



## TRANSPORTATION ELEMENT

### *Element Goal*

*Ensure the ongoing maintenance and improvement of the Town’s multi-modal transportation system, with a focus on safety, efficiency, and compatibility with land use patterns, community character and the natural environment, while regionally supporting roadway initiatives that improve traffic flow between Seabrook Island, Kiawah Island, Johns Island, and the Greater Charleston area.*

### 10.1: OVERVIEW

The Transportation Element considers transportation facilities, including major road improvements, new road construction, transit projects, pedestrian and bicycle projects, and other elements of a transportation network. The majority of the transportation facilities within the Seabrook Island Town limits are privately maintained and not the responsibility of the Town.

### 10.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Seabrook Island’s multi-modal transportation system is composed of a road network, and bicycle/pedestrian pathways. SIPOA is responsible for the maintenance and improvement of the private roads and bicycle/pedestrian pathways located behind the SID entry gate, and Landfall Way located just outside the entry gate. The Town is responsible for the maintenance and improvement of Seabrook Island Road and the adjacent bicycle/pedestrian pathway extending from the entry gate to the Freshfields Village traffic circle. Each of the remaining five named streets outside of the entry gate are privately owned and maintained by property owners’ associations. These private roads are Andell Bluff Boulevard,

Marsh Oak Lane, Sterling March Lane, Turtle Watch Lane, and Emmaline Lane. While the Town is not responsible for the maintenance and replacement of any of these private roads, it is responsible for the safety and welfare of its citizens in driving these roads.

### Road Development Standards

The Town’s Development Standards Ordinance (DSO) governs all land development within the incorporated areas of the Town. According to the DSO, all roads and drainage within the Town are to be constructed in conformance with the standards and specifications of the Town of Seabrook Island’s Road Code. The DSO further defines these standards and specifications (the Town’s “Road Code”) through the “adoption of the Charleston County Zoning and Land Development Regulations Road Construction Standards in its entirety.”

### SIPOA-owned Roads

As stated in the SIPOA protective covenants, the SID “is a private entity with access thereto on a controlled and limited basis through a private SIPOA owned and operated gate.” All roads, right-of-way, walkways, boardwalks, easements and vehicle ways are owned by or, upon completion in accordance with the requirements of SIPOA, are to be deeded or transferred to SIPOA. In order to preserve the property values and the quality of life for the general benefit of its property owners, the organization assumes the responsibility of protecting, operating, maintaining and improving all of the properties under its ownership.

While the SIPOA protective covenants specify the responsibilities for ensuring the economic vibrancy of the organization, the SIPOA bylaws further define how the organization will be governed--via committees and a board of directors which provide oversight of the professional staff and have the responsibility to define further the policies, rules and regulations within the community. A



comprehensive plan is maintained by the organization and includes an operational, short-term and long-term strategic plan. It is important to note that a strategy included in each of these plans is to “embrace the major planning assumption that local sea level will continue to rise. This assumption (and its implications for high tide flooding) will have specific application to the long term plans which the General Operating and Maintenance Committee continues to develop for new infrastructure, replacing/upgrading existing infrastructure (excluding roads), and *raising/resurfacing roads and upgrading road drains.*”

In 2016, SIPOA hired Miller Dodson Associates to update the organization’s 40-year Replacement Reserve Study. According to SIPOA’s 2016 Annual Report, the replacement reserve study provides “an inventory of our community facilities and infrastructure components that require periodic replacement. It also includes a general view of the current condition of these items as well as a financial plan to fund the projected periodic replacement. The report is a valuable tool in SIPOA’s budget planning process, as it provides a guide for SIPOA’s annual capital funding requirements.”

Operating expenses related to infrastructure, and capital expenses related to roads and drainage, are important line items included in each year’s SIPOA annual budget. The strategies included in the SIPOA Comprehensive Plan coupled with recommendations included in the 40-year Replacement Reserve Study provide guidance in developing these annual budgets, including taking into account future transportation network needs and ensuring that the organization is working within a sound financial framework. These efforts are critically important to SIPOA members considering that roughly 75 percent of the annual budget revenue comes from annually-adjusted property owner assessments.

### **Seabrook Island Road**

The public segment of Seabrook Island Road extends from approximately Seabrook Island Town Hall to the Freshfields Village traffic circle, is currently owned by the Town, and serves as the Town’s only road maintenance responsibility. The segment of Seabrook Island Road extending southwestward beyond Town Hall and the entry gate is privately owned by SIPOA and forms a continuous loop road that serves as the primary collector road for the majority of local roads within the SID community. At the northeastern end of Seabrook Island Road is the traffic circle completed in 2005. This traffic circle is owned by the Town of Kiawah Island and merges traffic to and from the Betsy Kerrison Parkway, the Kiawah Island Parkway, the Seabrook Island Parkway and the entrance/exit from the Freshfields Village shopping center.

Traffic Counts and Level of Service. The public segment of Seabrook Island Road is an east-west, two-lane major collector roadway. The volume of traffic that travels this road can be measured in annual average daily traffic (AADT). The AADT represents the total volume of vehicle traffic of a highway or road for a year divided by 365 days. The South Carolina Department of Transportation (SCDOT) provides current and historic AADT based on permanent traffic count stations located throughout the state. The SCDOT Count Station #723 is located on Seabrook Island Road just southwest of Andell Bluff Boulevard. The historic AADT from 2009 to 2017 for this count station has fluctuated in recent years. In fact, traffic volumes for 2014 through 2017 are lower than those for 2012 and 2013. Considering that the SID is “nearly built-out” as discussed in the Population Element, Housing Element and Land Use Element of this Comprehensive Plan Update, it is anticipated that Seabrook Island Road will experience only a moderate increase in overall traffic volume in coming years.

Traffic operations at intersections are typically evaluated in terms of “Level of Service” or LOS. The LOS is a measurement of delay



incurred at an intersection or for a particular movement. LOS is defined by the Transportation Research Board's Highway Capacity Manual (HCM) from which LOS A represents free flow conditions with minimal delays and LOS F represents congested conditions. Generally, a LOS D or better is considered acceptable.

In June 2018, a traffic impact analysis was prepared for a proposed development in the Town of Kiawah just southwest of the traffic circle (Traffic Impact Analysis, Seabrook Island Road, Freshfields Village Senior Living, Prepared for Kiawah Resort Associates, LP, by Thomas and Hutton, June 2018). This report included a capacity analysis for the traffic circle intersection as well as the intersection of Seabrook Island Road and Andell Bluff Boulevard based on peak hour traffic counts and a 24-hour tube count taken in May 2018. The analysis found that the traffic circle's northeast approach (Seabrook Island Road) is currently operating at a LOS C for AM Peak Hour traffic and LOS B for PM Peak Hour traffic. The analysis also found that the intersection of Seabrook Island Road and Andell Bluff Boulevard is currently operating at LOS B for both AM and PM Peak Hour traffic.

Seabrook Island Gateway Improvement Program. In 2016, Town Council approved the Seabrook Island Gateway Improvement Program to upgrade the portion of Seabrook Island Road that the Town maintains from the SIPOA property line at Landfall Way to the traffic circle at Freshfields Village. The two primary objectives of the program are first, to create a gateway to Seabrook Island that provides a safe passage to and from Seabrook Island with emphasis on special weather events and emergencies, and second, to enhance the appearance of the gateway through landscaping, signage and design elements.

While the program has not progressed as quickly as originally intended, much progress has been made over the last year. About half of the infrastructure improvements were aimed at limiting the

flooding of Seabrook Island Road from Town Hall to the traffic circle when high tide levels are at approximately 7.5 feet. Improvements already completed include new concrete piping and flood control valves, as well as cure-in-place (CIP) liners for existing piping. Future flood preventative measures include three additional flood control valves and the cleaning of drainage easements across adjacent properties.

The Town has also recently hired a firm to assist with development of a conceptual master plan for future entrances and exits for adjacent parcels of land. In February, 2019, the consultants presented a draft version of this master plan to the Town's Planning Commission for review and comment. This master plan is provided in this element for conceptual purposes to assist in the review of future development requests, see Figure 10.1. This concept includes a frontage road that would parallel Seabrook Island Road to the south, allowing for more controlled access points for future property development between Town Hall and the currently proposed Freshfields Village Senior Living development. The frontage road would also provide an important secondary route for hurricane evacuation. The landscape buffer between the frontage road and Seabrook Island Road, would ensure long-term sustainability of the bicycle and pedestrian pathway currently held within a revocable easement. The proposed roundabout at the entrance to Bohicket Marina would serve as a formal entrance to the Town, and allow for additional commercial development south of Seabrook Island Road. It should be noted that the Town controls all proposed improvements within Seabrook Island Road, including the proposed roundabout and any encroachments.

FIGURE 10.1  
ENTRY ROAD DRAFT CONCEPTUAL MASTER PLAN



Source: ESP Associates, Inc., February 2019.

### The Regional Transportation Network

As mentioned in the Population Element of this Comprehensive Plan Update, although the growth rate of the Town has essentially leveled off, the Greater Charleston area as a whole has continued to grow dramatically over the last decade. This growth has outpaced transportation improvements throughout the region, and has resulted in each of the three counties (Charleston, Dorchester and Berkeley) asking for, and receiving, citizen approval of transportation sales tax programs to assist in funding future road

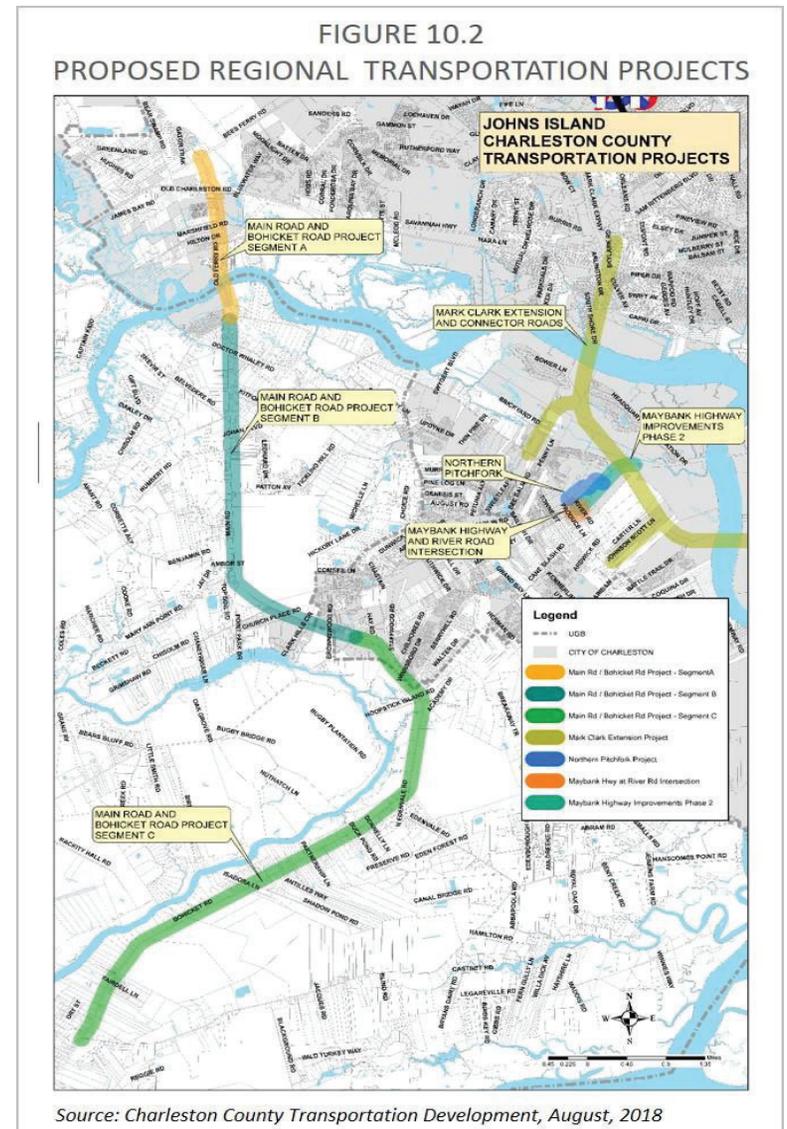
improvements. The long-term revenue received through the increase in local sales tax allows these counties to bond and build important transportation projects in the short term. However, even with the financial boost provided through these programs, the completion of much needed transportation projects continue to be hampered by cost, complexity, environmental, and growth concerns.



Regional travel to and from Seabrook Island traverses the Johns Island road network. The condition of these Johns Island roads are as important to the Seabrook Island community as are the local roads with the town limits. Johns Island is also one of the fastest growing areas in the Greater Charleston area. Many of the residents on Johns Island have expressed concerns that infrastructure improvements, including the road network, have not kept pace with new residential development on the island. As a consequence, road congestion has dramatically increased on Johns Island in recent years. This increase in traffic has resulted in longer travel times for Seabrook Island, Kiawah Island and Wadmalaw Island Residents as well.

Active Johns Island Transportation Improvement Projects. There is currently an increased focus on improving Johns Island roads to address the increased traffic congestion. The two primary chokepoints are access to and from Johns Island to the mainland using Main Road, and access to and from Johns Island to James Island using Maybank Highway. The roads are not only chronically congested during weekday rush hours, but also remain very busy throughout the day on weekends and holidays. While the congestion is further amplified by the continued residential growth on Johns Island, there are several short term and long term transportation improvement projects planned that are designed to address the issue, see Figure 10.2. These road improvement projects are equally as important to the Seabrook Island community, as they too are dependent upon the Johns Island road network for regional travel.

In 2018, phase 2 of the Maybank Highway Improvements Project was completed creating a new westbound lane forming two continuous lanes from Paul Gelegotis Bridge to River Road. This improvement has markedly improved traffic flow onto Johns Island from James Island. At this same chokepoint, additional funded projects include improvements to the Maybank Highway at River





Road intersection as well as construction of a two-lane road connecting Maybank Highway to River Road north of Maybank Highway (also referred to as the “northern pitchfork”).

For the Bohicket Road/Main Road corridor that connects Seabrook Island travelers to the mainland, there is a four-phase road widening project that includes near term improvements as well as longer term improvements. For the near term, there are planned improvements for the US 17 at Main Road intersection, and a widening of Main Road from Bees Ferry Road to Chisolm Road/River Road. Also planned in the near term will be improvements to the Main Road/Bohicket Road at Maybank Highway intersection. The longer term improvements include the widening of Bohicket Road from Maybank Highway to Betsy Kerrison Parkway, and the widening of Main Road from River Road to Maybank Highway.

Proposed “New Corridor” Transportation Projects. Two additional proposed “new corridor” transportation projects have been considered as a means to alleviate congestion on Johns Island and the surrounding area. First is a proposed 7-mile extension of the existing I-526 corridor. The new corridor extension would begin where existing I-526 currently terminates at US 17 in West Ashley, then would proceed southward across the Stono River to Johns Island, then eastward across the Stono River again to James Island, ultimately connecting with the existing James Island Connector at Folly Road. This project would add two additional access points on and off Johns Island, resulting in improved commute times as well as providing an additional route for hurricane evacuation. Opponents to the project feel that while congestion and commute times would be temporarily alleviated, easier access and improved commute times would encourage further development on Johns Island. As of January 2019, Charleston County and South Carolina's State Transportation Infrastructure Bank reached a new funding agreement for the construction of this I-526 extension project. While this allows the

project to begin the 12-18 month permitting process, there is the prospect of the project facing additional legal challenges in the future.

The second proposed “new corridor” transportation project is the Sea Island Parkway. This proposed parkway is planned as a multi-modal arterial to provide congestion relief to Bohicket Road, as well as an alternative hurricane evacuation route for residents of Seabrook Island, Kiawah Island and the southern portion of Johns Island. The vision for this facility is a streetscaped 4-lane divided roadway with planted medians. The roadway would extend approximately 9.4 miles from Betsy Kerrison Parkway northeastward to River Road. While the project is scored and prioritized in the recently approved Charleston Area Transportation Study Metropolitan Planning Organization (CHATS MPO) 2040 Long Range Transportation Plan, the project is ranked 136<sup>th</sup> out of 138 ranked vision projects.

### **Emergency Evacuation**

Seabrook Island is a barrier island and, as such, is particularly susceptible to risks associated with severe weather. Natural disasters like hurricanes, floods, tornadoes and earthquakes are potential hazards that need to be addressed not only by organizations like the Town and SIPOA, but also by individual residents and property owners. Evacuation of the Island is called for when one of these natural disasters is judged imminent. If a mandatory evacuation order is issued, the prescribed evacuation route calls for leaving the Island via Seabrook Island Road, and then on to Bohicket Road, Main Road and Highway 17. Highway 17 is then taken south to SC64 and then on to Walterboro. More information regarding the Town's emergency evacuation plan, as well as its Comprehensive Emergency Plan, can be accessed from the Town's website at [www.townofseabrookisland.org](http://www.townofseabrookisland.org)



### Public Transportation

The two primary public transportation systems serving the Charleston Region are the Charleston Area Regional Transportation Authority (CARTA) and the TriCounty Link (TCL). CARTA is a public transportation system dedicated to providing affordable transit in the Charleston community through local fixed routes, on-demand paratransit service and express commuter routes. The TriCounty Link system is comprised of nine regular fixed routes and six commuter routes providing services to rural residents of Berkeley, Charleston and Dorchester counties.

While no CARTA routes serve Seabrook Island, there currently are two TCL routes serving the Johns Island area. The first is TCL Route C204 (aka Johns Island – West Ashley), which is a 13 stop route that begins at Mt. Zion Elementary School on River Road, ends at Citadel Mall in West Ashley, and includes a stop at Freshfields Village, centrally located to serve both Seabrook Island and Kiawah Island. The second is TCL Route C205 (aka Johns Island – James Island), which is an eight stop route that begins at Mt. Zion Elementary and ends at the James Island Walmart located at the intersection of George L. Griffith Boulevard and Folly Road. Each of these TCL routes have stops that are co-located with CARTA routes, allowing users to access all the urban routes provided by CARTA.

The aforementioned CHATS MPO 2040 Long Range Transportation Plan recognizes a great need for improved public transportation and identifies twelve “recommended transit vision corridor projects”, including high and medium capacity bus rapid beyond Town limits, bicycle and pedestrian facilities provide access to nearby Freshfields Village businesses, as well as a continuous path to Kiawah Island and Kiawah Beachwalker Park. Providing pedestrian access to Johns Island is a continuous asphalt walking path along the west side of Betsy Kerrison Parkway that extends approximately three miles from just north of Haulover Creek to the

intersection of Betsy Kerrison Parkway/Main Road and River Road.transit, additional commuter express bus routes, and even commuter ferry routes. However, since none of these planned future corridor projects extend into western Charleston County, it is likely Seabrook Island residents will not see any substantial public transportation improvements in the near future.

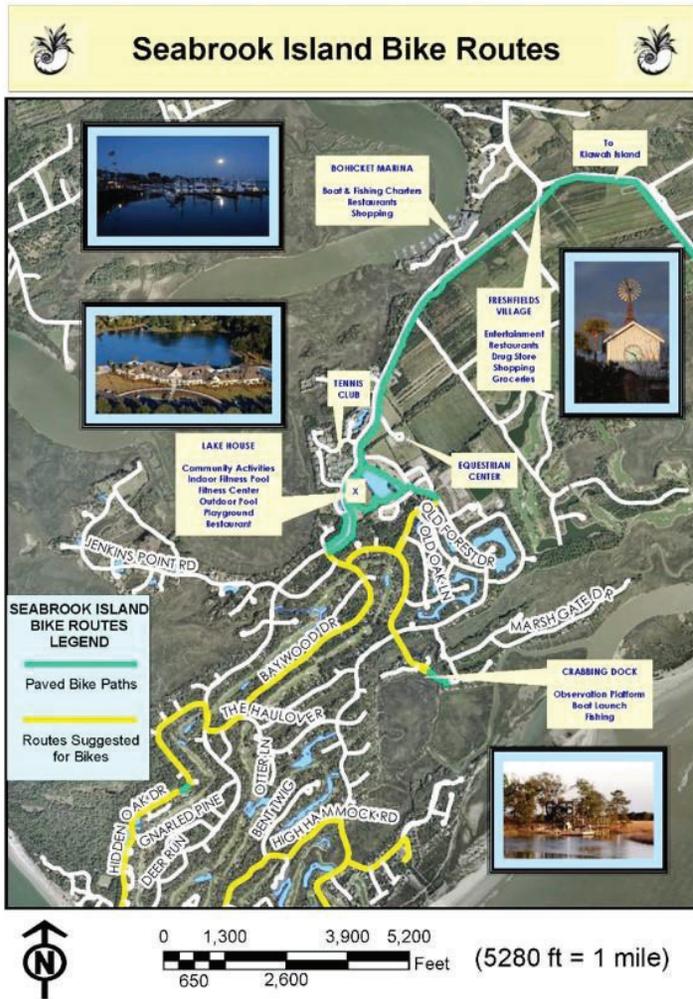
### Bicycle and Pedestrian Facilities

There are both public and private bicycle and pedestrian facilities located within the Town limits. The public facilities include a sidewalk flanking the northwestern side of Seabrook Island Road. This sidewalk and the abutting landscaping is within the Town-owned Seabrook Island Road right-of-way and is maintained by the Town through a landscaping contract. It extends from the Bohicket Marina entrance at Andell Bluff Road southwestward to Landfall Way just outside the entry gate. Similarly, there is a well-landscaped pedestrian/bicycle path that flanks the southeastern side of Seabrook Island Road. While this multi-use path is also maintained by the Town through the same landscaping contract, it is not contained within the Seabrook Island Road right-of-way, but rather located within recorded easements on private property. The path extends from Freshfields Village to beyond the entry gate onto SIPOA-owned property. Beyond the entry gate, this multi-use path extends a short distance, wrapping around the Lake House and continuing only several hundred feet further.

The Seabrook Island Natural History Group (SINHG), in conjunction with SIPOA, maintains four walking trails on Seabrook Island that are designed for foot traffic only. These trails can be hiked from dawn to dusk, and vary in length and difficulty. The Seabrook Island bike routes provide access throughout the Town and come in the form of either paved bike paths or, beyond the entry gates, routes suggested that are for bikes (see Figures 10.3 and 10.4).



FIGURE 10.3  
Seabrook Island Bike Routes (Northern Section)



Source: Extracted from [www.seabrookisland.com](http://www.seabrookisland.com), November 19, 2018.

FIGURE 10.4  
Seabrook Island Bike Routes (Southern Section)



Source: Extracted from [www.seabrookisland.com](http://www.seabrookisland.com), November 19, 2018.



Several plans have been prepared by various agencies to address the connection and expansion of the Greater Charleston area's regional bicycle and pedestrian network. These include the Charleston County Park and Recreation Commission's *People 2 Parks Implementation Study (2016)* and the Berkeley Charleston Dorchester Council of Government (BCDCOG) *Walk+BikeBCD Regional Bicycle and Pedestrian Plan (2017)*. The purpose of the BCDCOG plan is to guide short and long-term land-use and transportation planning decisions for a safer, more accessible region for people on foot and bike. The Plan includes region-wide recommendations, including Johns Island recommendations that would greatly enhanced the pedestrian and biking opportunities for the Seabrook Island community. The Plan's bikeway presentations for Johns Island are shown in Figure 10.5.

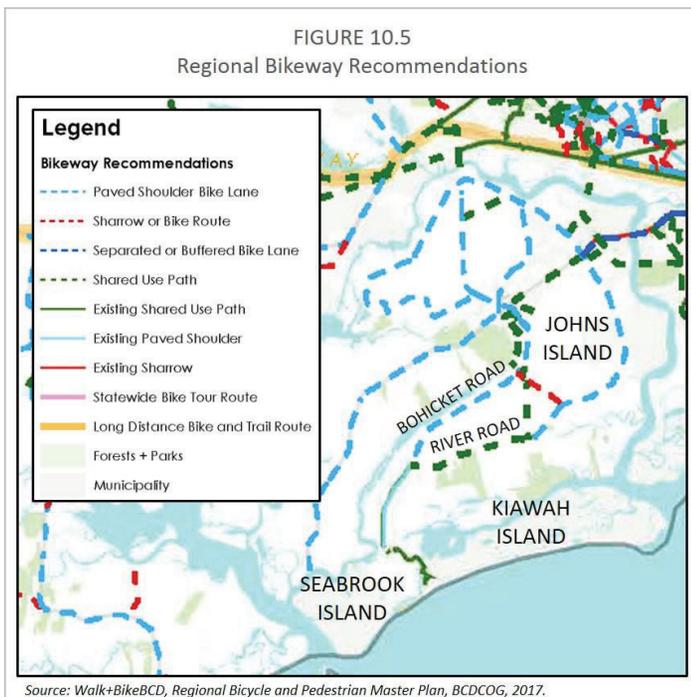
### 10.3: TRANSPORTATION ELEMENT GOAL

#### *Element Goal*

*Ensure the ongoing maintenance and improvement of the Town's multi-modal transportation system, with a focus on safety, efficiency, and compatibility with land use patterns, community character and the natural environment, while regionally supporting roadway initiatives that improve traffic flow between Seabrook Island, Kiawah Island, Johns Island, and the overall Charleston region.*

#### Transportation Element Needs

- Cooperating and coordinating with all private and public organizations responsible for the quality, efficiency and safety of the local and regional road network;
- Maintaining the structural integrity and beauty of Seabrook Island Road which serves as the gateway to Seabrook Island; and
- Ensuring the long-term sustainability and usability of existing pedestrian and bicycle paths and providing connections to the larger regional bicycle and pedestrian master plan.





## **10.4: TRANSPORTATION ELEMENT STRATEGIES AND TIMEFRAMES**

The Town should undertake the following strategic actions in support of the Vision and Goals of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

1. Promote compatibility among roadway improvements, land use patterns, community character and natural environment.
2. Ensure that the Town's roadway system is properly maintained to meet the safe and efficient mobility of residents, businesses, and visitors.
3. Support regional roadway initiatives to improve traffic flow between Seabrook Island, Kiawah Island, Johns Island, and the overall Charleston region.
4. Support the recommendations included in the Town consultant's Entry Road Conceptual Master Plan.
5. Support connecting the Town's bicycle and pedestrian pathways to the regional network included in the Walk+Bike BCD, Regional Bicycle and Pedestrian Master plan.