough impact to improve the congestion on US 278 as a stand-alone solution.



## **How will SCDOT avoid left turns across three lanes of traffic?**

SCDOT is actively limiting left turn movements on roadway improvements with six or more through lanes of traffic. A concrete or grass median is planned for portions of the US 278 corridor that will help limit left turns. In the event there are large traffic generators, such as high-use intersections, businesses or other similar conditions along the corridor, SCDOT will consider access adjustments for each of these areas on a case-by-case basis.



## **Are traffic calming measures being evaluated in the traffic analysis for the US 278 corridor?**

The performance of traffic calming measures has not, to date, been incorporated into the traffic analysis. Looking forward, as a result of public comments, these techniques may be considered to improve the identified safety issues in the corridor.



## **Is SCDOT evaluating intersection improvements at Squire Pope and Spanish Wells Roads? What is being done to the intersections beyond making US 278 a 6-lane highway?**

SCDOT is evaluating the potential for reconfiguring the existing roadway and intersections before fully designating the widening as part of the recommended preferred alternative. The resulting performance of the intersections at Squire Pope and Spanish Wells Roads will be clearly demonstrated in the final reports. The study team is evaluating the design and safety at those intersections for automobiles, trucks, pedestrians, and bikes. As a result of several safety and traffic projects conducted by SCDOT, Beaufort County and Hilton Head Island, projects have been developed to improve intersections and traffic operations. The resulting performance of those improvements are considered in the forecast-year studies. Even with those improvements, the corridor requires both mainline AND intersection improvements. The needed intersection configurations are still being evaluated, but they are not the sole contributor to the US 278 congestion issues that exist today.



## **Will improvements, or changes, be limited to US 278?**

No. This project is a corridor improvement project, which will likely include modifications to each of the intersections within the corridor. This may include turning lanes, signals, signs, or other similar modifications on US 278 as well as intersecting roadways to improve mobility throughout the corridor.

**FOR MORE FAQs, VISIT OUR WEBSITE [WWW.SCDOT278CORRIDOR.COM](http://WWW.SCDOT278CORRIDOR.COM)**

# What we Heard and Next Steps

The project team heard you and will continue to incorporate your feedback throughout the alternatives evaluation process. We received a total of 340 comments throughout the Official Public Comment Period. Thank you for your participation!

As the project continues, we will be further evaluating the alternatives, taking an even closer look at project construction costs and traffic performance. We will also be meeting with potentially impacted property owners in the community.

## What We Heard

**340**  
Total  
Comments

In Favor of Bike/  
Ped or Transit



In Favor of  
Reversing Traffic



In Favor of  
Widening



Against  
Widening

In Favor of  
Additional  
Access Point



Concerned with  
Noise Impacts



Concerned with  
Preserving the  
Natural Environment



Concerned with  
Preserving Gullah  
Heritage



## Next Steps

- Continue to Refine Alternatives
  - Detailed Impact Evaluation
  - In-Depth Traffic Analysis
  - Evaluate Costs
- Meet with Potentially Impacted Property Owners
- Anticipated Public Hearing: Fall 2020
  - Present Preferred Alternative



ADDITIONAL PROJECT INFORMATION CAN BE FOUND ON THE WEBSITE: [WWW.SCDOT278CORRIDOR.COM](http://WWW.SCDOT278CORRIDOR.COM)

## STAY INVOLVED

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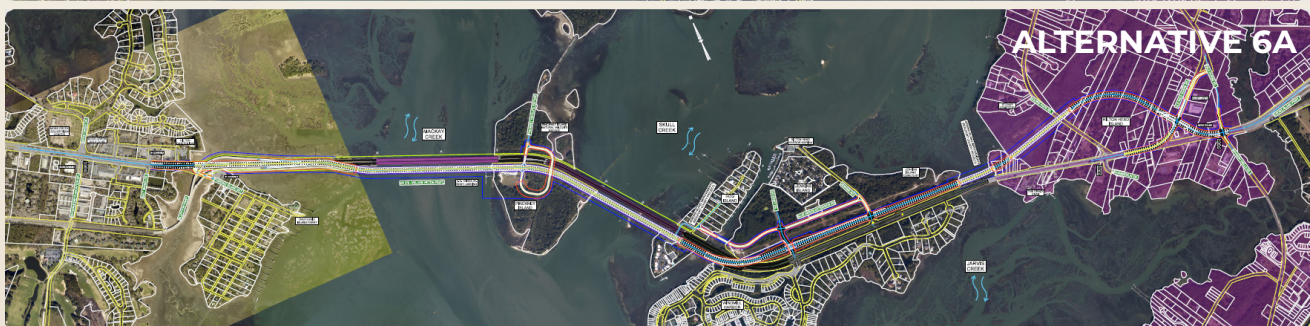
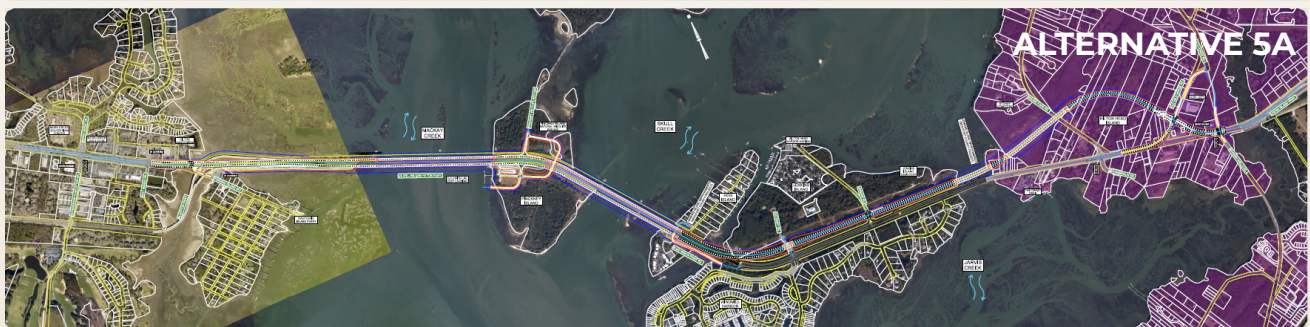
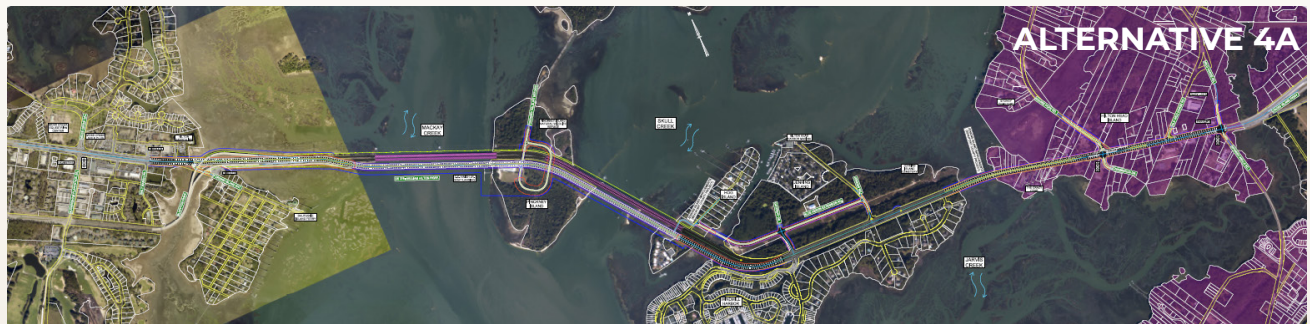


ISSUE 4 - WINTER 2020

## US 278 Corridor Improvements New Alternatives: 4A, 5A, & 6A

The Proposed Reasonable Alternatives were presented to the public at a Public Information Meeting on September 19, 2019. Based on input received from the public and agencies, the Proposed Reasonable Alternatives were revised to include the following. All alternatives can also be viewed [online](#) in greater detail.

- Coordination with US Fish and Wildlife Service resulted in a revision to Alternative 4 that moved the proposed interchange on Pinckney Island closer to the existing US 278 Corridor. This revision resulted in a new alternative, Alternative 4A.
- Alternative 5 and Alternative 6 utilize the existing Power Line Easement to relocate US 278 to a new 6-through-lane (travel lane) section from the end of the new Skull Creek Bridges through Jenkins Island. Based on input from the utility companies, these two alternatives were revised to run south of the existing power line easement across Jenkins Island. These revisions resulted in two new alternatives, Alternative 5A and Alternative 6A.
- All of the Proposed Reasonable Alternatives, except for Alternative 5, were revised to provide more efficient ingress/egress to properties on Hog Island. In addition, the revised Hog Island access allows for an improved maintenance of traffic during construction.



# US 278 Preliminary Traffic Report Highlights

The Preliminary Traffic Report for the US 278 Corridor Improvements project was released in March 2020 and was made available on the [project website](#). For the highlights, keep reading to learn how the project team collects and analyzes data to forecast future traffic volumes and identify the improvements needed in the corridor or number of lanes the corridor might need in the future.

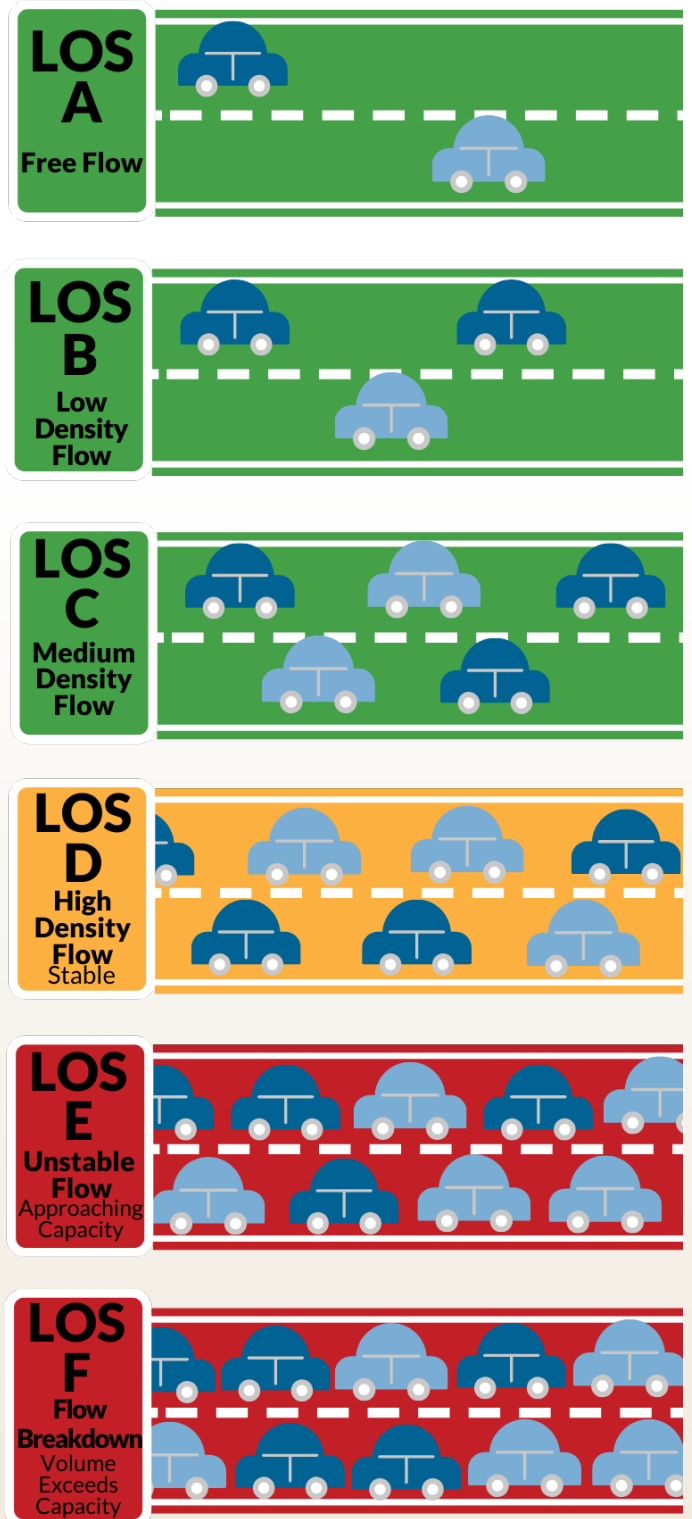
## DATA COLLECTION

To begin the traffic analysis, an extensive data collection effort was performed. The project team took an inventory of the existing lanes, intersection configurations, intersection traffic control devices, and speed limits throughout the project study area. Using an INRIX dataset, the team gathered speed data and origin-destination studies based on Bluetooth data collected from mobile device users in the corridor. Additionally, the project team analyzed crash data from the previous five years; historical traffic volumes from the SCDOT traffic count database; and newly collected traffic volumes at each intersection in the study area. Together, this data was used to assess operations of the corridor to understand safety; travel times and congestion levels; and traffic volumes.

## EXISTING CONDITIONS (VOLUMES, OPERATIONS, LOS)

Level of service (LOS) is one metric used to determine how a roadway or intersection is performing in terms of traffic congestion and reliability of travel time. According to this analysis, the current LOS along US 278 is the worst (LOS E) heading eastbound from the Bluffton area to Hilton Head Island in the morning and in the opposite direction, westbound towards Bluffton, in the afternoon to evening (LOS D/E). This pattern is consistent with the high number of people driving from the mainland to the Island for work.

Then, the project team analyzed the intersections along the corridor to evaluate which intersections would benefit from improvement and which may have a negative effect on the operations of US 278 as a corridor. According to the intersection LOS analysis, Squire Pope and Wild Horse/Spanish Wells Roads operate significantly worse during evening rush hours (LOS F/D) than during the morning peak times (LOS A/B). This analysis indicates the corridor is not currently able to handle the amount of traffic that is using US 278 and these intersections would benefit from modifications as part of this corridor project.



LEVEL OF SERVICE GRADING

# US 278 Preliminary Traffic Report Highlights Continued



## FUTURE TRAFFIC VOLUMES (2025, 2045)

As the next step, the project team estimated the future traffic volumes in the corridor, asking how many vehicles are anticipated to use this corridor in forecast planning years of 2025 and 2045. To calculate the future traffic volumes, traffic engineers first needed to determine the annual rate of growth in vehicles that would use the corridor. The project team used data obtained by the local Metropolitan Planning Organization responsible for regional transportation planning - the Lowcountry Area Transportation Study (LATS). It is common practice to use regional planning models to determine future growth rates, as these planning models incorporate population, employment and other demographic forecasts on a regional basis. The annual growth rate of 1.19% was applied to the existing volumes to estimate the future volume.



## FUTURE NO BUILD

For the purpose of developing a Purpose and Need Statement for the proposed project, and to fully understand the "do nothing" conditions of the corridor, a "no build" scenario was evaluated for the 2025 and 2045 planning years. This analysis showed that the increase in vehicles (based on applying the annual growth rate of 1.19%) would result in a lower LOS at the US 278 intersections of Squire Pope Road and Wild Horse/Spanish Wells Roads. Additionally, it also estimated that US 278 would operate at a failing LOS (F) during rush hour in both directions. From this analysis, the project team concluded that two lanes in each direction would not adequately handle the projected, future number of vehicles in the corridor.



## FUTURE BUILD

During this step of the traffic analysis, the project team set out to determine the number of lanes US 278 would need to accommodate the future traffic volumes. The traffic analysis indicates one additional lane in each direction would be sufficient to meet the estimated 2045 traffic mobility needs of US 278.

The traffic engineers assessed six reasonable alternatives assuming one additional lane in each direction (total of 3 travel lanes in each direction throughout the corridor). Each of the six reasonable alternatives have varying alignments for the new bridges and were also analyzed with a reversible lane option. The concept of a reversible lane (a single lane that goes in one direction during the morning rush hour and reverses to go in the opposite direction during the afternoon rush hour) was incorporated into the analysis as a result of public comments received at the first public information meeting in Fall 2018. Based on the analysis, there was no clear preferred alternative between the six reasonable alternatives in terms of the traffic operations and levels of service. All six alternatives yield similarly acceptable results.

While the six reasonable alternatives performed similarly from a six-lane capacity analysis, the LOS of the intersections was not yet satisfactory to the project team or the traveling public. Over the past several months, the project team has conducted additional traffic studies to modify intersection design concepts. The goal of this analysis is to: improve traffic operations at the intersections, support public sentiment regarding safer connectivity and walkability, and reduce the overall footprint of the project. The project team looks forward to compiling and finalizing this analysis to present the recommended preferred alignment and intersection configurations that meet the overall mobility goals of the project and reflect input from the community.

ADDITIONAL PROJECT INFORMATION CAN BE FOUND ON THE WEBSITE: [WWW.SCDOT278CORRIDOR.COM](http://WWW.SCDOT278CORRIDOR.COM)

## PROJECT UPDATE

Your US 278 Corridor Improvements project team continues to move forward on schedule. We are committed to continue our efforts to be as transparent as possible with project updates during this time. We still anticipate a Public Hearing at the end of this year, but will provide updates on our progress as they are available.



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# Newsletter

ISSUE 6 - FALL 2020

## How are Community Impacts & Mitigation Determined for the US 278 Corridor Improvements Project?



### BACKGROUND

The project study area for the US 278 Corridor Project includes multiple communities with rich histories. The project team has been identifying these communities and documenting the potential community impacts from the project in the Environmental Assessment (EA). In addition to the EA, a separate Community Impact Assessment (CIA) is also being prepared.

A CIA is a process to evaluate the effects of a project on a community and its quality of life for residents. Land use, displacements, community cohesion, mobility and access, visual quality, noise and construction impacts are factors evaluated to assess the potential positive and negative impacts of the Reasonable Alternatives on the communities. The assessment of these effects allows the South Carolina Department of Transportation (SCDOT) to address public concerns and minimize community impacts.



### THE PROCESS

The CIA process started by collecting data from a variety of sources including aerial photography, field visits, Geographic Information Systems (GIS), public outreach, websites, demographic data from the US Census Bureau and existing community studies. This allowed the project team to evaluate the following:

- Existing land use
- Population
- Housing and neighborhoods
- Community services and facilities
- Access to different modes of transportation
- Employment and income

This information then helped the project team identify the communities within the study area so that additional public outreach could be performed.



### OUTREACH

These efforts have included:

- Providing project newsletters and surveys in Spanish
- Holding meetings with community leaders
- Holding outreach meetings in churches and social service organizations to inform, educate, and seek input from residents and businesses in these areas
- Distributing project information in The Gullah Sentinel (newspaper) and by WLVH 101.1 in Hardeeville
- Hosting information booths at the 2019 Gullah Festival and the 2019 Bluffton Arts and Seafood Festival
- Holding individual meetings with residents of the Stoney Community
- Holding meetings with multiple neighborhood associations including Indigo Run, Mariners Cove, Sea Pines, Windmill Harbor, and Daufuskie Island
- Meeting the caretaker of the Jenkins Island Cemetery
- Continuing discussions with the Gullah community



SCDOT Meets with Stoney Community Members

Based on this additional public outreach, exciting ideas have been proposed by the community for mitigation and are currently under evaluation. Potential community mitigation is being developed in cooperation with the neighborhoods, Gullah stakeholders, and the Town of Hilton Head. Once the ideas have been fully vetted, they will be presented to the public for input.

# Evaluating Intersection Improvements

Our traffic analysis determined the US 278 would need to be widened to 3 lanes on each side within the corridor (Moss Creek to Spanish Wells). While intersection improvements alone would not alleviate congestion enough to eliminate the need for the additional lanes, we are now focused on looking at what types of improvements should be considered at the major intersections. The project team has evaluated each intersection by manually taking turn count movements. These counts were used to determine how each intersection functions and to understand where the heavy turn movements are and how this turning traffic would impact the main corridor.

The intersections along the US 278 Corridor (between The Cross Island Parkway and Hog Island) include:

- Spanish Wells Road/Wild Horse Road Intersection
- Old Wild Horse Road Intersection
- Squire Pope Road/Chamberlin Drive Intersection
- Jenkins Road Intersection
- Gateway Drive/Crosstree Drive Intersection
- Blue Heron Point Road Intersection

These six intersections are really a combination of two separate groups of intersections. The first includes the intersections of Spanish Wells Road/Wild Horse Road, Old Wild Horse Road, Squire Pope Road/Chamberlin Drive. The second is the group containing Jenkins Road, Gateway Drive/Crosstree Drive, Blue Herron Point Road. These intersections need to work together for the most efficient traffic movement, while minimizing impacts to the US 278 mainline flow of traffic.

The US 278 project team looked at more than 14 different types of intersection designs, including multiple combinations for each group of intersections. These intersection types included grade separated (bridges and flyovers) interchanges, continuous green-T intersections, restricted turn movement intersections, displaced left-turn movements, optimizing lanes intersections and jug-handle intersections. The team even went outside

the typical intersection design options and developed a viaduct design that would create a raised multi-lane roadway that would run down the median of existing US 278. This viaduct design would provide uninterrupted traffic movement for those traveling to and from the Cross Island Parkway. Unfortunately, this viaduct option offered no improvements to the overall performance of US 278 and was eliminated.

As each of these design types were applied to the intersections, we began to see which of these designs offered better performance. Those designs that offered a more efficient traffic movement with the least amount of impact to the flow of traffic on US 278 were then moved into further design and evaluation.

The intersection designs have been carried forward for a more detailed analysis for the first group include:

- The Jughandle
- The Flyover
- Optimizing Lanes
- New Traffic Signal at Old Wild Horse Road

The intersection designs for the second group of intersections that have been carried forward for a more detailed analysis include:

- Construction of a new connector road or connector road combination
- Right-in/Right out combinations (with no left-turns)
- Right-in/Right out combinations (with limited left-turns)
- A variation of the SuperStreet concept
- Optimize the number of lanes at all intersections with some restricted movements

Each of these designs are being evaluated as stand-alone options, as well as various combinations to see what provides the best performance. More information on intersection improvements will be available at the public hearing.



*SCDOT is evaluating the potential for reconfiguring the existing roadway and intersections as part of the recommended preferred alternative. The study team is evaluating the design and safety at the intersections along the US 278 Corridor for automobiles, trucks, pedestrians, and bikes.*



# What Can You Expect to See at the Public Hearing?

SCDOT is taking this important project through an Environmental Assessment (EA) as part of the National Environmental Policy Act, or NEPA, process. We are currently at Step 7 of this process, preparing the DRAFT Environmental Assessment. The Recommended Preferred Alternative and DRAFT Environmental Assessment will be presented at the Public Hearing in early 2021. Our project team will be available to walk you through the alternatives analysis process, explaining how the Recommended Preferred Alternative was selected. We will also be showing the proposed intersection improvements for the project. Additionally, potential community impacts associated with the project and our relative mitigation recommendations will be shared. Your comments can be provided at the meeting, submitted online, or mailed to SCDOT. The public comment period for the Public Hearing is YOUR time to share your feedback and input on the Recommended Preferred Alternative, potential community and environmental impacts, and mitigation recommendations!

## THE NEPA PROCESS FOR THE US 278 CORRIDOR IMPROVEMENTS



## WANT MORE INFORMATION?

Remember that latest information on the US 278 Corridor Improvements project can always be found on our project webpage. All information from past presentations is also posted to our project website under the "Resources" page. Check it out today! [www.scdot278corridor.com](http://www.scdot278corridor.com)



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