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South Carolina
Transportation Infrastructure Bank



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July 16, 2020

Steve Thigpen
Director of Transportation Development
4045 Bridge View Drive, Suite C204
North Charleston, SC 29405

Re: Status of Charleston County, Main Road and Bohicket Road Application for Financial Assistance from the South Carolina Transportation Infrastructure Bank (the Bank)

Dear Mr. Thigpen,

I am pleased to report to you that, at its meeting of July 7, 2020, the South Carolina Transportation Infrastructure Bank Board (the Board) approved providing financial assistance for your application, the Main Road and Bohicket Road project, subject to certain conditions. After a thorough analysis of your application, the Board approved a grant in an amount up to \$40,785,500 to construct improvements to Main Road as described in the application for financial assistance. The local match for the project is from the Charleston County 2016 Transportation Sales Tax, as explained in the application. The Bank's provision of financial assistance also requires approval of the Department of Transportation Commission (Commission) and the Joint Bond Review Committee (JBRC), and an executed Intergovernmental Agreement (IGA) between the parties in a form determined by the Bank. It is my understanding that the Commission approved Bank-approved applications at their meeting July 16, 2020, and that the JBRC potentially plans to review Bank-approved applications at its next meeting currently scheduled for August 11, 2020. Please note that, due to COVID-19 concerns, these dates are tentative and subject to change.

The next step will involve the Bank, Charleston County, and possibly SCDOT, beginning the process of executing an IGA. At the appropriate time, counsel for the Bank will prepare the IGA between the Bank, Charleston County, and possibly SCDOT and distribute to all parties for review. As time progresses, the Bank will ask for updates to the project status and timeframe in which the Bank's financial assistance of \$40,785,500 will be needed. The Bank also will need the contact information for the County's representatives who will work with us on preparing the IGA and providing project updates in the future. You may send this information to Tami Reed by email at reedtb@scdot.org.

Please do not hesitate to contact me if you have other questions.

Sincerely,


John B. White, Jr.
Chairman



Steven L. Thigpen, P.E.
Director of Transportation Development

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August 23, 2019

John B. White, Chairman
South Carolina Transportation Infrastructure Bank
955 Park Street, Room 120 B
Columbia, SC 29201

Re: Main Road and Bohicket Road SCTIB Application

Dear Mr. White,

I am writing in response to your May 3, 2019 letter requesting that our Main Road and Bohicket Road application for financial assistance be updated to comply with current SCTIB application guidelines. The information below has been formatted in accordance with the instructions provided in your letter.

Section III: Project Description

A description of the complete Main Road and Bohicket Road widening project is provided in the Executive Summary of our current application. After our application was submitted in February of 2017, Charleston County Council approved a plan in May of 2018 to divide the project into three segments identified as Segments A, B, and C. The termini of each segment is described below followed by a graphic on the following page which illustrates each segment:

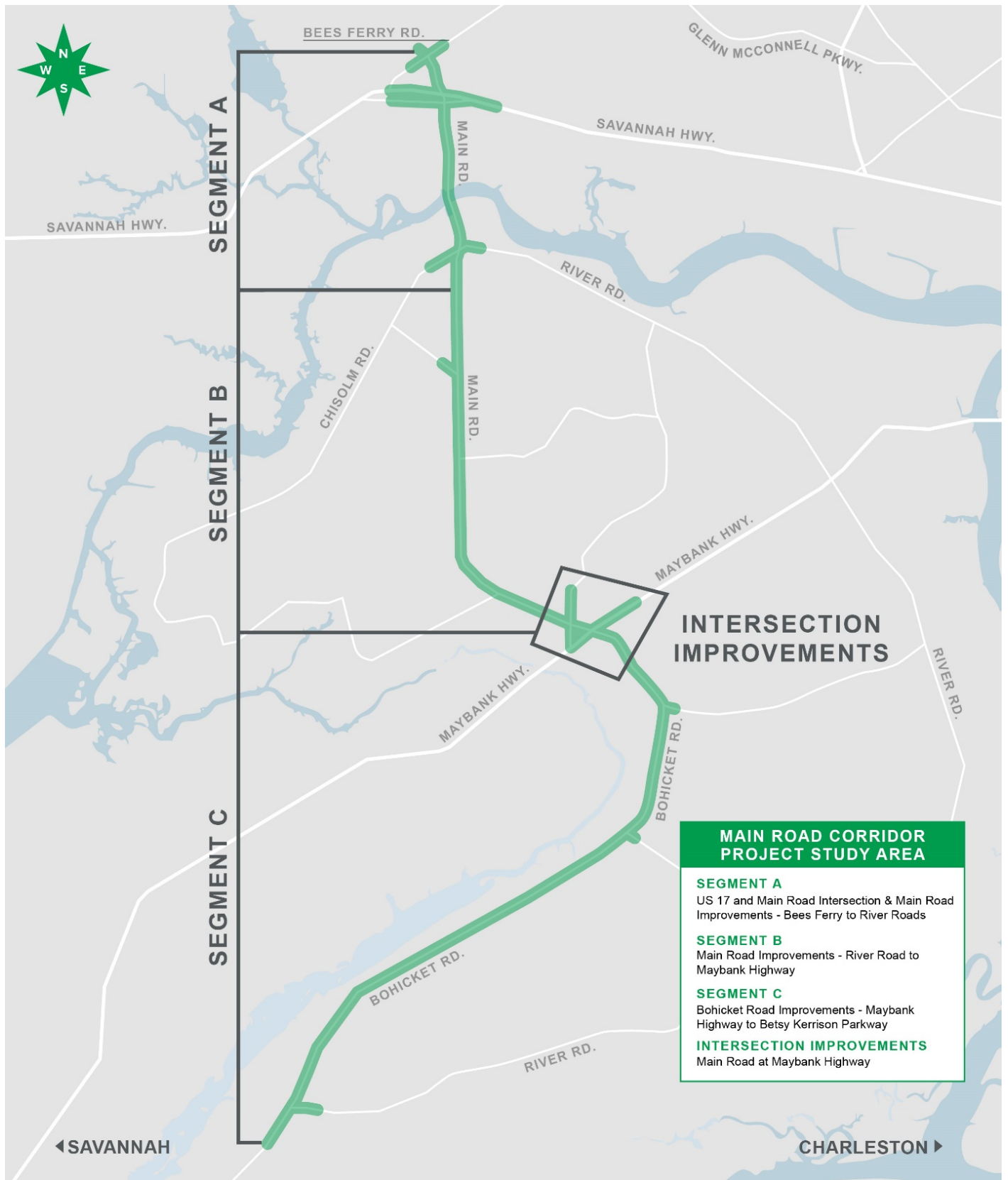
Segment A: Main Road from Bees Ferry Road to River Road.

Segment B: Main Road from River Road to Maybank Highway.

Segment C: Bohicket Road from Maybank Highway to Betsy Kerrison Parkway

Segment A is the County's highest priority segment of the overall Main Road and Bohicket Road improvements project. Accordingly, the County is hereby revising the content of our application to limit our requesting funding assistance to the immediate needs of Segment A. The proposed segmentation of the project is consistent with the "Insufficient Award Contingency Plan" described in Section 2.11 of our current application. Project schedule and cost estimate information is limited to Segment A.

Figure 1: Main Road and Bohicket Road Project Segmentation



Section IV: Public Benefit

- 4.1. Projected year 2040 traffic data and pavement PQI are provided in Section 1.1 of our current application. Current year traffic data and truck volumes for Segment A are provided in Table 1 below. BCDCOG Charleston Area Transportation Study (CHATS) Travel Demand Model truck volumes for year 2010 were converted into a percentage and applied to SCDOT 2018 AADT volumes to calculate estimated year 2018 truck volumes.

Table 1: 2018 AADT & Truck Volumes

Station Number	Route	Location on Project Corridor	2018 AADT	2018 Truck Volume
111	US 17 (Savannah Highway)	S-57 (Bees Ferry Road) to S-20 (Main Road)	25,900	1,113 ¹
345	S-20 (Main Road)	S-57 (Bees Ferry Road) to S-54 (River Road)	27,100	2,686

Updated traffic accident data has been generated as part of the ongoing work for Segment A. Accident data was provided by SCDPS covering the period from January 2012 through November 2017. The data reveals that there were 653 crashes on Segment A during the time period analyzed. The crash rate for the intersection of US 17 and Main Road was calculated at 2.09 crashes per million entering vehicles. The crash rate for segment A of Main Road was calculated as 471 crashes per 100 million vehicle-miles traveled. Table 2 summarizes the accidents in Segment A by severity.

Table 2: Segment A Accident Type

Total Collisions	Property Damage Only	Injury	Severe	Fatality
653	490	154	5	4

- 4.2. Project urgency is addressed in Section 1.2 of our current application.
- 4.3. Local government support is addressed in Section 1.3 of our current application.
- 4.4. This was provided to the SIB by the Advisory Coordinating Council for Economic Development in 2017.
- 4.5. Unemployment data through January 2017 is provided in Section 1.5 of our current application. The unemployment rate for Charleston County currently stands at 2.4%. The following graphic illustrates the Charleston County unemployment rates through the past 5 years.

Figure 2: Charleston County Unemployment Rate



- 4.6. Local support is addressed in Section 1.6 of our current application.
- 4.7. A letter of support for the project is provided in Appendix A1 of our current application.
- 4.8. Regional and statewide significance is addressed in Section 1.8 of our current application.
- 4.9. Project alternatives are addressed in Section 1.9 of our current application.
- 4.10. The expected level of environmental document is that of an Environmental Assessment with the US Army Corps of Engineers acting as the lead federal agency. An individual corps permit for unavoidable wetland impacts will be necessary to construct the project.

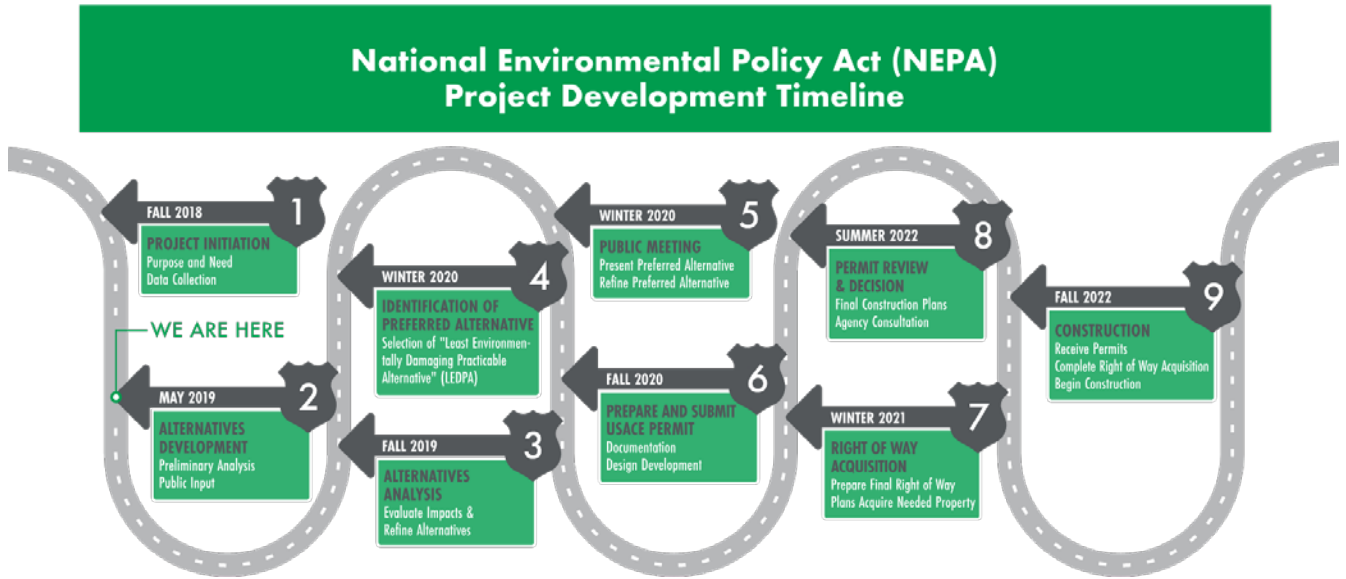
Seven (7) alternatives have been prepared for further evaluation through the NEPA review process. These alternatives can be viewed on the project website at www.mainroadcorridor.com. Environmental impacts resulting from the project will depend on the preferred alternative identified for the project, but are expected to fall within the following ranges:

Table 3: Estimated Resource Impacts

Impact Category	Range (Low – High)
Total Wetland Impacts (Acres)	9.87 – 15.65
Potential Relocations	2 – 14
Floodplain Impacts (Acres)	45.6 – 68.38
Farmlands of Statewide Significance (Acres)	9.04 – 10.72

4.11. The following graphic illustrates the critical steps and schedule for Segment A of the Main Road widening project.

Figure 2: Segment A Project Development Timeline



The following critical steps in the project development per the above graphic include the following:

- ✓ Identification of the Preferred Alternative – Winter, 2020
- ✓ Prepare and Submit the USACE Permit – Fall, 2020
- ✓ Commence Right of Way Acquisition – Winter, 2021
- ✓ Receive USACE Permit – Summer, 2022
- ✓ Commence Construction – Fall, 2022

4.12. The purpose and need for Segment A of the Main Road Project is as follows:

The primary purpose of the project is to:

- Reduce congestion / improve capacity at the intersection of US 17 and Main Road
- Increase capacity on Main Road from Bees Ferry Road to River Road/Chisolm Road

The secondary purpose of the project is to:

- Provide opportunities for bicyclists and pedestrians to travel throughout the project area
- Provide drainage and other improvements to lessen impacts to Main Road during significant rain events

Preliminary Engineering activities have commenced on Segment A. Aerial photography, planimetric mapping, and field surveys have been completed. Wetland and critical lines have been delineated. Traffic counts have been collected and projected traffic volumes have been calculated. Alternative interchange and widening configurations have been developed for evaluation. A public information meeting was held on May 20th to present the design alternatives to the public for comment.

4.13. Contact information for responsible entities is provided in Section 3.4 of our current application.

4.14. Segment A of the Main Road widening project is included in the 2035 Charleston Area Transportation Study (CHATS) Long Range Transportation Plan (LRTP) with a score of 59.71. Note that US 17 is a part of the National

Highway System and these improvements will provide a regional benefit as described in Section 1.8 of our current application.

4.15. The economic benefits associated with the project are described in detail in Section 1.2 of our current application. Additionally, the Advisory Coordinating Council for Economic Development certified that the project is essential to economic development in the state. A copy of the certification was provided to the SCTIB in 2017.

Section V: Financial Plan

5.1. Charleston County engaged the services of an outside engineering consulting firm to prepare an independent estimate for Segment A of the project. The Segment A cost estimate was divided into the phases of preliminary engineering (PE), right of way acquisition (ROW), and construction (CON).

As shown in Table 4 below, the Segment A cost estimate in the base year of 2015 was \$64,149,000. Applying an annual inflation rate of 3% to account for cost escalation over the life of the project yields a projected total cost estimate of \$81,571,000.

Table 4. Main Road Segment A Cost Estimate

Phase	2015 Cost Estimate	2018	2019	2020	2021	2022	2023	2024	2025	Projected Cost Estimate
PE	4,997	573	2,053	1,622	1,621	1,429				7,298
ROW	19,843				11,847	12,202				24,049
CON	39,310					13,828	13,082	17,495	5,820	50,225
Total	64,149	573	2,053	1,622	13,467	27,459	13,082	17,495	5,820	81,571

Notes:

1) All costs shown are represented in \$1,000s.

5.2. Charleston County proposes a local match equal to 50% of the total estimated cost of Segment A. 50% of the total estimated Segment A cost is \$40,785,500.

5.3. The local contribution shall be in the form of payments on project cost.

5.4. Charleston County respectfully requests \$40,785,500 in funding from the SCTIB to be used for the construction phase of the project. This amount represents 50% of the Segment A project cost estimate. SCTIB funds would be applied towards actual construction costs, construction engineering & inspection, and utility relocations associated with the project.

5.5. Charleston County is requesting funding assistance in the form of a grant to supplement locally generated funding.

5.6. There are currently no other funding sources allocated to the project.

5.7. As described above, Charleston County is requesting a grant in the amount of \$40,785,500 from the SCTIB. These grant funds will cover a portion of the construction phase of the project and be distributed as follows:

Table 5: Proposed SCTIB Funding Distribution

Phase	2018	2019	2020	2021	2022	2023	2024	2025	Total
CON					4,388.5	13,082	17,495	5,820	40,785.5

Notes:

1) All costs shown are represented in \$1,000s.

- 5.8. Projected revenues for the local match portion of the project funds is addressed in Section 2.8 of our current application.
- 5.9. Maintenance of the project is addressed in Section 2.10 of our current application.
- 5.10. Charleston County Council approved a plan to segment the original Main Road and Bohicket Road widening project into three segments. In the event that SIB grant is less than the requested financial assistance, the County may elect to defer the remaining segments indefinitely.
- 5.11. Impact fee financing option is addressed in Section 2.12 of our current application.
- 5.12. Local hospitality tax financing option is addressed in Section 2.14 of our current application.
- 5.13. Charleston County’s local match is made possible through voter approval of a local option sales tax as described in Section 2.15 of our current application.
- 5.14. User fee funding option is addressed in Section 2.17 of our current application.
- 5.15. Tax increment financing is addressed in Section 2.18 of our current application.
- 5.16. The assessment funding option is addressed in Section 2.19 of our current application.
- 5.17. Development agreement funding option is addressed in Section 2.20 of our current application.
- 5.18. Zoning and land use controls are addressed in Section 20.20 of our current application.
- 5.19. Discounting the project cost estimate, applicants future payments, and proposed SCTIB contributions shown in Section 5.1 above to present value using a 5% discount rate produces the figures shown in Tables 6-8 below.

Table 6: Present Value of Segment A Cost Estimate at 5% Discount Rate

Project Phase	Present Value
PE	\$6,903,969.64
ROW	\$21,285,677.69
CON	\$40,758,517.18
Total	\$68,948,164.52

Table 7: Present Value of Applicants Future Payments at 5% Discount Rate

Project Phase	Present Value
PE	\$6,903,969.64
ROW	\$21,285,677.69
CON	\$8,154,077.10
Total	\$36,343,724.43

Table 8: Present Value of Proposed SCTIB Grant

Project Phase	Present Value
PE	\$0.00
ROW	\$0.00
CON	\$32,604,440.09
Total	\$32,604,440.09

5.20. An inflation rate of 3% compounded annually was used to project the current value cost estimate to the future value shown in Table 1 above.

5.21. Yes, Charleston County will exercise eminent domain authority if condemnation is necessary to secure rights of way for the project.

5.22. SCDOT had applied \$2.0 Million in federal funds to the intersection of US 17 and Main Road as part of an earlier programmed safety project, however these funds are no longer available for use on the County's Segment A project due to regulatory restrictions on the use of those funds for this project. Charleston County's efforts to pursue other funding sources are addressed in Section 2.25 of the County's application.

5.23. Potential obstacles to deliver of the entire Main Road and Bohicket Road widening project are addressed in Section 3.3 of our current application, however several of the risk factors associated with the entire project do not apply to Segment A.

Specifically, Segment A is broadly supported by the public and is recognized as an immediate need to relieve acute traffic congestion experienced daily by drivers commuting to and from Johns Island. Further, the potential risk to Grand Trees as described in our application are not associated with Segment A of the project.

5.24. As described above, SCTIB funds are only proposed to be applied towards actual construction activities.

I hope that you will find the above information to be responsive to your request, however please do not hesitate to contact me if you need anything further to consider our application.

Sincerely,



Steve Thigpen

KEITH BUSTRAAN
COUNTY ADMINISTRATOR



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February 23, 2017

Vincent G. Graham, Chairman
South Carolina Transportation Infrastructure Bank
955 Park Street, Room 120 B
Columbia, SC 29201

Re: Charleston County Main Road & Bohicket Road SCTIB Application

Dear Chairman Graham:

Please accept this application for funding from the South Carolina Transportation Infrastructure Bank (SCTIB) to facilitate the widening of Main Road, widening of Bohicket Road, and construction of a grade separated interchange at the US 17 and Main Road intersection. This application has been prepared in response to the SCTIB's request for applications dated December 20, 2016.

As you are aware, Charleston County voters approved a referendum in November, 2016 which increased the local sales and use tax by one-half percent for a period of 25 years or until \$2.100 Billion in revenue has been collected. Revenue from the sales tax shall be used to finance highway improvements, operate mass transit systems, and preserve greenspace within the County.

These new revenues are in addition to those generated by Charleston County's 2004 transportation sales tax referendum which will generate \$1.303 Billion over the 25-year period which began in 2005. The 2004 and 2016 programs combined represent a **total investment by the citizens of Charleston County in the amount of \$3.403 Billion**. This level of investment by a County on transportation improvements and greenspace acquisition is unprecedented in the history of South Carolina.

The proposed widening of Main Road and Bohicket Road as well as the construction of a grade separated interchange at the intersection of US 17 and Main Road was presented to Charleston County voters as one of the major projects to be developed under the 2016 transportation sales tax referendum. As the application describes, this project is critically important for reducing traffic congestion, improving safety, aiding emergency evacuation, and facilitating economic development.

It is my hope that the SCTIB will recognize the urgent need for this project and acknowledge the financial contributions provided by the citizens of Charleston County by granting the funds requested herein. Please let me know if any further information is needed to consider this application.

Sincerely,



Keith Bustran
Charleston County Administrator



South Carolina Transportation Infrastructure Bank

**Financial Assistance Application for:
Main Road & Bohicket Road**

Submitted by:



**CHARLESTON
COUNTY**
SOUTH CAROLINA

February 28, 2017



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Appendix A – Letters of Support

Appendix B – Crash Data Analysis

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Appendix D – SCDOT Safety Funding Commitment Letter

Appendix E – SCDOT Cost Estimate & Schedule Verification Request Letter



Executive Summary

Charleston County voters have twice elected by referendum to impose a special sales and use tax on purchases made within the county to generate revenue for the purposes of financing highway improvements, operating mass transit systems, and preserving greenspace. The first of the two referenda was passed in November, 2004, to levy one-half percent sales and use tax for a period of 25 years or until \$1.303 Billion in revenue has been collected. These funds have since been used with great success to complete construction of numerous large transportation projects such as Johnnie Dodds Boulevard Improvements, Bees Ferry Road Widening, Palmetto Commerce Parkway, and many others.

In recognition of the County's success developing projects under the 2004 sales tax program, voters authorized Charleston County in November, 2016, to levy an additional one-half percent sales and use tax for a further 25 years or until \$2.100 Billion in revenue has been collected. Approximately sixty-one (61) percent of the new revenue will be allocated to highway construction with the remainder allocated towards mass transit and greenspace acquisition.

Charleston County has and will continue to seek out opportunities to match the local sales tax revenue with outside funding sources in order to maximize the return on our citizens' investment in the local and state transportation system. Accordingly, Charleston County has been awarded and successfully administered funds through multiple sources which have included Federal Earmarks, SCDOT-Federal Match Program Funds, and Berkeley-Charleston-Dorchester Council of Governments Charleston Area Transportation Study (BCDCOG-CHATS) Federal Guideshare Funds.

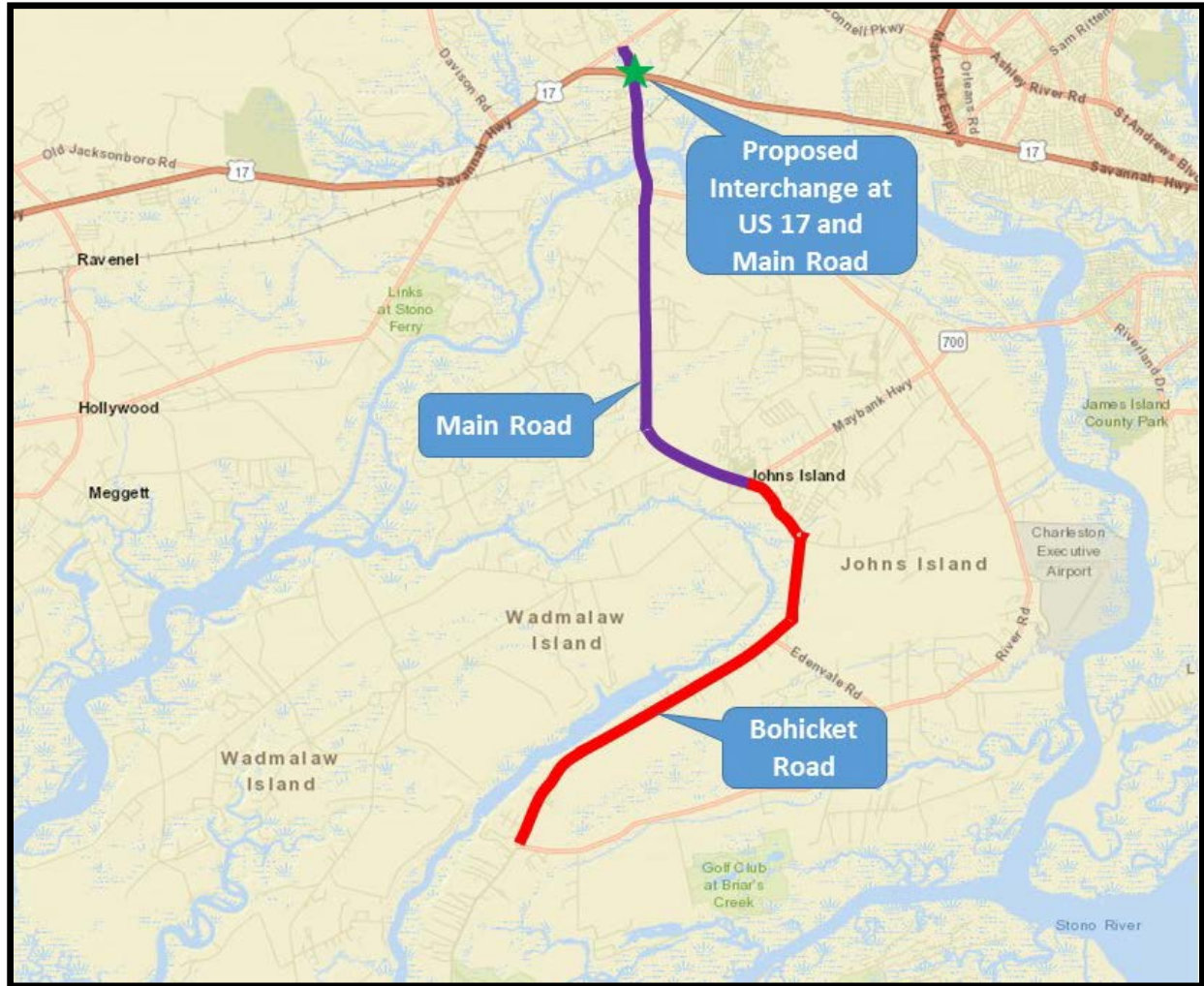
This application for funding from the South Carolina Transportation Infrastructure Bank (SCTIB) to complete the Main Road Widening, Bohicket Road Widening, and US 17 at Main Road Interchange Project as described below has been prepared and submitted in continuation of the County's efforts to maximize the effect of locally generated funds for the benefit of our citizens, the region, and the state. The application has been formatted in accordance with the SCTIB's application instructions and scoring criteria in order to simplify review of the proposal.

Project Description

Charleston County proposes to construct a grade separated interchange at the intersection of US 17 (Savannah Highway) and Main Road (S-20), widen Main Road (S-20) and Bohicket Road (S-20) from River Road (S-91) to Bees Ferry Road (S-57), replace the existing Main Road bridge over the CSX Railroad, and construct a shared use path from the West Ashley Greenway to Bees Ferry Road. The precise scope of improvements shall be determined through alternative analysis performed in accordance with the National Environmental Policy Act (NEPA).

Several bridges will require widening or replacement as a part of the project. These structures include the Main Road bridge over CSX railroad and the Bohicket Road bridges over Church Creek and Hoopstick Creek. Further, the Main Road bridge over the Wando River will be restriped to provide four through travel lanes. The total project length measures approximately 14.3 miles exclusive of associated side road improvements. A project location map is provided below in Figure 1.

Figure 1: Project Location Map



Evaluation Criteria

1 Public Benefit

1.1 Traffic Data

Current traffic volumes and the Pavement Quality Index (PQI) have been sourced from the South Carolina Department of Transportation (SCDOT). Projected traffic volumes



for the year 2040 and current truck volumes been sourced from the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG). Traffic accident data is provided in section 1.2 and Appendix A of this report.

SCDOT maintains five (5) traffic count stations on Main Road, Bohicket Road, and Savannah Highway within the project limits. The traffic volumes observed at these stations for the year 2015 are provided in Table 1 below.

BCDCOG Charleston Area Transportation Study (CHATS) Travel Demand Model truck volumes for year 2010 were converted into a percentage and applied to SCDOT 2015 AADT volumes to calculate estimated year 2015 truck volumes. The estimated year 2015 truck volumes are provided in Table 1 below.

Table 1: Current Traffic & Truck Volumes

Station Number	Route	Location on Project Corridor	2015 AADT	2015 Truck Volume
111	US 17 (Savannah Highway)	S-57 (Bees Ferry Road) to S-20 (Main Road)	26,700	1,148 ¹
345	S-20 (Main Road)	S-57 (Bees Ferry Road) to S-54 (River Road)	22,600	2,240
347	S-20 (Main Road)	S-54 (River Road) to SC 700 (Maybank Highway)	10,800	1,172
349	S-20 (Bohicket Road)	SC 700 (Maybank Highway) to S-2301 (Edenvale Road)	14,300	1,744
346	S-20 (Bohicket Road)	S-2301 (Edenvale Road) to S-91 (River Road)	11,600	1,388

Notes:

- 1) The truck volume shown for US 17 is based upon the US 17 at Main Road Intersection Traffic Study, dated November, 2009, prepared by JIG for Charleston County.

Traffic volumes have been projected to the year 2040 using growth rates calculated from the BCDCOG Charleston Area Transportation Study (CHATS) Travel Demand Model for the roadway segments corresponding with the SCDOT count station listed above. Projected volumes have been provided for future scenarios both with and without completion of the Mark Clark Project (MCP) due to the impact this project has on area trip distribution. The growth rates for each segment have been applied to SCDOT 2015 AADT volumes to generate the projected year 2040 volumes shown in Table 2 below.



Table 2: Projected Traffic Volumes

Station Number	Route	Location on Project Corridor	2040 AADT w/ MCP	2040 AADT w/o MCP
111	US 17 (Savannah Highway)	S-57 (Bees Ferry Road) to S-20 (Main Road)	35,012 ¹	37,611 ¹
345	S-20 (Main Road)	S-57 (Bees Ferry Road) to S-54 (River Road)	18,773	26,568
347	S-20 (Main Road)	S-54 (River Road) to SC 700 (Maybank Highway)	10,032	12,467
349	S-20 (Bohicket Road)	SC 700 (Maybank Highway) to S-2301 (Edenvale Road)	18,984	18,975
346	S-20 (Bohicket Road)	S-2301 (Edenvale Road) to S-91 (River Road)	15,898	15,612

Notes:

- 1) The growth rate used for US 17 is based upon the US 17 at Main Road Intersection Traffic Study, dated November 2009 prepared by JJ&G for Charleston County.

The Pavement Quality Index score for Main Road and Bohicket Road for each 0.1-mile-long segment of roadway was provided by the SCDOT district office. This data was converted into an average PQI score for the entire project corridor of 3.313.

1.2 Project Urgency

The urgent need to improve the capacity of Main Road and Bohicket Road is driven by several factors which include, but are not limited to, public safety, emergency evacuation, economic development, and population growth and traffic congestion. These factors are described in further detail below.

Public Safety

The transportation network on Johns Island has been the subject of multiple studies including the Johns Island Traffic / Corridor Study Report dated May 2001, the Johns Island Traffic / Corridor Study Report Update dated April 2008, and the Sea Islands Greenway Planning and Concept Design Study dated May 2010. These studies have consistently found exceptionally high crash rates on Johns Island roads and specifically, Main Road and Bohicket Road.

The most recent study, completed in May 2010 evaluated crash statistics for the three-year period spanning from 2006 through 2008. Over the course of these three years there were a total of 496 crashes on Main Road and Bohicket Road. These crashes resulted in four (4) fatalities and two-hundred forty-six (246) injuries. A copy of the complete crash analysis is contained in Appendix B.



Emergency Evacuation

Main Road and Bohicket Road serve as the designated emergency evacuation routes for Johns Island, Kiawah Island, Seabrook Island, and Wadmalaw Island which have a combined population of 21,270 according to 2010 census data. In the event of an emergency evacuation, such as was recently ordered for Hurricane Matthew, residents of these sea islands encounter significant traffic congestion as a result of inadequate capacity on Main Road and Bohicket Road. This traffic congestion greatly extends the amount of time needed to evacuate the islands and increases the risk to citizens and emergency responders.

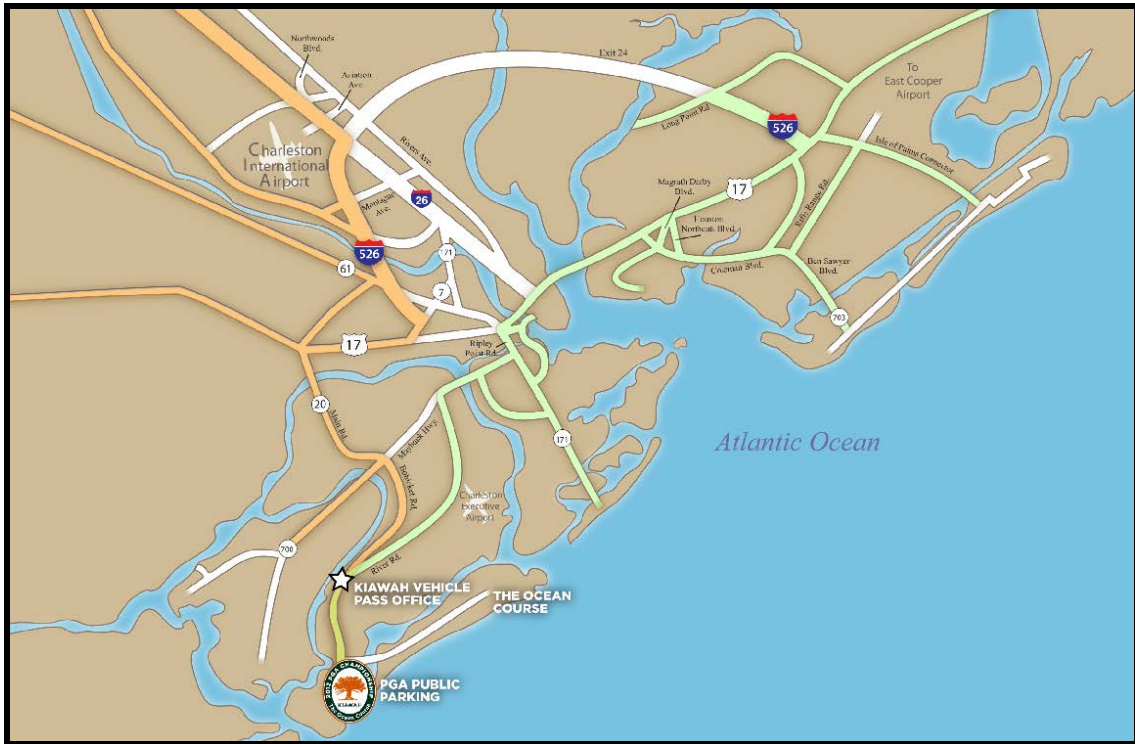
Economic Development

The Kiawah Island Golf Resort on Kiawah Island has become a major contributor to the economic vitality of the South Carolina lowcountry by drawing both vacationers and major golf tournaments to the area. The Ocean Course in particular, one of five golf courses which comprise the resort, opened in 1991 and has since hosted the Ryder Cup in 1991, the World Cup in 1997 and 2003, the PGA Club Professional Championship in 2005, the Senior PGA Championship in 2007, and the PGA Championship in 2012.

While these events greatly increase the profile of Charleston as a vacation destination, they also have the potential to broadcast the inadequacy of the areas transportation network to the entire world. This was most readily apparent during the PGA Championship held in August, 2012 during which multiple media outlets reported on significant traffic congestion for attendees traveling to and from the event. Gary Van Sickle, a senior sports writer for Sports Illustrated, wrote in a column on Golf.com "Some of our one-way travel times for the 18-mile drive reached two and a half hours."

Figure 2 below, prepared by the PGA of America, illustrates the routes designated for attendees traveling to the Ocean Course for the 2012 PGA Championship. Note that all traffic coming from west or south of Charleston was directed to use Main Road and Bohicket Road to access Kiawah Island.

Figure 2: 2012 PGA Championship Trip Distribution Map



The PGA has since announced that the PGA Championship will return to the Ocean Course in 2021. It is critical that Charleston County and the State of South Carolina use the next four years to aggressively develop the proposed improvements to Main Road and Bohicket Road to avoid a repeat of the traffic congestion which plagued the 2012 PGA Championship.

Population Growth & Traffic Congestion

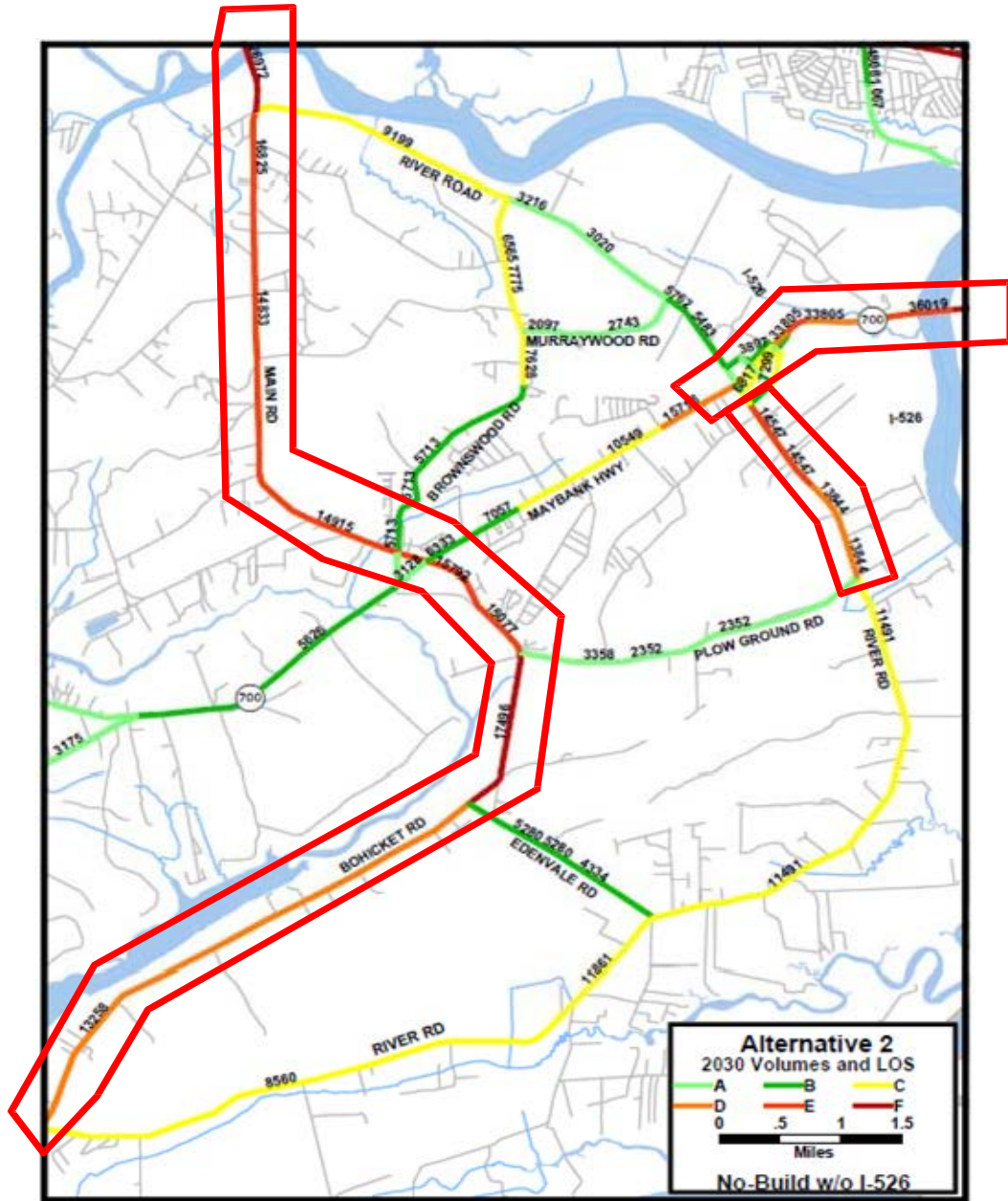
The population of Johns Island has experienced rapid growth due to the relative housing affordability and proximity to major employment centers. According to the City of Charleston's Century V Plan Update, the City's portion of the Johns Island population has more than doubled since 2000 and tripled since 1990. Despite this rapid population growth, no significant improvements have been made to the Johns Island transportation network.

Rapid population growth combined with the lack of improvements to the Johns Island roadway network has predictably resulted in significant traffic congestion. The extent of this congestion has been repeatedly and thoroughly documented in multiple traffic studies prepared by Charleston County and the SCDOT dating back to 2001.



The most recent traffic study covering the entire Johns Island roadway network was completed by the LPA Group for Charleston County in 2010. Figure 3 shown below from the 2010 study illustrates the traffic congestion projected to occur on Johns Island by the year 2030 if no improvements are made to the Johns Island roadway network. Note that the entire 14-mile length of Main Road and Bohicket Road is projected to operate at failing Levels of Service (LOS) by 2030.

Figure 3: CHATS Travel Demand Model 2030 No-Build LOS





The intersection of US 17 at Main Road has also been the subject of traffic studies prepared for Charleston County by JJ&G in 2009 and for SCDOT by Stantec in 2013. These studies both documented significant existing traffic operational and safety deficiencies at the intersection which will continue to worsen as traffic volumes grow. A summary of the existing and projected year Level of Service for each study is provided below in Table 3.

Table 3: US 17 at Main Road Intersection Existing and Future No-Build LOS

Study	Evaluation Year	Scenario	AM Peak Hour		PM Peak Hour	
			LOS	Delay (sec)	LOS	Delay (sec)
JJ&G Study	Existing (2009)	Existing Conditions	D	54.3	D	43.5
Stantec Study	Existing (2013)	Existing Conditions	F	95.9	E	77.1
JJ&G Study	Projected (2032)	No-Build	F	168.4	F	148.3
Stantec Study	Projected (2034)	No-Build	F	137.9	F	98.5

1.3 Local Governing Body Resolution

The project is supported by the City of Charleston as evidenced by the letter of support from Mayor Tecklenburg included herein as Appendix A.

1.4 Economic Development Certificate

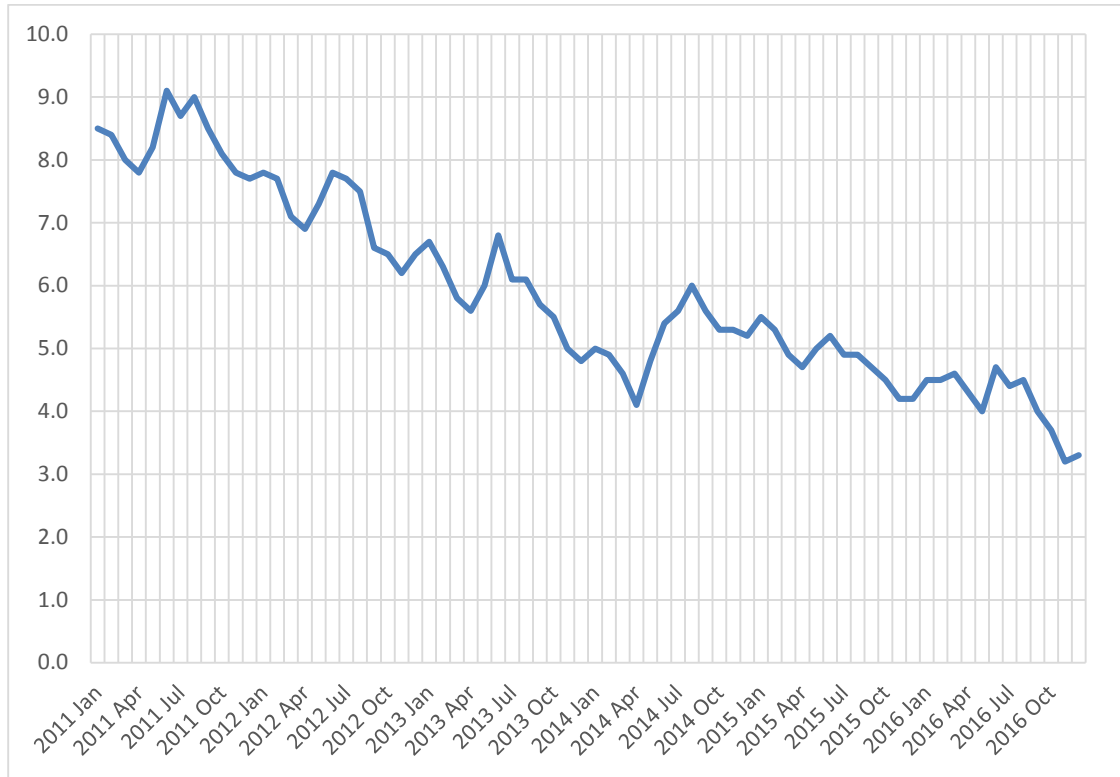
This certificate has been requested from the Advisory Coordinating Council for Economic Development of the Department of Commerce and will be provided to the SCTIB by Charleston County upon receipt.

1.5 Unemployment Data

The unemployment rate for Charleston County currently stands at 3.3% according to data from the U.S. Bureau of Labor Statistics. Over the past five years, the unemployment rate in Charleston County has been trending downward as the economy recovers from the most recent recession. Figure 4 below illustrates the unemployment rate in Charleston County over the past five years.



Figure 4: Five (5) Year Unemployment Rate for Charleston County (Source: US BLS)



The low unemployment rate is shown in Figure 4 above is evidence of the robust economy of the Charleston Area. This robust economy is associated with the rapid population growth seen throughout the area, and especially on Johns Island. This trend is expected to continue through the foreseeable future as the Charleston Harbor is deepened and major manufacturing companies expand in the area. It is critical that the infrastructure needed to support this economy keeps pace with the rate of economic expansion and population growth.

1.6 Local Support

Local support of the project is evidenced by Charleston County voter approval of the November, 2016 local option sales tax referendum which authorized an increase in the local sales tax rate by one-half of one percent over a period of 25 years or until \$2.100 Billion in revenue has been collected. The widening of Main Road was presented to voters as one of the major projects to be developed by Charleston County through revenue generated by the sales tax increase.



1.7 Priority Listing

The widening of Main Road (S-20) from US 17 (Savannah Highway) to River Road (S-54) is ranked as priority number thirteen (13) in the Charleston Area Transportation Study (CHATS) Long Range Transportation Plan (LRTP).

1.8 Regional & Statewide Significance

The proposed widening of Main Road and Bohicket Road as well construction of a grade separated interchange at the intersection of Main Road and US 17 will provide a number of significant benefits to the state and region.

US 17 is identified as part of the National Highway System (NHS) Strategic Highway Network (STRAHNET). This designation signifies the importance of US 17 to the United States' strategic defense policy as it provides access, continuity, and emergency capabilities for defense purposes.

US 17 is also designated in the South Carolina Multimodal Transportation Plan - Statewide Freight Plan as part of the Strategic Freight Roadway Network. This designation is based upon the volume of freight carried by the roadway and the roadways function within the state transportation network. US 17 through the Lowcountry was specifically identified in the Statewide Freight Plan as a priority corridor for improvements to preserve and improve the movement of freight by truck in South Carolina.

The South Carolina Multimodal Transportation Plan – Strategic Corridors Plan also identifies US 17 at a Tier 1 Strategic Corridor. This designation recognizes the importance of US 17 to the statewide roadway network due to its high traffic volumes, statewide and regional connectivity, multimodal connectivity, and its impact on employment and tourism.

Construction of a grade separated interchange at the intersection of US 17 and Main Road will substantially decrease traffic congestion and enable US 17 to continue serving these critical functions for the state and region. Further, the widening of Main Road and Bohicket Road will provide tangible benefits to the state and region by maintaining the viability of Kiawah Island to host major PGA tournaments and by providing the infrastructure needed to accommodate the growing workforce associated with a robust economy.



1.9 Project Alternatives

The Johns Island roadway network and the intersection of US 17 at Main Road have been the subject of multiple studies dating back to 2001. These studies have evaluated traffic operational improvements and conceptual alternatives in great depth to provide policy makers with options for improving the transportation network on Johns Island. The studies referenced include the following:

1. Johns Island Traffic / Corridor Study Report dated May 2001,
2. the Johns Island Traffic / Corridor Study Report Update dated April 2008,
3. the US 17 at Main Road Intersection Traffic Study dated November, 2009,
4. the Sea Islands Greenway Planning and Concept Design Study dated May 2010,
and
5. the US 17 at Main Road Intersection Safety Improvement Project Traffic Analysis Summary dated May, 2013.

The Sea Islands Greenway Planning and Concept Design Study specifically compared the widening of Main Road and Bohicket Road against several alternatives which included widening of River Road, widening of Bohicket Road and Maybank Highway, and construction of a new alignment roadway referred to as the Sea Islands Greenway. A copy of the alternative analysis performed for the Sea Islands Greenway Planning and Concept Design Study is included with this application as Appendix C.

Of the alternatives studied, the widening of Main Road and Bohicket Road was second only to construction of the Sea Islands Greenway in terms of overall traffic improvement on Johns Island. Ultimately, the proposed widening of Main Road and Bohicket Road in lieu of the Sea Island Greenway was selected for inclusion in the November, 2016 local option sales tax referendum by Charleston County Council as a result of perceived public opposition to the construction of the Sea Islands Greenway as a new location roadway across Johns Island.

1.10 Environmental Impacts

A conceptual design of the proposed Main Road and Bohicket Road widening alternative was prepared as part of the Sea Islands Greenway Planning and Concept Design Study. Impacts to the human and natural environment based upon the conceptual design were estimated and used to evaluate the range of reasonable alternatives. The estimated impacts associated with the widening of Main Road and Bohicket Road are provided in Table 4 below:



Table 4: Estimated Main Road and Bohicket Road Widening Environmental Impacts

Impact Category	Estimated Impact
Residential Relocations	13
Commercial Business Relocations	5
Governmental Building Relocations	2
Farmland Impacts (Acres)	54.8
Hazardous Material Sites	12
Sites Listed on National Register of Historic Places	1
Sites Potentially Eligible for Listing on the National Register of Historic Places	3
Section 4(f)/6(f) Sites	0
Wetlands (Acres)	8.8
Floodplain Impacts (Acres)	46.5

2 Financial Plan

2.1 Total Project Cost Estimate

Charleston County engaged the services of an outside engineering consulting firm to prepare an independent estimate of the total project cost. The total project cost estimate was divided into the phases of preliminary engineering (PE), right of way acquisition (ROW), and construction (CON).

As shown in Table 5 below, the total project cost estimate in the base year of 2015 was \$151,341,000. Applying an annual inflation rate of 3% to account for cost escalation over the life of the project yields a projected total cost estimate of \$195,000,000.

Table 5: Total Project Cost Estimate

Phase	2015 Cost Estimate	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Projected Cost Estimate
PE	16,800	975	3,315	3,315	3,315	4,241	2,779	1,560				19,500
ROW	47,297					11,700	23,400	23,400				58,500
CON	87,244							5,850	32,175	42,120	36,855	117,000
Total	151,341	975	3,315	3,315	3,315	15,941	26,179	30,810	32,175	42,120	36,855	195,000

Notes:

- 1) All costs shown are represented in \$1,000s.

The project cost estimate has been submitted to SCDOT for review and concurrence in accordance with the SCTIB application instructions. A copy of Charleston County’s request to SCDOT is contained in Appendix E. SCDOT’s response will be provided to the SCTIB upon receipt.



2.2 Amount of Local Contribution

Charleston County proposes to fund the phases of Preliminary Engineering and Right of Way Acquisition in their entirety as the local contribution to the project. The County may also apply other local, state, or federal funds towards these phases in the event that they become available. As shown in Table 5 above, the combined cost estimate of these phases is \$78,000,000 which represents 40% of the total project cost estimate.

2.3 Source of Local Contribution

The local contribution shall be provided by Charleston County from revenues generated from the local option sales tax increase approved by voters in November, 2016.

2.4 Requested Bank Assistance

Charleston County respectfully requests \$115,000,000 in funding from the SCTIB to be used for the Construction phase of the project. This amount represents approximately 59% of the total project cost estimate. SCTIB funds would be applied towards actual construction costs, construction engineering & inspection, and utility relocations associated with the project.

2.5 Form of Assistance Requested

Charleston County is requesting funding assistance in the form of a grant to supplement locally generated funding.

2.6 Other Funding Sources

SCDOT has committed to contribute up to \$2,000,000 in safety funds towards construction of improvements at the intersection of US 17 and Main Road. This commitment is stated in the attached letter from SCDOT dated March 30, 2016 included as Appendix D.

2.7 Disbursement Schedule

As described above, Charleston County is requesting assistance from the SCTIB for funding of the Construction phase of the project. Charleston County proposes to fund the Preliminary Engineering and Right of Way Acquisition phases of the project as the local contribution. SCDOT's \$2.0 Million commitment described in Section 2.6 shall be applied to the first year of construction. The estimated disbursement schedule for SCTIB funds is as shown below in Table 6.



Table 6: SCTIB Funding Disbursement Schedule

Phase	Agency	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Agency Share
CON	SCDOT							2,000				2,000
	SCTIB							5,850	32,175	42,120	36,855	115,000

Notes:

- 1) All costs shown are represented in \$1,000s.

Charleston County has requested SCDOT review of the project cost estimate and schedule to verify the accuracy and reasonableness of the disbursement schedule. A copy of the request letter from Charleston County to the SCDOT is included as Appendix E.

2.8 Local Contribution Revenue Schedule

The revenue schedule shown in Table 7 on the following page has been provided by the Charleston County budget office. A 4.0% average annual growth rate was used to forecast revenue over the life of the program. This growth rate is based upon growth rates observed over the duration of Charleston County’s first transportation sales tax program enacted in 2004.



Table 7: Local Revenue Schedule

Year	Fiscal Year	Total Receipts	Roads Portion (61% Revenue)
1	2018	50,500	30,805
2	2019	52,520	32,037
3	2020	54,621	33,319
4	2021	56,806	34,651
5	2022	59,078	36,037
6	2023	61,441	37,479
7	2024	63,899	38,978
8	2025	66,455	40,537
9	2026	69,113	42,159
10	2027	71,877	43,845
11	2028	74,752	45,599
12	2029	77,742	47,423
13	2030	80,852	49,320
14	2031	84,086	51,293
15	2032	87,450	53,344
16	2033	90,948	55,478
17	2034	94,586	57,697
18	2035	98,369	60,005
19	2036	102,304	62,405
20	2037	106,396	64,901
21	2038	110,652	67,498
22	2039	115,078	70,197
23	2040	119,681	73,005
24	2041	124,468	75,926
25	2042	126,328	77,060
Totals		2,100,000	1,281,000

Notes:

- 1) All revenues shown are represented in \$1,000s.

2.9 Useful Project Life

In accordance with SCDOT standard project development procedures, Charleston County shall use a design horizon of 20 years from completion of the project for planning purposes. Further, it is expected that the project will employ a flexible asphalt pavement section which has an expected design life of 10 years from completion of the project before requiring significant maintenance such as crack sealing or microsurfacing. Charleston County has requested that SCDOT verify these design standards as required by the SCTIB application instructions.



2.10 Maintenance Commitment

Main Road, Bohicket Road, and Savannah Highway are all part of the state highway system maintained by SCDOT. Charleston County has been approved by SCDOT to administer the project as a Local Public Agency (LPA). The Participation Agreement for administering the project under LPA regulations is presently under development by the SCDOT. In accordance with LPA regulations, SCDOT will be responsible for perpetual maintenance of all normal roadway, bridge, and drainage improvements constructed within the highway right of way. Enhancements such as landscaping and irrigation shall be maintained by the municipality under a separate maintenance agreement.

Charleston County has requested a letter from SCDOT stating the estimated future maintenance costs as required by the SCTIB application instructions. This letter will be forwarded to the SCTIB upon receipt.

2.11 Insufficient Award Contingency Plan

In the event that the SCTIB's funding grant is insufficient to complete the entire project scope, Charleston County may elect to divide the project into the phases described below. Each of these phases would have independent utility and logical termini in order to advance to construction separate from the others.

- Widening of Main Road (S-20) from Bees Ferry Road (S-57) to River Road (S-54) and construction of a grade separated interchange at the intersection of Main Road (S-20) and US 17 (Savannah Highway).
- Widening of Bohicket Road (S-20) from Maybank Highway (SC 700) to River Road (S-91).
- Widening of Main Road (S-20) from River Road (S-54) to Maybank Highway (SC 700).

2.12 Impact Fee Financing Option

Charleston County elected to generate funds for the project through an increase in the local option sales tax as described in Section 2.15 below.

2.13 Local Accommodations Tax Funding Option

Charleston County elected to generate funds for the project through an increase in the local option sales tax as described in Section 2.15 below.



2.14 Local Hospitality Tax Funding Option

Charleston County elected to generate funds for the project through an increase in the local option sales tax as described in Section 2.15 below.

2.15 Local Option Sales Tax Funding Option

Charleston County Council determined that a long term increase in the local sales tax was the only means available to generate the significant funding needed to implement a major transportation improvement program. Charleston County voters have since twice elected to raise the local sales tax to generate a total of \$3.403 Billion in new revenue for the purposes of funding highway improvements, operating mass transit systems, and protecting greenspace.

The first of two referenda was approved by Charleston County voters in November, 2004 to raise the sales tax by one-half percent over a period of 25 years to generate \$1.303 Billion in new revenue. The second referendum was recently approved by voters to increase the sales tax by an additional one-half percent for a further 25 years to generate \$2.100 Billion in new revenue.

2.16 Toll Funding Option

The nature of tolling requires that the tolled route be controlled access. Neither Main Road nor Bohicket Road are controlled access which eliminates tolling as a funding option.

2.17 User Fee Funding Option

Charleston County elected to generate funds for the project through an increase in the local option sales tax as described in Section 2.15 above.

2.18 Tax Increment Financing (TIF) Option

Charleston County elected to generate funds for the project through an increase in the local option sales tax as described in Section 2.15 above.

2.19 Special Assessment Funding Option

Charleston County elected to generate funds for the project through an increase in the local option sales tax as described in Section 2.15 above.

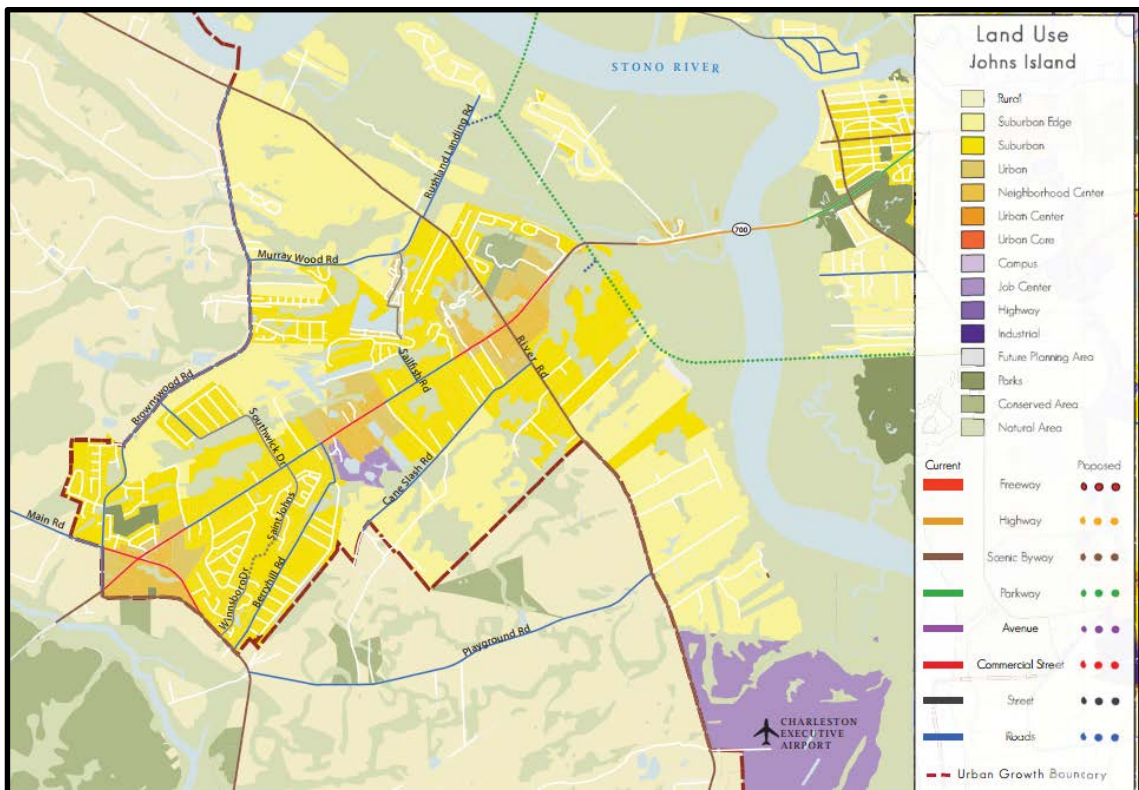
2.20 Development Agreement Funding Option

Charleston County elected to generate funds for the project through an increase in the local option sales tax as described in Section 2.15 above.

2.21 Zoning & Land Use Controls

The City of Charleston and Charleston County have both adopted land use plans and zoning controls which establish an Urban Growth Boundary on Johns Island. This boundary establishes a limit of the density of development occurring on rural land beyond the Urban Growth Boundary. Figure 5 below illustrates the limits of the Urban Growth Boundary on Johns Island.

Figure 5: City of Charleston Urban Growth Boundary



2.22 Present Value of Project Cost Estimate

Discounting the project cash flow shown in Table 5 of section 2.1 above to present value using a 5% discount rate produces the figures shown in Table 8 on the following page.



Table 8: Present Value of Project Cash Flow at 5% Discount Rate

Project Phase	Present Value
PE	15,268
ROW	41,199
CON	72,106
Total	128,573

2.23 Cost Estimate Inflation Rate

An inflation rate of 3% compounded annually was used to project the current value estimate to future value shown in Table 5 of Section 2.1 above.

2.24 Eminent Domain Authority

Charleston County will serve as the eminent domain authority for acquisition of rights of way necessary to construct the project.

2.25 Other Funding Sources

As noted in Section 2.6 above, Charleston County has secured a \$2.0 Million commitment from SCDOT for construction of improvements at the US 17 and Main Road intersection.

Charleston County has and will continue to seek out additional opportunities to match the local sales tax revenue with outside funding sources in order to maximize the return on our citizens' investment in the local and state transportation system. These efforts are evidenced by our past success with securing and administering funds on other projects managed by the County.

Funding sources employed by Charleston County on past projects have included Federal Earmarks, SCDOT-Federal Match Program Funds, and Berkeley-Charleston-Dorchester Council of Governments Charleston Area Transportation Study (BCDCOG-CHATS) Federal Guideshare Funds. Charleston County will continue to pursue additional funds for use on the Main Road and Bohicket Road widening project as opportunities arise during development of the project.



3 Project Approach

3.1 Project Schedule

Figure 6 below presents the estimated schedule for development of the project. This has been submitted to SCDOT for review and concurrence. A copy of SCDOT’s response will be provided to the SCTIB upon receipt.

Figure 6: Project Schedule

Task	Subtask	2017		2018				2019				2020				2021				2022				2023				2024				2025				2026		
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3				
PE	Surveys	█	█																																			
	Prelim Design			█	█	█	█	█	█	█	█	█	█	█																								
	NEPA/Enviro			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█																			
	ROW Plans														█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█			
	Permitting																																					
	Final Plans																																					
ROW	Land Acquisition																																					
CON	Utility Relo																																					
	CE&I																																					
	Construction																																					

3.2 Project Status

As described in Section 1.9, the proposed grade separated interchange at the intersection of US 17 and Main Road as well as the widening of Main Road and Bohicket Road have been the subject of multiple studies dating back to 2001. Recent voter approval of the November, 2016 sales tax referendum has provided Charleston County with the funding needed to advance the project beyond these initial studies. The following steps have already been taken by Charleston County in anticipation of funding availability.

- ✓ Charleston County Council authorized development of an interchange at the US 17 and Main Road intersection in September, 2015
- ✓ SCDOT approved Charleston County’s application to administer the project as a Local Public Agency (LPA) in April, 2016
- ✓ A project scoping meeting was held between Charleston County and SCDOT in June, 2016
- ✓ Charleston County submitted the Project Planning Report to SCDOT in June, 2016
- ✓ Charleston County voters approved an increase in the local sales tax to fund transportation projects, mass transit operations, and greenspace acquisition in November, 2016
- ✓ Charleston County advertised a solicitation for professional engineering and environmental services needed for the project in January, 2017. Proposals were received by the County on February 22, 2017 and are presently under evaluation.



Charleston County will continue development of the project in accordance with SCDOT Local Public Agency regulations and procedures to ensure that the project maintains federal funding eligibility.

3.3 Risk Assessment & Management

Charleston County has a firm understanding of the estimated impacts to the human and natural environment resulting from the project by virtue of the studies previously prepared by the County and SCDOT. These studies have identified the impacts described in detail below.

Residential & Commercial Relocations

The Sea Islands Greenway Planning & Concept Design Study identified 13 potential residential relocations and 5 potential business relocations. Charleston County will seek to reduce the number of homes and businesses impacted by the project through further refinement of the project design. This design refinement may involve shifting the roadway alignment, steepening roadway slopes, or constructing retaining walls to avoid impacting structures.

Charleston County will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 for all property acquisitions and relocations associated with the project. Further, the environmental document prepared in compliance with the National Environmental Policy Act will include a study of potential relocations and the availability of suitable replacement housing.

Wetland Impacts

Preliminary studies have estimated a total wetland impact of 8.8 acres. Charleston County anticipates that the project will require an individual permit through the US Army Corps of Engineers. The time to process and secure an individual permit may take up to two years. This duration has been accounted for in the project schedule.

Measures to avoid, minimize, and mitigate for wetland impacts will be incorporated into all phases of project development. Shifts to the roadway alignment, steepening slopes, and construction of retaining walls are measures which may be employed to avoid or minimize wetland impacts. Charleston County will also seek to acquire credits through approved mitigation banks in lieu of permittee responsible mitigation in order to accelerate permitting of the project.



Grand Tree Impacts

Johns Island is well known for its scenic roadways lined with grand live oak trees. This is particularly evident on the section of Bohicket Road from Maybank Highway to River Road.

In order to minimize impacts to the tree canopy, Charleston County proposes to widen Bohicket Road in the same manner as the Betsy Kerrison Parkway was constructed. This involves maintaining the existing two lanes in place and constructing the two additional lanes separated from the existing by a wide natural median.

During development of the project design, Charleston County will perform a detailed tree survey and tree health assessment. This information will be used to avoid and minimize impacts to significant trees along the corridor during the design phase. Prior to construction, Charleston County will engage an arborist to fertilize and trim trees within the project corridor to help ensure their viability through construction.

3.4 Project Development & Administration Responsibilities

The matrix shown on the following page identifies the agency responsible for key functions associated with project development. Letters accepting responsibility for each of these functions have been requested and will be provided to the SCTIB upon receipt.



Project Phase	Responsible Agency	Contact
Environmental Studies	Charleston County	Steve Thigpen Director of Transportation Development 4045 Bridge View Drive, Suite C204 North Charleston, SC 29405 Phone: (843)202-6146
Project Design	Charleston County	Steve Thigpen Director of Transportation Development 4045 Bridge View Drive, Suite C204 North Charleston, SC 29405 Phone: (843)202-6146
Right of Way Acquisition	Charleston County	Steve Thigpen Director of Transportation Development 4045 Bridge View Drive, Suite C204 North Charleston, SC 29405 Phone: (843)202-6146
Construction	Charleston County	Steve Thigpen Director of Transportation Development 4045 Bridge View Drive, Suite C204 North Charleston, SC 29405 Phone: (843)202-6146
Construction Management	Charleston County	Steve Thigpen Director of Transportation Development 4045 Bridge View Drive, Suite C204 North Charleston, SC 29405 Phone: (843)202-6146
Operation	SCDOT	955 Park Street Columbia, SC 29201 Phone (855)467-2368
Maintenance	SCDOT	955 Park Street Columbia, SC 29201 Phone: (855)467-2368
Tort Liability	Charleston County	Steve Thigpen Director of Transportation Development 4045 Bridge View Drive, Suite C204 North Charleston, SC 29405 Phone: (843)202-6146
Ownership	SCDOT	955 Park Street Columbia, SC 29201 Phone: (855)467-2368
Law Enforcement	Charleston County Sheriff's Office	Sheriff J. Al Cannon, Jr. Charleston County Sheriff's Office 3691 Leeds Avenue North Charleston, SC 29405 Phone: (843)202-1700
Marketing	Charleston County	Steve Thigpen Director of Transportation Development 4045 Bridge View Drive, Suite C204 North Charleston, SC 29405 Phone: (843)202-6146



City of Charleston

JOHN J. TECKLENBURG

MAYOR

February 7, 2017

Mr. Vincent G. Graham, Chairman
 South Carolina Transportation Infrastructure Bank
 955 Park Street, Room 120 B
 Columbia, SC 29201

Re: Charleston County Main Road SCTIB Application

Dear Chairman Graham:

I am writing on behalf of the City of Charleston to express support for Charleston County's application to the South Carolina Transportation Infrastructure Bank (SCTIB) for funding to widen Main Road, widen Bohicket Road, and construct a grade separated interchange at the intersection of Main Road and US 17. This project is vital to improving safety and reducing traffic congestion for our citizens. Moreover, the proposed improvements will resolve the delays at this vital intersection that currently negatively impact the commercial and local traffic on US 17 travelling south to Ravenel and I-95 South.

The population of Johns Island has experienced rapid growth due to the relative housing affordability and proximity to major employment centers. According to the City of Charleston's Century V Plan Update, the City's portion of the Johns Island population has more than doubled since 2000 and tripled since 1990. Despite this rapid population growth, no significant improvements have been made to the Johns Island transportation network. The lack of improvements needed to support our growing population has predictably led to significant congestion occurring on Johns Island roadways.

Further, the heavy volumes of traffic using narrow farm-to-market roads have contributed to the high rates of accidents which occur on Main Road and Bohicket Road. A recently completed study commissioned by Charleston County found that 496 crashes occurred on Main Road and Bohicket Road over the three-year period spanning from 2006 through 2008. These accidents were associated with the tragic loss of four lives and 246 injuries.

I believe that the widening of Main Road and Bohicket Road can be completed in a manner that is consistent with City of Charleston land use plans and protects the scenic nature of Johns Island while reducing the traffic congestion and improving safety for the traveling public. It is my hope that the SCTIB will provide a favorable review of the County's application so that this important project may quickly advance to construction.

Sincerely,

John J. Tecklenburg
 Mayor, City of Charleston

JJT:mdh

P.O. Box 652, CHARLESTON, SOUTH CAROLINA 29402
 843-577-6970 FAX 843-720-3872

January 23, 2017

Vincent G. Graham, Chairman
South Carolina Transportation Infrastructure Bank
955 Park Street, Room 120 B
Columbia, SC 29201

Re: Charleston County Main Road SCTIB Application

Dear Chairman Graham:

I am writing in support of Charleston County's application to the South Carolina Transportation Infrastructure Bank (SCTIB) for funding of the Main Road Widening and Main Road at US 17 Interchange Project. As Executive Director of Economic Development for Charleston County, I am keenly aware of the importance of this project to the continued economic vitality of the South Carolina lowcountry.

Main Road, along with Maybank Highway, serves as the only roads which provide access to Johns Island and by extension, the islands of Kiawah and Seabrook. Given the lack of job centers inherent in this primarily rural area, the vast majority of residents must commute to jobs elsewhere in the Charleston region. Main Road currently is a "choke point" restricting workforce mobility and costing employers and employees thousands of dollars in lost wages and annual productivity.

Secondly, traffic congestion is a daily occurrence for residents of these islands and the problems resulting from insufficient transportation capacity for major events, such as the 2012 PGA Championship hosted on Kiawah Island, are readily apparent to the entire world.

Major media outlets covering the 2012 PGA Championship at the Ocean Course on Kiawah Island regularly reported on the difficulty that ticketholders experienced traveling to the event. Gary Van Sickle, a senior sports writer for Sports Illustrated, wrote in a column on Golf.com "Some of our one-way travel times for the 18-mile drive reached two and a half hours."

Negative comments such as Mr. Van Sickle's about the inability of local infrastructure to accommodate major events significantly degrades our ability to attract similar events in the future. It is critical that we are able to demonstrate to major event planners that the state and local governments are committed to addressing the constraints which may hinder their ability to host their event in Charleston.

The project to improve Main Road will substantially improve safety and workforce mobility and decrease traffic congestion for daily commuters while ensuring the continued viability of Kiawah and Seabrook Islands for major events that boost the local economy well into the future. Please do not hesitate to contact me directly if you require any further information.

Kind Regards,



Steve Dykes
Executive Director



Crash Analysis

River Road (SR 54/SR 91)
Main Road/Bohicket Road (SR 20)
Maybank Highway (SR 700)

Johns Island, South Carolina

Project Number: TR121080

Revised
May 27, 2010

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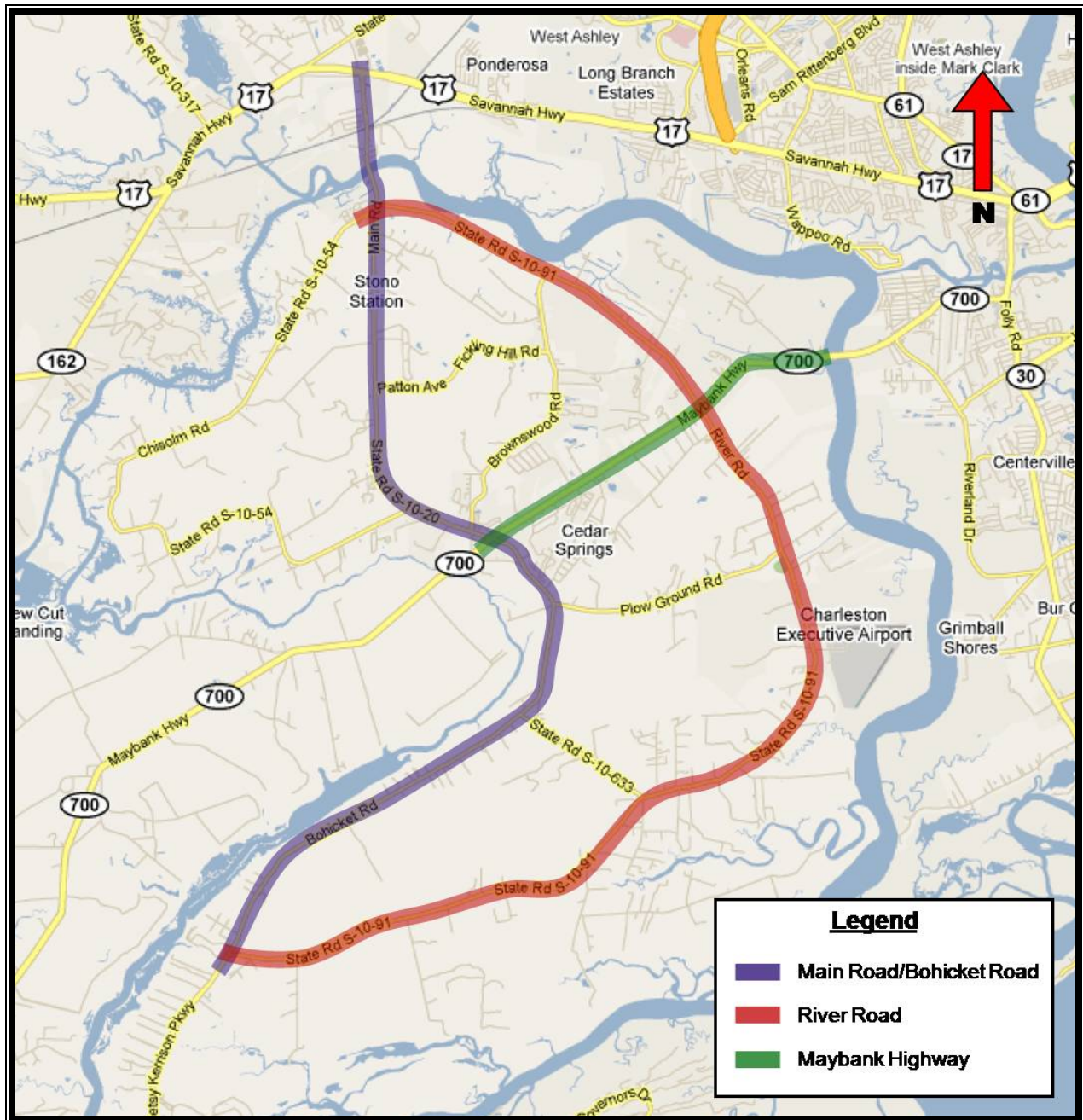
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Introduction

Johns Island is located west of Charleston, bounded by the Stono River to the north and east, the Kiawah River to the south and Church Creek/Bohicket Creek to the west. A safety and economic loss analysis has been conducted for three corridors in Johns Island; Main Road/Bohicket Road (SR 20), River Road (SR 54/SR 91) and Maybank Highway (SR 700), as shown in Figure 1.

Figure 1: Crash Analysis Corridors

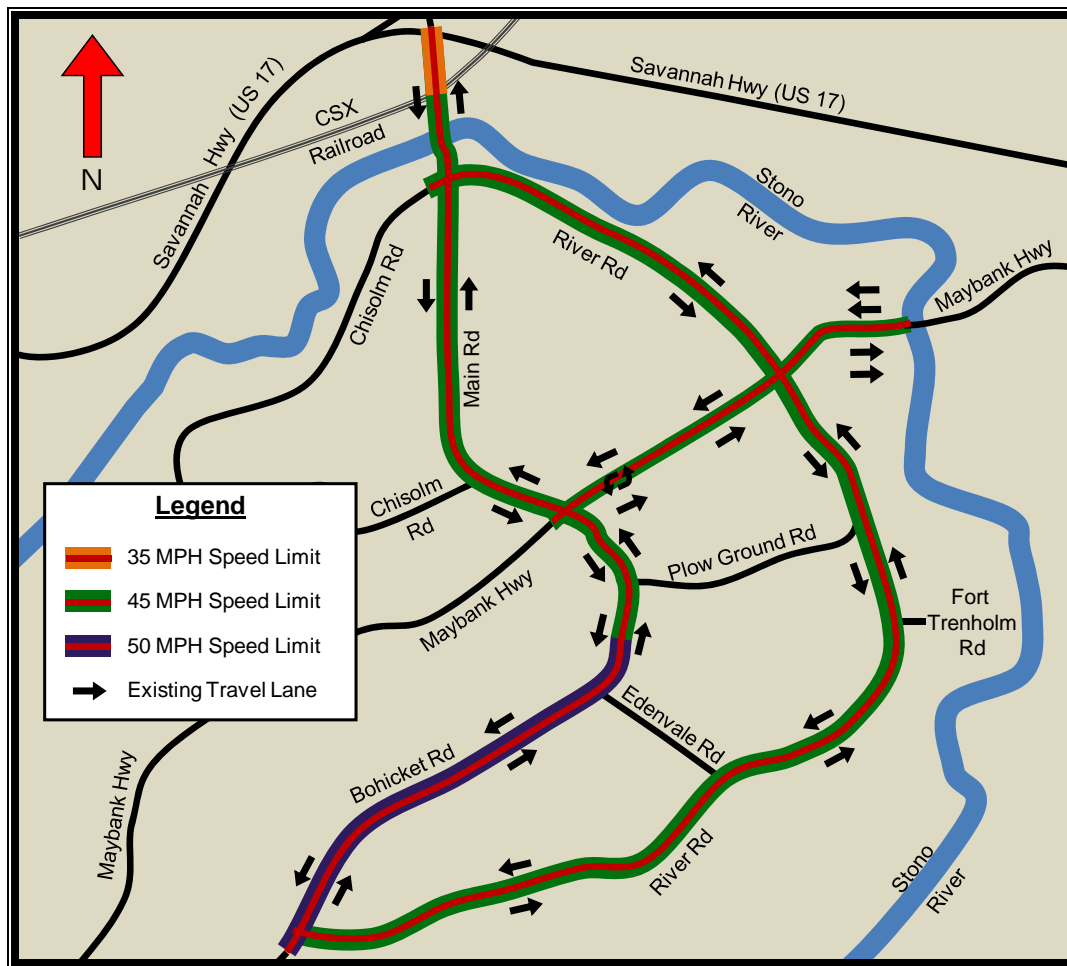


Existing Conditions

Main Road/Bohicket Road is a two-lane rural secondary road running north and south through the study area. The posted speed limit on Main Road is 35 mph from Savannah Highway (US 17) south to the CSX railroad crossing bridge. Between the railroad crossing bridge and Maybank Highway, the speed limit on Main Road is 45 mph. From Maybank Highway to Plow Ground Road the posted speed limit on Bohicket Road is 45 mph. Between Plow Ground Road and Edenvale Road, the posted speed limit of Bohicket Road changes to 50 mph. This posted speed is maintained on Bohicket Road south of River Road.

River Road is also a two-lane rural secondary road, which creates a semi-circle on the eastern half of Johns Island, beginning at the northern end of Main Road and ending at the southern part of Bohicket Road. The posted speed limit on River Road is 45 mph. Running east and west in the study area is Maybank Highway, a rural primary road with a posted speed limit of 45 mph. At its intersection with Main Road, Maybank Highway has a 3-lane cross section, which continues 1/3 mile east to the John's Island Regional Library. East of the library, Maybank Highway continues with two-lanes until approximately 700 feet before the Stono River Bridge, where the road widens to four-lanes with a flush median.

Figure 2: Existing Conditions



Crash History

Historical crash data for each of the study corridors was provided by the *Office of Highway Safety, South Carolina Department of Public Safety*. The crash data included details of each crash that occurred during the most recent three years (2006, 2007 and 2008). A summary of these crashes which occurred in the study time frame are shown below in Table 1.

Table 1: Study Corridors Crash History

		YEAR			TOTAL
		2006	2007	2008	
Main Road/ Bohicket Road Between	US 17 and Chisolm Rd/River Rd	44	38	37	119
	Chisolm Rd/River Rd and Maybank Hwy	51	55	64	170
	Maybank Hwy and Edenvale Rd	34	44	31	109
	Edenvale Rd and River Rd/ Betsy Kerrison Pkwy	39	34	25	98
Main Road/Bohicket Road Corridor Total		168	171	157	496
River Road Between	Main Rd and Maybank Hwy	29	29	33	91
	Maybank Hwy and Plow Ground Rd	8	9	17	34
	Plow Ground Rd and Fort Trenholm Rd	7	5	2	14
	Fort Trenholm Rd and Edenvale Rd	25	18	12	55
	Edenvale Rd and Bohicket Rd/ Betsy Kerrison Pkwy	10	8	10	28
River Road Corridor Total		79	69	74	222
Maybank Highway Between	Main Rd and River Rd	68	56	43	167
	River Rd and Stono River	26	21	36	83
Maybank Highway Corridor Total		94	77	79	250
STUDY AREA TOTAL		341	317	310	968

Also obtained from the *Office of Highway Safety, South Carolina Department of Public Safety* was the number of crashes that occurred statewide for each of the study years, by route category. The statewide Annual Vehicle Miles Traveled (VMT), by route category, was then obtained from the *Office of Traffic Engineering, South Carolina Department of Transportation* for these same three years. Using the provided data the average statewide crash rate for the two route categories occurring in the study corridors, Primary and Secondary, was calculated. The

statewide crash history for each year of data, including Annual VMT, Total Number of Crashes, and the Crash Rate per 100 Million Vehicle Miles (MVM) is shown in Table 2.

Table 2: Statewide Crash History

	PRIMARY ROADS			SECONDARY ROADS		
	Annual VMT (Millions)	Crashes		Annual VMT (Millions)	Crashes	
		Total Number	per 100 MVM		Total Number	per 100 MVM
2006	22,962	56,065	244	11,648	35,788	307
2007	23,259	55,410	238	11,855	36,489	308
2008	22,486	52,287	233	11,611	35,950	310
Average	22,902	54,587	238	11,705	36,076	308

Actual Crash Rate

The Actual Crash Rate (ACR) for each corridor segment was calculated for comparison to the statewide crash rate using the following formula:

$$ACR = \frac{NC \times 100,0000}{365 \times AADT \times SL}$$

Where:

ACR = Actual Crash Rate per 100 Million Vehicle Miles

NC = Number of Crashes per Year

AADT = Average Annual Daily Traffic

SL = Segment Length in Miles

As the AADT of the roadway segment is used in the ACR calculation, each study corridor was divided into segments based on changes in the roadway AADT. The crashes that occurred during the three year analysis period for each segment of each study corridor are summarized below in Table 3. Where the segment ACR is shown in **red**, the ACR was greater than the statewide a for the route category.

Table 3: Segment Actual Crash Rate (ACR)

		YEAR									CORRIDOR AVERAGE FOR YEARS 2006-2008			STATEWIDE AVERAGE FOR YEARS 2006-2008	
		2006			2007			2008			AADT (vpd)	Total # of Crashes	Segment ACR (per 100 MVM)	Route Category	Crash Rate (per 100 MVM)
		AADT (vpd)	Total # of Crashes	Segment ACR (per 100 MVM)	AADT (vpd)	Total # of Crashes	Segment ACR (per 100 MVM)	AADT (vpd)	Total # of Crashes	Segment ACR (per 100 MVM)					
Main Road/ Bohicket Road Between	US 17 and Chisolm Rd/River Rd	24,800	44	289	22,400	38	277	20,500	37	294	22,600	40	286	Secondary Roads	308
	Chisolm Rd/River Rd and Maybank Hwy	15,700	51	183	15,600	55	199	14,100	64	256	15,100	57	212		
	Maybank Hwy and Edenvale Rd	13,800	34	262	14,500	44	322	12,500	31	263	13,600	36	284		
	Edenvale Rd and River Rd/ Betsy Kerrison Pkwy	11,200	39	203	11,900	34	166	12,200	25	119	11,800	33	161		
Main Road/Bohicket Road Corridor Average		16,400	168	203	16,100	171	211	14,800	157	210	15,800	165	207		
River Road Between	Main Rd and Maybank Hwy	5,600	29	295	5,900	29	280	5,200	33	361	5,600	30	309	Secondary Roads	308
	Maybank Hwy and Plow Ground Rd	5,700	8	192	6,100	9	202	5,400	17	431	5,700	11	272		
	Plow Ground Rd and Fort Trenholm Rd	4,600	7	326	5,000	5	214	4,300	2	100	4,600	5	217		
	Fort Trenholm Rd and Edenvale Rd	3,500	25	642	4,100	18	394	3,400	12	317	3,700	18	445		
	Edenvale Rd and Bohicket Rd/ Betsy Kerrison Pkwy	2,500	10	193	3,100	8	125	2,700	10	179	2,800	9	161		
River Road Corridor Average		4,400	79	293	4,800	69	234	4,200	74	287	4,500	74	268		
Maybank Highway Between	Main Rd and River Rd	14,200	68	439	15,200	56	338	13,800	43	286	14,400	56	354	Primary Roads	238
	River Rd and Stono River	23,400	26	174	23,100	21	142	21,700	36	260	22,700	28	191		
Maybank Highway Corridor Average		18,800	94	289	19,200	77	232	17,800	79	257	18,600	83	259		
STUDY AREA AVERAGE		11,000	341	240	11,100	317	221	10,200	310	235	10,800	323	231		

Actual Crash Rate (ACR) of segment exceeds statewide average for route category

Crash Statistics

The details of crashes that occurred between 2006 and 2008 for each of the study corridor segments are shown below in Table 4, Table 5 and Table 6.

Table 4: Crash Statistics - Main Road/Bohicket Road Corridor

			Total Crashes	Fatal Crashes (Number of Fatalities)	Injury Crashes (Number of Injuries)	Property Damage Only Crashes	Lighting Day (Night)	Pavement Dry (Wet)	Collision with Tree
Main Road/Bohicket Road Between	US 17 and Chisolm Rd/River Rd	2006	44	0 (0)	14 (18)	30	36 (8)	40 (4)	0
		2007	38	0 (0)	5 (7)	33	35 (3)	33 (5)	0
		2008	37	0 (0)	11 (18)	26	28 (9)	31 (6)	1
		Total	119	0 (0)	30 (43)	89	99 (20)	104 (15)	1
		Average	39.7	0.0 (0.0)	10.0 (14.3)	29.7	33.0 (6.7)	34.7 (5.0)	0.3
	Chisolm Rd/River Rd and Maybank Hwy	2006	51	0 (0)	20 (31)	31	35 (16)	44 (7)	1
		2007	55	1 (1)	21 (28)	33	38 (17)	49 (6)	1
		2008	64	1 (1)	25 (38)	38	41 (23)	52 (12)	1
		Total	170	2 (2)	66 (97)	102	114 (56)	145 (25)	3
		Average	56.7	0.7 (0.7)	22.0 (32.3)	34.0	38.0 (18.7)	48.3 (8.3)	1.0
	Maybank Hwy and Edenvale Rd	2006	34	0 (0)	11 (15)	23	25 (9)	27 (7)	3
		2007	44	0 (0)	15 (23)	29	32 (12)	38 (6)	1
		2008	31	0 (0)	11 (15)	20	24 (7)	22 (9)	5
		Total	109	0 (0)	37 (53)	72	81 (28)	87 (22)	9
		Average	36.3	0.0 (0.0)	12.3 (17.7)	24.0	27.0 (9.3)	29.0 (7.3)	3.0
	Edenvale Rd and River Rd/ Betsy Kerrison Pkwy	2006	39	1 (1)	14 (28)	24	32 (7)	35 (4)	9
		2007	34	1 (1)	11 (14)	22	20 (14)	28 (6)	5
		2008	25	0 (0)	8 (11)	17	16 (9)	19 (6)	3
		Total	98	2 (2)	33 (53)	63	68 (30)	82 (16)	17
		Average	32.7	0.7 (0.7)	11.0 (17.7)	21.0	22.7 (10.0)	27.3 (5.3)	5.7
Main Road/Bohicket Road Corridor Total	2006	168	1 (1)	59 (92)	108	128 (40)	146 (22)	13	
	2007	171	2 (2)	52 (72)	117	125 (46)	148 (23)	7	
	2008	157	1 (1)	55 (82)	101	109 (48)	124 (33)	10	
	Total	496	4 (4)	166 (246)	326	362 (134)	418 (78)	30	
	Average	165.3	1.3 (1.3)	55.3 (82.0)	108.7	120.7 (44.7)	139.3 (26.0)	10.0	

Table 5: Crash Statistics – River Road Corridor

			Total Crashes	Fatal Crashes (Number of Fatalities)	Injury Crashes (Number of Injuries)	Property Damage Only Crashes	Lighting Day (Night)	Pavement Dry (Wet)	Collision with Tree
River Road Between	Main Rd and Maybank Hwy	2006	29	2 (2)	11 (14)	16	18 (11)	27 (2)	5
		2007	29	1 (1)	14 (18)	14	13 (16)	22 (7)	7
		2008	33	0 (0)	12 (15)	21	18 (15)	29 (4)	5
		Total	91	3 (3)	37 (47)	51	49 (42)	78 (13)	17
		Average	30.3	1.0 (1.0)	12.3 (15.7)	17.0	16.3 (14.0)	26.0 (4.3)	5.7
	Maybank Hwy and Plow Ground Rd	2006	8	0 (0)	3 (3)	5	3 (5)	7 (1)	1
		2007	9	0 (0)	4 (5)	5	7 (2)	6 (3)	0
		2008	17	0 (0)	7 (17)	10	7 (10)	15 (2)	2
		Total	34	0 (0)	14 (25)	20	17 (17)	28 (6)	3
		Average	11.3	0.0 (0.0)	4.7 (8.3)	6.7	5.7 (5.7)	9.3 (2.0)	1.0
	Plow Ground Rd and Fort Trenholm Rd	2006	7	1 (1)	1 (3)	5	3 (4)	7 (0)	1
		2007	5	0 (0)	2 (4)	3	3 (2)	4 (1)	1
		2008	2	0 (0)	1 (1)	1	1 (1)	2 (0)	1
		Total	14	1 (1)	4 (8)	9	7 (7)	12 (1)	3
		Average	4.7	0.3 (0.3)	1.3 (2.7)	3.0	2.3 (2.3)	4.0 (0.3)	1.0
	Fort Trenholm Rd and Edenvale Rd	2006	25	1 (1)	12 (21)	12	14 (11)	21 (4)	6
		2007	18	2 (2)	8 (13)	8	7 (11)	18 (0)	7
		2008	12	0 (0)	6 (7)	6	8 (4)	10 (2)	1
		Total	55	3 (3)	26 (41)	26	29 (26)	49 (6)	14
		Average	18.3	1.0 (1.0)	8.7 (13.7)	8.7	9.7 (8.7)	16.3 (2.0)	4.7
Edenvale Rd and Bohicket Rd/ Betsy Kerrison Pkwy	2006	10	0 (0)	3 (4)	7	7 (3)	10 (0)	1	
	2007	8	0 (0)	2 (2)	6	3 (5)	8 (0)	2	
	2008	10	0 (0)	3 (3)	7	7 (3)	9 (1)	1	
	Total	28	0 (0)	8 (9)	20	17 (11)	27 (1)	4	
	Average	9.3	0.0 (0.0)	2.7 (3.0)	6.7	5.7 (3.7)	9.0 (0.3)	1.3	
River Road Corridor Total	2006	79	4 (4)	30 (45)	45	45 (34)	72 (7)	14	
	2007	69	3 (3)	30 (42)	36	33 (36)	58 (11)	17	
	2008	74	0 (0)	29 (43)	45	41 (33)	64 (9)	10	
	Total	222	7 (7)	89 (130)	126	119 (103)	194 (27)	41	
	Average	74.0	2.3 (2.3)	29.7 (43.3)	42.0	39.7 (34.3)	64.7 (9.0)	13.7	

Table 6: Crash Statistics – Maybank Highway Corridor

			Total Crashes	Fatal Crashes (Number of Fatalities)	Injury Crashes (Number of Injuries)	Property Damage Only Crashes	Lighting Day (Night)	Pavement Dry (Wet)	Collision with Tree
Maybank Highway Between	Main Rd and River Rd	2006	68	0 (0)	21 (29)	47	49 (19)	57 (11)	0
		2007	56	1 (1)	12 (17)	43	35 (21)	44 (12)	0
		2008	43	0 (0)	18 (23)	25	31 (12)	38 (5)	2
		Total	167	1 (1)	51 (69)	115	115 (52)	139 (28)	2
		Average	55.7	0.3 (0.3)	17.0 (23.0)	38.3	38.3 (17.3)	46.3 (9.3)	0.7
	River Rd and Stono River	2006	26	0 (0)	4 (6)	22	21 (5)	24 (2)	0
		2007	21	0 (0)	8 (15)	13	14 (7)	18 (3)	2
		2008	36	0 (0)	8 (14)	28	23 (13)	30 (6)	1
		Total	83	0 (0)	20 (35)	63	58 (25)	73 (11)	3
		Average	27.7	0.0 (0.0)	6.7 (11.7)	21.0	19.3 (8.3)	24.3 (3.7)	1.0
Maybank Highway Corridor Total		2006	94	0 (0)	25 (35)	69	70 (24)	81 (13)	0
		2007	77	1 (1)	20 (32)	56	49 (28)	63 (15)	2
		2008	79	0 (0)	26 (37)	53	54 (25)	68 (11)	3
		Total	250	1 (1)	71 (104)	178	173 (77)	212 (39)	5
		Average	83.3	0.3 (0.3)	23.7 (34.7)	59.3	57.7 (25.7)	70.7 (13.0)	1.7

Fatal Crash Details

A total of twelve (12) fatal crashes occurred in the study corridors in the three years analyzed. Four (4) of these crashes occurred in the Main Road/Bohicket Road Corridor, seven (7) occurred in the River Road Corridor, and one (1) occurred in the Maybank Highway Corridor. Five (5) of these fatal crashes occurred in the year 2006, six (6) occurred in 2007, and one (1) occurred in 2008.

The first fatal crash occurred on April 15, 2006 at 9:15 PM on **River Road** near the intersection Main Road. The collision occurred when one vehicle was traveling *Too Fast for Conditions*, collided with another vehicle and one person was killed. It was dark at the time of the crash, the weather was clear, and the pavement was dry.

The second fatal crash occurred on August 4, 2006 at 1:43 PM on **Bohicket Road**, near the intersection of Esau Jenkins Road. The collision occurred when the vehicle left the roadway, hit a tree and one person was killed. The crash report concluded the driver of the vehicle was *Distracted/Inattentive*. It was daylight at the time of the crash, the weather was clear, and the pavement was dry.

The third fatal crash occurred on August 15, 2006 at 6:33 PM on **River Road**, near the intersection of Fort Trenholm Road. The vehicle was traveling *Too Fast for Conditions*, overturned, and one person was killed. It was daylight at the time of the crash, the weather was clear, and the pavement was dry.

The fourth fatal crash occurred on September 28, 2006 at 5:33 AM on **River Road**, near the intersection Jessy Elizabeth Road. A vehicle traveling *Too Fast for Conditions* left the roadway and hit a tree. One person was killed and two others were injured in the crash. The crash occurred at night, the road was lit by a street lamp, it was raining at the time of the collision, and the pavement was wet.

The fifth fatal crash occurred on October 5, 2006 at 9:50 PM on **River Road**, approximately 20 feet west of Edenborough Road. The vehicle *Exceeded the Speed Limit*, left the roadway, hit a tree and one person was killed. It was dark at the time of the collision, no street lights were present, the weather was clear, and the pavement was dry.

The sixth fatal crash occurred on January 29, 2007 at 12:33 PM on **Main Road** at the intersection of Belvedere Road. The crash occurred because a vehicle was traveling on the *Wrong Side/Wrong Way* of the road, collided with a second vehicle and one person was killed. It was daylight at the time of the crash, the weather was clear, and the pavement was dry.

The seventh fatal crash occurred on February 18, 2007 at 11:23 PM on **River Road** at the intersection of Edenvale Road. The collision occurred when the vehicle left the roadway, hit a tree and one person was killed. The driver of the vehicle was documented as being *Under the Influence*. It was dark with no street lights, the weather was clear and the pavement was dry at the time of the crash.

The eighth fatal crash occurred on April 8, 2007 at 2:28 AM on **River Road** at the intersection of Swygert Boulevard. The collision occurred when the vehicle left the roadway, hit a tree and one person was killed. The primary contributing factor in the crash was cited as *Aggressive Driving*. It was dark at the time of collision, no street lamps were present, the weather was clear, and the pavement was dry.

The ninth fatal crash occurred on May 7, 2007 at 2:32 PM on **Bohicket Road**, approximately 60 feet west of Edenvale Road. The collision occurred when the vehicle left the roadway, hit a tree and one person was killed. The driver of the vehicle was documented as being *Under the Influence*. It was daylight, the weather was clear, and the pavement was dry at the time of the crash.

The tenth fatal crash occurred on September 8, 2007 at 4:32 AM on **Maybank Highway**, approximately 30 feet east of Southwick Drive. The collision occurred when a vehicle collided with a pedestrian and one person was killed. The driver of the vehicle was documented as being *Under the Influence*. At the time of the incident the weather was clear and the pavement was dry.

The eleventh fatal crash occurred on December 12, 2007 at 8:04 AM on **River Road**, near the intersection of Edenvale Road. Due to a *Medical Related* issue the vehicle left the roadway, hit a tree and one person was killed. It was daylight at the time of the collision, the weather was clear, and the pavement was dry.

The twelfth fatal crash occurred on August 30, 2008 at 6:02 AM on **Main Road**, approximately 20 feet south of Humbert Road. The collision occurred when a vehicle collided with a pedestrian and one person was killed. The driver of the vehicle was documented as being *Under the Influence*. It was dark at the time of the incident, the weather was clear, and the pavement was dry.

Contributing Factors

To determine the most common causes of crashes along the study corridor segments, all crashes that occurred between 2006 and 2008 were sorted by Primary Contributing Factor. The most frequent cause of crashes in the Main Road/Bohicket Road corridor was a *Distracted/Inattentive* driver, the primary contributing factor in 21.8% of the crashes. A close second in frequency was *Failure to Yield Right of Way*, which accounted for 17.7% of crashes in this corridor.

Similarly, in the River Road Corridor a *Distracted/Inattentive* driver was the most frequent cause of crashes, accounting for 13.1% of the total. Three crash causes occurred equally as the next most frequent cause on this corridor. The causes *Animal in Road*, *Run Off Road*, and *Too Fast for Conditions*, each made up 12.2% of the total crashes. In the Maybank Highway Corridor, *Failure to Yield Right of Way* is the most frequent primary contributing factor, accounting for 24.4% of the corridor crashes. At a close second for this segment of roadway is *Following Too Closely*, which caused 22.8% of the total crashes for this corridor. The details of all crashes, quantified by Primary Contributing Factors are shown for each corridor in Table 7, Table 8 and Table 9.

Table 7: Contributing Factors – Main Road/Bohicket Road Corridor

		Main Road/Bohicket Road Between												Main Road/ Bohicket Road Corridor Total		
		US 17 and Chisolm Rd/ River Rd			Chisolm Rd/ River Rd and Maybank Hwy			Maybank Hwy and Edenvale Rd			Edenvale Rd and River Rd/ Betsy Kerrison Pkwy					
		Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct			
Aggressive Driving	2006	0			2			1			2			5		
	2007	0	0.0	0.0%	0	2.7	4.7%	2	1.3	3.7%	1	1.7	5.1%	3	5.7	3.4%
	2008	0			6			1			2			9		
Animal in Road	2006	0			6			1			3			10		
	2007	1	1.0	2.5%	4	4.7	8.2%	3	1.7	4.6%	2	3.0	9.2%	10	10.3	6.3%
	2008	2			4			1			4			11		
Disregard Stop Sign/Signal	2006	1			1			2			1			5		
	2007	3	2.0	5.0%	2	2.0	3.5%	0	0.7	1.8%	3	1.7	5.1%	8	6.3	3.8%
	2008	2			3			0			1			6		
Distracted/ Inattentive	2006	10			6			6			6			28		
	2007	8	10.7	26.9%	10	9.3	16.5%	15	9.3	25.7%	8	6.7	20.4%	41	36.0	21.8%
	2008	14			12			7			6			39		
Exceed Speed Limit	2006	0			0			0			0			0		
	2007	0	0.0	0.0%	0	0.0	0.0%	1	0.3	0.9%	0	0.0	0.0%	1	0.3	0.2%
	2008	0			0			0			0			0		
Failure to Yield Right of Way	2006	16			6			8			6			36		
	2007	11	10.3	26.1%	12	8.0	14.1%	4	7.0	19.3%	5	4.0	12.2%	32	29.3	17.7%
	2008	4			6			9			1			20		
Fatigued/ Asleep	2006	0			1			1			1			3		
	2007	0	0.0	0.0%	1	0.7	1.2%	0	0.3	0.9%	1	0.7	2.0%	2	1.7	1.0%
	2008	0			0			0			0			0		
Following Too Closely	2006	7			10			5			5			27		
	2007	6	6.3	16.0%	5	7.3	12.9%	7	5.3	14.7%	4	3.7	11.2%	22	22.7	13.7%
	2008	6			7			4			2			19		
Improper Lane Usage/Change	2006	2			1			1			0			4		
	2007	3	1.7	4.2%	1	1.7	2.9%	0	0.3	0.9%	0	0.7	2.0%	4	4.3	2.6%
	2008	0			3			0			2			5		
Improper Turn	2006	1			1			0			0			2		
	2007	3	1.7	4.2%	1	1.0	1.8%	0	0.0	0.0%	0	0.0	0.0%	4	2.7	1.6%
	2008	1			1			0			0			2		
Object in Road	2006	0			0			0			1			1		
	2007	0	0.0	0.0%	0	0.3	0.6%	3	1.7	4.6%	2	1.3	4.1%	5	3.3	2.0%
	2008	0			1			2			1			4		
Over-Correcting/ Over-Steering	2006	0			0			0			0			0		
	2007	0	0.0	0.0%	1	0.7	1.2%	0	0.0	0.0%	0	0.3	1.0%	1	1.0	0.6%
	2008	0			1			0			1			2		
Run Off Road	2006	0			2			2			5			9		
	2007	0	0.0	0.0%	4	4.0	7.1%	0	1.3	3.7%	0	2.0	6.1%	4	7.3	4.4%
	2008	0			6			2			1			9		
Too Fast for Conditions	2006	3			8			3			4			18		
	2007	0	2.7	6.7%	6	6.7	11.8%	4	3.7	10.1%	2	2.7	8.2%	12	15.7	9.5%
	2008	5			6			4			2			17		
Under the Influence	2006	0			1			0			0			1		
	2007	0	0.0	0.0%	2	1.3	2.4%	1	0.3	0.9%	1	0.7	2.0%	4	2.3	1.4%
	2008	0			1			0			1			2		
Wrong Side/ Wrong Way	2006	0			1			0			0			1		
	2007	1	0.3	0.8%	2	1.7	2.9%	0	0.0	0.0%	4	1.3	4.1%	7	3.3	2.0%
	2008	0			2			0			0			2		
Unknown	2006	3			0			2			3			8		
	2007	0	1.0	2.5%	1	1.0	1.8%	1	1.0	2.8%	0	1.0	3.1%	2	4.0	2.4%
	2008	0			2			0			0			2		
Other	2006	1			5			2			2			10		
	2007	2	2.0	5.0%	3	3.7	6.5%	3	2.0	5.5%	1	1.3	4.1%	9	9.0	5.4%
	2008	3			3			1			1			8		
Total	2006	44			51			34			39			168		
	2007	38	39.7	100%	55	56.7	100%	44	36.3	100%	34	32.7	100%	171	165.3	100%
	2008	37			64			31			25			157		

Table 8: Contributing Factors – River Road Corridor

		River Road Between															River Road Corridor Total		
		Main Rd and Maybank Hwy			Maybank Hwy and Plow Ground Rd			Plow Ground Rd and Fort Trenholm Rd			Fort Trenholm Rd and Edenvale Rd			Edenvale Rd and Bohicket Rd/ Betsy Kerrison Pkwy					
		Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct			
Aggressive Driving	2006	0			1			0			2			0			3		
	2007	3	1.7	5.5%	1	0.7	5.9%	0	0.0	0.0%	1	1.3	7.3%	0	0.0	0.0%	5	3.7	5.0%
	2008	2			0			0			1			0			3		
Animal in Road	2006	1			2			2			1			1			7		
	2007	1	2.3	7.7%	0	2.3	20.6%	0	1.0	21.4%	1	1.3	7.3%	3	2.0	21.4%	5	9.0	12.2%
	2008	5			5			1			2			2			15		
Disregard Stop Sign/Signal	2006	0			0			1			1			0			2		
	2007	0	0.3	1.1%	0	1.0	8.8%	1	0.7	14.3%	0	0.7	3.6%	1	0.3	3.6%	2	3.0	4.1%
	2008	1			3			0			1			0			5		
Distracted/ Inattentive	2006	6			1			1			3			1			12		
	2007	5	5.0	16.5%	1	1.0	8.8%	0	0.3	7.1%	2	2.0	10.9%	2	1.3	14.3%	10	9.7	13.1%
	2008	4			1			0			1			1			7		
Exceed Speed Limit	2006	0			0			0			2			1			3		
	2007	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	1	1.7	9.1%	1	0.7	7.1%	2	2.3	3.2%
	2008	0			0			0			2			0			2		
Failure to Yield Right of Way	2006	5			1			0			1			0			7		
	2007	1	2.7	8.8%	2	1.7	14.7%	0	0.0	0.0%	2	1.3	7.3%	0	0.3	3.6%	5	6.0	8.1%
	2008	2			2			0			1			1			6		
Fatigued/ Asleep	2006	1			1			0			0			2			4		
	2007	1	1.0	3.3%	0	0.7	5.9%	0	0.0	0.0%	0	0.0	0.0%	0	0.7	7.1%	1	2.3	3.2%
	2008	1			1			0			0			0			2		
Following Too Closely	2006	2			0			0			1			1			4		
	2007	0	2.0	6.6%	0	0.0	0.0%	0	0.0	0.0%	0	0.3	1.8%	0	0.3	3.6%	0	2.7	3.6%
	2008	4			0			0			0			0			4		
Improper Lane Usage/Change	2006	0			0			0			1			1			2		
	2007	0	0.0	0.0%	1	0.3	2.9%	0	0.0	0.0%	0	0.3	1.8%	0	0.7	7.1%	1	1.3	1.8%
	2008	0			0			0			0			1			1		
Improper Turn	2006	0			0			0			0			0			0		
	2007	1	0.7	2.2%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%	1	0.7	0.9%
	2008	1			0			0			0			0			1		
Object in Road	2006	0			0			0			1			0			1		
	2007	2	1.0	3.3%	1	0.7	5.9%	0	0.0	0.0%	0	0.3	1.8%	0	0.0	0.0%	3	2.0	2.7%
	2008	1			1			0			0			0			2		
Over-Correcting/ Over-Steering	2006	0			0			0			1			0			1		
	2007	1	1.0	3.3%	0	0.0	0.0%	0	0.0	0.0%	2	1.0	5.5%	1	0.3	3.6%	4	2.3	3.2%
	2008	2			0			0			0			0			2		
Run Off Road	2006	3			1			1			4			0			9		
	2007	5	4.7	15.4%	0	0.7	5.9%	2	1.3	28.6%	0	1.7	9.1%	0	0.7	7.1%	7	9.0	12.2%
	2008	6			1			1			1			2			11		
Too Fast for Conditions	2006	6			0			1			4			1			12		
	2007	7	4.7	15.4%	3	1.3	11.8%	0	0.3	7.1%	2	2.0	10.9%	0	0.7	7.1%	12	9.0	12.2%
	2008	1			1			0			0			1			3		
Under the Influence	2006	0			0			0			0			1			1		
	2007	1	0.7	2.2%	0	0.3	2.9%	1	0.3	7.1%	2	0.7	3.6%	0	0.3	3.6%	4	2.3	3.2%
	2008	1			1			0			0			0			2		
Wrong Side/ Wrong Way	2006	0			0			0			0			0			0		
	2007	0	0.3	1.1%	0	0.0	0.0%	0	0.0	0.0%	1	0.3	1.8%	0	0.0	0.0%	1	0.7	0.9%
	2008	1			0			0			0			0			1		
Unknown	2006	2			0			0			2			1			5		
	2007	1	1.0	3.3%	0	0.0	0.0%	1	0.3	7.1%	1	1.7	9.1%	0	0.7	7.1%	3	3.7	5.0%
	2008	0			0			0			2			1			3		
Other	2006	3			1			1			1			0			6		
	2007	0	1.3	4.4%	0	0.7	5.9%	0	0.3	7.1%	3	1.7	9.1%	0	0.3	3.6%	3	4.3	5.9%
	2008	1			1			0			1			1			4		
Total	2006	29			8			7			25			10			79		
	2007	29	30.3	100%	9	11.3	100%	5	4.7	100%	18	18.3	100%	8	9.3	100%	69	74.0	100%
	2008	33			17			2			12			10			74		

Table 9: Contributing Factors – Maybank Highway Corridor

		Maybank Highway Between						Maybank Highway Corridor Total		
		Main Rd and River Rd			River Rd and Stono River					
		Num	Avg	Pct	Num	Avg	Pct	Num	Avg	Pct
Aggressive Driving	2006	2			0			2		
	2007	1	1.3	2.4%	0	0.0	0.0%	1	1.3	1.6%
	2008	1			0			1		
Animal in Road	2006	1			0			1		
	2007	3	1.7	3.0%	0	1.0	3.6%	3	2.7	3.2%
	2008	1			3			4		
Disregard Stop Sign/Signal	2006	8			0			8		
	2007	4	5.0	9.0%	0	0.0	0.0%	4	5.0	6.0%
	2008	3			0			3		
Distracted/ Inattentive	2006	13			2			15		
	2007	7	8.3	15.0%	4	5.7	20.5%	11	14.0	16.8%
	2008	5			11			16		
Exceed Speed Limit	2006	0			1			1		
	2007	0	0.0	0.0%	1	1.0	3.6%	1	1.0	1.2%
	2008	0			1			1		
Failure to Yield Right of Way	2006	15			9			24		
	2007	17	13.0	23.4%	8	7.3	26.5%	25	20.3	24.4%
	2008	7			5			12		
Fatigued/ Asleep	2006	0			0			0		
	2007	0	0.0	0.0%	0	0.3	1.2%	0	0.3	0.4%
	2008	0			1			1		
Following Too Closely	2006	17			9			26		
	2007	7	12.0	21.6%	4	7.0	25.3%	11	19.0	22.8%
	2008	12			8			20		
Improper Lane Usage/Change	2006	1			0			1		
	2007	0	1.0	1.8%	0	0.0	0.0%	0	1.0	1.2%
	2008	2			0			2		
Improper Turn	2006	1			0			1		
	2007	0	0.3	0.6%	0	0.3	1.2%	0	0.7	0.8%
	2008	0			1			1		
Object in Road	2006	1			0			1		
	2007	0	0.3	0.6%	0	0.0	0.0%	0	0.3	0.4%
	2008	0			0			0		
Over-Correcting/ Over-Steering	2006	0			0			0		
	2007	1	0.3	0.6%	0	0.0	0.0%	1	0.3	0.4%
	2008	0			0			0		
Run Off Road	2006	1			1			2		
	2007	2	1.0	1.8%	1	0.7	2.4%	3	1.7	2.0%
	2008	0			0			0		
Too Fast for Conditions	2006	3			2			5		
	2007	7	5.0	9.0%	1	2.7	9.6%	8	7.7	9.2%
	2008	5			5			10		
Under the Influence	2006	0			0			0		
	2007	5	2.3	4.2%	1	0.7	2.4%	6	3.0	3.6%
	2008	2			1			3		
Wrong Side/ Wrong Way	2006	1			0			1		
	2007	0	0.7	1.2%	0	0.0	0.0%	0	0.7	0.8%
	2008	1			0			1		
Unknown	2006	1			1			2		
	2007	2	2.3	4.2%	0	0.3	1.2%	2	2.7	3.2%
	2008	4			0			4		
Other	2006	2			1			3		
	2007	0	1.0	1.8%	1	0.7	2.4%	1	1.7	2.0%
	2008	1			0			1		
Total	2006	67			26			93		
	2007	56	55.7	100%	21	27.7	100%	77	83.3	100%
	2008	44			36			80		

Economic Loss

An economic loss analysis was conducted for each corridor segment for each of the study years, as well as the total economic loss over each corridor for the three year study window. The costs associated with the crashes were obtained from two different sources. The value of a statistical life (VSL) or in other words the fatal crash value was obtained from *Treatment of the Economic Value of a Statistical Life in Departmental Analyses, March 2009*. The value of Injury and Property Damage crashes were obtained from *National Safety Council* report on the *Cost of Motor Vehicle Injuries*, which was compiled with 2007 cost data:

- Fatality: \$6,000,000
- Injury: \$61,600
- Property Damage: \$7,500

Using a conservative annual inflation rate of 1.5%, as per current Bloomberg values, only the Injury and Property Damage costs were adjusted to 2009 dollars for the estimate of economic loss. The results of the economic loss analysis for each study corridor segment and the corridor totals are presented below in Table 10, Table 11 and Table 12. The economic loss for the total study area is summarized in Table 13.

Table 10: Economic Loss – Main Road/Bohicket Road Corridor

			Fatalities		Injuries		Property Damage		Total Economic Loss (2009 \$)
			Number	Cost (2009 \$)	Number	Cost (2009 \$)	Number	Cost (2009 \$)	
Main Road/Bohicket Road Between	US 17 and Chisolm Rd/ River Rd	2006	0	\$0	18	\$1,143,000	30	\$231,000	\$1,374,000
		2007	0	\$0	7	\$444,500	33	\$254,100	\$698,600
		2008	0	\$0	18	\$1,143,000	26	\$200,200	\$1,343,200
		Total	0	\$0	43	\$2,730,500	89	\$685,300	\$3,415,800
	Chisolm Rd/ River Rd and Maybank Hwy	2006	0	\$0	31	\$1,968,500	31	\$238,700	\$2,207,200
		2007	1	\$6,000,000	28	\$1,778,000	33	\$254,100	\$8,032,100
		2008	1	\$6,000,000	38	\$2,413,000	38	\$292,600	\$8,705,600
		Total	2	\$12,000,000	97	\$6,159,500	102	\$785,400	\$18,944,900
	Maybank Hwy and Edenvale Rd	2006	0	\$0	15	\$952,500	23	\$177,100	\$1,129,600
		2007	0	\$0	23	\$1,460,500	29	\$223,300	\$1,683,800
		2008	0	\$0	15	\$952,500	20	\$154,000	\$1,106,500
		Total	0	\$0	53	\$3,365,500	72	\$554,400	\$3,919,900
	Edenvale Rd and River Rd/ Betsy Kerrison Pkwy	2006	1	\$6,000,000	28	\$1,778,000	24	\$184,800	\$7,962,800
		2007	1	\$6,000,000	14	\$889,000	22	\$169,400	\$7,058,400
		2008	0	\$0	11	\$698,500	17	\$130,900	\$829,400
		Total	2	\$12,000,000	53	\$3,365,500	63	\$485,100	\$15,850,600
Main Road/ Bohicket Road Corridor Total	2006	1	\$6,000,000	92	\$5,842,000	108	\$831,600	\$12,673,600	
	2007	2	\$12,000,000	72	\$4,572,000	117	\$900,900	\$17,472,900	
	2008	1	\$6,000,000	82	\$5,207,000	101	\$777,700	\$11,984,700	
	Total	4	\$24,000,000	246	\$15,621,000	326	\$2,510,200	\$42,131,200	

Table 11: Economic Loss – River Road Corridor

			Fatalities		Injuries		Property Damage		Total Economic Loss (2009 \$)	
			Number	Cost (2009 \$)	Number	Cost (2009 \$)	Number	Cost (2009 \$)		
River Road Between	Main Rd and Maybank Hwy	2006	2	\$12,000,000	14	\$889,000	16	\$123,200	\$13,012,200	
		2007	1	\$6,000,000	18	\$1,143,000	14	\$107,800	\$7,250,800	
		2008	0	\$0	15	\$952,500	21	\$161,700	\$1,114,200	
		Total	3	\$18,000,000	47	\$2,984,500	51	\$392,700	\$21,377,200	
	Maybank Hwy and Plow Ground Rd	2006	0	\$0	3	\$190,500	5	\$38,500	\$229,000	
		2007	0	\$0	5	\$317,500	5	\$38,500	\$356,000	
		2008	0	\$0	17	\$1,079,500	10	\$77,000	\$1,156,500	
		Total	0	\$0	25	\$1,587,500	20	\$154,000	\$1,741,500	
	Plow Ground Rd and Fort Trenholm Rd	2006	1	\$6,000,000	3	\$190,500	5	\$38,500	\$6,229,000	
		2007	0	\$0	4	\$254,000	3	\$23,100	\$277,100	
		2008	0	\$0	1	\$63,500	1	\$7,700	\$71,200	
		Total	1	\$6,000,000	8	\$508,000	9	\$69,300	\$6,577,300	
	Fort Trenholm Rd and Edenvale Rd	2006	1	\$6,000,000	21	\$1,333,500	12	\$92,400	\$7,425,900	
		2007	2	\$12,000,000	13	\$825,500	8	\$61,600	\$12,887,100	
		2008	0	\$0	7	\$444,500	6	\$46,200	\$490,700	
		Total	3	\$18,000,000	41	\$2,603,500	26	\$200,200	\$20,803,700	
	Edenvale Rd and Bohicket Rd/ Betsy Kerrison Pkwy	2006	0	\$0	4	\$254,000	7	\$53,900	\$307,900	
		2007	0	\$0	2	\$127,000	6	\$46,200	\$173,200	
		2008	0	\$0	3	\$190,500	7	\$53,900	\$244,400	
		Total	0	\$0	9	\$571,500	20	\$154,000	\$725,500	
	River Road Corridor Total		2006	4	\$24,000,000	45	\$2,857,500	45	\$346,500	\$27,204,000
			2007	3	\$18,000,000	42	\$2,667,000	36	\$277,200	\$20,944,200
			2008	0	\$0	43	\$2,730,500	45	\$346,500	\$3,077,000
			Total	7	\$42,000,000	130	\$8,255,000	126	\$970,200	\$51,225,200

Table 12: Economic Loss – Maybank Highway Corridor

			Fatalities		Injuries		Property Damage		Total Economic Loss (2009 \$)
			Number	Cost (2009 \$)	Number	Cost (2009 \$)	Number	Cost (2009 \$)	
Maybank Highway Between	Main Rd and River Rd	2006	0	\$0	29	\$1,841,500	47	\$361,900	\$2,203,400
		2007	1	\$6,000,000	17	\$1,079,500	43	\$331,100	\$7,410,600
		2008	0	\$0	23	\$1,460,500	25	\$192,500	\$1,653,000
		Total	1	\$6,000,000	69	\$4,381,500	115	\$885,500	\$11,267,000
	River Rd and Stono River	2006	0	\$0	6	\$381,000	22	\$169,400	\$550,400
		2007	0	\$0	15	\$952,500	13	\$100,100	\$1,052,600
		2008	0	\$0	14	\$889,000	28	\$215,600	\$1,104,600
		Total	0	\$0	35	\$2,222,500	63	\$485,100	\$2,707,600
Maybank Highway Corridor Total		2006	0	\$0	35	\$2,222,500	69	\$531,300	\$2,753,800
		2007	1	\$6,000,000	32	\$2,032,000	56	\$431,200	\$8,463,200
		2008	0	\$0	37	\$2,349,500	53	\$408,100	\$2,757,600
		Total	1	\$6,000,000	104	\$6,604,000	178	\$1,370,600	\$13,974,600

Table 13: Economic Loss – Total Study Area

		Fatalities		Injuries		Property Damage		Total Economic Loss (2009 \$)
		Number	Cost (2009 \$)	Number	Cost (2009 \$)	Number	Cost (2009 \$)	
Main Road/ Bohicket Road Corridor	2006	1	\$6,000,000	92	\$5,842,000	108	\$831,600	\$12,673,600
	2007	2	\$12,000,000	72	\$4,572,000	117	\$900,900	\$17,472,900
	2008	1	\$6,000,000	82	\$5,207,000	101	\$777,700	\$11,984,700
	Total	4	\$24,000,000	246	\$15,621,000	326	\$2,510,200	\$42,131,200
River Road Corridor	2006	4	\$24,000,000	45	\$2,857,500	45	\$346,500	\$27,204,000
	2007	3	\$18,000,000	42	\$2,667,000	36	\$277,200	\$20,944,200
	2008	0	\$0	43	\$2,730,500	45	\$346,500	\$3,077,000
	Total	7	\$42,000,000	130	\$8,255,000	126	\$970,200	\$51,225,200
Maybank Highway Corridor	2006	0	\$0	35	\$2,222,500	69	\$531,300	\$2,753,800
	2007	1	\$6,000,000	32	\$2,032,000	56	\$431,200	\$8,463,200
	2008	0	\$0	37	\$2,349,500	53	\$408,100	\$2,757,600
	Total	1	\$6,000,000	104	\$6,604,000	178	\$1,370,600	\$13,974,600
Total Study Area	2006	5	\$30,000,000	172	\$10,922,000	222	\$1,709,400	\$42,631,400
	2007	6	\$36,000,000	146	\$9,271,000	209	\$1,609,300	\$46,880,300
	2008	1	\$6,000,000	162	\$10,287,000	199	\$1,532,300	\$17,819,300
	Total	12	\$72,000,000	480	\$30,480,000	630	\$4,851,000	\$107,331,000
	Average per Year	4	\$24,000,000	160	\$10,160,000	210	\$1,617,000	\$35,777,000

Recommended Improvements

As discussed previously, the most frequent cause of crashes for the Main Road/Bohicket Road Corridor and the River Road Corridor was a *Distracted/Inattentive* driver. While roadway modifications cannot force a driver to stay aware, some measures can allow a distracted driver to recover prior to a crash, or minimize crash consequences. The widening of shoulders in these study corridors and the installation of rumble strips would alert drivers who do become distracted and allow them to recover prior to leaving the roadway. In areas where trees or other objects on the roadside are a collision hazard, it is recommended that guardrail also be installed to minimize the impacts of a vehicle leaving the roadway.

Animal in Road was a frequent contributing factor for crashes that occurred on particular segments in the study area. These segments were on Main Road from Dr. Whaley Road to just south of Mary Ann Point Road, on Bohicket Road, from Berry Hill to River Road, on River Road from Maybank Highway to Fort Trenholm Road, and on River Road from Edenvale Road to Betsy Kerrison Parkway. As the majority of these crashes were caused by deer, it is recommended that Deer Crossing signs, W11-3, with a reduced advisory speed plaque, W13-1, be installed to warn drivers of this possible road hazard in these segments.

The frequency of crashes occurring where *Too Fast for Conditions* or *Run Off Road* were identified, along with the lack of crashes for which *Exceed Speed Limit* was identified shows that the posted speed limit may be too high for vehicles to properly navigate the roadway. For this reason, it is recommended that further study be conducted to determine if the speed limit needs to be reduced in these corridors or if greater enforcement is needed to ensure that the posted speed limit is obeyed.

Along the Maybank Highway corridor it is recommended that left turn lanes be constructed for major intersections between Main Road and River Road. In addition, the construction of a flush median in areas where no left turn lane is constructed would allow left turning vehicles to exit the travel lane when accessing business and residential driveways. These improvements will help to reduce the number of *Failure to Yield Right of Way* and *Following Too Closely* crashes, which accounted for 23.4% and 21.6% of crashes, respectively, in this segment. Provisions for left turn lanes are also recommended for the Main Road/Bohicket Road Corridor, where the occurrence of crashes related to *Failure to Yield Right of Way* and *Following Too Closely* are also high, 17.7% and 13.7%, respectively.

There are several intersections located in the study corridors which had a high occurrence of *Failure to Yield Right of Way* and/or *Disregard Stop Sign/Signal*. One of these intersections is Main Road at Old Charleston Road/Old Savannah Road, where Main Road is uncontrolled and the side streets are under stop control. The safety of this intersection could be improved with the installation of an overhead warning beacon. This beacon would provide a red flashing light warning drivers on the side street that they have a stop sign approaching, and a yellow flashing light warning drivers on Main Road that there is intersecting traffic which may be crossing at that location.

At the signalized intersections of Maybank Highway at Main Road/Bohicket Road and Maybank Highway at River Road it is recommended that traffic counts be reviewed to determine if additional protected left turn phases are needed. It is also recommended that one of the Shell Station/Circle K driveways, located on the south side of the intersection of Main Road/Bohicket Road at Maybank Highway, be closed. Currently there are two driveways on Bohicket Road which serve this parcel; one is less than 50 feet from the intersection and a second is 75 feet beyond the first. According to *SCDOT Access and Roadside Management Standards*, the minimum driveway spacing on a road with a speed limit of 45 mph and a driveway with more than 50 peak hour trips is 325 feet. As these two driveways are significantly closer than the minimum allowable spacing, it is recommended that the possibility of closing the driveway closest to the intersection be investigated.

Please request copies of Appendix C



Steven L. Thigpen, P. E.
Director of Transportation Development

843.202.6146
Fax: 843.202.6152
sthigpen@charlestoncounty.org
Lonnie Hamilton III Public Services Building
4045 Bridge View Drive, Suite C204
North Charleston, SC 29405

April 27, 2015

South Carolina Department of Transportation
Mrs. Machael M. Peterson
Local Public Agency Administrator
Local Public Agency Administration Unit
PO Box 191
Columbia, SC 29202-0191

Subject: US 17 at Main Road Interchange and Main Road Widening

Dear Mrs. Peterson:

I am writing to request SCDOT approval for Charleston County to administer and manage the US 17 at Main Road Interchange Improvements and Main Road Widening Project as a Local Public Agency (LPA). The enclosed LPA Qualification Form and attachments demonstrate Charleston County's resources, capabilities, and recent success with similar projects.

The project will be funded through a combination of SCDOT safety funds and local funds provided through the Charleston County Transportation Sales Tax Program.

The US 17 at Main Road Interchange and Main Road Widening is a high priority project for Charleston County and we are interested in beginning work as quickly as possible. Please let me know if you have any questions or need more information to process this application. We look forward to working with SCDOT staff as this project develops.

Sincerely,

A handwritten signature in blue ink that reads "Steve L. Thigpen". The signature is fluid and cursive, written over a white background.

Steve Thigpen, P.E.
Director of Transportation Development



South Carolina
Department of Transportation

March 30, 2016

Mr. Steven L. Thigpen, P.E.
4045 Bridge View Drive, Suite C204
North Charleston, South Carolina 29405

RE: US 17 and Main Road Intersection Project

Dear Mr. Thigpen:

Thank you for your March 17, 2016 letter requesting Charleston County's management of the subject intersection. SCDOT appreciates your desire to improve this intersection along with other improvements planned for the area.

As referenced in your letter, County Council voted on September 29, 2015 to authorize staff to begin negotiations with the South Carolina Department of Transportation (SCDOT) to terminate the existing Financial Participation Agreement. This decision resulted in a subsequent meeting with SCDOT Secretary Hall along with County and SCDOT staff to discuss the potential transfer of project management and fiscal responsibilities to Charleston County. At the County's request, SCDOT ceased all project development activities immediately following that meeting and is no longer actively working on the project.

SCDOT does not object to the County's request to seek approval to manage improvements at this intersection provided that the scope of the improvements address identified safety and congestion concerns at this location. As indicated in your letter, the next step would be for the County to become an approved LPA. Please contact Machael Peterson, Local Public Agency Administrator, at 803-737-1618 to initiate this process. Once approved as an LPA and funding is identified, SCDOT will terminate the existing Financial Participation Agreement and a new agreement will be executed. Given that there have been safety deficiencies identified at this intersection, there is considerable incentive to expedite the improvements. SCDOT intends to contribute up \$2,000,000 for the construction phase of the project.



Steven Thigpen
Page Two
March 30, 2016

Thank you again for all that you do to improve our highway network. Please do not hesitate to contact me at 803-737-1462 if I can provide further assistance or if you would like to discuss further.

Sincerely,



Anthony W. Fallaw, P.E.
Director of Traffic Engineering

AWF:pcm

cc: Jim Armstrong, Deputy Administrator-Transportation/Public Works
ec: Christy A. Hall, P.E., Secretary of Transportation
Leland D. Colvin, P.E., Acting Deputy Secretary of Transportation
Andrew T. Leaphart, P.E., Chief Engineer for Operations
Robert Clark, District Six Engineering Administrator
Machael Peterson, C Program Administration Office
Brent Rewis, P.E. Program Manager -RPG, Lowcountry

File: TE/AWF

Charleston

Project Description	Length	Rank	MPO / COG	STIP Category	Federal Program	FY 2014 Planned	FY 2015 Planned	FY 2016 Planned	FY 2017 Planned	FY 2018 Planned	FY 2019 Planned	2014-2019 Project Cost	Remaining Cost
Charleston County Pavement Resurfacing			BCD	Pave/Reconst	NHPP/STP	4,918	4,918	8,270					
US 52 (S-45 (Remount Rd) to End Grass Median)			CHATS										
US 52 (End Grass Median to S-442 (Otranto Rd.))													
SC 7 (US 17 (Savannah Highway) to S-1375 (New Orleans Rd.))													
SC 7 (Local (Sumar St) to Durham Pl./ Poston Rd.)													
US 17 (0.09 Mi S of S-725 to 0.25 Mi N of SC61)													
US 17 (0.23 Mi N of SC 171 to Ashley River Bridge)													
US 17 NBL (S-584 (Seewee Rd) to 0.07 Mi NE of S-89)													
US 17 SBL (Darrell Creek Trail to Bulls Bay Blvd)													
US 17 SBL (Bulls Bay Blvd to 0.07 Mi NE of S-89)													
US 17 NBL (Darrell Creek Trail to S-584 (Seewee Rd))													
SC 7 (S-1376 (Orleans Rd) to 0.04 Mi SW of SC 51)													
SC 41 (S-2540 (Gregorie Ferry Rd) to County Line)													
S-13 (0.04 N S-80 (N Rhett Ave) to S-55 (Virginia Ave))													
S-29 (S-10-29 (E. Battery St) to S-575 (Tradd St))													
S-52 (County Park Entrance to Joint Past 4th St)													
S-169 (US 75 to S-987 (Lincolntonville Rd))													
S-748 (SC 700 (Maybank Hwy) to S-61 (Central Park Rd))													
S-120 (S-75 (Lanson Rd) to Local Rte. (Fault Line Rd))													
S-2263 (Lo Rt (Cemetery Rd) to Dorchester Co. Line)													
SC 61 (Dorchester Co. Line to 18 Before S-57 (Bees Ferry Rd))													
SC 174 (CJ near S-1308 (Pine Landing Rd) to 28 N S-1998 (Russell Creek Rd))													
SC 174 (47 N S-1983 (Russell Creek Rd) to 16 N L-2068 (Jehosse Rd))													
SC 174 (28 N of Structure (Sand Creek) to Beg McKinley Washington Br)													
SC 174 (End McKinley Washington Br to Beg Toogoodoo Cr Bridge)													
SC 703 (26 NW S-51 (Rifle Range Rd) to Beg Ben Sawyer Memorial Br)													
US 17 (Begin Divided Hwy to Georgetown Co. Line)													
Intersection Improvements				Safety	Safety								
S-29 (Camp Rd) with S-53 (Riverland)			CHATS										
S-53 (Riverland) with S-57 (Central Park)			CHATS										
US 52 with S-1543			CHATS										
Intersection Safety Improvements				Safety	Safety								
US 17 at S-26 (Wheat Road)			CHATS	Safety Local	Safety Local	400 R		2,000 C				55,800	
Intersection improvement including access management to improve safety and operational capacity of intersection				Safety Local (Charleston Co Sales Tax)	Safety Local (Charleston Co Sales Tax)			1,500 C					
Interstate Safety Improvements				Safety	Safety								
I-26 MP 209.00 to MP 221.00													
I-26 MP 19.40 to MP 20.40													
I-26 MP 19.40 to MP 20.40													
I-26 with I-526													
I-26 with S-52 (Montague Ave.)													
I-26 with S-75 (Ashley Phosphate Rd.)													

www.dot.state.sc.us/inside/pdfs/STIP/counties/Charleston.pdf



Steven L. Thigpen, P. E.
Director of Transportation Development

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Lonnie Hamilton III Public Services Building
4045 Bridge View Drive, Suite C204
North Charleston, SC 29405

February 23, 2017

Randy Young, PE
Chief Engineer for Project Delivery
South Carolina Department of Transportation
955 Park Street
Columbia, SC 29201

Re: Charleston County Main Road and Bohicket Road Widening SCTIB Application

Dear Mr. Young:

Charleston County has prepared the attached application to the South Carolina Transportation Infrastructure Bank (SCTIB) for funding to widen Main Road from Bees Ferry Road to Maybank Highway, widen Bohicket Road from Maybank Highway to the Betsy Kerrison Parkway, and construct a grade separated interchange at the intersection of Main Road and US 17.

The SCTIB application instructions require that the South Carolina Department of Transportation provide concurrence with several sections of the application. Specifically, the application requires that SCDOT provide written correspondence which addresses the following points:

- Verification that the project cost is accurate and reasonable,
- Verification that the disbursement timeframes are accurate and reasonable,
- Confirmation that the project schedule is reasonable,
- Confirmation of the useful life of the project,
- An estimation of future maintenance costs associated with the project, and
- Commitment to assume future maintenance requirements.

The attached application includes sections which contain the County's estimated project cost (Section 2.1), schedule (Section 3.1), disbursement timeframe (Section 2.7), and useful life of the project (Section 2.9). Charleston County hereby requests SCDOT's review and concurrence with the sections identified above, an estimation of the SCDOT's future maintenance costs, and a commitment from SCDOT to assume future maintenance of the project. Please let me know if you need any further information to consider this request.

Kind Regards,

A handwritten signature in blue ink that reads "Steven L. Thigpen". The signature is fluid and cursive, written over the printed name.

Steve Thigpen, PE
Director of Transportation Development
Charleston County