

MARK CLARK EXPRESSWAY

FINANCIAL PLAN

MARCH 15, 2018



PRODUCED BY

Charleston County
4045 Bridge View Drive
North Charleston, SC 29405

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DRAFT

WEST

INTERSTATE

SOUTH CAROLINA

526

SPEED
LIMIT
60

MINIMUM
45

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EXECUTIVE SUMMARY

In response to the South Carolina Transportation Infrastructure Bank's (SCTIB) requests for a viable binding plan to fund the Mark Clark Expressway Completion Project, Charleston County created this Financial Plan (Plan). The Plan is consistent with the Federal Highway Administration's Financial Plans Major Project Financial Plan Guidance (2014). It provides cost estimates and financial resources to fund the completion of the project and demonstrates Charleston County's commitment to complete the project in partnership with the South Carolina Department of Transportation (SCDOT), the SCTIB, and with funding from the Berkeley-Charleston-Dorchester Council of Governments/Charleston Area Transportation Study (BCDCOG/CHATS).

01 PROJECT DESCRIPTION

The Mark Clark Expressway Completion Project is a 7-mile, four-lane parkway planned to connect West Ashley, Johns Island, James Island, and the City of Charleston.

02 SCHEDULE

All information related to the Completion Project's schedule is preliminary, and based on information provided by the SCDOT. At present, the SCDOT estimates the Project will be completed in 2029.

03 COST

All information related to the estimated cost of the Completion Project is based on the most up to date estimate provided by the SCDOT. The SCDOT estimates the complete project will cost \$725 million.

04 FUNDING

Committed funds for the Completion Project include \$558 million¹ by the SCTIB, \$105 million² by CHATS/BCDCOG, and \$62 million by Charleston County for a total of \$725 million.

05 FINANCING

Charleston County plans to meet its funding commitment for the Completion Project with revenue from its first (2004) half cent sales tax without the need to finance any portion of its commitment. The SCTIB & BCDCOG's committed funds will be bond financed.

06 CASH FLOW

Based on current plans and projections, the Completion Project will be funded with federal, state and local funds that will meet anticipated project expenditures.

07 P3 ASSESSMENT

The SCTIB, in association with CHATS and Charleston County, have elected to fund the Completion Project so private financing is not necessary. The design-build delivery method will be utilized.

08 RISK & RESPONSE

The Completion Project faces typical risk elements that can affect costs and schedules including litigation, schedule delays, inflation, and funding risks.

01. PROJECT DESCRIPTION

The Mark Clark Expressway Completion Project will add approximately seven miles of new, multi-lane, controlled-access roadway between the current western end of I-526 at U.S. 17/ Savannah Highway in West Ashley and the James Island Expressway interchange at Folly Road.

At construction's end, the Completion Project will provide a major artery on and off James and Johns Islands as well as offer another much-needed evacuation route for the barrier islands west of the Ashley River. The project's completion will help alleviate traffic congestion in West Ashley, James Island, Johns Island, and the City of Charleston.

HISTORY & STATUS

Planning for the Completion Project began in 1960 and construction of the first section began in 1979. The existing portion of the Mark Clark Expressway begins at a partially constructed interchange with US 17/Savannah Highway and SC 7/Sam Rittenberg Boulevard in the West Ashley section of the City of Charleston and terminates at an interchange onto US 17/ Johnnie Dodds Boulevard in Mount Pleasant, South Carolina.

In 1993, the bridge section identified as SC 30, commonly referred to as the James Island Connector, opened, connecting the Peninsula of Charleston with James Island. The Connector terminates at Folly Road.

On June 8, 2007, Charleston County, the South Carolina Transportation Infrastructure Bank (SCTIB), and the South Carolina Department of Transportation (SCDOT) entered into an Intergovernmental Agreement (IGA) where the SCTIB agreed to provide \$420 million in the form of grants to the County to be used to complete the project.³ In 2007, the Completion Project was estimated to cost \$420 million. The IGA required the Bank to fund an initial grant of up to \$99 million to fund engineering, environmental work, and right-of-way acquisition for the project. The balance of funding for the Completion Project (i.e. \$321 million) would be funded through revenue bonds available to the Bank at a future date.

As consideration for the Bank's \$420 million commitment, the County was required to provide a local match contribution of \$117 million on roads to be constructed or improved which directly relate to the Completion Project. In addition, the IGA required the SCDOT to oversee all planning, design, engineering, right-of-way acquisition, contract administration, inspection, awarding of contracts, the review and approval of payment of contracts, construction, and any related or necessary activities or functions of the Completion Project.⁴

The IGA provides, in part, that the County shall be responsible for obtaining or providing additional funding for the Completion Project if the available funds are not sufficient to

complete the project within the Completion Project's scope, reducing the Completion Project's scope to conform to available funding, or some combination of the two.

On August 17, 2012, due to the Completion Project's cost escalation and the County's responsibility to fund or provide additional funding or reduce the scope of the project, the County requested and the SCTIB voted unanimously to approve funding of the 2012 estimated shortfall of \$138 million.⁴ This increased the SCTIB's financial commitment for the Completion Project from \$420 million to \$558 million. The funds were planned to come from future financial capacity of the Bank, and the additional funds would be subject to Joint Bond Review Committee approval. The Bank's approval included the stipulation that prior to providing any additional funding for the Completion Project, the Bank would first fully fund the completion of Florence County Projects that were estimated to cost between

\$80-\$90 million.⁵ To date, the Joint Bond Review Committee has not voted upon, or considered, the SCTIB's approval of the additional \$138 million.

Since the parties entered the IGA in 2007, the SCDOT's estimated cost for the Completion Project has escalated from the original project budget of \$420 million, to \$558 million in 2012, to \$725 million in 2015.

Although the IGA does not require or compel Charleston County to provide a Financial Plan, the County, in good faith and in the spirit of cooperation, identified several potential funding sources that can be utilized if the County chooses to provide additional funding as required in the agreement.

To that end, Charleston County adopted an Ordinance on March 3, 2017 pledging to fund up to \$150 million for the Project.⁶ In addition, the Charleston Area Transportation

PROJECT TIMELINE



JUNE 2006

SCTIB approves Charleston County's application to fund the Project. The initial cost estimate totals \$420 million



JUNE 2007

SCTIB, SCDOT, and Charleston County sign the IGA



JAN 2008

Environmental Impact Study begins



JULY 2010

DEIS approved by SCDOT and the FHWA. Alternative G becomes the preferred alternative.



AUG-SEP 2010

SCDOT holds Public Hearings to present the preferred alternative and obtain public input

Study (CHATS) Policy Committee adopted a resolution February 13, 2017 stating that it had available bonding capacity through the SCDOT in excess of \$200 million and affirming its commitment to obligate a portion of its Federal Guideshare funds to the Completion Project.⁷ The County anticipates receiving \$105 million in funding from CHATS for the Completion Project.⁸

Notwithstanding CHATS and Charleston County funding commitments, the SCTIB has not voted to reinstate the Completion Project or reconfirm its funding commitment because the County never provided the SCTIB with a viable binding plan to fund the shortfall. This Financial Plan will detail both Charleston County and CHATS funding commitments and obligations to the Completion Project with the expectation that the SCTIB will reinstate the project and reaffirm its funding commitment.

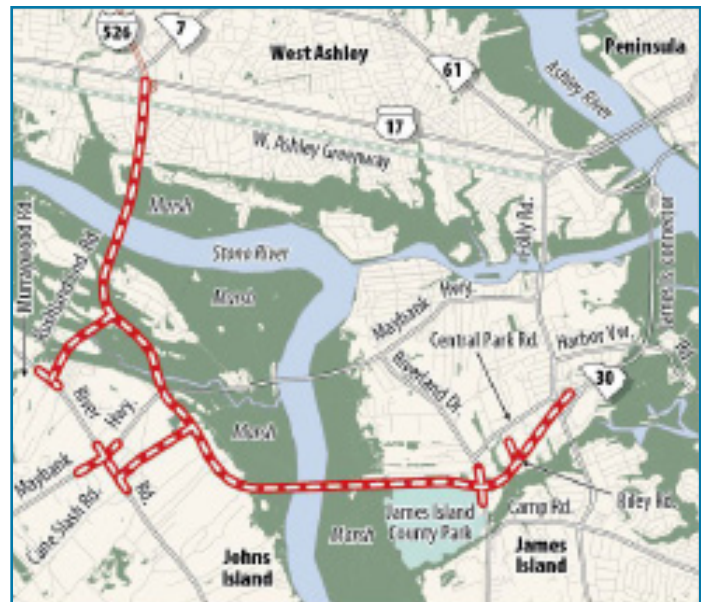


Figure 1. Alternative G⁹

NATIONAL ENVIRONMENTAL PROTECTION ACT (NEPA) AND ALTERNATIVE G

Developed in direct response to public and stakeholder comments compiled during the Draft EIS (DEIS) process, the SCDOT's Recommended Preferred Alternative (Alternative G) was announced in August 2010.



AUG 2012

SCDOT's cost estimate to complete the Project rises from \$420 million to \$558 million



SEP 2015

SCDOT's cost estimate to complete the Project rises from \$558 million to \$725 million



DEC 2015

SCDOT begins the re-evaluation process



2016 - 2017

SCTIB and Charleston County discuss the Project's future with an emphasis on funding



MARCH 2018

Charleston County submits Financial Plan

Upon careful consideration after the publication of the 2010 DEIS and public hearings, a resolution of Charleston County Council was adopted on December 13, 2012, regarding moving forward with Alternative G and completing the project.

Council voted to advance Alternative G through the Final EIS (FEIS) and Record of Decision. Presently, the SCDOT is slowly progressing the FEIS, but Charleston County is hopeful that the final completed document will be presented to the public sometime in 2018.

According to the 2010 DEIS, Alternative G is a “proposed four-lane parkway with design speeds of 45 miles per hour (mph) and posted speed of 35 to 45 mph.”¹⁰

As shown in Figure 2, starting in West Ashley, Alternative G extends southward from the existing interchange at I-526/U.S. 17, passing between the Oakland, Stone Creek, Mainland, and Arlington Village neighborhoods on the west and the Oakland, Citadel Woods, and Air Harbor neighborhoods on the east. The proposed interchange at U.S. 17 is a Single Point Urban Interchange (SPUI).

As shown in Figure 3, crossing the Stono River, Alternative G continues south between Rushland Plantation and Headquarters Island and curves southeast 1.2 miles northwest of Maybank Highway. The road then curves to the south 0.5 miles northwest of Maybank Highway on Johns Island and crosses Maybank Highway 0.75 miles east of River Road; it then follows

the power line easement across the remainder of Johns Island. Alternative G turns eastward to cross the Stono River adjacent to the existing power line easement 0.7 miles south of Maybank Highway. Alternative G will bridge over Maybank Highway with no direct access.¹¹



Figure 2. Current West Ashley endpoint of I-526; Stono River and Johns Island in the distance¹²

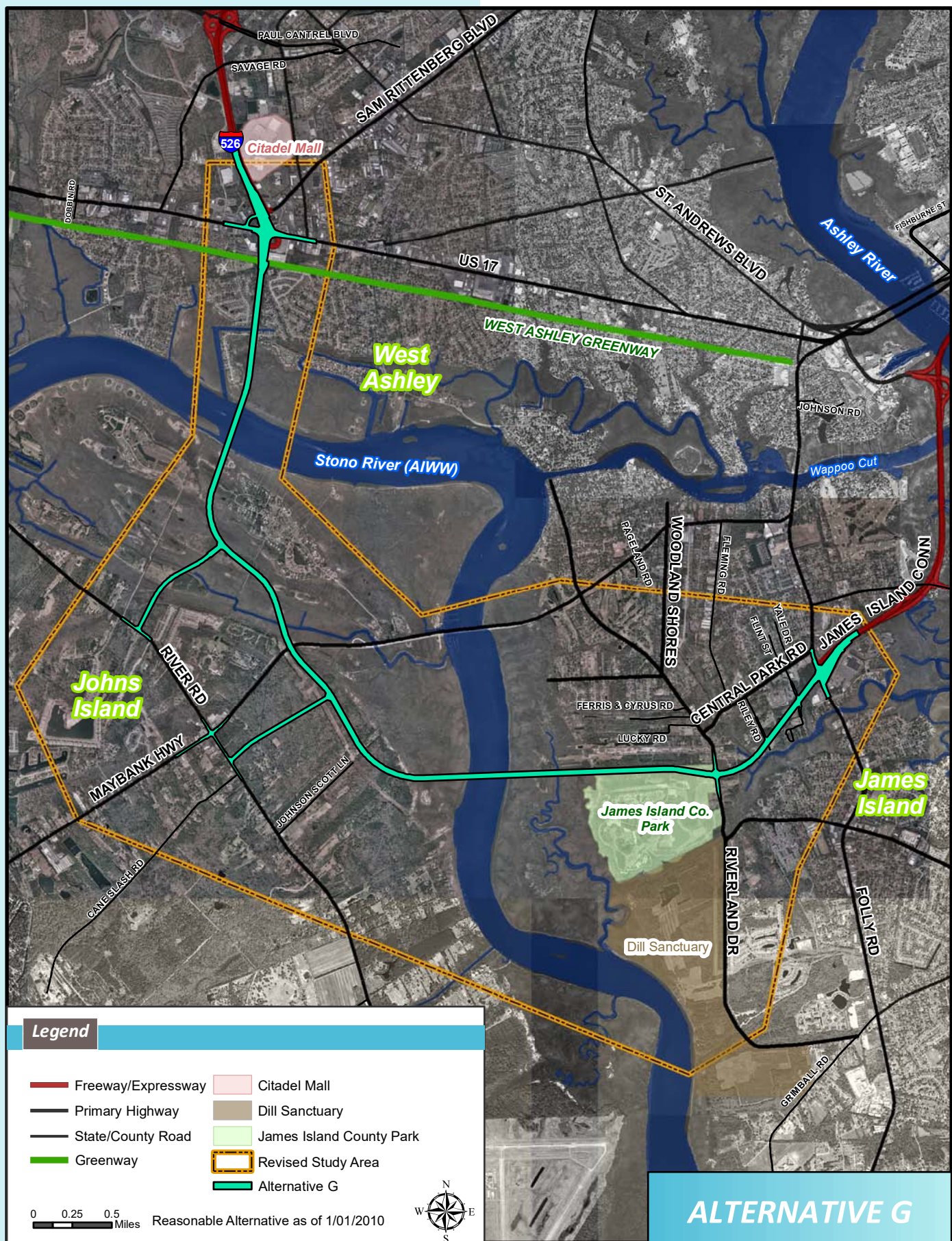


Figure 3. Project Map¹³

Access to Johns Island is provided by two roads, identified as Connector A and Connector B. These roads are low speed facilities with limited control of access, which would allow for connectivity to future roads. Connector A and Connector B connect to the parkway at T-intersections to the north and south of Maybank Highway. Connector A then connects to River Road 1.0 mile northwest from the River Road/Maybank Highway intersection just west of the Bend at River Road subdivision.

Connector B connects to River Road 0.2 miles southeast of the River Road/Maybank Highway intersection. Intersection improvements would include the addition of turn lanes at the Connector A/River Road intersection, the Connector B/River Road intersection and the existing River Road/Maybank Highway intersection.

On James Island, Alternative G continues east within the northern property line of the James Island County Park and then curves slightly to the south to avoid the park administration building. Alternative G then provides connections to the local road network at Riverland Drive, Riley Road and Up on the Hill Road. Alternative G would continue northeast to intersect with Folly Road at the James Island Connector. Intersection improvements include widening the existing right of way on Folly Road to accommodate additional turn lanes.¹⁴

PHASING

In 2017, SCDOT provided two phasing options shown in Figures 4 and 5. The purpose of the phasing plan was to determine logical termini for a portion of the Completion Project that could be built for less than the updated \$725 million cost estimate.

Phase 1A option begins at the I-526/Savannah Highway Interchange and extends over the Stono River to Connector “A” for a total estimated cost between \$378 million and \$388 million.

Phase 1 option includes Phase 1A, but extends the project farther onto Johns Island and closer to the City of Charleston and terminates at Connector “B.” The total estimated project cost for Phase 1 is between \$503 million and \$541million.

This Financial Plan contemplates the design and construction of the entire Mark Clark Expressway Completion Project, and phasing is not anticipated.



Figure 4. Phase 1A Option¹⁵



Figure 5. Phase 1 Option¹⁶

02. SCHEDULE

The Project has not progressed at the pace that Charleston County had initially contemplated when it submitted its funding application to the SCTIB in 2007.

The original 2005 application cited a 4-year project duration beginning in 2006 and completing in 2010. However, environmental delays through the NEPA process, challenges from special interest groups, and concerns over Project funding have significantly delayed the project.

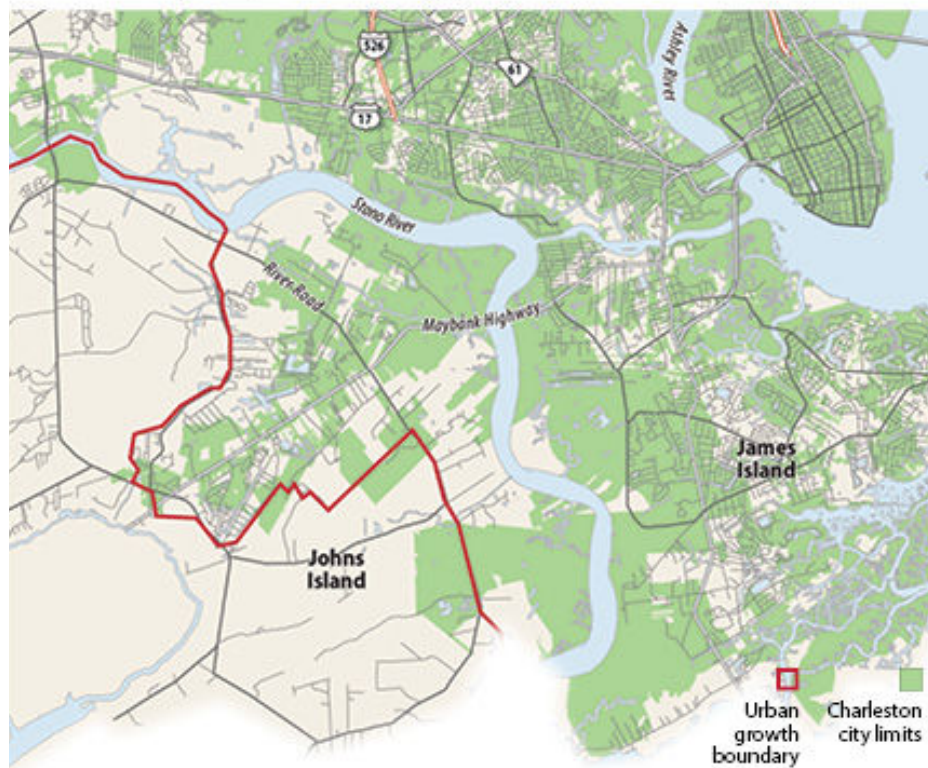
Despite the lack of reliable transportation infrastructure on Johns Island and the delays with the Mark Clark Completion Project, the area has experienced exploding growth and compounded a transportation quagmire.

According to an article published February 8, 2018 by *The Post and Courier*, the City of Charleston has annexed only a small area on Johns Island, but it is growing faster than any other part of the City.¹⁷ In 2008, the City permitted the development of 1,083 residential units. In 2017, it issued nearly three times as many permits as it did in 2008.

The rate of development on Johns Island within the project area prompted the City of Charleston to consider a 6-month building moratorium to provide more time to implement new infrastructure projects such as the Mark Clark Completion Project.

Growing pains in a once-rural slice of Lowcountry

The city of Charleston could put a six-month moratorium on new homes on Johns Island. The pause would let the city catch up on infrastructure projects there.



Moratorium

The proposed moratorium would affect property in the city of Charleston where residential development is planned. The city has annexed only part of the island, mostly properties along its major roads.

Traffic

Traffic looms as a big concern about new development: Those leaving the island must use one of two two-lane roads that often are very congested. A plan to widen Maybank Highway is moving slowly, while an extension of Interstate 526 across the island remains in limbo.

Urban growth

The city and county have agreed on an urban-growth boundary on Johns Island, designed to limit suburban-type growth to its northern end. That has not eased concerns about how development is changing the island.

James Island

The city passed a similar moratorium on James Island last year to review whether its zoning reinforced the island's character. The city ultimately agreed to the same density and height limits along Folly Road that the town and county had put in place.

Figure 6. Proposed Johns Island residential development moratorium¹⁸

The attempt by the Mayor of Charleston to slow growth and implement a moratorium was rejected by City Council leaving many residents wondering how bad roadway congestion will be before real infrastructure improvements are implemented.

Originally, the SCDOT estimated design, permitting, and right-of-way acquisition would be completed in 2021, with construction beginning in 2022, and completion of the project occurring in 2029, which is based on building the project in two phases.¹⁹

The two phase approach was developed by the SCDOT to ensure that a portion of the Completion Project could be built within the original budget. However, as outlined in this Financial Plan, there is enough committed funding to fully fund the project according to the SCDOT’s most recent cost estimate.



Figure 7. I-526 ends at Savannah Highway in West Ashley²⁰

As a result, phasing of the Completion Project is not required so the project can be built in its entirety. Figure 8 presents an updated schedule that shows construction of the Completion Project beginning in 2021 and concluding in 2024.

The delivery for the Completion Project will be design-build and will consist of engineering design, right-of-way acquisition, and construction.

Figure 8. Project Schedule Overview

2008-2016	2017	2018	2019	2020	2021	2022	2023	2024
PE/Advanced ROW/ NEPA								
		Legal Challenge of Permit						
					Design-Build Construction			

03. COST

The Mark Clark Expressway Completion Project was initially estimated to cost \$420 million in 2005. The SCDOT updated the estimate in 2012 to \$558 million and again in 2015 to \$725 million.

Table 1 is based on the current cost estimate provided by SCDOT dated September 11, 2015. The base cost estimate is in 2015 dollars but is escalated 2% per year for 4 years to reflect 2019 dollars.

A detailed cost estimate was not provided by the SCDOT, so only a summary estimate is provided. With the lack of cost estimate detail, it is highly possible that the final cost of the Project will significantly differ from the current \$725 million budget. A Cost Estimate Review (CER) as recommended by the Federal Highway Administration (FHWA) has not been performed for this project. A CER would present an unbiased risk based probabilistic review to verify the accuracy and reasonableness of the current cost estimate and schedule. The results of a CER is a probability range that represents the project's cost and is normally based on the 70th percentile.

Table 1. Project Cost Estimate²¹

Activity	Estimate
Design Build Contract	
Final Design	\$ 17,718,516
Construction	\$ 442,962,891
Right-of-Way (Acquisition & Services)	\$ 46,981,175
Right-of-Way (Advance Acquisition)	\$ 26,333,310
Subtotal	\$ 533,995,892
Non-Design Build Costs	
Environmental Mitigation	\$ 18,132,800
Utility Relocation	\$ 34,900,000
NEPA & Preliminary Engineering	\$ 9,100,000
SCDOT Management & Oversight	\$ 460,000
CEI/Design Review	\$ 22,148,145
Contingencies (10% of Design Build Contract)	\$ 50,766,258
Subtotal	\$ 135,507,203
Total (2015)	\$ 669,503,095
Total (2019)	\$ 724,691,681
Estimate	\$ 725,000,000

04. FUNDING

As described in Section 3, based on current estimates provided by the SCDOT and the most up-to-date information on construction-related inflation, the Project will require an estimated \$725 million (2019) to fully fund all project elements over the planned project horizon. This section reviews the Project's plan of finance, describes the planned sources of funds, and reviews the funding plan in the context of available State, Federal and Local transportation programs and resources.

Funding sources referred to in this section fall into one of the following categories:

Expended and/or Obligated Funds: including funds that have been spent and those that have been obligated for the Project.

Committed funds: including those funds for which there is a commitment but no actual expenditures or obligations. Committed funds are financially committed through the planning process and are included in long range planning documents.

STATE FUNDING

The SCTIB was created for the purpose, among others, of selecting and assisting in financing major transportation projects by providing financial assistance to government units for constructing and improving highway facilities necessary for public purposes,

including economic development.²² The SC General Assembly dedicates funds to the SCTIB including vehicle registration fees, state highway funds, and electric wholesale power funds. The General Assembly's Joint Bond Review Committee reviews and approves all projects and bonds issued by the SCTIB. Since its creation in 1997, the SCTIB has issued over \$2 billion in revenue bonds and \$60 million in General Obligation Bonds that have allowed projects to be delivered more quickly than the "pay as you go" method of financing. In total, over 100 projects in 34 counties and municipalities have received financial assistance from the SCTIB which has equated to more than \$5.3 billion in highway and bridge construction.²³

At the June 30, 2006 SCTIB meeting the Evaluation Committee recommended and the Board approved financial assistance for the Completion Project, which had a total estimated cost of \$420 million. The SCTIB approved an initial grant of \$99 million for engineering and environmental work and right of way acquisition and a subsequent grant, or grants, not to exceed \$321 million for completion of the Project. These funds would come from the next new funds available to the Bank after fully funding financial assistance for all existing obligations on all previously approved projects. The grant funding was conditioned with a requirement that Charleston County provide a local match contribution of \$117 million.²⁴

The County identified in their funding application that the Half Cent Transportation Sales Tax would be used to fund the local match. The tax was approved in 2004 and began generating revenue in 2005. The 25-year tax was projected to generate \$847 million to be spent on roads and bridges with most of the money being invested on SCDOT owned and maintained facilities. The 2007 IGA requires that the \$117 million local match be spent by Charleston County from the Sales Tax on the road improvements which connect or relate to the Completion Project as listed in Table 2.

As of February 20, 2018, the County has spent over \$121 million on state roads relating to the Project, over \$4 million more than required by the 2007 IGA. Once the County's local match road projects are complete, the County will have spent over \$138 million, \$21 million more than required by the IGA.

In 2012, the SCDOT prepared a revised cost estimate for the Completion Project that totaled \$558 million. Charleston County requested, and the SCTIB unanimously approved, increasing their commitment to the project from funds available from future Bank financial capacity subject to the Joint Bond Review Committee approval. To date, the Joint Bond Review Committee has not voted upon or considered the SCTIB's approval of the additional SCTIB funding, so the total funding provided by the SCTIB for the Completion Project is considered to be \$459 million committed and \$99 million obligated.

FEDERAL FUNDING

As one of South Carolina's 10 Regional Planning Councils, the BCDCOG's primary objectives are to assist local governments with developing local and regional plans within the tri-county region and provide local governments

Table 2. Charleston County Local Match Road Projects²⁵

Highway	Improvement	Projected Expenditure	Spent to Date
Johnnie Dodds Boulevard	Widening and Intersection	89,907,002.03	\$ 89,053,043.16
Harborview Road	Widening and Intersection	26,030,411.24	\$ 20,796,325.89
Glenn McConnell/I-526	Intersection Upgrade	7,256,958.53	\$ 7,256,958.53
Maybank Road Widening	Widening	15,000,000.00	\$ 3,840,038.01
Folly Road Loop/I-526	Intersection Upgrade	273,650.04	\$ 273,650.04
Total		138,468,021.84	\$121,220,015.63

with planning and technical support to improve the quality of life in the region.²⁶ BCDCOG is the designated Metropolitan Planning Organization (MPO) responsible for carrying out the urban transportation planning process for the Charleston Area Transportation Study (CHATS). The CHATS MPO study area boundary includes over 800 square miles in the region. The primary responsibilities of CHATS MPO are:

- 1) develop a Long Range Transportation Plan, which is, at a minimum, a 25-year transportation vision for the metropolitan area;
- 2) develop a Transportation Improvement Program (TIP), which is the agreed-upon list of specific projects for which federal funds are anticipated; and
- 3) develop a Unified Planning Work Program (UPWP), which identifies in a single document the annual transportation planning activities that are to be undertaken in support of the goals, objectives and actions established in the Long Range Transportation Plan.²⁷

CHATS is governed by a Policy Committee Board representing governmental and transportation-related organizations from throughout its coverage area. The CHATS MPO is classified as a “Transportation Management Area” which means that CHATS receives federal funding that is passed through from the SCDOT based on a formula.²⁸ These funds are referred to as Federal Guideshares and total slightly less than \$17 million per year.

Historically, the SCDOT has managed CHATS funding since most of the money is spent on SCDOT owned facilities.



On February 13, 2017, CHATS passed a resolution committing a portion of its Federal Guideshare funds toward the Project’s completion. CHATS does not have bonding authority, but in the past, has relied on SCDOT to issue General Obligation Highway Bonds to accelerate available funding that uses Federal Guideshares to pay the debt service. SCDOT could also elect to advance money to CHATS to be repaid over time using their Federal Guideshare funds. Both options have been utilized by the SCDOT in the past to accelerate funding as requested by CHATS.

As outlined in BCDCOG Executive Director Ron Mitchum’s letter dated March __, 2018, the BCDCOG continues to consider the Completion Project a priority for the region and supports its completion. It is anticipated that BCDCOG will commit \$105 million to the Completion Project that will be designated by CHATS and bonded by the SCDOT based on the Federal Guideshares recurring formula money.

LOCAL FUNDING

In the fall of 2004, Charleston County voters approved a half-cent sales tax on purchases made within the County for 25 years, or until \$1.3 billion is collected.²⁹ The intent of the sales tax is to fund the costs of highways, roads, streets, bridges, and other transportation-related projects and drainage facilities. The sales tax also funds mass transit systems operated by the Charleston Area Regional Transportation Authority. Together, no more than \$1.08 billion will be used for these projects and purposes. The remaining \$222 million collected is used for financing the cost of the Greenbelt Program. Collection for the sales tax began in May 2005, and since then has funded the completion of eleven bonded projects and 218 annual allocation projects.³⁰



The 2004 Sales Tax Referendum included the distribution of \$113 million in General Obligation Transportation Bonds. In November 2006, Charleston County citizens approved a second bond referendum allowing an additional \$205 million of General Obligation Transportation Bonds.³¹

In November 2016, the citizens of Charleston County voted to add a second half-cent sales tax. The passing of this ordinance adds an additional half-cent to purchases made within the County beginning May 2017 for 25 years, or until \$2.1 billion is collected.³²

The second referendum also splits funding between transportation improvements and the Greenbelt Program, where \$1.89 billion will be collected for transportation-related projects and mass transit and \$210 million will finance the cost of greenbelts.

Table 4 represents an estimate of the anticipated sales tax revenues that can be used for roads from either the first (2004) or second (2016) sales tax referendums.

In 2017, Charleston County Council voted to obligate \$500,000 from the 2004 half cent sales tax toward finalizing the FEIS with the hope that a Record of Decision would be received from the FHWA in 2018.³³ This action by Council demonstrates their ability to redirect committed transportation funding to the Mark Clark Expressway Completion Project.

On March 3, 2017, Charleston County Council passed an ordinance committing not more than \$150 million toward the Completion Project in addition to pursuing the CHATS Federal Guideshares to bridge the funding gap.

The ordinance was an acknowledgment by the County of its obligation to obtain or provide additional funding for the Completion Project as stated by the IGA. At present, Charleston County plans to fulfill its commitment to fund the balance of the project through revenue from its 2004 Transportation Sales Tax (TST).

Table 3. County TST Revenues (Roads Only)³⁴

FY	1st TST (2004)	2nd TST (2016)	TOTAL REVENUE
2017	\$ 35,894,000	\$ 6,064,000	\$ 41,958,000
2018	\$ 37,330,000	\$ 35,033,000	\$ 72,363,000
2019	\$38,823,000	\$ 36,434,000	\$ 75,257,000
2020	\$ 40,376,000	\$ 37,891,000	\$ 78,267,000
2021	\$ 41,992,000	\$ 39,407,000	\$ 81,399,000
2022	\$ 43,671,000	\$ 40,983,000	\$ 84,654,000
2023	\$ 45,418,000	\$ 42,623,000	\$ 88,041,000
2024	\$ 47,234,000	\$ 44,327,000	\$ 91,561,000
2025	\$ 49,123,000	\$ 46,100,000	\$ 95,223,000
2026	\$ 51,088,000	\$ 47,945,000	\$ 99,033,000
2027	\$ 53,132,000	\$ 49,863,000	\$ 102,995,000
2028	\$ 55,258,000	\$ 51,858,000	\$ 107,116,000
2029	\$ 6,119,000	\$ 53,932,000	\$ 60,051,000
2030		\$ 56,088,000	\$ 56,088,000
2031		\$ 58,331,000	\$ 58,331,000
2032		\$ 60,665,000	\$ 60,665,000
2033		\$ 63,092,000	\$ 63,092,000
2034		\$ 65,615,000	\$ 65,615,000
2035		\$ 68,240,000	\$ 68,240,000
2036		\$ 70,970,000	\$ 70,970,000
2037		\$ 73,809,000	\$ 73,809,000
2038		\$ 76,761,000	76,761,000
2039		\$ 79,832,000	\$ 79,832,000
2040		\$ 75,137,000	\$ 75,137,000
Total	\$ 545,458,000	\$ 1,281,000,000	\$ 1,826,458,000

Beginning in 2019, Charleston County Council can obligate funding to the Mark Clark from the 2004 half cent sales tax by re-allocating existing funds and assigning unallocated funding to the project.

These funds would total \$62 million between 2019 and 2024, including the \$500,000 made available by the County in 2017 to continue development of the Completion Project's FEIS, and would not impact currently bonded construction projects or other transportation projects that are currently underway by the County's Transportation Department.

Table 4 shows Charleston County transportation sales tax revenue that would be assigned to the Completion Project once the SCTIB reinstates the project.

The State, Federal and Local funds committed to the Completion Project total \$725 million, enough to fully fund the project based on the SCDOT's most recent cost estimate.

The funds that have been obligated to date total \$99.5 million. Of the obligated funds, approximately \$40 million has been spent on advanced right-of-way purchases, preliminary engineering, and environmental documentation.

Table 5 summarizes the committed and obligated funds.

Table 4. Charleston County Sources of Funds³⁵

FY	Unallocated 1st TST	Re-allocated 1st TST	Total
2017	\$ 500,000*		\$ 500,000*
2018			
2019	\$ 5,548,000		\$ 5,548,000
2020	\$ 5,785,000		\$ 5,785,000
2021	\$ 6,920,000	\$ 2,431,000	\$ 9,351,000
2022	\$ 8,003,000	\$ 4,500,00	\$ 12,503,000
2023	\$ 9,084,000	\$ 4,500,00	\$ 13,584,000
2024	\$ 10,229,000	\$ 4,500,00	\$ 14,729,000
Total			\$ 62,000,00

* made available by Charleston County June 1, 2017 for continuation of FEIS development

Table 5. Summary Total Project Funding

Funding Source	Obligated	Committed	
State (SCTIB)			Total
SCTIB (2007)	\$ 99,000,000	\$ 321,000,000	\$ 420,000,000
SCTIB (2012)		\$ 138,000,000	\$ 138,000,000
State Subtotal			\$ 558,000,000
Federal (CHATS)			Total
CHATS (2017)		\$ 105,000,000	\$ 105,000,000
Federal Subtotal			\$ 105,000,000
Local (County)			Total
1st TST (2004)	\$ 500,000	\$ 61,500,000	\$ 62,000,000
Local Subtotal			\$ 62,000,000
Total Project	\$ 99,500,000	\$ 625,500,000	\$ 725,000,000

TRANSPORTATION PLANNING

CHATS is the entity responsible locally for the Long Range Transportation Plan (LRTP) and the Transportation Improvement Program (TIP) for the Berkeley-Charleston-Dorchester area. The TIP was developed for a 5-year period beginning in 2017 and ending in 2022. The TIP as shown in Figure 9, indicates the only obligated funding for the project is the initial \$99 million authorized by the SCTIB and the Joint Bond Review Committee.

The TIP presents that construction money totaling \$49.3 million is available to the project. It is anticipated that the TIP will be updated by CHATS to reflect the current Completion Project Financial Plan.

As previously mentioned, the SCDOT must accept the TIP since CHATS is a Traffic Management Area, therefore it is a part of the State Transportation Improvement Program (STIP) shown in Figure 10.

The CHATS LRTP has been approved by the SCDOT, FHWA, and FTA but is currently being updated. The current LRTP includes the Mark Clark Expressway under the Innovative Financing category for a total budget of \$489 million. CHATS includes only the funds for the Completion Project that were previously approved for funding and because of the fluidity of the project's scope and budget, the LRTP has not been updated or revised. It is anticipated that the LRTP currently being developed will include the current Completion Project Financial Plan.

Figure 9. TIP (Thousands)³⁶

PIN #	LOCALLY FUNDED PROJECTS	Previous Years	FFY 2017	TIP COST (2017-2022)	REMAINING COST (2023+)	TOTAL PROJECT COST	FUNDING SOURCE
		-					
	JEDBURG RD. INTERCHANGE, I-26 WIDENING, I-26 FRONTAGE ROADS, SHEEP ISLAND PKWY, & SHEEP ISLAND RD. INTERCHANGE AT I-26	9,000 31,000 88,300				\$128,300	BERKELEY COUNTY TRANSPORTATION IMPACT FEE
	U.S. 17 SEPTIMA CLARK PARKWAY (FROM END OF I-26 TO ASHLEY RIVER BRIDGES)	10,000 15,000 12,500 118,800				\$156,300	USDOT TIGER PROGRAM - LOCAL MATCH CITY OF CHARLESTON SCDOT FEDERAL MATCH PROGRAM INNOVATIVE FUNDING
	HENRY BROWN BLVD. EXTENSION- PHASE I (FROM LIBERTY HALL RD TO RED BANK ROAD) SYSTEM CAPACITY IMPROVEMENT	5,974 350 15,500 21,150				\$42,974	FEDERAL EARMARK BERKELEY COUNTY LOCALLY FUNDED TRANSP. SALES TAX
	HENRY BROWN BLVD. EXTENSION- PHASE II (FROM LIBERTY HALL RD TO US 52) CONTEXT- SENSITIVE CAPACITY IMPROVEMENT	2,000 - -				\$2,000	BERKELEY COUNTY LOCALLY FUNDED TRANSPORTATION SALES TAX PROJECT
	MARK CLARK EXPRESSWAY COMPLETION (FROM US HWY 17 TO JAMES ISLAND CONNECTOR) CONTEXT- SENSITIVE NEW ALIGNMENT FACILITY	12,000 37,671 -	49,329 C	\$49,329		\$99,000	SC Transportation Infrastructure Bank
	DELEMAR HIGHWAY (SC 165) (FROM ASHLEY RIVER RD (SC 61) TO A POINT NEAR ASHLEY RIDGE HIGH SCHOOL) SAFETY IMPROVEMENT	500 12,500 2,250				\$15,250	SC Transportation Infrastructure Bank SC Transportation Infrastructure Bank Dorchester County School District
	Airport Connector Road		506 P	\$43,190		\$43,190	SC Department of Commerce Grant SC Department of Commerce Grant Charleston County Transpo Sales Tax SC Department of Commerce Grant
	Palmetto Commerce Interchange		1,488 P	\$53,308		\$53,308	Charleston County Revenue Bonds Charleston County Revenue Bonds Charleston County Transpo Sales Tax Charleston County Revenue Bonds
	Palmetto Commerce Phase III		472 P	\$130,920		\$185,460	Charleston County Transpo Sales Tax Charleston County Transpo Sales Tax Charleston County Revenue Bonds SC Department of Commerce Grant
					\$54,540		

Figure 10. STIP (Millions)³⁷

Project	Rank	COG/MPO	Program Category	Program	Federal Program	FY 2017 Planned	FY 2018 Planned	FY 2019 Planned	FY 2020 Planned	FY 2021 Planned	FY 2022 Planned	STIP Cost (2017-2022)	Remaining Cost (2023+)
Mark Clark Expressway Completion / (US 17 to James Island Expressway) *Project being managed on behalf of Charleston Co. through a three-party agreement between SCDOT, SIB and Charleston Co.		CHATS	SIB	SIB	SIB	\$49,329 CON						\$49,329	

Figure 11. LRTP (Millions)³⁸

Table 11.2 - Fiscally Constrained Transportation Program (Continued)							
Innovative Financing	All or partial funding identified through SIB, sales tax program revenues, or locally generated sources. Explore additional forms of financing		\$	101.0		Glenn McConnell Parkway	Bees Ferry Road to US 17 Alt. - new location multilanes w/ median
			\$	40.0		Old Orangeburg Road	Dorchester Road to Mallard Road – capacity improvement
			\$	489.0		Mark Clark Expressway	US 17 to Folly Road – new location freeway
			\$	25.2		Jedburg Road	US 78 to Wildgame Road - Funding provided by local sources
			\$	94.0		Sheep Island Pkwy, Interchange @ I-26, & I-26 Widening	N. Maple St. (S-8-131) to US 176, Sheep Island Rd.(S-8-275) to Jedburg Rd.(S-8-58 and Local Road)-Funding provided by local sources
			\$	151.5		I-26 Port Access Road	I-26 to new port terminal – new limited access alignment

05. FINANCING

As previously described, the SCTIB and the Joint Bond Review Committee approved \$99 million of bond proceeds that are currently available and being used to fund the project. Approximately \$40 million of those funds have been spent leaving a balance of \$59 million available and obligated to the project.

Based on this Financial Plan's proposed cash flow, it is expected that the original \$99 million will be sufficient to fund the project until sometime during 2021. Therefore, it will be necessary for the SCTIB and the Joint Bond Review Committee to approve the remaining \$459 million committed by the SCTIB to the Project toward the end of 2020.

Based on the SCTIB's track record of successfully funding \$2 billion in construction using revenue bonds and its funding through the South Carolina General Assembly, it is reasonable to expect that the SCTIB will be able to fulfill their funding commitment as outlined in the IGA.

In the late 1990s, the SCDOT developed the "27 in 7" program where nearly \$1 billion of General Obligation Highway

Bonds were issued to deliver 27 years of planned projects in only 7 years.³⁹

This program used a portion of CHATS' Federal Guideshare funding to service the debt which will be retired in 2021.

A similar program can be developed specifically for the Mark Clark Expressway Completion Project where a portion of the annual Federal Guideshares can be bonded with approval by the SCDOT Commission and the Joint Bond Review Committee and obligated to the project. The SCDOT Commission could also elect to advance the funding in lieu of bonding it which would not require approval by the Joint Bond Review Committee.

Based on the letter from BCDCOG, Executive Director, Ron Mitchum dated March __, 2018,



Figure 12. Arthur Ravenel, Jr. Bridge⁴⁰

and the precedent established by the “27 in 7” program, it is reasonable to expect that CHATS could obligate, with approval from the SCDOT, \$105 million to the project.

As previously detailed, Charleston County plans to meet its committed portion of the Project’s funding through revenue from its first half cent transportation sales tax. Based on the projected revenue and cash flow, it is anticipated that the County will be able to pay as the project progresses and that bonding will not be required.

The 2016 half cent referendum gives County Council the authority to issue General Obligations Transportation Bonds if necessary, but it is not anticipated that bonding will be required to offset the project costs.

The County has a proven track record of being fiscally conservative and demonstrating time and again its ability to successfully manage the County’s finances and issue debt. Beyond the transportation sales taxes, the County can issue General Obligation Bonds, Revenue Bonds, and uses revenue from Capital Leases.

By way of example, in July 2001, the County entered into an intergovernmental loan agreement with the SCTIB to fund a portion of the cost of the Arthur Ravenel, Jr. Bridge. The County agreed to pay a total of \$75 million over a 25-year period beginning in 2004. Currently, the loan balance is \$30M.

Based on the State Constitution, Charleston County can borrow up to \$305.3 million or 8% of the assessed property value. As of June 30, 2017, the County has borrowed only \$175.4 million with a capacity to borrow \$129.9 million more.

Charleston County is only 1 out of 46 counties in the nation that have a AAA rating from each of the 3 major rating agencies. (Fitch, Standard & Poor’s, and Moody’s)⁴¹

FitchRatings



MOODY'S

These ratings are a direct result of the County’s continued strong financial performance and emphasis on conservative fiscal management.

Other factors contributing to the AAA ratings include the County’s stable and diverse tax base, a growing and diversified economic base, and a low debt burden combined with reasonable capital needs.⁴²

To maintain strong bond ratings, the County employs several general strategies including maintaining two months of fund balance as a reserve, implementing five-year budget projections, and consistently matching recurring revenues with recurring expenses.

06. CASH FLOW

Based on current plans and projections, the Project will be funded with federal, state and local funds.

The cash flow revenue is separated into 3 categories:

1. State – SCTIB
2. Federal – CHATS
3. Local – 2004 Half Cent Sales Tax Revenue

The anticipated cash flow was developed by Charleston County and contemplates the Completion Project being delivered in one phase.

The cash flow depicts dispersing the state money first, federal money second and the local money last with the exception of Charleston County's previous obligation of \$500,000 to continue the FEIS.

Figure 13 provides a summary of the planned sources and uses of funds for the Completion Project.

Figure 14 outlines the proposed cash flow scenario developed by Charleston County.

According to the proposed cash flow scenario, the SCTIB has obligated enough money to restart the Completion Project and would not need to contribute more money to the project until sometime during 2021.

Figure 13. Sources & Uses of Funds

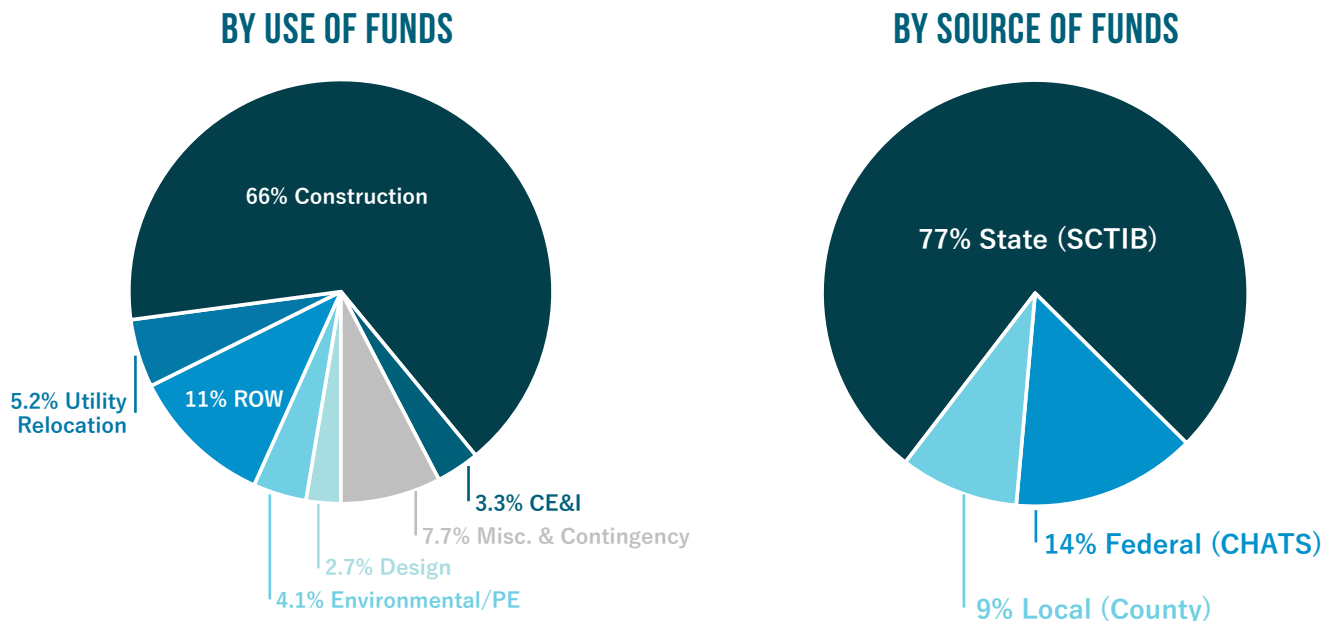


Figure 14. Completion Project Cash Flow

BY USE OF FUNDS (\$ MILLIONS)

Activity	2008-2016	2017	2018	2019	2020	2021	2022	2023	2024
PE/Advanced ROW/NEPA	\$ 40	\$ 1.35							
Legal Challenge of Permit			\$.25	\$.25	\$.15				
Project Completion						\$ 136.6	\$ 307.35	\$ 170.75	\$ 68.3

State (SCTIB)

Federal (CHATS)

Local (County)

BY SOURCE OF FUNDS (MILLIONS)

Source	2008-2016	2017	2018	2019	2020	2021	2022	2023	2024
State (SCTIB)	\$ 40	\$.85	\$.25	\$.25	\$.15	\$ 136.6	\$ 307.35	\$ 72.55	
Federal (CHATS)								\$ 98.2	\$ 6.8
Local (County)		\$.5*							\$ 61.5

* made available by Charleston County June 1, 2017 for continuation of FEIS development

07. P3 ASSESSMENT

Current law allows SCDOT to enter into partnership agreements with political subdivisions and private entities to finance by tolls or other financing methods, the cost of acquiring, constructing, equipping, maintaining, and operating highways, roads, streets, and bridges. The Southern Connector in Greenville and the Cross Island Parkway in Hilton Head were financed and constructed and have been maintained and operated pursuant to this provision. SCDOT also may award construction contracts on a design-build basis. A design-build contract may also contain provisions concerning the maintenance, operation, or financing of the project.

The SCTIB, in association with CHATS and Charleston County, have elected to fund the Mark Clark Expressway Completion Project so private financing and tolls are not necessary.

The SCDOT has decided to use the design-build project delivery method and solicit bids from contractor and engineering teams to prepare the final design, secure local and state permits, purchase portions of the right-of-way and build the project. This project delivery method will promote design and construction creativity, result in the lowest construction cost and deliver the Completion Project as efficiently as possible.

08. RISK AND RESPONSE

Cost escalation is a risk that can affect the overall ability to achieve expectations of completing a project on time and within budget. All design and construction projects have risk elements that can affect costs, and should be identified and mitigated to the greatest extent possible.

These risk elements include, but are not limited to, project scope and design, ROW acquisition, NEPA litigation, permitting, schedules, contract packaging, and general and construction related inflationary pressures.

NEPA Litigation

Prior to the start of construction, the greatest litigation risks generally relate to the National Environmental Policy Act (NEPA). SCDOT will adhere to the recommendations outlined in the EIS to mitigate the potential impacts of future litigation that could cause schedule delays and cost escalation. The current construction schedule contemplates delays in the project associated with legal challenges from special interest groups as it pertains to NEPA.

Schedule

Schedule delays, especially during construction, are primary causes of cost escalation. To mitigate potential schedule-related impacts, the Project sponsors will consider several factors including but not limited to utility relocations, ROW acquisition activities, and the potential impacts of other construction projects. The design-build project delivery

method will help expedite the project schedule and incentivize the design-build team to develop recovery plans when necessary.

Inflation

As with any major multi-year project, inflation is a key risk as it relates to the Completion Project's budget and ultimate project completion. The provision for inflation will be reviewed on an ongoing basis throughout the life of the Completion Project. Cost management strategies and cost reduction opportunities to offset unforeseen inflationary increases can also be explored as necessary. The current Completion Project budget is presented in 2019 dollars.

Funding Risks & Mitigation Strategies

The greatest risk for a project that spans over 20 years for full completion, is the risk that federal and state funds may not be available to support appropriations.

All projects are subject to unknowns; however, Charleston County as one of the Completion Project's sponsors has carefully monitored the project's progress and has mitigated previous financial impacts as necessary for the project. The County is fully committed to the Completion Project and intends to continue to make funds available to meet the project's needs pursuant to its obligations under the IGA. The County will continue to consider alternative funding structures as appropriate.



Figure 15. I-526 in West Ashley⁴³

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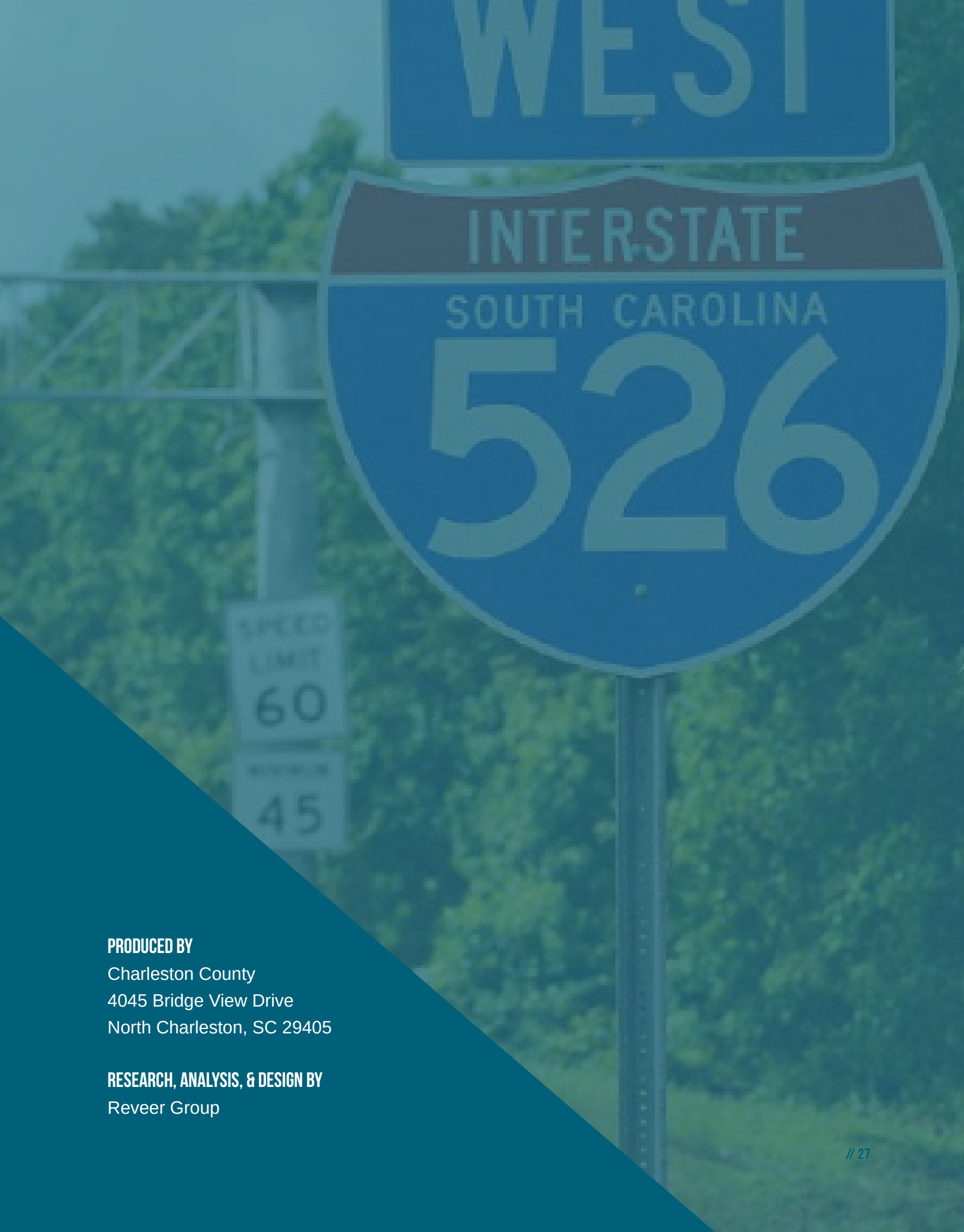
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