



**How South Carolina
is building 27 years
of road and bridge projects
in just 7 years.**



“We’re taking 27 years of planned work and compressing it into 7 years to take advantage of low interest rates, to avoid paying the inflation costs of construction and, simply, to get a lot of needed work done faster. I really believe we are doing a tremendous service to the citizens of South Carolina. It’s an exciting time for us.”

-Elizabeth S. Mabry, *Executive Director*, SCDOT

South Carolina is the nation’s 15th-fastest growing state and has a population of 4 million, according to recent U.S. Census Bureau figures. The moderate climate and natural resources lure tourists and retirees while a strong economy encourages residents from moving elsewhere.

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To keep pace with such growth, South Carolina is expanding its road system in ambitious fashion. The evidence is abundant. Just look at the cost. where major new highways help visitors travel to some of America’s most popular beaches. In the Lowcountry and in the Upstate, Interstate widenings and interchange improvements help accommodate booming growth and economic development. And a new cable-stayed bridge in the port city of Charleston will be the largest in North America. These are a few of the nearly 200 projects in various stages across the state.

But the real story behind how the South Carolina Department of Transportation is accomplishing 27 years of road and bridge projects in 7 years involves putting aside conventional ways of doing business. Innovative financing is how South Carolina overcame a last-place position for federal funds to launch an unprecedented \$5 billion worth of road construction. This accelerated program has put South Carolina in the fast lane, with SCDOT making a reality of projects that were on wish lists as long as 30 years ago.



In one key innovation, SCDOT used its ability to issue state highway bonds to help supplement the shortfall of federal dollars. The way SCDOT intends to pay back state highway bonds is unusual. SCDOT has dedicated a portion of future federal funds - not state highway dollars - to make the debt retirement payments.

SCDOT also has entered into a public-private partnership with two construction and resource management firms to speed work without inflating the size of the state agency.

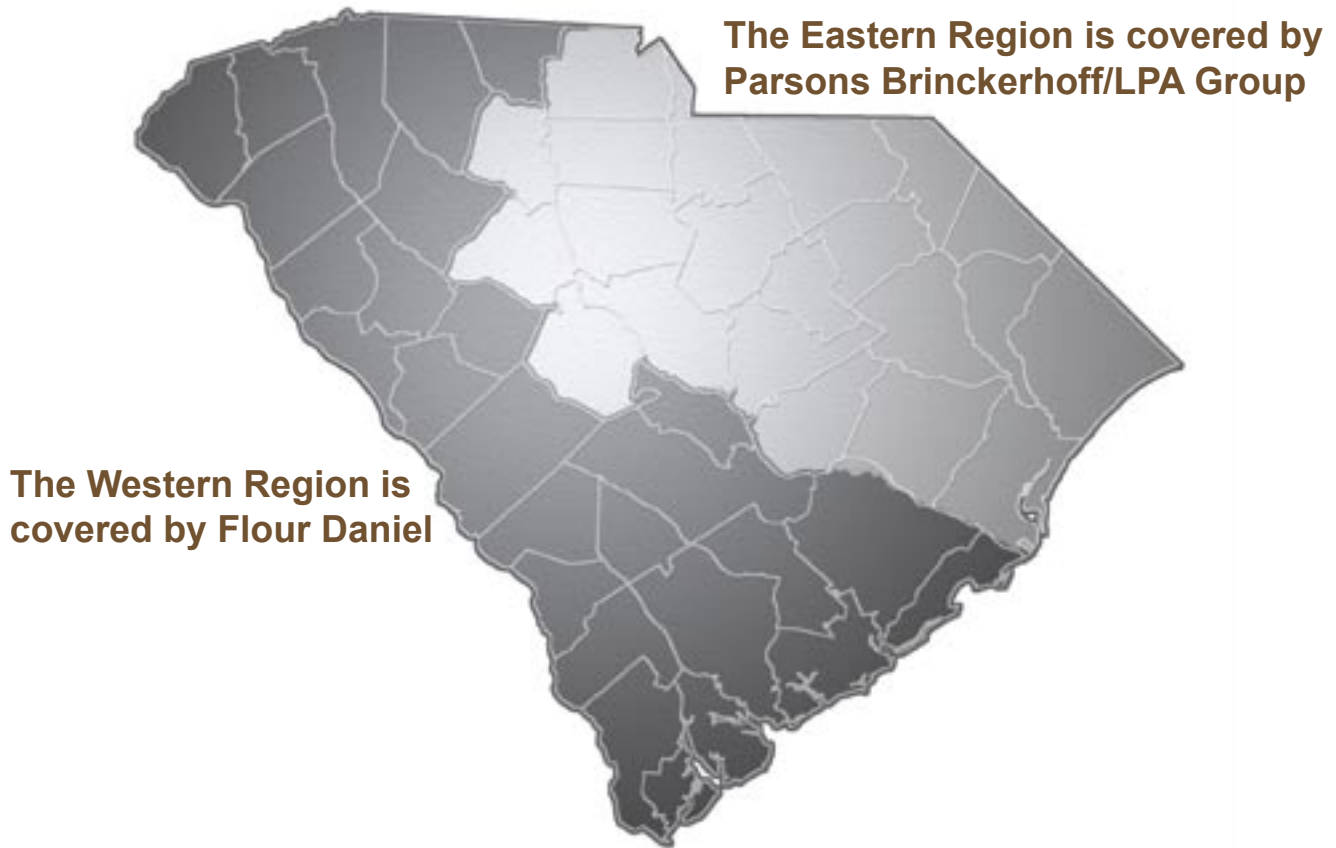
There are many successes involving innovative financing methods, such as public/private partnerships, financial partnerships with local planning organizations and new ways of leveraging future federal dollars.

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“This is one of the most comprehensive financing programs that any state has established, not just in terms of size, but in the diversity of funding mechanisms used and the level of public trust.”

**- Bob Lee
FHWA Division Administrator,
South Carolina**

Construction and Resource Managers



Expecting to complete nearly 200 construction projects in seven years, which is at least 20 years sooner than the agency's average workload, SCDOT selected the assistance of Construction and Resource Managers, (CRM). A CRM is a firm, or a group of firms, that has experience and expertise in highway/bridge design and construction. After a detailed evaluation process, the SCDOT Commission voted to ask the staff to negotiate a contract with two firms, Flour Daniel and Parsons Brinckerhoff/LPA. The plan calls for the state to be divided approximately in half, with each firm assigned to one-half of the state.

The two CRMs act as an extension of SCDOT, and both reports to SCDOT on the projects they have been assigned to help manage. The firms serve as assistants to the SCDOT Program Managers, who will continue to oversee every project.

The contract, signed by SCDOT in July 1999, calls for each CRM to assist SCDOT in more than \$760 million worth of road and bridge work to be completed within seven years. By partnering with the CRMs, SCDOT avoided having to hire an estimated 500 employees to handle the additional workload. This is the first public-private partnership of this magnitude in the United States. The FHWA has worked closely with SCDOT to administer this partnership and a number of other innovative financing programs.

South Carolina's first toll road in 50 years



In the 1980s, plans for a toll road at Hilton Head Island began but floundered because of lack of funding.

The SCDOT jumpstarted this project by issuing State Highway Bonds instead of toll revenue bonds. In this way, the state obtained a lower interest rate and saved significant project costs. And instead of using state employees for toll collection, the SCDOT entered a contract with Affiliated Computer Services Inc., to operate all aspects of toll collection.

The SCDOT is, however, managing its own toll evasion and processing system. Completed in 1998, the \$83 million Cross Island Parkway was financed with a mixture of state funds, federal funds, state highway bonds and tolls. Once the bonds are retired, the toll collection will end.

Cross Island Parkway Successes

- Privatized toll collection has been very effective
- Highly successful facility marketing partnership and beautification efforts with the local expectations
- Traffic counts have exceeded expectations
- 60 percent of traffic uses the Palmetto Pass (electronic toll collection transponder)
- Facility has significantly relieved congestion on the island's other routes

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A public/private partnership



Southern Connector

The idea for the Southern Connector, a 16-mile, four-lane road linking Interstates 85 and 385 in southern Greenville County surfaced in 1967. Without innovative financing, this southern loop around the city of Greenville would be nothing more than a dream.

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This toll road was completed in February 2001, nine months ahead of schedule. It is financed by The Connector 2000 Association; a local not-for-profit corporation set up to finance and operate the facility. It is the first public-private transportation project in the United States to be financed using a 63-20 (not-for-profit, as defined by the IRS) corporation. This unusual arrangement, which more commonly has been used to build other types of infrastructure, such as sports stadiums and sewer systems, allowed Connector 2000 issue about \$200 million in toll revenue bonds. The state of South Carolina has no liability for the bonds. After the road was built, it was accepted into the SCDOT system. As part of the project, SCDOT is financing a one-mile, \$17.5 million connector to the toll road.

The State Infrastructure Bank



“Transportation needs will always be critical to the economic welfare of our state. The 27 in 7 Program is an innovative design to deal with meeting our needs quickly. This program, at the halfway point, is certainly on track to be successful. Many projects have been completed; others are on their way. The benefits to the state of South Carolina, as a result of this innovative program, will be immeasurable.”

**- L. Morgan Martin
SCDOT *Commission Chairman***

Because of SCDOT’s innovative financing successes, the U.S. Secretary of Transportation chose South Carolina as one of a handful of state infrastructure bank programs in the country. South Carolina has led the nation in use of its own State Infrastructure Bank (SIB).

The S.C. General Assembly created the SIB in 1997 to select and assist in financing major projects. Since its inception, the SIB has approved financing and began development of nearly \$3.0 billion in projects.

Some have referred to the \$386 million SC Highway 22, a 28.5 mile road to give motorists a more convenient route to popular Myrtle Beach, as a “crowning achievement” for South Carolina. The SIB-funded road stretches from U.S. 501, 10 miles north of Conway, to U.S. 17 in the Myrtle Beach area. It is four lanes from U.S. 501 to the future Carolina Bays Parkway, where it becomes six lanes to U.S. 17. This design-build project began in March 1998 and was completed in May 2001.

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The State Infrastructure Bank

The funding of SC 22, also known as Veterans Highway, came from several sources. Of the total, \$291 million was funded by Horry County and the State Infrastructure Bank. The local funds came from a 1.5 percent hospitality fee on hotel rooms, greens fees and restaurant meals. An additional \$95 million, approved in 1999, came from SCDOT using future funds to retire bonds.



Other State Infrastructure Bank projects include the Carolina Bays Parkway, a six-lane, 20-mile highway linking SC 9 with US 501. The Carolina Bays Parkway, which will intersect with SC 22, is part of more than \$1 billion worth of projects developed in a partnership among SCDOT, the state of South Carolina and Horry County.

The construction contract for the Cooper River Bridge Replacement Project, the single-biggest project in SCDOT history, was signed in July 2001. Completion is scheduled for July 2006. State Infrastructure Bank assistance totaled \$325 million. The State Infrastructure Bank and SCDOT successfully obtained a \$215 million loan from the US Department of Transportation under the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA). The TIFIA program was established in TEA-21 and provides direct loans or loan guarantees for transportation projects exceeding \$100 million. The loan is to be repaid by sources of the State Infrastructure Bank, SCDOT, State Ports Authority, and Charleston County.

Beaufort County will receive \$65 million in assistance from the State Infrastructure Bank for the construction of SC Highway 170 widening. The \$105 million project will include the replacement of the Broad River and Chechessee River bridges. The finished product will be an improved and safer highway to bring much needed relief to motorists.

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“The partnership between SCDOT and the State Infrastructure Bank has resulted in getting major projects off the drawing board and into construction. The Conway Bypass, the Cooper River Bridge and the Bobby Jones Expressway are all examples that show how innovative financing and teamwork can get the job done.”

-State Senator Greg Ryberg, District 24
Aiken-Lexington Counties

The State Infrastructure Bank

In Lexington County, the SIB helped fund a \$115 million project to widen SC Highway 6/60 at Lake Murray Dam, a key access road between the towns of Irmo and Lexington.

In Aiken County, the SIB funded the Bobby Jones Expressway Phase I, a new four-lane divided highway to interstate standards from the Georgia State Line to US 1/78. A contract to complete Phase I is expected in the fall of 2002.

Improvements in York County outside Charlotte, N.C. total \$257 million, with SIB assistance at \$158 million and a local match of \$99 million. In this case, the local match will come from a dedicated 1 cent sales tax.

In the Upstate, \$580 million worth of work is being done, with \$369 million coming from the SIB and a local match of \$211 million. The local match, in this case, was the Southern Connector project, which was funded and implemented using the 63-20 concept.

Throughout this accelerated construction program, safety remains the top priority at SCDOT. The SIB provided \$30 million for installation of median cable guardrails along portions of interstate highways to address the rising problem of crossover crashes. By spring 2002, newly installed median guardrails stopped nearly 700 vehicles, a 99 percent success rate.



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The State Infrastructure Bank

“One of the reasons for our success is the very capable information and guidance we were given by SCDOT as we began and all the way through the process. We’ve stretched our dollars through some very creative financing opportunities. Without SCDOT’s help, the SIB would have been a total flop.”



-Howard “Champ” Covington
*Chairman of the State
 Infrastructure Bank*

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SIB Project Summary (\$ in millions)

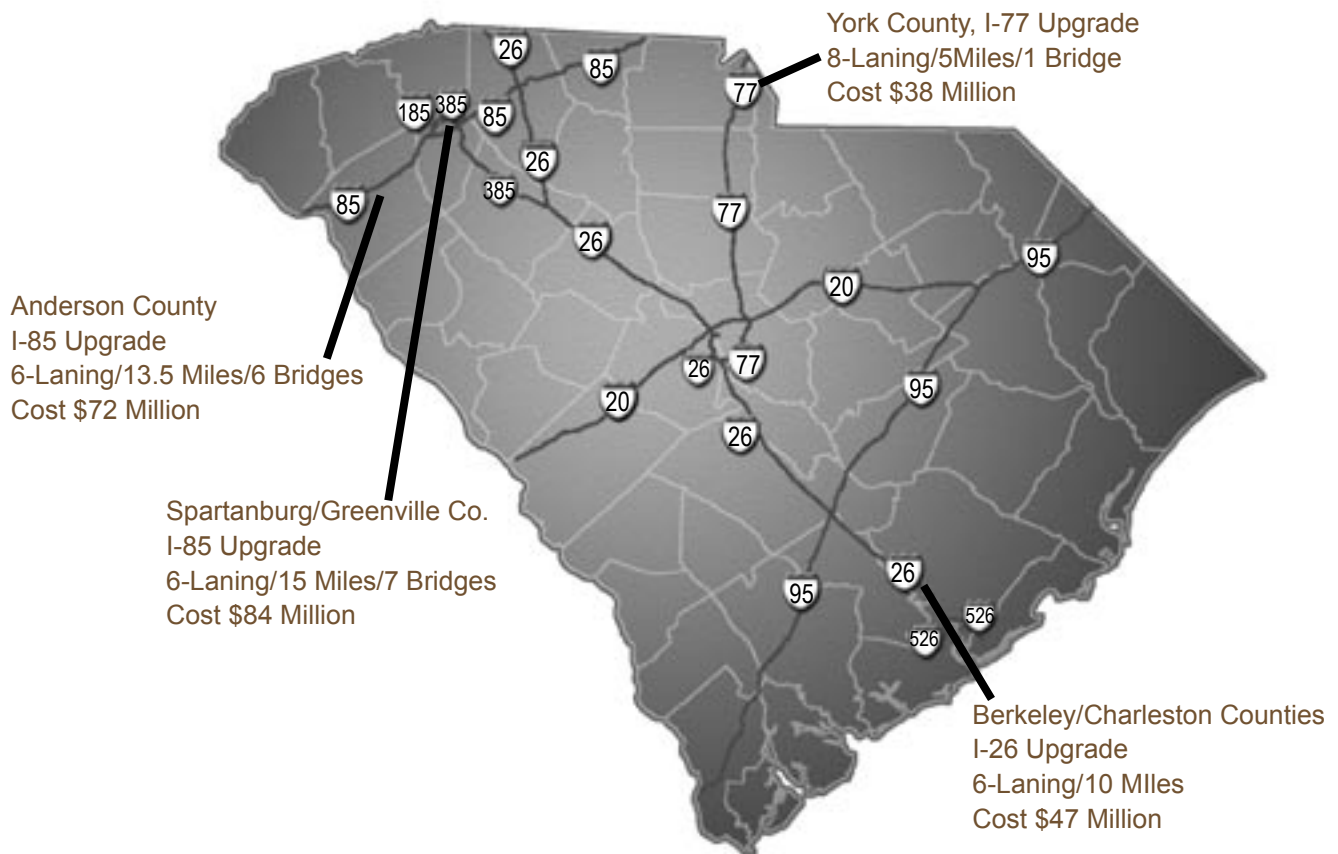
	Estimated total project cost	SIB funds (1)	Local Match	SCDOT participation
Horry County-RIDE (Phase I & II)	\$ 688	\$ 131	\$ 348	\$ 209
Horry County-RIDE (Phase III)	\$ 200	-	\$ 200	-
Horry County-RIDE II	\$ 198	\$ 196	\$ 2	-
Aiken County	\$ 197	\$ 165	\$ 32	-
York County Plan	\$ 257	\$ 158	\$ 99	-
Upstate GRID Plan	\$ 580	\$ 369	\$ 211	-
Beaufort County Plan	\$ 105	\$ 65	\$ 30	\$ 10
Charleston-Cooper River Bridges	\$ 650	\$ 540 (2)	\$ 75	\$ 20
Median Guard Rail Barriers	\$ 30	\$ 30	\$ -	-
Lexington County Plan	\$ 115	\$ 48	\$ 61	\$ 6
TOTAL	\$ 3,020	\$ 1,702	\$ 1,058	\$ 245
	100%	56.4%	35.0%	8.1%

(1) Excludes cost of financing

(2) Includes \$215 million TIFIA loan

Interstate Upgrade Acceleration

Interstate Widening Projects

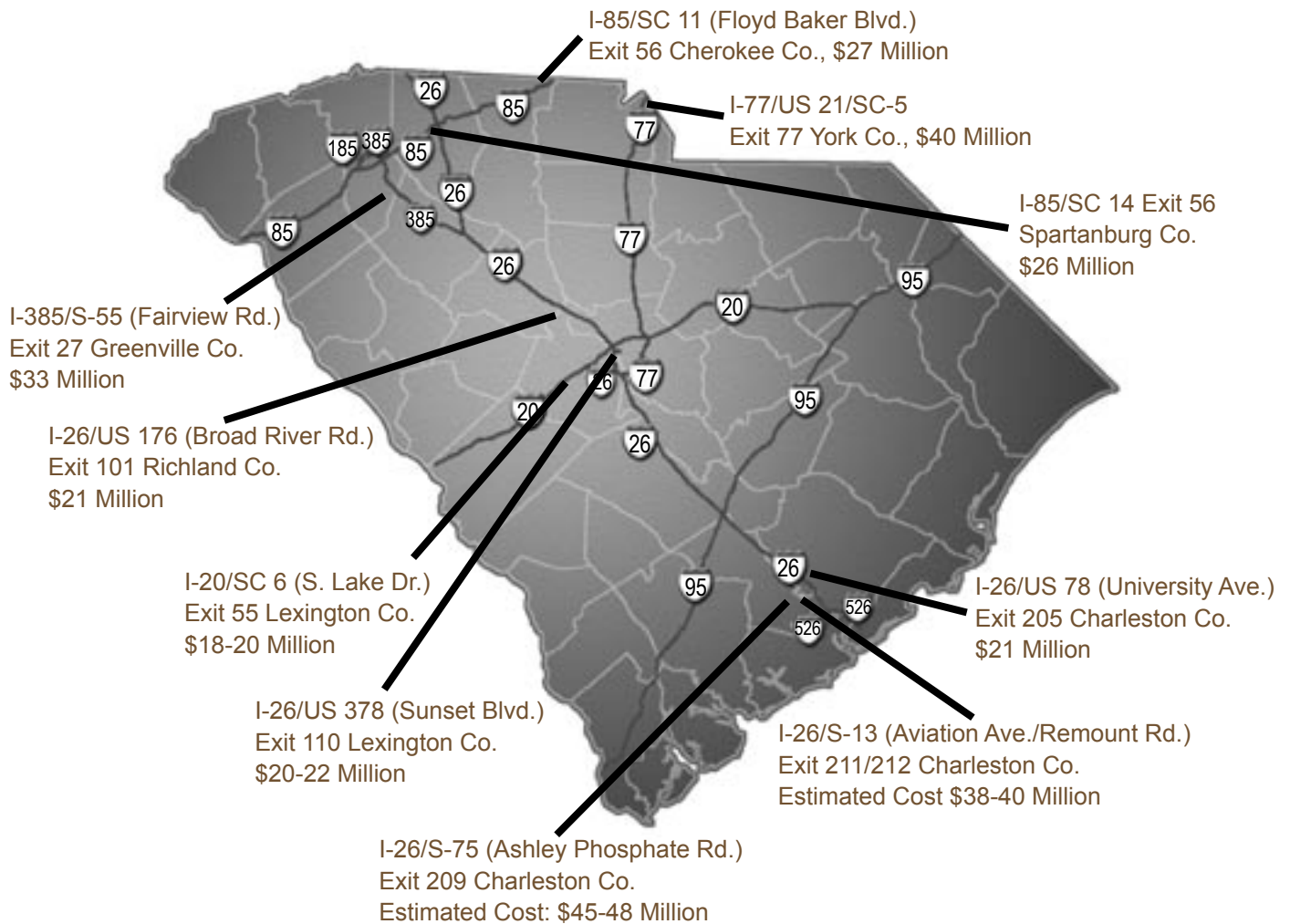


The SCDOT maintains the fourth-largest state highway system in the United States. The nearly 42,000-mile system includes more than 800 miles of interstate highways. In recent years, however, there has been no funding to add lanes or improve the interstate system.

Realizing the key role interstates play in economic development, the SCDOT took an innovative approach to help some of the worst congestion problems throughout the state. The SCDOT targeted interstate widenings and interchange improvements that could be done in a short time without needing to acquire right of way. The interstate widening projects are funded with State Highway Bonds and federal funds. All of these projects were expected to be finished within three to five years, instead of up to 15 years under standard funding methods. The program includes widening of Interstate 26 in the Charleston area, Interstate 85 in Greenville and Anderson counties and Interstate 77 in York County outside Charlotte, N.C. Seven interchange improvements are throughout the state, in counties such as Spartanburg, Richland and Lexington.

MPO/COG Project Acceleration Program

Interstate Interchange Improvement Projects



Construction Phase

Sources		Uses
All Guideshares		Project Costs
+	=	+
Bond Proceeds		Bond Debt Service
Primary Variables:		Primary Variables:
Guideshares		Project Costs
Annual Amount of Guideshares		Actual Project Cost vs. Budget
Bond Proceeds		Scope of Various Projects
1/2 1997 Guideshare Debt Service Limit		Bond Debt Service
Interest Rates		Interest Rates
Highway Bond Term		

MPO/COG Project Acceleration Program

The dollar amount of bond issues is not fixed, but there are two limiting elements of the program that are fixed:

1. The future amount of guideshares that can be pledged by the MPO for annual debt service on the bond issues is limited to a dollar amount that is no more than half of their 1997 guideshares.
2. Since bond issues will occur as needed during the construction period, the term of any bonds issued is limited. All bond terms will be structured to be paid off by 2022.

This program takes advantage of federal laws that allow future federal highway funds to be leveraged through the issuance of bonds to build current highway system improvements. Eight of 10 Metropolitan Planning Organizations (MPOs) and Council of Governments (COGs) have partnered with SCDOT in this financing program to accelerate projects in these urban areas.

Finishing the projects earlier saves money by avoiding rising land costs in high-growth areas around urban cores.

The key part of this financing program is the issuance of State Highway Bonds, which supplement current federal funds during the construction period. A portion of each MPO's future federal fund allotments, or guideshares, will be used for debt service on the bond issues.

Each MPO and COG program is structured around specific construction projects. These projects are prioritized and "locked in" from the beginning of the program in an initial feasible financing plan. Next, these projects are managed as one large program to help increase efficiency.

The initial financing plan has assumptions about project costs, inflation, future interest rates, availability of federal funds, project time schedules, etc. These variables are managed throughout the construction phase to balance the sources of funding with the uses of funding.

MPO/COG Project Acceleration Program

So, the dollar amount of bonds that can be issued for each program depends on interest rates and the timing of the bond issues.

Unlike traditional SCDOT projects, this program requires additional coordination and planning among the different areas of SCDOT and the MPO. It's important that projects are finished on time and within budget. Due to the size and complexity of the overall program, budgets and expenditures are constantly monitored and adjustments are made to individual projects to keep the overall program in balance.

By using innovative financing and the assistance of the CRMs, the 27-year construction projects of the MPOs and COGs are being finished in about 7 years. Putting several smaller projects under a large umbrella program makes for increased efficiency and lower costs.

Project Acceleration Summary (\$ in Millions)

	Total Project Costs	Maximum Bonds Anticipated	Program Construction Completion Period (Years)	Time Required Using Standard Appropriation and Funding with 6% inflation
MPO Program	\$ 622	\$ 295	7	27
COG Program	\$ 622	\$ 295	7	27
TOTAL	\$ 1,244	\$ 590		

Summary of Bonding Programs (\$ in Billions)

State Infrastructure Bank Projects	\$ 3.00
*Metropolitan Planning Organization Acceleration Program	\$ 0.62
*Council of Governments Acceleration Program	\$ 0.62
*Interstate Improvement Program	\$ 0.31
System/Intermodal Connectivity	\$ 0.45
*Debt service to be paid with federal funds	TOTAL \$ 5.00

MPO/COG Project Acceleration Program

Construction crews have been visible around the state unlike anything South Carolinians have seen in decades.

Since the 27 in 7 program began, three out of four interstate widening projects, which total more than 40 miles, have been completed. The fourth is on schedule for completion in September 2002.

Eight of 11 interchange projects are under contract for construction.

In the MPO/COG program, 106 of 190 projects (approximately 60 percent) are under contract for construction.

As of July 2002, approximately 36 months into the CRM Program, work is on schedule. Approximately 77 percent of the 2,800 right of way tracts have been acquired for the CRM projects. Each step of the way, the FHWA has provided invaluable guidance and input for SCDOT to be able to administer the CRM program and achieve results and benefits of this partnership.

In the CRM program, SCDOT remains committed to its Disadvantaged Business Enterprises (DBE) program. The CRMs have approximately \$16 million in commitments for DBE work.

SCDOT is committed to community involvement from the start to finish of projects large and small. In addition to traditional public hearings and information meetings, the Department uses the latest technology. The SCDOT web site has detailed information on all of the accelerated construction projects. Users can also find images of urban interstate areas taken by remote-controlled cameras. Electronic message boards, am radio stations and helpful StateHighway Emergency Program (SHEP) crews patrol the state in zones helping motorists in need.

“Each day into this unique program offers new excitement for us at SCDOT. At this point, we have accomplished much, and we continually see progress in all areas of the state. However, we are not about to start resting on our laurels. We continue to explore innovative ways of improving our transportation system in South Carolina. Our citizens deserve nothing less.”

**- Elizabeth S. Mabry
Executive Director, SCDOT**

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MPO/COG Project Acceleration Program

The 27 in 7 program is meeting all expectations through the midway point, July 2002. Overall, highway and bridge construction projects are on target. On the financial side, SCDOT has already issued \$550 million in bonds, with an average interest rate below 5 percent, for the MPO/COG program. In addition the State infrastructure Bank has issued \$1.2 billion worth of bonds.



In Charleston, the Cooper River Bridge Replacement project is ahead of schedule. Foundation work is well under way. The design-build contractor has three crews drilling the more than four hundred shafts that will support the new structure. Foundations for the first of the two cable-stay towers were completed on June 14, 2002. Shiploads of rock are now on their way to Charleston to build the rock islands that protect the bridge from ship impact. Twenty-one loads or over 750,000 tons of rock are needed for these artificial islands. The equipment for the rock are needed for these artificial islands. The equipment for the rock island construction joins the dredges, cranes and foundation equipment that are already in the busy Charleston Harbor. This project is on schedule to be finished by summer 2006.

MPO/COG Project Acceleration Program



SC 22, also known as the Conway Bypass and Veterans Highway, was completed in May 2001, seven months early and \$303,438 under budget.

Construction on the Carolina Bays Parkway is progressing rapidly toward a September 2002 opening. Approximately 90 percent of the work on the project has been completed. Construction is concentrated at the US 501 interchange and on the northern segment of the project between SC 22 (Veterans Highway) and SC 9. When completed in 2003, the six-lane, 20-mile highway will link SC 9 with US 501 and provide an important new route for motorists on the Grand Strand.

The State Infrastructure Bank in 2002 approved \$200 million for highway construction projects in Horry and Aiken counties. The SIB approved an additional \$135 million for Horry County projects, including the Carolina Bays Parkway Phase II and the North Myrtle Beach Connector.

The \$65 million for Aiken County will cover phase I of the Bobby Jones Expressway, including the bridge over the Savannah River. The Board also agreed that when funding becomes available, Horry County would receive an additional \$63 million and Aiken County, \$100 million.

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Conclusion

Innovative financing has led to an exciting period in South Carolina's history of transportation. From the complexities of bond funding to the approach of public/private partnerships, the goal remains a simple one. To serve our motorists and support the economic growth of South Carolina by doing a lot of work and getting it done quickly. Using an array of innovative concepts will lead to a dramatic change in the landscape of South Carolina. And by condensing 27 years of projects into 7 years, it is truly a time of peak performance.

South Carolina leaders know first-hand of SCDOT's innovative financing successes:

“The mid-point progress report is very good. Three out of four interstate widening projects have already been completed. These projects help not only our motorists, but they also help our economy grow. One of the keys to the success of this program is the innovative financing SCDOT has used to make up the shortfall in federal dollars.”

**-State Senator Hugh Leatherman, District 31,
*Darlington-Florence-Chesterfield-Marlboro Counties***

“The partnership between SCDOT and the State Infrastructure Bank has resulted in getting major projects off the drawing board and into construction. The Conway Bypass, the Cooper River Bridge and the Bobby Jones Expressway are all examples that show how innovative financing and teamwork can get the job done.”

**-State Senator Greg Ryberg, District 24,
*Aiken-Lexington Counties***

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Conclusion

“The 27 in 7 Program has been a lifesaver for many projects in South Carolina. A good example is the widening of Interstate 85 in Anderson County. We had been putting off this program because of lack of funds for years and years, and congestion had built up. Because of the 27 in 7 Program, we’re now able to widen it to six lanes. The 27 in 7 Program is really working.”

**-State Representative Ronald Twonsend, District 7,
*Anderson-Abbeville Counties***



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