

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: CSSTP-0008-00(651) & STP-00MS (4) Chatham **OFFICE:** Engineering Services
P. I. Nos.: 0008651 & 550550
Bridge Replacement at Skidaway Narrows and S.R. 204 SPUR Widening

DATE: November 6, 2008

FROM: Ronald E. Wishon, Acting Project Review Engineer *REW*

TO: James B. Buchan, P.E. State Urban Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
CSSTP-0008-00(651) CHATHAM – P.I. NO. 0008651				
SKIDAWAY NARROWS NEW BRIDGE (SNNB)				
SNNB-1	Build single structure, as opposed to a dual structure	\$4,804,525	No	Would not satisfy the Need and Purpose for this project which is to replace the existing Bascule Bridge due to a low Sufficiency Rating.
SNNB-2	Use Sheet Piles for shoring in lieu of Temporary MSE Wall	\$1,386,000	No	Since it is not known when the future widening of S.R. 204 SPUR will occur, the proposed MSE Wall could be in place for many years before the widening occurs. The Sheet Piles would not be aesthetically pleasing to the residents of Skidaway Island.
SNNB-3	Use 8' outside shoulders in lieu of 10' shoulders	\$902,000	Yes	This should be done.

ALT No.	Description	Savings PW & LCC	Implement	Comments
CSSTP-0008-00(651) CHATHAM – P.I. NO. 0008651				
SKIDAWAY NARROWS NEW BRIDGE (SNNB) - continued				
SNNB-5	Use longer approach spans to reduce mitigation	Design Suggestion	Yes	This should be done.
SNNB-8	Approach DNR about use of “Removed Bridge” in reef building as a mitigation tool	Design Suggestion	Yes	This should be done.
SKIDAWAY NARROWS ROADWAY (SNRW)				
SNRW-1	Modify western tie geometry to utilize more existing pavement	\$190,124	Yes	This should be done.
SNRW-2	Further develop Traffic Control Plan to minimize Traffic Control costs/avoid duplication	Design Suggestion	Yes	This should be done.
SNRW-3	Expand eastbound acceleration lane to accommodate marina traffic	Design Suggestion	Yes	This should be done.
STP-00MS(4) CHATHAM – P.I. NO. 550550				
DIAMOND CAUSEWAY ROADWAY (DCRW)				
DCRW-1	Retain “Jug Handle”	Design Suggestion	Yes	This should be considered further during plan development.
DCRW-2	Move west end pier parking to north side of roadway – eliminate east crossover	Design Suggestion	No	Would result in additional wetland impacts and also cause pedestrians to cross the roadway for access to the fishing pier unless it is provided under the bridge which may add additional length to the bridge.
DCRW-3	Shift transition to Skidaway Island State Park to the west	Design Suggestion	Yes	This should be considered further during plan development.

ALT No.	Description	Savings PW & LCC	Implement	Comments
STP-00MS(4) CHATHAM – P.I. NO. 550550				
DIAMOND CAUSEWAY ROADWAY (DCRW) - continued				
DCRW-4	Consider use of “Eyebrows” at potential U-turn locations (Pin Point Community)	Design Suggestion	Yes	This should be done.
DCRW-5	Close median opening at Sta. 166+00	Design Suggestion	No	The purpose of this median opening is to provide access to the east end Fishing Pier while minimizing impacts to the wetlands. If it is eliminated, vehicles would have to travel a long distance and make a U-turn.
DCRW-6	Extend Moon River easterly access parking to the west	Design Suggestion	Yes	This should be done.
DCRW-7	Utilize 10’ median with positive barrier from Sta. 180+00 to Sta. 242+00	\$23,212*	Yes	This should be done.

* Does not include savings for potential Wetland impact reduction.

MOON RIVER BRIDGE (MRB)				
MRB-1	Modify existing deck in lieu of widening	\$642,817	No	The original proposal was to widen the bridge; however, based on a recommendation from the Bridge Maintenance Office the bridge should be replaced in lieu of widening. They stated that the structure was not suitable for widening.
MRB-2	Route pedestrian and bike lane onto new bridge in lieu of widening existing bridge	Design Suggestion	No	This does not apply since the bridge will now be replaced.
MRB-4	Re-evaluate existing structure for new bridge	Design Suggestion	Yes	This should be done.

ALT No.	Description	Savings PW & LCC	Implement	Comments
STP-00MS(4) CHATHAM – P.I. NO. 550550				
DIAMOND CAUSEWAY/SKIDAWAY NARROWS BRIDGE (DCSNB)				
DCSN-1	Use 8' wide outside and 4' inside shoulders in lieu of 10' shoulders	\$1,804,000	Yes	This should be done.
DCSN-3	Use longer approach spans to reduce mitigation	Design Suggestion	Yes	This should be done.

A meeting was held on October 31, 2008 to discuss the above recommendations. Darrell Richardson, Marcela Coll, and Dexter Whaley with Urban Design John Hancock with Innovative Program Delivery and Ron Wishon and Lisa Myers with Engineering Services were in attendance.

Approved: *Gerald M. Ross* Date: 10/12/08
Gerald M. Ross, P. E., Chief Engineer

REW

Attachments

- c: Wayne Fedora
- Ben Buchan
- Darrell Richardson
- Butch Welch
- Dexter Whaley
- Darryl VanMeter
- John Hancock
- Paul Liles
- Bill Ingalsbe
- Bill Duvall
- Judy Meisner
- James Magnus
- Will Murphy
- Troy Pittman
- Paul Condit
- Ken Werho
- Nabil Raad
- Lisa Myers

PRECONSTRUCTION STATUS REPORT FOR PI:0008651

SR 204 SPUR/DIAMOND CAUSEWAY @ SKIDAWAY NARROWS

PROJ ID : 0008651
COUNTY : Chatham
LENGTH (MI) : 1.25
PROJ NO.: CSSTP-0008-00(651)
PROJ MGR: Hancock, John
OFFICE : Innovative Prog. Delivery
CONSULTANT: Proposed Consultant Design (DOT contract)
SPONSOR : GDOT
DESIGN FIRM:

MGMT LET DATE : May-09
MGMT ROW DATE :
SCHED LET DATE : 5/21/2009
WHO LETS? : GDOT Let
LET WITH :

DOT DIST : 5
CONG. DIST: 1
BIKE: Y
MEASURE: E
BRIDGE SUFF: 45.00
NEEDS SCORE:

MPO: Savannah TMA
TIP #:
MODEL YR :
TYPE WORK: Bridges
CONCEPT: BR REPL
PROG TYPE: Replacement
BOND PROJ :

SCHED		ACTIVITY	ACTUAL START	ACTUAL FINISH	%	PROGRAMMED FUNDS				Date Auth		
START	FINISH					Phase	Approved	Proposed	Cost		Fund	Status
12/2/2008		Concept Development	8/1/2007	4/11/2008	100	UTL	2008	2009	1,500,000.00	L1C0	PRECST	
12/5/2008		Concept Meeting	11/19/2007	11/19/2007	100	CST	2008	2009	31,137,000.00	L1C0	PRECST	
		PM Submit Concept Report	2/18/2008	2/18/2008	100							
		Receive Preconstruction Concept Approval	3/15/2008	4/3/2008	100							
		Management Concept Approval Complete	4/3/2008	4/11/2008	100							
		Revise or Re-validate Approved Concept	7/1/2008	7/25/2008	100							
		Value Engineering Study	7/23/2007		86							
		Public Information Open House Held			0							
		Environmental Approval	8/1/2007	7/25/2007	24							
		Mapping	6/15/2007		100							
		Preliminary Bridge Design	3/9/2008	3/13/2008	100							
						Utility Cost Est Amt		1,500,000.00	Date:	7/25/2008	STIP AMOUNTS	
						CST Cost Est Amt		31,137,000.00	Date:		Phase	Fund
										UTL	0.00	L1C0
										CST	0.00	L1C0

Bridge: MLC 03/08/08 - DESIGN/BUILD - 100% P.L.

Design: Concept Report approved 4/11/08 - LCS 4/15/08

EIS: CEJNo/Avpd/OnSchedCSTIRusset(10-28-08)

LGPA: NOTIFICATION LETTER SENT TO CHATHAM 2-8-08

Planning: Funds Committed Identify source during next balancing Bike facilities recommended, provided federal funds are spent.

Programming: SPLIT FROM PI# 550550-

Traffic Op: kpw - send plans for rev 1/14/08

Utility: 3 of 3 MOU's have been executed 3/6/08

EMG: BRIDGE REPLACEMENT

Cond. Filed: 0

Under Review: Total Parcel in ROW System:

Released: Options - Pending: Relocations: Acquired:

Acquired by: N/R

Acquisition MGR: 1/23/08

R/W Cert Date:

DEEDS CT:

District Comments: TAS/11-19-07/Initial Concept Meeting held ASW/ Advertise RFQ - 16Nov07/ SOQ to GDOT - 28Dec07 Notified Short List Firms 6/12/08 Advertise RFP Feb 2009 Letting May 2009

PRECONSTRUCTION STATUS REPORT FOR PI:550550-

PROJ ID : 550550-
COUNTY : Chatham
LENGTH (MI) : 3.22
PROJ NO. : STP00-00MS-00(004)
PROJ MGR : Welch, Albert
OFFICE : Urban Design
CONSULTANT : No Consultant, GDOT In-House Design
SPONSOR : Chatham County
DESIGN FIRM :

SR 204 SPUR/DIAMOND CSWY FM FERGUSON AVE TO MCWHORTER DR
MPO : Savannah TMA
TIP # : 92-H-03
MODEL YR : Widening
TYPE WORK : ADD 4R(MED 20)
CONCEPT : Reconstruction/Rehabilitation
PROG TYPE :

MGMT LET DATE :
MGMT ROW DATE :
SCHED LET DATE : 3/30/2010
WHO LETS? : GDOT Let
LET WITH :

DOT DIST : 5
CONG. DIST : 1
BIKE : Y
MEASURE : E
BRIDGE SUFF : 62.00
NEEDS SCORE : 6

SCHED		ACTIVITY	ACTUAL		%	PROGRAMMED FUNDS				Phase	Cost	Fund	Status	Date Auth
START	FINISH		START	FINISH		Approved	Proposed	Cost	Fund					
12/2/2008	12/2/2008	Concept Development	4/3/1994	10/3/1995	78	2007	2007	3,182,000.00	L240	AUTHORIZED	2/10/1993			
		Concept Meeting	4/21/1995	4/21/1995	100	1993	1993	1,193,992.68	Q20	AUTHORIZED	2/10/1993			
		PM Submit Concept Report	5/9/1995	6/12/1995	100	2008	2011	10,147,229.32	L230	PRECST				
		Receive Preconstruction Concept Approval	7/26/1995	8/8/1995	100	NONE	2013	3,660,586.01	L240	PRECST				
		Management Concept Approval Complete	8/30/1995	10/3/1995	100	2011	2013	57,275,877.76	L240	PRECST				
		Revise or Re-validate Approved Concept	8/8/2007	8/13/2007	100									
		Value Engineering Study	7/23/2007		71									
		Public Information Open House Held			0									
		Environmental Approval	1/2/1999		10									
		Pub Hear Held/Comm Resp (EA/FONSI, GEPA)			0									
		Mapping	6/15/2007	7/25/2007	100	8,089,309.09		9/30/2008	PE					
		Field Surveys/SIDE	6/2/2000	6/29/2000	100	2,690,640.00		9/30/2008	PE					
		Preliminary Plans	9/1/2001		11	38,981,000.00		8/17/2007	ROW			140,000.00	L230	
		Preliminary Bridge Design			0				UTL			0.00	L240	
		Underground Storage Tanks			0				CST			44,239,000.00	L240	
		404 Permit Obtainment			0									
		PFPR Inspection			0									
		R/W Plans Preparation			0									
		R/W Plans Final Approval			0									
		L & D Approval			0									
		R/W Acquisition			0									
		Stake R/W			0									
		Soil Survey			0									
		Bridge Foundation Investigation			0									
		Final Design			0									
		Final Bridge Plans Preparation			0									
		FFPR Inspection			0									
		Submit FFPR Responses (OFS)			0									

PDD: [01R] CO TO DO ALL PE NEED LOCALS SCHED PE=FEED \$ W/20% LOCAL MATCH 12/2/98 Comm.
 advised locals 07 R/W & 09 CST 9/22/05
Bridge: BRIDGE REQUIRED
Design: UD: Whaley Pre-survey mtg held 08Nov07; need survey enh
EIS: EIA/Append-25-05/NotOnSched/PC | Myrthil
LGPA: PMA SGN CO DO 20% PE COST 2-15-99/CITY HAS NO INVOLVED UTIL.
Location: District
Planning: PROJECT LOCATED ON DIAMOND CAUSEWAY ON-ROAD BICYCLE FACILITY
Programming: RWU CHGED FM \$1-810-000 TO LOC BY PM 10/92 .PR2/PE=4-6-93#112-05#2 5-07
Railroad: NO
Traffic Op: >SUBJ/PRIORITIZATION; REQ S/M/SIG 16 WKS PRIOR2PFRS-3/13/08
Utility: NEED P-PLANS
EMG: 2152 (H85(94)-E/V88)

Acquired by: DOT
Acquisition MGR:
R/W Cert Date:

Cond. Filled:
Relocations:
Acquired:

PreI. Parcel CT: 10 **Total Parcel in ROW System:**
Under Review: Options - Pending
Released: Condemnations- Pend:

Wishon, Ron

From: Whaley, Dexter
Sent: Thursday, November 06, 2008 2:18 PM
To: Wishon, Ron
Subject: FW: Bridge Condition Survey P.I. No. 550550

Here is the e-mail for your use.

-----Original Message-----

From: DuVall, Bill
Sent: Thursday, March 27, 2008 5:50 PM
To: Whaley, Dexter
Subject: Fw: Bridge Condition Survey P.I. No. 550550

FYI

----- Original Message -----

From: Doyle, Andy (Jesse)
To: Welch, Albert (Butch)
Cc: Banks, Myron; Liles, Paul; DuVall, Bill
Sent: Thu Mar 27 11:23:45 2008
Subject: Bridge Condition Survey P.I. No. 550550

STP00-00MS-00(004), Chatham County

P. I. No. 550550

Structure ID 051-0146-0

Location ID 051-00204P-004.90E

Diamond Causeway (SR 204) over Moon River

This bridge was built in 1970. The structure consists of concrete bents, PSC beams, and a concrete deck. The calculated load capacity of this structure is less than an HS-20 design. This structure is not suitable for widening.

The concrete pile substructure has a larger number of piles that have severe spalling and cracking. The Concrete Bureau of the Office of Materials and Research has performed an inspection of this structure and does not believe encapsulating the piles will solve the problem. Based on this and the number of affected piles, this office recommends replacing the bridge. There are no materials to be salvaged from this structure as a part of the construction project.

If further information is required for this project please contact me.

Andy Doyle, PE

Georgia Department of Transportation

Regional Bridge Inspection Engineer

Office of Maintenance

(404) 635 - 8193

(404) 805 - 7997 (cell)

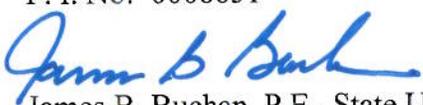
Help GDOT serve you better. Visit <http://www.howmyservice.dot.ga.gov> and rate the service you received from Team GDOT.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA



INTERDEPARTMENTAL CORRESPONDENCE

FILE: CSSTP-0008-00(651), Chatham County
Bridge Replacement over Skidaway Narrows on
SR204SP/ Diamond Causeway
P. I. No: 0008651
OFFICE: Urban Design
DATE: October 10, 2008

FROM: 
James B. Buchan, P.E., State Urban Design Engineer

TO: Brian Summers, P.E., State Project Review Engineer

SUBJECT: **Value Engineering Study - Responses**

Reference is made to the recommendations that were contained in the Value Engineering Study – Final Report dated October 26, 2007 for the above referenced project. This project was authorized to be added to the Design Build Program on November 7, 2007. As a design build project, the successful design build team, with oversight from the Department, will be responsible for the design and construction of the project. This bridge replacement was originally part of Project STP00-00MS-00(004), P.I. No. 550550, SR204SP/ Diamond Causeway Widening from Ferguson Avenue to McWhorter Road. However, at Chatham’s County request, Project CSSTP-0008-00(651), P.I. No. 0008651, was programmed to accelerate the replacement of the existing bascule bridge over Skidaway Narrows. The primary reasons for programming the new project were to allow an earlier replacement of the bascule bridge due to its current sufficient rating of 45 and evacuation concerns by the residents of Skidaway Island during an emergency or Hurricane. SR204SP/ Diamond Causeway is the only roadway access to Skidaway Island. There are approximately 10,000 residents on Skidaway Island. Since this is a Design Build project, many of the alternatives and design recommendations listed in the VE Study Report cannot be specifically addressed at this time. Our responses are listed below:

1. **Value Engineering Alternative No. SNNB-1** – Build single structure, as opposed to dual structure.
Approval of the VE Alternative No. SNNB-1: Not Recommended.

- The proposal to construct a single 4-lane structure is not a valid comment for this project.
- The Need and Purpose for this project is to replace the existing bascule bridge due to the low sufficiency rating of 45. The typical section for the proposed 2-lane bridge is two 11-ft lanes with 8-ft shoulders in each direction for a total width of 38-ft.

2. **Value Engineering Alternative No. SNNB-2** - Use sheet pile for shoring in lieu of temporary MSE Wall.
Approval of VE Study Alternative No. SNNB-2: Not Recommended.

- Since the future widening of SR204SP/ Diamond Causeway (P.I. No. 550550) is dependent on the completion of the widening of SR204SP/ Whitfield Avenue (P.I. No. 550560), the MSE wall

is not considered temporary. The MSE wall may be in place for many years before the widening of SR204SP/ Diamond Causeway (P.I. No. 550550) is constructed.

- The use of sheet piles would not be aesthetically pleasing to the residents of Skidaway Island and to those who visit the Skidaway Island State Park for the scenic views and beauty of the marshland located in the area.

3. Value Engineering Alternative No. SNNB-3 – Use 8-ft outside shoulders in lieu of 10-ft shoulders.

Approval of VE Study Alternative No. SNNB-3: Recommended.

- The proposed typical section for the bridge incorporates two 11-ft lanes with 8-ft shoulders in each direction for a total width of 38-ft.

4. Value Engineering Design Suggestion No. SNNB-5 – Use longer approach spans to reduce mitigation.

Approval of VE Study Design Suggestion No. SNNB-5: Recommended.

- The center span length of the new bridge will be controlled by the parameters as dictated by the Coast Guard permit. Nevertheless emphasis will be placed on maximizing the lengths of the center spans.
- The layout of the approach spans will be dependent on the design submitted by the Design-Build team. Nevertheless emphasis will be placed on maximizing the lengths of the approach spans.
- The Design-Build team will be instructed to produce a design which is economically as well as environmental sensitive.

5. Value Engineering Design Suggestion No. SNNB-8 – Approach DNR about use of the “removed bridge” in reef building as a mitigation tool.

Approval of VE Study Design Suggestion No. SNNB-8: Recommended.

- The bridge removal will be a part of this project. DNR will be contacted in reference to potential uses of the existing bridge once removed. In the process of obtaining the Coast Guard permit and in consultation with the environmental agencies, this issue will be investigated further.

6. Value Engineering Alternative No. SNRW-1 – Modify western tie geometry to utilize more existing pavement.

Approval of VE Study Alternative No. SNRW-1: Recommended.

- The tie-in of the new roadway to the existing roadway will further be explored to determine if it can be adjusted to reduce the amount of pavement required.
- The design parameters as suggested by AASHTO’s Geometric Design of Highway and Streets and GDOT’s Design Policy Manual will be utilized as a minimum.
- The exact tie in location will be determined by the Design-Build team’s submitted design.

7. Value Engineering Design Suggestion No. SNRW-2 – Further develop Traffic Control Plan to minimize Traffic Control costs/avoid duplication.

Approval of VE Study Design Suggestion No. SNRW-2: Recommended.

- The Traffic Control Plan will be developed to produce a clear and safe plan for both highway and waterway users.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA



INTERDEPARTMENTAL CORRESPONDENCE

FILE: STP00-00MS-00(004), Chatham County
Widening of SR204SP/ Diamond Causeway from
Ferguson Avenue to McWhorter Drive
P. I. No.: 550550

OFFICE: Urban Design

DATE: October 10, 2008

FROM: 
James B. Buchan, P.E., State Urban Design Engineer

TO: Brian Summers, P.E., State Project Review Engineer

SUBJECT: **Value Engineering Study - Responses**

Reference is made to the recommendations that were contained in the Value Engineering Study – Final Report dated October 26, 2007 for the above referenced project. At this time, the survey and property databases necessary for designing this project have not been received by the design team. Many of the Alternatives and Design Suggestions cannot be specifically addressed until the design is further along. Our responses are as follows:

- 1. Value Engineering Alternative No. DCRW-1 – Retain “jug handle” at Skidaway Island State Park.**
Approval of VE Alternative No. DCRW-1: Will be considered.
 - A left turn lane from EB Diamond Causeway onto Skidaway State Park Road has been proposed in lieu of the existing jug handle.
 - Field visits show the jug handle is rarely utilized by vehicular traffic. All left-turn movements during this visit were made using the existing through lane and not the jug handle.
 - All environmental and right of way impacts will be considered.
 - A traffic study and traffic capacity analysis will be conducted to determine the most appropriate intersection configuration. If the jug handle proves to be more operationally efficient, it will be considered for implementation.
- 2. Value Engineering Alternative No. DCRW-2 – Move the west end pier parking at Moon River to the north side of the roadway and eliminate the east crossover at approximate station 166+00.**
Approval of VE Study Alternative No. DCRW-2: Not recommended.
 - The proposed alignment is to widen to the north. The current location for the west end pier parking lot is on the south side of the roadway. An existing fishing pier is also on the south side of the existing bridge. Relocating the pier parking area to the north side of the roadway would result in additional impacts to the wetlands and also cause pedestrians to cross the roadway for access to the pier. A pedestrian access would then need to be provided to the fishing pier from beneath the bridge, which may require additional length to the bridge.

- Eliminating the median crossover at station 166+00 would prevent direct access to the east end fishing pier from the WB direction and cause motorist to travel an additional 3500 feet to make a u-turn at Pin Point Road, station 131+00, and travel an additional 3500 feet to access the east end parking area. Eliminating this cross over would also cause motorist who desire to go EB from either fishing pier to travel an additional 750 feet if leaving the east end fishing pier or 3000 feet if leaving the west end fishing pier and make a u-turn at station 173+50.

3. Value Engineering Alternative No. DCRW-3 – Shift SR204SP/ Diamond Causeway transition at Skidaway Island State Park to the west.

*Approval of VE Study Alternative No. DCRW-3: **Will be considered.***

- Shifting the median approximately 1100 feet to the west may result in additional impacts to the wetlands and require additional right of way. This alternative will be explored further once the survey and property databases are available to the design team.

4. Value Engineering Design Suggestion No. DCRW-4 – Consider use of “eyebrow pavement” sections in potential u-turn/ turnout locations throughout the project.

*Approval of VE Study Design Suggestion No. DCRW-4: **Recommended.***

- The addition of “eyebrow pavement” sections at u-turn/ turn-out locations will allow vehicles to make u-turn movements easier as well as provide protection for the shoulder.

5. Value Engineering Design Suggestion No. DCRW-5 – Close median opening at Station 166+00 east of the Moon River Bridge.

*Approval of VE Study Design Suggestion No. DCRW-5: **Not recommended.***

- See response to Value Engineering Alternative No. DCRW-2.
- The intent of the median opening at this location is to provide safe, efficient, and adequate access to the east end fishing pier while minimizing impacts to the wetlands. This median opening is proposed to be used by traffic from both east and west fishing pier parking lots. The traffic from the east end parking lot will make a left turn to go WB on SR204SP/ Diamond Causeway and traffic from the west end parking lot will make a u-turn to go WB on SR204SP/ Diamond Causeway.
- There is a proposed median opening located approximately 750 feet east at Station 173+50 which is intended for future access to the Wormsloe property. This median opening was proposed in response to a request by the Department of Natural Resources.

6. Value Engineering Alternative No. DCRW-6 – Extend Moon River east pier access parking to the west.

*Approval of VE Study Alternative No. DCRW-6: **Recommended.***

- The east end pier parking area will be utilized to access the east side fishing pier. The intent is to provide adequate parking while minimizing wetland impacts. The fishing piers will be ADA accessible from each of their respective parking lots with sidewalks from each parking area to each fishing pier. Both parking areas will be located as close to the fishing pier as practical, but will be dependent upon minimizing wetland and right of way impacts.

7. Value Engineering Design Suggestion No. DCRW-7 – Utilize a 10-ft median with a positive barrier from Station 180+00 to Station 242+00.

*Approval of VE Study Design Suggestion No. DCRW-7: **Recommended.***

- The proposed typical section for SR204SP/ Diamond Causeway is four 12-ft lanes, 24-ft raised median, and 10-ft outside shoulders. The positive barrier alternative has been discussed in public and agency meetings previously. The public opposed the barrier separated median because it would detract from the natural beauty and aesthetics of the area.
- The barrier separated median will have less impact to the wetlands than the 24-ft raised median.

8. Value Engineering Design Suggestion No. MRB-1 – Modify existing deck in lieu of widening.

*Approval of VE Study Alternative No. MRB-1: **Not recommended.***

- A bridge condition survey and a deck condition survey have been requested for the existing bridge over Moon River. The recommendations from the State Bridge Maintenance Engineer and the State Materials and Research Engineer are pending for both requests. The proposal to widen the existing bridge is dependent upon the recommendations received from the State Bridge Maintenance Engineer and the State Materials and Research Engineer.
- The proposed typical section for the widening of the existing bridge over Moon River consist of two 12-ft lanes, 10-ft outside shoulder, and a 6-ft inside shoulder for a total width of 40-ft. The proposed typical section for the alternative bridge deck modification consists of two 11-ft travel lanes, a 2-ft inside shoulder and a 4-ft 9-in outside shoulder for a total width of 28-ft 9-in. GDOT policy for lanes and shoulder widths as defined in the GDOT Design Policy Manual for arterials are for 12-ft lanes, 10-ft outside shoulder, and 6-ft inside shoulders. The proposed alternative violates this policy. A 2-ft inside shoulder is not adequate for a 55 mph Design Speed and a 4-ft 9-in outside shoulder is not adequate space to provide for storing disabled and stalled vehicles especially for a bridge length of 1,313-ft. The alternative also does not provide adequate space for pedestrian and bike traffic.
- A revised typical section of two 12-ft travel lanes with a 10-ft outside shoulder and a 4-ft inside shoulder for a total width of 38-ft has been proposed to match the proposed Design-Build bridge over Skidaway Narrows, CSSTP-0008-00(651), P.I. No. 0008651.

9. Value Engineering Design Suggestion No. MRB-2 – Route pedestrian and bike traffic onto new bridge in lieu of widening existing bridge.

*Approval of VE Study Alternative No. MRB-2: **Not recommended.***

- This alternative suggests routing bicycle and pedestrian traffic onto one side of the roadway.
- This bi-directional flow of pedestrian and bicycle traffic on the same shoulder is contrary to driver expectation.

10. Value Engineering Design Suggestion No. MRB-4 – Re-evaluate existing structure for replacement.

*Approval of VE Study Alternative No. MRB-4: **Recommended.***

- A Bridge Condition Survey has been requested. The request was made to inspect and evaluate the existing bridge over Moon River and to provide a recommendation to either widen or replace the existing bridge. A response to this request is pending. Further action will be determined based upon the recommendations of the State Bridge Maintenance Engineer.

11. Value Engineering Design Suggestion No. DCSN-1 – Use 8-ft outside and 4-ft inside shoulders in lieu of 10-ft shoulders.

*Approval of VE Study Alternative No. DCSN-1: **Will be considered.***

- The alternative to use narrower shoulders will be further explored as the design progresses. The original proposed typical section for the parallel bridge over Skidaway Narrows proposed on this project, P.I. No. 550550, was a 12-ft travel lane and a 10-ft shoulder in each direction for a total width of 44-ft.
- This VE study alternative is addressing the proposed parallel bridge to be constructed on STP00-00MS-00(004), P.I. No. 550550 to the proposed replacement of the existing bascule bridge with a high-level bridge that will be constructed on CSSTP-0008-00(651), P.I. No. 0008651. The proposed typical section for the bridge on P.I. No. 0008651 is two 11-ft travel lanes with 8-ft shoulders for a total width of 38-ft. This proposed lane configuration will provide adequate width for two 12-ft travel lanes and a 10-ft outside shoulder along with a 4-ft inside shoulder once the widening project P.I. No. 550550 is constructed.

12. Value Engineering Design Suggestion No. DCSN-3 – Use longer spans to reduce mitigation.

*Approval of VE Study Alternative No. DCSN-3: **Recommended.***

- The span lengths of the proposed bridge for this project will be controlled by the span lengths of the proposed bridge under project CSSTP-0008-00(651), P.I. No. 0008651 which is to replace the existing bascule bridge over Skidaway Narrows. Nevertheless emphasis will be placed on maximizing the lengths of the center spans as stated in the VE response for that project.
- The layout of the approach spans will be dependent on the design submitted by the Design-Build team. Nevertheless emphasis will be placed on maximizing the lengths of the approach spans.
- The Design-Build team will be instructed to produce a design which is economically as well as environmental sensitive.

JBB:ASW:dlw ^{ASW}

Attachment

SUMMARY OF ALTERNATIVES & DESIGN SUGGESTIONS



Georgia Department of Transportation

Widening of SR 204 SPUR/Diamond Causeway - STP-00MS(4) - PI No. 550550

Alternative Number	Description of Alternative	Initial Cost Savings
	Skidaway Narrows New Bridge (SNNB)	
DCRW-1	Retain "Jug Handle"	DS
DCRW-2	Move west end pier parking to north side of roadway – eliminate east crossover	DS
DCRW-3	Shift transition to Skidaway Island State Park to the west	DS
DCRW-4	Consider use of "eyebrows" at potential U-turn locations (Pin Point Community)	DS
DCRW-5	Close median opening at Sta 166+00	DS
DCRW-6	Extend Moon River easterly access parking to the west	DS
DCRW-7	Utilize 10' median with positive barrier from Sta 180+00 to Sta 242+00	\$23,212 *
	* Does not include savings for potential wetland impact reduction.	
	Moon River Bridge (MRB)	
MRB-1	Modify existing deck in lieu of widening	\$642,817
MRB-2	Route pedestrian and bike lane onto new bridge in lieu of widening existing bridge	DS
MRB-4	Re-evaluate existing structure for new bridge	DS
	Diamond Causeway/Skidaway Narrows Bridge (DCSNB)	
DCSN-1	Use 8' wide outside and 4' inside shoulders in lieu-of 10' shoulders	\$1,804,000.00
DCSN-3	Use longer approach spans to reduce mitigation	DS