

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: NHS-0002-00(445) Dougherty
P. I. No.: 0002445
S.R. 520 Widening

OFFICE: Engineering Services

DATE: January 9, 2008

FROM: Brian Summers, P.E., Project Review Engineer *RLW*

TO: Ben 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
BRIDGE – FLINT RIVER (BRF)				
BRF-1	Provide separate new structures for pedestrians and bikes; modify design for 6 travel lanes	\$996,875	Yes	This should be done.
BRF-2	Provide a 10' Multi-Use trail in lieu of 10' Sidewalk and 4' Bike Lane	\$1,084,600 (proposed) \$1,762,475 (actual)	Yes	It has been determined that this corridor is not a Statewide or Regional Bicycle Route; therefore, the Bike Lanes will be removed from the bridge. In addition, the median will now be removed thus increasing the proposed savings.
BRF-3	Provide a new bridge for 100 year flood event	Design Suggestion	No	This Design Suggestion would have a detrimental effect on the existing and planned civic locations adjacent to the bridge. There is an adjacent project that will provide east-west connectivity during a 100-year flood event.

ALT No.	Description	Savings PW & LCC	Implement	Comments
BRIDGE – FLINT RIVER (BRF) - continued				
BRF-5	Give consideration to possible negative effects of widening bridge – it could increase the risk of floating the deck under a flood event	Design Suggestion	No	The traffic volumes justify a six lane section on this corridor.
BRF-6	Provide a "Free Right Turn onto Front Street	Design Suggestion	Yes	This should be done.
BRF-7	Extend Front Street Right Turn storage to top of bridge to decrease potential for rear end collisions	Design Suggestion	Yes	This should be done.
BRIDGE #2 – CSX RAILROAD (BR2)				
BR2-1	Provide a single span bridge of CSX Railroad with Walled Abutments	\$648,819	Yes	This should be done pending CSX Railroad approval of the Bridge Plans.
BR2-2	Combine Bike Lane and Sidewalk as a 10' Multi-Use Trail with special markings	\$162,316	Yes	It has been determined that this corridor is not a Statewide or Regional Bicycle Route; therefore, the Bike Lanes will be removed from the bridge.
BR2-3	Use a 14' median (10' raised) and 11' travel lanes	\$324,632 (proposed) \$527,527 (actual)	Yes	Eleven foot lanes will be used. Also, the median will be removed across the bridge thus increasing the proposed savings.
BR2-5	Combine BR No.2 and BR No. 3 and construct one new bridge	Design Suggestion	Yes	This should be done pending CSX Railroad approval of the Bridge Plans.
BRIDGE #3 – NORFOLK & SOUTHERN RAILROAD (BR3)				
BR3-1	Provide a single span bridge with walled abutments	\$648,819	Yes	This should be done pending CSX Railroad approval of the Bridge Plans.

ALT No.	Description	Savings PW & LCC	Implement	Comments
BRIDGE #3 – NORFOLK & SOUTHERN RAILROAD (BR3) - continued				
BR3-2	Combine Bike Lane with Sidewalk into a 10' Multi-Use Trail	\$113,696	Yes	It has been determined that this corridor is not a Statewide or Regional Bicycle Route; therefore, the Bike Lanes will be removed from the bridge.
BR3-3	Use a 14' median (10' raised) and 11' travel lanes	\$227,392 (proposed) \$369,512 (actual)	Yes	Eleven foot lanes will be used. Also, the median will be removed across the bridge thus increasing the proposed savings.
ROADWAY (RD)				
RD-1	Construct 11' travel lanes throughout the project	\$834,665 (proposed) \$646,167 (actual)	Yes	This should be done. Note: the proposed cost savings included using 11' travel lanes across Bridge No. 2 and Bridge No. 3 which has already been included in "BR2-3" and "BR3-3".
RD-2	Move 4' Bike Lane to a 10' Multi-Use Trail from Front Street to the project terminus	\$2,024,131 (proposed)	Yes	This should be done.
RD-4	Consider pavement design alternatives regarding thickness build-ups	Design Suggestion	Yes	This should be done during plan development.
RD-5	Consider reducing the number of median openings and provide additional signals	Design Suggestion	Yes	This should be done during plan development.
RD-8	Coordinate Traffic Control Plan with "New Clark Street – local traffic only	Design Suggestion	Yes	This should be done during plan development.
RD-9	Verify the Norfolk and Southern Railroad is still an active line	Design Suggestion	Yes	This should be done during plan development.
RD-10	Consider using double Left Turn/U-Turn Signals to calm traffic	Design Suggestion	No	The turning movements do not warrant dual left turn lanes.

ALT No.	Description	Savings PW & LCC	Implement	Comments
RD-11	Redesign Radium Springs Road to decrease intersection angle	Design Suggestion	No	According to local Traffic Operations personnel, this intersection has had no significant complaints or issues. The existing skew angle is 81.95°.

A meeting was held on January 9, 2008 to discuss the above recommendations. Albert Shelby and Amos Jenkins, Jr. from Urban Design, and Ron Wishon and Lisa Myers with Engineering Services were in attendance.

The results above reflect the consensus of those in attendance and those who provided input.

Approved: Gerald M. Ross Date: January 28, 2008
Gerald M. Ross, P. E., Chief Engineer

BKS/REW

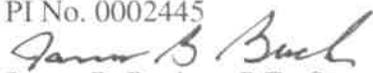
Attachments

- c: Gus Shanine
- Todd Long
- James Magnus
- Joe Cowan
- Brent Thomas
- Albert Shelby
- Amos Jenkins
- Amber Perkins
- Clayton Bennett
- Ken Werho
- Nabil M. Raad
- Ashlyn Morgan
- Lisa Myers

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE NHS-0002-00(445), Dougherty County **OFFICE** Urban Design
SR520 Business from Jefferson Street
To Thornton Drive
PI No. 0002445 **DATE** November 19, 2007

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

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

SUBJECT Value Engineering Study Report Responses

This office has received and reviewed the Value Engineering Study Final Report dated August 30, 2007. The study has developed ten alternative ideas and eleven design suggestions. The following are the alternatives and design suggestions with Urban Design's recommendations for each.

BRF-1: Provide separate new structures for pedestrians and bikes; modify design for six travel lanes. This will allow for a safe transition off of the bridge structure behind the existing archway and allow for the placement of guardrail on the trailing end of the bridge. Additionally the alternative addresses part of BRF-5's concerns. This alternative is recommended and will be implemented as a part of this project.

BRF-2: Provide a 10' multi-use trail in lieu of 10' sidewalk and 4' bike lane. The corridor was originally designated by the Office of Planning as a bicycle route because the bridge portions of the project were designated as needing bicycle provisions. Research found that S.R. 520 is located on neither the state nor regional bicycle networks. Since the bridges will have wider sidewalks to allow for bicycles off of the roadway, the bicycle lanes can be removed from the corridor. Therefore this alternate is not recommended, since a multi-use trail is not necessary in this corridor.

BRF-3: Provide a new bridge for the 100 year flood event. This design alternative would have a detrimental effect on existing and planned civic locations adjacent to the bridge, not limited to the Albany Archway and the proposed Ray Charles Plaza. This would prove counterproductive to the MPO and the City of Albany's downtown plan. Additionally, there is another project in the area; the proposed Clarke Avenue Extension that would provide the east-west connectivity during a 100-year flood event. This design alternative is not recommended as a part of this project.

BRF-5 Give consideration to possible negative effects of widening the bridge - it may increase its risk of floating. This design alternative would decrease the Level of Service of the SR 520/Front Street intersection by removing the needed left turn lane off of SR 520 onto Front Street as well as the right turn lane on to Front Street. Furthermore the speed design of the section (50 mph) requires that a median of at least 14' (10' raised) be used. This design alternative is not recommended as a part of this project. Additionally, Jefferson Street is the logical termini for the six lanes of traffic volume and this requires six lanes on the bridge.

BRF-6: Provide a "free right turn" onto Front Street. This design alternative is addressed with BRF-7.

BRF-7: Extend the Front Street right turn storage to top of bridge to decrease the potential for rear end collisions. The sight distance and storage improvement will potentially improve the operation of the intersection and eliminate the issue that design alternative BRF-6 addresses. This design alternative is recommended and will be implemented as a part of this project.

BR2-1 & BR3-1: Provide a single span bridge over railroad with walled abutments. This alternative is addressed with the response to design alternative BR2-5.

BR2-2 & BR 3-2: Combine bike lanes and sidewalks as a 10' multi-use trail with special markings. This design alternative is addressed with the response to BRF-2.

BR2-3 & BR3-3: Use a 14' median (10' raised) and 11' foot travel lanes. The speed limit for the roadway section east of Radium Springs Road is 55 mph. As per table 6.3 of the GDOT Design Standards for Arterial Roadways; this road section is classified as an Urban Arterial and as such all median widths in this section shall be at least 24' (16' raised). The use of 14' medians for this section is not recommended as a part of this project; the use of 11' foot travel lanes will be addressed with the response to RD-1

BR2-5: Combine BR2 and BR3 and construct one new bridge. The current bridge spans have the required 23' feet of clearance from the top of the highest track to the bottom of the bridge beams. If a longer bridge were to be constructed in the place of the two separate structures the longer spans may require deeper bridge beams and a raising of the proposed profile elevations to meet the required 23' of clearance for the rail lines. This design suggestion has a conditional recommendation; the condition being that if the longer spans do not require deeper beams and profile changes, the single bridge can be implemented as a part of this project.

VE responses page 3

P.I. 0002445

RD-1: Construct 11' travel lanes throughout the project. Reduction of travel lane width from 12' to 11' would reduce the amount of full-depth paving required. Also, 11' lanes east of Radium Springs Road would result in a more consistent typical section throughout the corridor. This alternative is recommended and will be implemented as a part of this project.

RD-2: Move 4' bike lanes to a 10' multi-use trail from Front Street to the project terminus. This design alternative is addressed with the response to BRF-2.

RD-4: Consider pavement design alternatives regarding thickness build-ups. No existing pavement evaluation has been done at this time. However, the current design intends to retain as much of the existing pavement as possible. This design alternative is recommended and will be implemented as a part of this project.

RD-5: Consider reducing the number of median openings and provide additional signals. A Signal Warrant Study is being requested from District 4 for the intersection of SR 520 and Sands Road. Additionally, the remaining openings between Radium Springs Road and Cason Street have been channelized for right-in movements only. This design alternative is recommended and will be implemented as a part of this project.

RD-8: Coordinate traffic control plan with "new Clark Avenue" "local traffic only"
The Project Manager will coordinate traffic control with other projects in the area. This design alternative is recommended and will be implemented as a part of this project.

RD-9: Verify the Norfolk Southern rail line is still an active line.
The Project Manager will verify if the line is in use. Preliminary discussions with the District have yet to clarify the use of the rail line. Continued coordination will clarify the issue before the preliminary bridge design is completed.

RD-10: Consider using double left turns/'u' turns at signals to calm traffic.

Jefferson Street @ SR 520 Business/ Oglethorpe Avenue

- The turning volumes do not warrant the double left turn lanes.

Jackson Street @ SR 520 Business/ Oglethorpe Avenue:

- Right-of-Way issues (i.e. the purchase of the Health & Human Services and City of Albany Police buildings) preclude double turn lanes at this intersection. Additionally, the turning volumes do not warrant the double left turn lanes.

Washington Street @ SR 520 Business/ Oglethorpe Avenue:

- Right-of-Way issues (i.e. the purchase of the Health & Human Services and City of Albany Police buildings) preclude double turn lanes at this intersection. Additionally, the turning volumes do not warrant the double left turn lanes.

VE responses page 4

P.I. 0002445

Front Street @ SR 520 Business/ Oglethorpe Avenue:

- Right-of-Way issues (i.e. the purchase of the Hilton Garden Inn and Albany Convention Center, addition Right-of-Way needed from the Albany Civic Center and impacts to the Ray Charles Plaza and Albany Arch) preclude double turn lanes at this intersection. Additionally, the turning volumes do not warrant the double left turn lanes.

Radium Springs Road @ SR 520 Business/ Oglethorpe Avenue

- This intersection has an existing double left turn on the southern approach of Radium Springs Road that will be maintained as a part of this project. None of the other left turn movements at this intersection warrant double turn lanes.

Cason Street @ SR 520 Business/ Oglethorpe Avenue

- The turning volumes do not warrant the double left turn lanes.

Thornton Drive @ SR 520 Business/ Oglethorpe Avenue

- The turning volumes do not warrant the double left turn lanes.

RD-11: Redesign Radium Springs Road to decrease intersection angle

Questions to both the City of Albany Traffic Operations and District 4 Traffic Operations have revealed that there have been no significant complaints or issues about the Radium Springs/ SR 520 Business intersection. The skew angle for this intersection is 81.95°. There have been 77 accidents in the last three years. There have been two fatalities and both resulted from a single head-on collision. This design alternative is not recommended and will not be implemented as a part of this project.

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