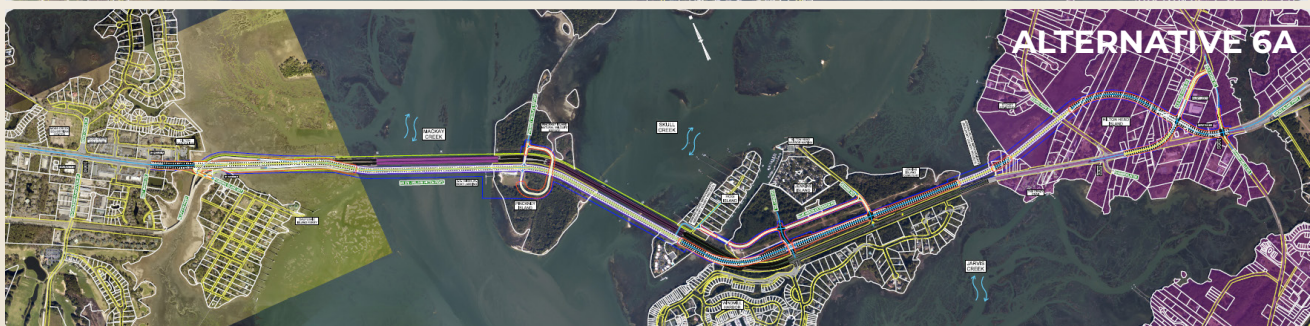
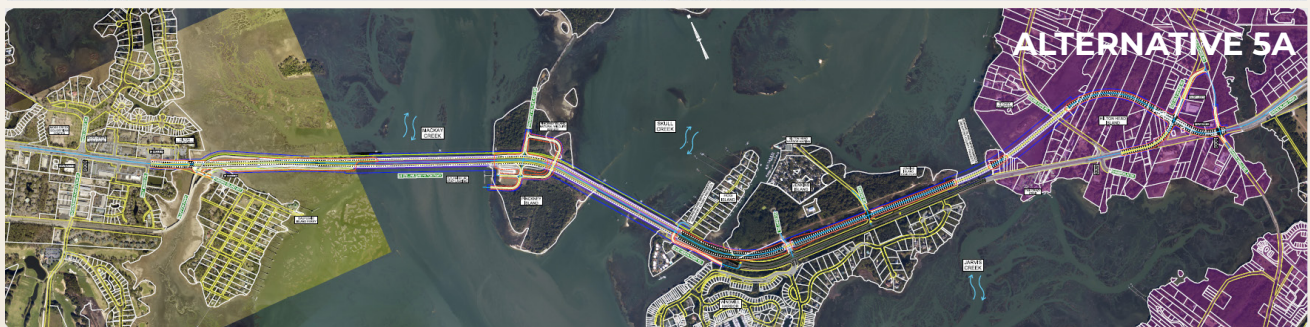
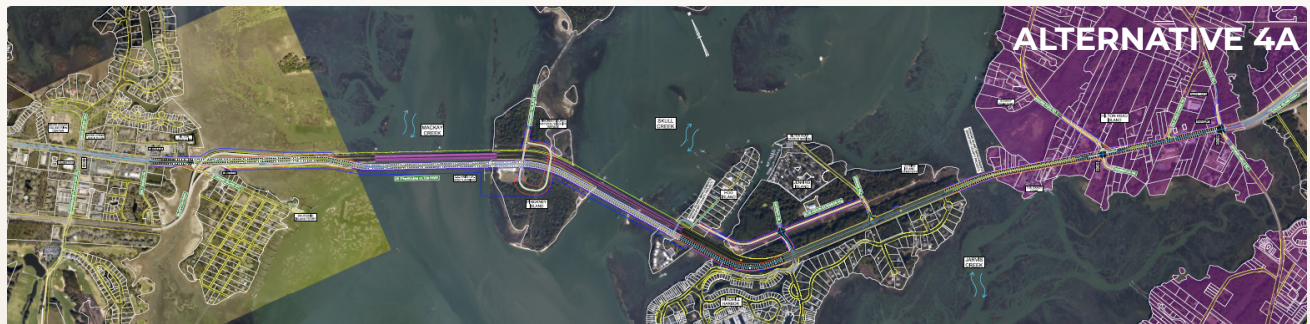


US 278 Corridor Improvements New Alternatives: 4A, 5A, & 6A

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.

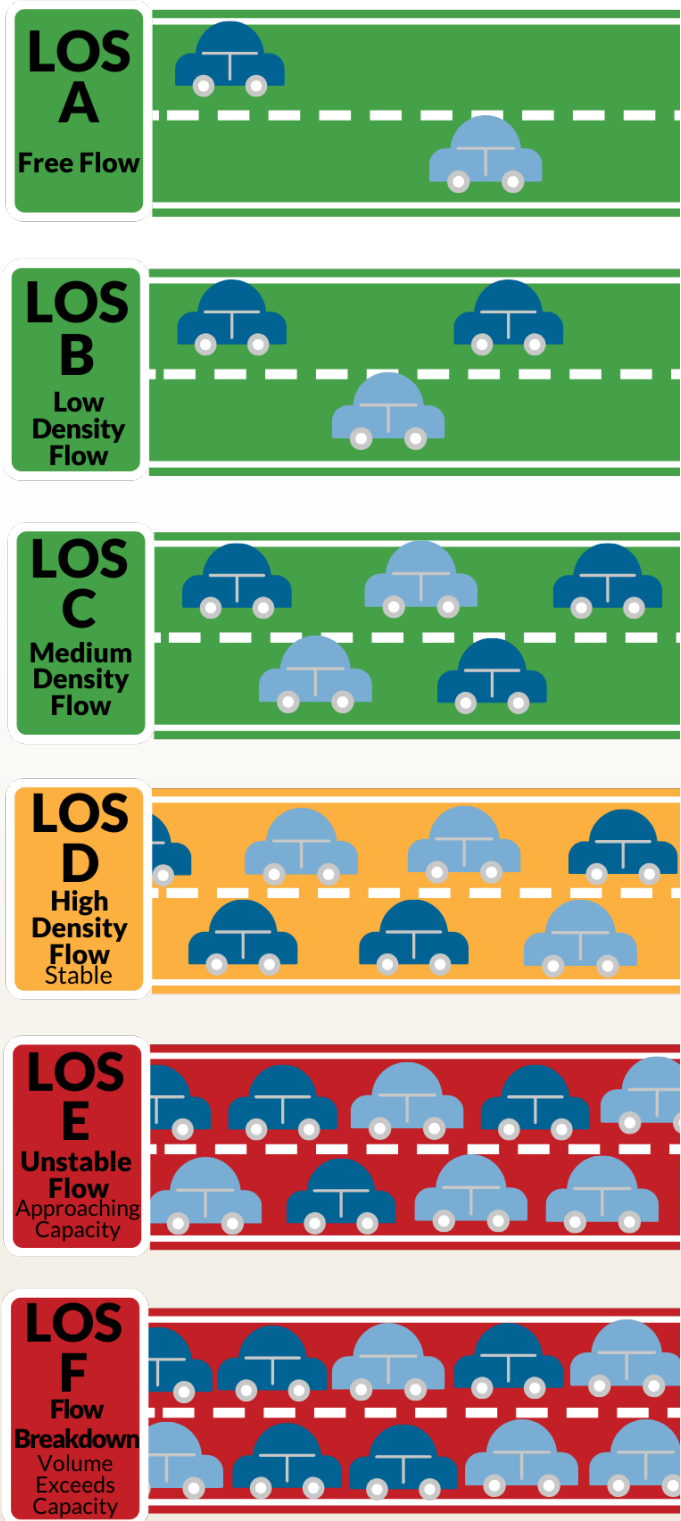
DATA COLLECTION

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

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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