

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-0000-00(543), (544), (545), & (546) **OFFICE:** Engineering Services
STP-032-2(28) Brooks/Colquitt
P.I. Nos. 0000543, 0000544, 0000545, 0000546, & 431780
S.R. 133 Widening/Reconstruction

DATE: December 20, 2006

FROM:  Brian K. Summers, PE, State Project Review Engineer

TO: Babs Abubakari, PE, State Consultant Design and Program Delivery Engineer

**SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY
ALTERNATIVES**

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

ALT #	Description	Potential Savings/LCC	Implement	Comments
STP-0000-00(543)				
543-1	Construct only the first 3.7 miles through Troupville	\$8,272,625	No	Does not satisfy the Need and Purpose of the project.
543-3/4/5	Selectively eliminate median openings, left turn lanes and U-turn bump outs	\$96,479	Yes	This will be done.
543-6	Eliminate sidewalks (concrete only)	\$671,246	No	Does not satisfy current GDOT Policy.
543-7	Use a grass median in lieu of a concrete median	\$1,060,722	No	This project does not have many sections where the median width is consistently over 8 feet which is when grass medians could be used.
543-8	Minimize the extent of side road improvements	Design Suggestion	Yes	This will be done.
543-9	Use a five-lane section through Troupville from Augusta Drive to Fellowship Home Lane	\$1,652,706	Yes	The traffic on this corridor warrants a five lane section per current GDOT Policy.

**STP-0000-00(543), (544), (545), & (546) & STP-032-2(28) Brooks/Colquitt
Implementation of Value Engineering Study Alternatives
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ALT #	Description	Potential Savings/LCC	Implement	Comments
STP-0000-00(544)				
544-1	Construct only 1.45 miles of S.R. 133 from Lawson Pond Road to Old Quitman Road through the town of Morven	\$11,551,485	No	Does not satisfy the Need and Purpose of the project.
544-3/4/5	Selectively eliminate median openings, left turn lanes and U-turn bump outs	\$48,080	Yes	This will be done.
544-7	Use a five-lane section through Morven from Old Quitman Road to Lawson Pond Road	\$900,062	Yes	The traffic on this corridor warrants a five lane section per current GDOT Policy.
544-8	Cul-de-sac Hitch Road and eliminate intersection with S.R. 133	-\$26,648 (Cost Increase)	Yes	This will be done.
544-9	Use arch span structures in lieu of box culverts	\$210,021	Yes	This should be considered depending on survey of existing geotechnical conditions and costs.
544-10	Complete mainline railroad crossing prior to closing other city railroad crossings	Design Suggestion	Yes	This will be done.
STP-0000-00(545)				
545-1	Improve only two intersections: S.R. 133 @ S.R. 333 and S.R. 133 @ S.R. 26	\$32,898,183	No	Does not satisfy the Need and Purpose of the project.
545-2/3/4	Selectively eliminate median openings, left turn lanes and U-turn bump outs	Proposed \$310,031 Actual \$155,016	Yes	The median opening 1,450 feet north of Rock Hill Road can not be eliminated. The other one can be eliminated.
545-6	Use arch span structures in lieu of multi-cell box culverts	\$37,797	Yes	This should be considered depending on survey of existing geotechnical conditions and costs.
545-7	Use a 32 foot median section in lieu of a 44 foot median section to minimize wetland impacts near Berlin	\$40,623	No	Does not satisfy "GODT Policy Regarding Median Width Reduction for Minimization of Impacts to Wetlands" dated 2/5/98.
545-8	Use a grass median in lieu of a concrete median	\$1,557,131	Yes	This will be done.

**STP-0000-00(543), (544), (545), & (546) & STP-032-2(28) Brooks/Colquitt
 Implementation of Value Engineering Study Alternatives
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ALT #	Description	Potential Savings/LCC	Implement	Comments
STP-0000-00(546)				
546-1	Construct S.R. 133 through Berlin and the Eastern portion of Moultrie only	\$23,499,437	No	Does not satisfy the Need and Purpose of the project.
546-2/3/4	Selectively eliminate median openings, left turn lanes and U-turn bump outs	Proposed -\$32,301 (Cost Increase) Actual \$139,585	Yes	Actual cost savings are based on using a grass median in lieu of a concrete median. Four of the five median openings will be eliminated. The median opening at Sta. 360+00 can not be eliminated.
546-5	Eliminate sidewalks (concrete only)	\$169,915	No	Does not satisfy current GDOT Policy.
546-6	Use a grass median in lieu of concrete median	\$4,503,449	Yes	This will be done.
546-8	Use a five-lane section through the City of Berlin and Eastern Moultrie	\$82,258	Yes	This will be done.
546-9	Use arch span structures in lieu of multi-cell box culverts	-\$235,910 (Cost Increase)	No	Cost increase does not appear to justify using arch span structures.
546-10	Signalize South Vanderberg Drive entrance to airport (Spence Field)	-\$200,565 (Cost Increase)	No	Does not appear to meet Traffic Signal warrants.
STP-032-2(28)				
28-2/3	Selectively eliminate median openings, left turn lanes and U-turn bump outs	-\$2,426 (Cost Increase)	Yes	This will be done.
28-4	Eliminate sidewalks (concrete only)	\$1,114,135	No	Does not satisfy current GDOT Policy.
28-5	Use a grass median in lieu of concrete median	\$1,410,923	No	This project does not have many sections where the median width is consistently over 8 feet which is when grass medians could be used.
28-7	Use a five-lane section through East Moultrie from South Vanderberg Drive to the East Moultrie Bypass (S.R. 35)	\$954,136	Yes	This will be done.

STP-0000-00(543), (544), (545), & (546) & STP-032-2(28) Brooks/Colquitt
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ALT #	Description	Potential Savings/LCC	Implement	Comments
STP-032-2(28) - continued				
28-8	Provide new intersection at Quail Run and Sanderson Farms Chicken Plant and eliminate Old Moultrie-Adel Road/S.R. 133 intersection	-\$464,032 (Cost Increase)	No	This work will be done under another separate project.

A meeting was held on December 20, 2006 to discuss the above recommendations. David Norwood of Consultant Design and Ron Wishon, Lisa Myers and Brian Summers of Engineering Services were in attendance.

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

Approved:  Date: 12/20/06
 David E. Studstill, Jr., P. E., Chief Engineer

BKS/REW
 Attachments

- c: Gus Shanine
- James Magnus
- David Norwood
- Karyn Matthews
- Jack Muirhead
- Alexis John
- Nabil Raad
- Lisa Myers

The following are responses to the Value Engineering Study Report submitted to Wolverton & Associates Inc. on October 12, 2006 for the Widening of SR 133 from Troupville Road to the East Moultrie Bypass project. The intention of these responses are to provide rationale for accepting, rejecting, or modifying the Value Engineering proposals listed throughout the report. These responses reflect input from GDOT, Wolverton & Associates Inc., Columbia Engineering, Inc., Cranston Engineering Group, P.C. and Street Smarts.

Alternate Number

Description/Responses

Contract 543

543-1

Construct only the first 3.7 miles of SR 133 through Troupville

No. Recommendation does not meet the Need and Purpose of the project. State Route 133 is a major north-south corridor in South Georgia and provides a vital connection between Valdosta on the south with Albany to the north. For its entire length between Valdosta and Albany, SR 133 is identified for eventual widening due to its inclusion on the Governor's Road Improvement Program (GRIP). Project P.I. 0000543 proposes to widen SR 133 from 2 to 4 lanes (with turn lanes as needed) between CR 276/Troupeville Road and CR 10/Pauline Church Road.

543-3/4/5

Selectively eliminate median cuts, left turn lanes and U-turn bump outs

Yes. The median openings at Sta. 712+00, 797+00 and 818+00 can be eliminated.

Median opening at 712+00. This median opening can be eliminated to ensure the minimum distance between median openings in the urban section of the project. While this median opening does serve a county road, only 6 houses are located on Brookfield Drive and it can be accessed by either proceeding to the median opening at 722+00 and performing a u-turn or utilizing the interconnecting roads that are served by median openings at 706+00 and 722+00.

Median opening at 797+00. This median opening can be eliminated. It does not serve any existing access points on SR133 and the area can be accessed by performing a u-turn at the median openings located at 778+00 and 806+00.

Median opening at 818+00. This median opening can be eliminated. It does not serve any existing access points on SR133 and the area can be accessed by performing a u-turn at the median openings located at 806+00 and 832+00.

Closing any other median opening within the project area would significantly impact local residents and adversely affect access.

543-6

Eliminate sidewalks (concrete only)

No. Recommendation does not meet the GDOT Design Policy. Sidewalks will be provided wherever curb and gutter is utilized along the outside edges of pavement of the mainline roadway.

543-7

Use a grass median in lieu of a concrete median.

No. A raised median is proposed for the entire length of the project. Assuming that raised grass medians will only be used in areas where the median width from the back of the curb to the back of the curb exceeds 8 feet, very few areas can actually accommodate grassed medians. Final recommendation will be discussed in greater detail at the PFPR.

543-8

Minimize the extent of sideroad improvements

Yes. Horizontal and vertical alignments will be designed to meet the posted speeds for the sideroads improvements and every effort will be made to minimize construction impacts.

543-9

Use a five lane section through Troupville from Augusta Drive to Fellowship Home Lane.

No. The five lane section was investigated during the conceptual phase. Due to safety and access concerns, it was decided by the GDOT Preconstruction Engineer that the project will pursue the 20' raised median.

Contract 544

544-1

Construct only the 1.45 miles of SR 133 from Lawson pond Road to Old Quitman Road through the town of Morven

No. Recommendation does not meet the Need and Purpose of the project. State Route 133 is a major north-south corridor in South Georgia and provides a vital connection between Valdosta on the south with Albany to the north. For its entire length between Valdosta and Albany, SR 133 is identified for eventual widening due to its inclusion on the Governor's Road Improvement Program (GRIP). Project P.I. 0000544 proposes to widen SR 133 from 2 to 4 lanes (with turn lanes as needed) between CR 10/Pauline Church Road and Old Quitman Adel Road/ CR 1.

544-3/4/5

Selectively eliminate median cuts, left turn lanes and U-turn bump outs.

Yes. The median openings at Sta. 442+50 can be eliminated. Closing the median opening at this location will help improve safety and continuity of flow without significantly impacting local residents and adversely affecting access. Closing any other median opening within the project area would significantly impact local residents and adversely affect access.

544-7

Use a five lane section through Morven from Old Quitman Road to Lawson pond Road.

No. The five lane section was investigated during the conceptual phase. Due to safety and access concerns, it was decided by the GDOT Preconstruction Engineer that the project will pursue the 20' raised median.

544-8

Cul-de-sac Hitch Road and Eliminate intersection with SR 133.

Yes. The recommendation to cul-de-sac Hitch Road and eliminate the intersection with SR 133 will eliminate the skewed intersection and improve the overall safety and existing operational deficiencies of the intersection.

544-9

Use arch span structures in lieu of multi-cell box culverts

Possible. It has been GDOT's policy in the past to utilize arch span structures in north Georgia due to favorable soil conditions, i.e. rock. Soil conditions in south Georgia may not be as favorable to the use of arch span structures and may result in possible increased cost for pile foundations, etc.

The need for an arch span will be determined by a cost analysis, constructability investigation and a hydraulic analysis during the design phase.

544-10

Complete mainline railroad crossing prior to closing the other city railroad crossings.

Yes. A utility agreement will be coordinated between the railroad and GDOT during the design process.

Contract 545

545-1

Improve only two intersections: SR 133/SR 333 and S R 133/SR 256.

No. Recommendation does not meet the Need and Purpose of the project. State Route 133 is a major north-south corridor in South Georgia and provides a vital connection between Valdosta on the south with Albany to the north. For its entire length between Valdosta and Albany, SR 133 is identified for eventual widening due to its inclusion on the Governor's Road Improvement Program (GRIP). Project P.I. 0000545 proposes to widen SR 133 from 2 to 4 lanes (with turn lanes as needed) between Old Quitman Adel Road/ CR 1 in Brooks County and CR 256 in Colquitt County.

545-2/3/4

Selectively eliminate median cuts, left turn lanes and U-turn bump outs.

Yes. The median opening located 1,320 feet south of Old Berlin Road (SR 256) can be eliminated. Eliminating the median opening will help improve safety and continuity of flow without significantly impacting local residents and adversely affecting access. However, eliminating the median opening 1,450 feet north of Rock Hill Road may result in farm access issues for the adjacent properties. Final recommendation will be discussed in greater detail at the PFPR.

545-6

Use arch span structures in lieu of multi-cell box culverts

Possible. It has been GDOT's policy in the past to utilize arch span structures in north Georgia due to favorable soil conditions, i.e. rock. Soil conditions in south Georgia may not be as favorable to the use of arch span structures and may result in possible increased cost for pile foundations, etc.

The need for an arch span will be determined by a cost analysis, constructability investigation and a hydraulic analysis during the design phase.

545-7

Use a 32-foot median section in lieu of a 44-foot median section to minimize wetland impacts near Berlin.

No. Based on the "GDOT Policy Regarding Median Width Reduction for Minimization of Impacts to Wetlands" dated February 5, 1998, the total summation of the wetland impacts is less than 0.5 mile. The document states that "the area to be crossed is a single entity equal to or greater than 0.5 mile in width, or the total summation of the wetland areas to be crossed is equal to or greater than 0.5 mile in width when located within a 1.0 mile highway segment."

545-8

Use a grass median in lieu of a concrete median.

Yes. There are advantages to using grass medians. GDOT will pursue a local maintenance agreement with the District Office or the local government. Assuming that raised grass medians will only be used in areas where the median width from the back of the curb to the back of the curb exceeds 8 feet, it would not be practical to use grass due to the narrow width of the median at some locations. Specific areas that can be grassed will be determined during the design process. Final recommendation will be discussed in greater detail at the PFPR.

546-1

Construct SR 133 through Berlin and the Eastern portion of Moultrie only.

No. Recommendation does not meet the Need and Purpose of the project. State Route 133 is a major north-south corridor in South Georgia and provides a vital connection between Valdosta on the south with Albany to the north. For its entire length between Valdosta and Albany, SR 133 is identified for eventual widening due to its inclusion on the Governor's Road Improvement Program (GRIP). Project P.I. 0000546 proposes to widen SR 133 from 2 to 4 lanes (with turn lanes as needed) between CR 256 and CR 388 in Colquitt County.

546-2/3/4

Selectively eliminate median cuts, left turn lanes and U-turn bump outs.

Yes. The median openings at Sta. 162+00, 189+00, 239+00 and 405+50 can be eliminated. However, the median opening at Sta. 360+00 cannot be eliminated because it is located in a central location to serve as a farm vehicle access point for the adjacent parcels along S.R. 133.

Median opening at Sta. 162+00. This median opening can be eliminated. It does not serve any existing access points on S.R. 133 and the area can be accessed by performing a u-turn at the median openings located at 146+00 and 175+00.

Median opening at Sta. 189+00. This median opening can be eliminated. It does not serve any existing access points on S.R. 133 and the area can be accessed by performing a u-turn at the median openings located at 175+00 and 202+00.

Median opening at Sta. 239+00. This median opening can be eliminated. While this median opening does serve a driveway access point on S.R. 133, the area can be accessed by performing a u-turn at the median openings located at 225+50 and 258+50.

Median opening at Sta. 405+50. This median opening can be eliminated. While this median opening does serve a driveway access point on S.R. 133, the area can be accessed by performing a u-turn at the median openings located at 386+50 and 420+00.

Closing any other median opening within the project area would significantly impact local residents and adversely affect access.

546-5

Eliminate sidewalks (concrete only)

No. Recommendation does not meet the GDOT Design Policy. Sidewalks will be provided wherever curb and gutter is utilized along the outside edges of pavement of the mainline roadway.

546-6

Use a grass median in lieu of a concrete median.

Yes. There are advantages to using grass medians. GDOT will pursue a local maintenance agreement with the District Office or the local government. Assuming that raised grass medians will only be used in areas where the median width from the back of the curb to the back of the curb exceeds 8 feet, it would not be practical to use grass due to the narrow width of the median at some locations. Specific areas that can be grassed will be determined during the design process. Final recommendation will be discussed in greater detail at the PFPR.

546-8

Use a five lane section through the City of Berlin and East Moultrie.

No. The five lane section was investigated during the conceptual phase. Due to safety and access concerns, it was decided by the GDOT Preconstruction Engineer that the project will pursue the 20' raised median.

546-9

Use arch span structures in lieu of multi-cell box culverts

Possible. It has been GDOT's policy in the past to utilize arch span structures in north Georgia due to favorable soil conditions, i.e. rock. Soil conditions in south Georgia may not be as favorable to the use of arch span structures and may result in possible increased cost for pile foundations, etc.

The need for an arch span will be determined by a cost analysis, constructability investigation and a hydraulic analysis during the design phase.

546-10

Signalize South Vanderberg Drive entrance to airport (Spence Field)

No. Although traffic volumes peak during the Agricultural Expo each year, neither the average daily traffic volumes nor crash data meet the threshold to warrant a signalized intersection at South Vanderberg Drive and S.R. 133.

Contract 28

28-2/3

Selectively eliminate median cuts.

Yes. To minimize impacts to adjacent properties the median opening at 26th Street has been removed in place of the recommended median opening between 24th and 25th Street. If both median openings were eliminated, the result would be an undesirable distance of approximately 1900' between median openings in an urban setting.

Closing any other median opening within the project area would significantly impact local residents and adversely affect access.

28-4

Eliminate sidewalks (concrete only)

No. Recommendation does not meet the GDOT Design Policy. Sidewalks will be provided wherever curb and gutter is utilized along the outside edges of pavement of the mainline roadway.

28-5

Use a grass median in lieu of a concrete median.

No. A raised median is proposed for the entire length of the project. Assuming that raised grass medians will only be used in areas where the median width from the back of the curb to the back of the curb exceeds 8 feet, very few areas can actually accommodate grassed medians. Final recommendation will be discussed in greater detail at the PFPR.

28-7

Use a five lane section through East Moultrie from South Vanderberg Drive to the East Moultrie Bypass (SR 35)

No. The five lane section was investigated during the conceptual phase. Due to safety and access concerns, it was decided by the GDOT Preconstruction Engineer that the project will pursue the 20' raised median.

28-8

Provide new intersection at Quail Run and Sanderson Farms chicken plant and eliminate Old Moultrie/Adel Road/SR 133 intersection.

Possible. Final recommendation will be investigated during concept development of the safety improvement project CSSFT-0007-00(477).