

**APPLICATION FOR FUNDING THE REPLACEMENT OF THE COOPER RIVER BRIDGES**  
**SUBMITTED BY CHARLESTON AREA TRANSPORTATION STUDY (CHATS)**  
**METROPOLITAN PLANNING ORGANIZATION**

**Application Review Committee Evaluation**

**ELIGIBILITY**

Projects eligible for funding must be “major projects” which provide “public benefits.” The total cost of the project is \$441,000,000 with a net present value of \$335,250,000. The Application requests a grant of \$325,000,000. The project therefore satisfies the major project requirement. The project provides virtually all of the public benefits described in the law, including economic development benefits for the entire state, as well as enhancement of mobility and improved safety in the Charleston area.

**APPLICATION EVALUATION**

The proposed facility is a 2.5 mile bridge with interchanges in the City of Charleston and the Town of Mt. Pleasant. The bridge replaces two existing bridges. The Grace Memorial Bridge (20 ft width) was built in 1929 and the Pearman Bridge (36 ft width) was built in 1966. The two bridges are structurally deficient and obsolete. There is a posted 10 ton weight limit on the Grace Bridge. Maintenance and repair costs will exceed \$50 million for the 20 year time frame. These bridges are the primary link between Charleston and Coastal SC for military, commerce, tourism and commuters.

- Other background information that are relevant to the Board’s decision include:
- Current average daily traffic is 60,000 vehicles per day.
- Projected future traffic (2025) is 84,000 vehicles per day.
- The Port is the 4<sup>th</sup> largest in the United States and the 2<sup>nd</sup> largest on the East Coast. Eleven million tons of freight pass through the Port annually.
- The Port generates \$2.2 billion and \$258 million in taxes.

Preliminary design information includes the following :

The bridge is to be constructed on a new alignment. The length is actually 3 miles with one mile of ramps. The most likely route will start 2000 ft north of the existing I-26 terminus and cross over the existing bridges. They will enter Mt. Pleasant south of the Pearman bridge. There will be 1000 ft of horizontal clearance for ships and 186 ft of vertical clearance. There will be 126 ft of bridge width for lane assignments. The bridge will be cable-stayed.

The Application Review Committee identified the following advantages:

The Bridge will replace the deficient and obsolete bridges.

- Increase capacity to accommodate existing and future traffic.

- The project will enhance development for the State of SC.
- The project will enhance mobility, accessibility and safety for residents and tourists.
- There is near unanimous local support.
- New seismic design criteria will be used.
- According to SC DOT personnel, the Bridge should have a useful life of 75 years.
- The Consultant is currently developing the project.
- The EIS is 98% complete.
- Right of way acquisition is underway.
- Only 4.5 acres of wetlands are impacted.
- The Bridge will significantly reduce maintenance and repair costs.
- The project is identified in CHATS with exempt funds.
- The estimated project costs appear reasonable.
- The applicant has left SC DOT with the option of using either conventional design/bid or the more innovative design build. Design build could potentially reduce the overall cost of the project.

The Committee has identified the following disadvantages

- The project has not been permitted.
- Preliminary Engineering is not complete.
- The proposed project schedule seems extremely optimistic.
- Matching funds identified are funds previously expended for bridge and road maintenance, bridge repairs and traffic control.
- CHATS Policy Committee has said that they will procure an additional \$100 million by the end of 1998 from a number of sources. It would be an advantage if they procured this money and a disadvantage in that the specific source has not been identified and the SIB must accept the commitment.
- No source of maintenance money was provided in the application.

## **PUBLIC BENEFITS**

The proposed project is considered critical for the economic development and prosperity of both the region and the State of SC. It will enhance the mobility, accessibility and safety for residents of the region as well as the annual visitors to the Charleston area. There are direct benefits to tourism, the Port of Charleston and public welfare.

TOTAL POINTS AWARDED FOR PUBLIC BENEFIT = 20/20

## **FINANCIAL PLAN**

### **Local Contribution (15 points)**

The Charleston application identified \$441,000,000 in costs, broken down as follows:

Preliminary Design (Already Completed)	\$21,000,000
Design/Construction Management	\$40,215,000
Right of Way Acquisition	\$11,235,000
Construction	<u>\$368,550,000</u>
<b>Total Cost</b>	<b>\$441,000,000</b>

The sources of local funding identified in the application include repair and maintenance costs, federal demonstration funds under the 1991 ISTEA Act and local costs for traffic control. In addition, CHATS has pledged \$100 million from various existing sources of money to Charleston from the state and federal government by the end of 1998.

It was the intent of the Board to not use existing state or federal highway funds as a local match for State Infrastructure Bank (SIB) funds. In addition, the evaluation of other projects did not include local repair, maintenance or traffic control costs. To be consistent, the Application Review Committee has only considered the \$21 million Demonstration Grant money to be a local match. It is likely that 20 to 50% of this amount was match money from SC DOT. However, the entire amount was counted the local match. This is 4.76% of the total request.

The Application also states that the CHATS Policy Committee has made a public commitment to secured additional funds in the amount of \$100 million from various sources by the end of 1998. These sources include Federal Demonstration Grant, US Department of Defense, Federal Department of Energy, the State Ports Authority, SC Department of Transportation, SC Department of Commerce, SC Railroad Commission and/or Santee Cooper. A separate column was included if these funds materialize and if the source is acceptable to the Board.

The following scoring is based on the net present worth of \$335,250,000. If Charleston were to procure the \$100 million by the end of 1998, the local match would be \$121 million. The % of local contribution would be 28.7% and 5 points be awarded.

Contribution	Point Value	Charleston Application as is	Points	Charleston App w/o \$100 million in local contribution (1)	Points (1)
84-100	15				
78-84	14				
72-78	13				
66-72	12				
60-66	11				
54-60	10				
48-54	9				
42-48	8				
36-42	7				
30-36	6				
24-30	5			27.4%	5
18-24	4				
12-18	3				
6-12	2				
0-6	1	5%	1		

(1) Assumes the source of funds is found and acceptable to the Board.

**Amount of Assistance Requested (10 Points)**

The following scoring shows the effect of a net present value of both \$335,000,000 and \$243,000,000. was based on the total project amount of \$421 million with a net present value of \$335,250. Charleston has requested \$325 million (\$243 million npv), but the specific sources of a local match have not been identified.

Amount of SIB Assistance Requested (in millions) Net Present Value	Point Value	Charleston Application Net Present Value	Points Awarded	Charleston Application Net Present Value	Points Awarded
0-40	10				
41-80	9				
81-120	8				
121-160	7				
161-200	6				
201-240	5				
241-280	4			\$243 mm	4
281-320	3				
321-360	2	\$335 mm	2		
361-400	1				
400+	0				

If the \$100 million were procured, the net present value would be approximately \$243,000,000. The points awarded would be 4.

**Other considerations (15 points)**

There would appear to be many alternatives for partnerships with the Ports Authority or involvement from local residences. Potential partnerships have been identified and a commitment has been made to procure \$100 million from these partnerships by the end of the year. Unfortunately, these have not been finalized by the date of the application. The Application Review Committee has awarded five points for the willingness to procure these partnerships. The points for other considerations might be higher if the source of funds were acceptable to the Board.

Total Points for Other Considerations - 5/15

TOTAL POINTS AWARDED FOR FINANCIAL PLAN - 8/40

**PROJECT APPROACH**

The proposed bridge replacement project will be developed and managed by SC DOT. SC DOT has indicated a willingness to accept this project. The time table is optimistic, but the project will have a high priority at SC DOT. The EIS is nearly complete and is expected to be approved by the Federal Highway Administration in 1998. SC DOT is considering either a conventional design or a design/build approach. The decision on which approach will be taken will be made after the funding has been authorized. There is no money for maintenance and Charleston wants to approve the design of the bridge. No other assistance is offered. Based on the various advantages and disadvantages, the Committee has awarded 15 points.

TOTAL POINTS FOR PROJECT APPROACH = 15/20

**COOPER RIVER BRIDGE POINT SUMMARY**

<b>Criteria</b>	<b>Maximum</b>	<b>Charleston Application As Is</b>	<b>Charleston Application W/ \$100 mm</b>
Eligible	Yes	Yes	Yes
Public Benefit	20	20	20
Local Contribution	15	1	5
Amount Requested	10	2	4
Other Financial Points	15	5	5 (1)
Project Approach	15	15	15
SIB	20	TBD	TBD
Total	100	43 w/o SIB points	49w/o SIB Points

(1) Points might be higher if the source of funds were acceptable to the Board.

Charleston Area Transportation Study  
SIB Application

Financial Review  
Debt Service paid at beginning of year

FISCAL YEAR	SIB BOND AMT	ANNUAL DEBT SERV (5.5%, 20 yr bonds)	TOTAL DEBT SERV	SIB SHARE
97/98	\$ -	\$ -	\$ -	\$ -
98/99	\$ 33,337	\$ 2,644	\$ 2,644	\$ 2,644
99/00	\$ 89,426	\$ 7,093	\$ 9,737	\$ 9,737
00/01	\$ 117,123	\$ 9,290	\$ 19,027	\$ 19,027
01/02	\$ 107,636	\$ 8,537	\$ 27,564	\$ 27,564
02/03	\$ 63,973	\$ 5,074	\$ 32,638	\$ 32,638
03/04	\$ 8,506	\$ 675	\$ 33,313	\$ 33,313
04/05			\$ 33,313	\$ 33,313
05/06			\$ 33,313	\$ 33,313
06/07			\$ 33,313	\$ 33,313
07/08			\$ 33,313	\$ 33,313
08/09			\$ 33,313	\$ 33,313
09/10			\$ 33,313	\$ 33,313
10/11			\$ 33,313	\$ 33,313
11/12			\$ 33,313	\$ 33,313
12/13			\$ 33,313	\$ 33,313
13/14			\$ 33,313	\$ 33,313
14/15			\$ 33,313	\$ 33,313
15/16			\$ 33,313	\$ 33,313
16/17			\$ 33,313	\$ 33,313
17/18			\$ 33,313	\$ 33,313
18/19			\$ 30,669	\$ 30,669
19/20			\$ 23,576	\$ 23,576
20/21			\$ 14,286	\$ 14,286
			\$ 5,749	\$ 5,749
			\$ 675	\$ 675
<b>Total</b>	<b>\$ 420,000</b>	<b>\$ 33,313</b>	<b>\$ 666,262</b>	<b>\$ 666,262</b>
<b>Net Present Value @5.5%</b>	<b>\$335,250</b>		<b>\$335,250</b>	<b>\$335,250</b>

Other participation

DOT/Federal Funds  
for Prelim. Design \$ 21,000