



VALUE ENGINEERING REPORT

**Encore Parkway Streetscape & Big Creek Greenway Extension
North Fulton Community Improvement District
City of Alpharetta, Fulton County
PI No. 0010241**

August 3, 2011

PROJECT SPONSOR:



North Fulton C.I.D.
City of Alpharetta, Fulton County
11605 Haynes Bridge Rd., Ste. 100
Alpharetta, GA 30009

OWNER:



Georgia Department of Transportation
600 West Peachtree Street
Atlanta, GA 30308

VALUE ENGINEERING CONSULTANT:



AMEC E&I, Inc.
3200 Town Point Drive NW, Suite 100
Kennesaw, GA 30144

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North Fulton Community Improvement District
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PI No. 0010241

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EXECUTIVE SUMMARY

Executive Summary

VALUE ENGINEERING STUDY

**Encore Parkway Streetscape & Big Creek Greenway Extension
North Fulton Community Improvement District
PI No. 0010241
July 18-21, 2011**

Introduction

This report presents the results of a value engineering (VE) study conducted on the proposed design to reconstruct Encore Parkway from Westside Parkway to North Point Parkway in the City of Alpharetta. The original design would widen the 0.44-mile Encore Parkway, add bike lanes, add wide sidewalks, and replace the existing Encore Parkway Bridge over SR 400 with a new 400-foot structure that would carry both vehicular (2 lanes with a wide median) and pedestrian/bike traffic. The new bridge would be constructed wide enough to be reconfigured to 4-lanes with bike lanes when future traffic warrants. It will also accommodate future widening and managed lanes on SR 400, although currently, there are no specific planned or programmed SR 400 projects. The assumed future improvements to SR 400 include an additional general lane in each direction and HOV/HOT lanes and access.

The purpose of this project is to develop the corridor as a multimodal facility connecting the high density residential centers on the west side of SR 400 with the North Point Mall commercial area on the east side of SR 400. The multimodal facility is to include streetscaping, landscaping, dedicated bike lanes, wide sidewalks, and connect to the existing trailhead of Big Creek Greenway. These amenities will be paid for using LCI funds, however due to the total scope and cost of the project, additional funding sources will be required.

Major contract work items include bridge construction, roadway embankment, asphalt pavement, MSE walls, streetscaping, landscaping, sidewalks and bridge removal. The total estimated project cost including right-of-way (R/W) is \$11.9 million. The study took place July 18-21, 2011, at the Georgia DOT General Office in Atlanta, GA, using a four person VE team.

This report presents the Team's recommendations and all back-up information, for consideration by the decision-makers. This **Executive Summary** includes a brief description of each recommendation. The **Study Identification** section contains information about the project and the team. The **Recommendations** section presents a more detailed description and support information about each recommendation. The **Appendix** includes a complete record of the Team's activities and findings. The reader is encouraged to review all sections of the report in order to obtain a complete understanding of the VE process.

Considerations

The VE team was presented with several constraints to consider when developing their recommendations. The constraints were; the horizontal alignment of the bridge could not be moved, avoid impacting the stream located south of the Encore Parkway/North Point Parkway intersection, and accommodate the proposed streetscaping/landscaping for the project.

A draft Project Concept Report has been prepared. The environmental studies are underway to assist in the development of a Categorical Exclusion (CE) document. The CE document has not been started. This project requires a \$5 million LCI Grant with a local match to pay for the streetscaping, landscaping, pedestrian/bike improvements and includes \$1 million for aesthetic improvements at the bridge. Right-of-way acquisition is currently scheduled for early 2012 and construction is scheduled for late 2012.

Results Obtained

The VE team focused their efforts on the high cost items of the project. Through the use of functional analysis and “brain storming” techniques, the team generated 43 ideas with 29 being identified for additional evaluation as possible recommendations or design suggestions. The VE team developed 10 independent recommendations and 4 alternative recommendations. Implementation of the 10 independent recommendations has the potential to reduce the project cost by approximately \$5.45 - \$10.12 million. A detailed write-up of each recommendation is contained in the respective portion of this report. A summary of the recommendations follows.

Recommendation Highlights

Idea A-2: Construct a 12-foot multi-use path on the north side of Encore Parkway with a separate bridge over SR 400 just north of the existing Encore Parkway Bridge.

The original design would widen Encore Parkway, add bike lanes/sidewalks, and construct a new Encore Parkway Bridge over SR 400 including streetscaping and landscaping. The bridge would carry both vehicular (2 lanes with a wide median) and pedestrian/bike traffic and be constructed wide enough to be reconfigured to 4-lanes with bike lanes when future traffic warrants.

This recommendation would retain the existing Encore Parkway Bridge/Roadway and construct a separate parallel pedestrian/bike bridge and multi-use path between Westside Parkway and N. Point Parkway. The multi-use facility would be constructed in the open area on the north side of the road and cross SR 400 north of the existing bridge. This concept meets the project’s goal of developing the corridor as a multimodal facility connecting the high density residential centers on the west side of SR 400 with the North Point Mall commercial area on the east side of SR 400.

The VE concept provides the multimodal facility without the associated bridge length, possible HOV/HOT Interchange complications of crossing an unknown future SR 400 cross section

width. This concept would likely allow the multimodal facility; including streetscaping, landscaping, dedicated bike lanes, wide sidewalks, and Big Creek Greenway trailhead connection to be paid for from LCI funds which cannot be used for street improvements.

The total potential savings if accepted is \$5,974,000.

Idea A-2.1: Alternative to Idea A-2 Extend the Big Creek Greenwood multi-use path on a new alignment through the North Point Mall area and cross SR 400 about 2,000 feet north of the existing Encore Parkway Bridge.

The original design would widen Encore Parkway, add bike lanes/sidewalks, and construct a new Encore Parkway Bridge over SR 400 including streetscaping and landscaping. The bridge would carry both vehicular (2 lanes with a wide median) and pedestrian/bike traffic and be constructed wide enough to be reconfigured to 4-lanes with bike lanes when future traffic warrants.

This recommendation would realign and construct an entirely new multimodal pedestrian/bike facility. The realigned facility would start at the Big Creek Greenway trailhead parking area, follow North Point Parkway to its intersection with the North Point Mall entrance (Station 67+00), cross North Point Parkway and follow a new alignment through the mall/office park buffer area to a new crossing of SR 400 about 2,000 feet north of the Encore Parkway Bridge. On the west side of SR 400, the new path would follow the alignment of Calypso Drive/Fanfare Way and continue to the intersection of Westside Parkway and Maxwell Road.

This concept would construct the multi-use path along the existing wide buffer area south of the road between the North Point Mall and the two North Point Business centers to the south. The buffer area is wide enough to allow the construction of an 18-foot wide multi-use path with landscaping. Constructing the multi-use path through the Mall/Business Office area would provide a more direct connection, add additional destination points, potentially increase path usage, and provide better connectivity to the Big Creek Greenway Trailhead. This concept would likely allow the multimodal facility; including streetscaping, landscaping, dedicated bike lanes, wide sidewalks, and Big Creek Greenway trailhead connection to be paid for from LCI funds which cannot be used for street improvements

The total potential savings if accepted is \$6,758,000.

Idea A-2.2: Alternative to Idea A-2 Add bikes lanes and sidewalks to existing Encore Parkway and construct a new 3-lane bridge suitable for future widening.

The original design would widen Encore Parkway, add bike lanes/sidewalks, and construct a new Encore Parkway Bridge over SR 400 including streetscaping and landscaping. The bridge would carry both vehicular (2 lanes with a wide median) and pedestrian/bike traffic and be constructed wide enough to be reconfigured to 4-lanes with bike lanes when future traffic warrants.

This recommendation would add bike lanes and sidewalks to existing Encore Parkway and construct a new 3-lane bridge (2 through lanes, a center turn lane, and bike lanes) that could be

widened in the future when traffic warrants. This recommendation addresses the need and purpose for the project while constructing only the improvements needed at this time. It also includes provisions for future expansion of SR 400 when warranted.

The total potential savings if accepted is \$3,139,000.

Idea A-4: Eliminate the sixteen large internal planter boxes next to the sidewalk and reduce the width of the Encore Parkway Bridge.

The original design would construct sixteen (eight per side) large planter boxes on the bridge shoulder to provide a planting location for shrubs.

This recommendation would eliminate the sixteen large (6-foot wide) planter boxes from the bridge shoulders and reduce the width of the proposed new bridge. Removing the planter boxes from the bridge shoulders would reduce weight, eliminate the need for planter box drainage, eliminate plant maintenance, eliminate the need for plant irrigation on the shoulders, eliminate potential vehicle hang points (open areas between planters) and allow the bridge to be narrowed.

The total potential savings if accepted is \$600,000.

Idea A-4.1: Alternative to Idea A-4 Reduce the width of the sixteen large sidewalk planter boxes, attach them to the bridge parapets, and reduce the width of the Encore Parkway Bridge.

The original design would construct sixteen (eight per side) large planter boxes on the bridge shoulder to provide a planting location for shrubs.

This recommendation would eliminate the large 6-foot wide planter boxes from the bridge shoulders and construct smaller planter boxes integral with the bridge parapet. Reducing the size and shifting the planters to the side parapet would reduce weight, reduce planter box drainage, eliminate potential vehicle hang points (open areas between planters) and allow the bridge to be narrowed.

The total potential savings if accepted is \$300,000.

Idea A-7: Reduce the width of the Encore Parkway Bridge Pilasters and make them line-up with the inside part of the side parapet.

The original design proposes to construct wide pilasters on the bridge to add aesthetics, create room for benches and smaller pilasters along the side barrier/parapet of the bridge. The pilasters add approximately 2-feet to the bridge shoulder width.

This recommendation would reduce the large bridge pilaster approximately 1-foot to match the smaller pilasters or inside portion of the side parapet. Reducing the pilaster width allows the bridge width to be reduced. This concept reduces the cost of the new bridge without impacting its aesthetic value.

The total potential savings if accepted is \$80,000.

Idea A-11: Remove the eight large planter boxes from the median of the Encore Parkway Bridge and replace them with small boxes suitable for ground cover plants/flowers.

The original concept constructs median planter boxes with sufficient depth to contain “Muscogee” Crepe Myrtles in the median. The planter boxes will have a fieldstone wall finish and a wider top cap.

It is recommended the existing median width be maintained and the large planter boxes be removed and replaced with low level (18-inch) planter boxes. Installing shallower planter boxes would reduce the additional weight on the bridge and their lower volume of soil would require less drainage allowance due to less volume available to store water in the low level planters.

The total potential savings if accepted is \$40,000.

Idea A14: Reduce the length of the Encore Parkway Bridge by eliminating the 50-foot end spans.

The original design proposes a 4-span bridge with MSE vertical abutments. The proposed spans are 50 feet, 150 feet, 150 feet, and 50 feet. The center spans are sized to clear an undetermined future cross section of SR 400.

It is recommended the end spans be eliminated and to shift the original concept MSE walls toward the median of SR 400 to reduce the length of the bridge. The revised bridge will consist of two 150-foot spans for a total length of 300 feet. The end spans are not needed to clear traffic lanes or other features. Eliminating the end spans saves significant cost yet allow for architectural treatment of the center pier and the presence of the tiered abutment planter walls until such time that a future SR 400 widening may require them to be removed.

The total potential savings if accepted is \$1,000,000.

Idea A-18: Reduce the width of the Encore Parkway Bridge by adding pedestrian plazas at the ends of the bridge in-lieu-of placing benches and wide shoulder areas on the bridge.

The Original design would construct a 105-foot wide bridge. This width includes 35 feet to accommodate the parapets, pilaster drift, sidewalks, planters, and curb & gutters. The wide shoulder areas provide aesthetic and pedestrian friendly features.

This recommendation would reduce the bridge width to 93 feet by relocating/expanding many of the aesthetic and pedestrian friendly features to pedestrian plazas at the four corners of the bridge. The VE concept concentrates the pedestrian friendly features to “gathering points” at the four corners of the bridge and would provide a larger total area than the linear areas on the bridge. The larger area allows for additional features (benches, tables, gazebos, additional walls, large scale landscaping, fountains, etc.), to be added to these areas at a lower construction cost and with less maintenance.

The total potential savings if accepted is \$400,000.

Idea B-7: Construct the Big Creek connector multi-use path alongside the existing entrance road wall (SW side) and reduce the width of the entrance road or shift the entrance road to the NE.

The original design would construct the new multi-use trail through the parking area adjacent to the Big Creek access driveway acquiring additional right of way and using retaining walls.

This recommendation would construct the multi-use path on the right side of the Big Creek access driveway. This concept uses the available space along the existing 30-foot wide access driveway to include the 8-foot wide multi-use trail and eliminates the costly R/W acquisition and encroachment into the adjacent parking area.

The total potential savings if accepted is \$138,000.

Idea D-1: Lower the Encore Parkway profile between Station 103+50 and Station 113+00.

The original Encore Parkway profile between Station 103 and Station 113 provides between 22-25 feet of vertical clearance over SR 400.

This recommendation would lower the Encore Parkway profile between Station 103 and Station 113 to provide a minimum vertical clearance over SR 400 of 17 +/- feet. Lowering the profile would reduce the 9 % grade on the NE side of the bridge and reduce several project elements including earthwork, pavement construction, retaining walls, and R/W impacts.

The total potential savings if accepted is \$110,000.

Idea O-1: Construct 5-foot sidewalks along both sides of the roadway in-lieu-of 8-foot sidewalks.

The original design proposes to construct 8-foot wide concrete sidewalks on both shoulders. The proposed sidewalks are 4 inches thick on 6 inches of GAB within an 18-foot graded shoulder.

This recommendation would reduce the 8-foot wide concrete sidewalks to 5-foot wide concrete sidewalks. A 5-foot sidewalk width is adequate for pedestrians since bicycles will use the proposed bike lanes.

The total potential savings if accepted is \$44,000.

Idea O-1.1: Alternative to Idea O-1 Construct a 12-foot multi-use path on the north side of Encore Parkway, a 5-foot sidewalk on the south side of the parkway, and eliminate the bike lanes in the roadway.

The original design proposes to construct 8-foot wide concrete sidewalks on both shoulders. The proposed sidewalks are 4 inches thick on 6 inches of GAB within an 18-foot graded shoulder. The original design also includes 6-foot bike lanes (future 4-foot bike lane) on both sides of the roadway.

This recommendation would construct a 12-foot concrete multi-use path on the north side of Encore Parkway and a 5-foot concrete sidewalk on the south side of Encore Parkway. This concept would also remove the proposed bike lanes from Encore Parkway.

Shifting the bicyclists to the multi-use path allows the bike lanes to be removed from Encore Parkway since they do not connect to any other bike lanes. This concept requires the north side shoulder of the new Encore Parkway Bridge over SR 400 to be widened to accommodate a 10-foot multi-use path.

The total potential savings if accepted is \$194,000.

Idea O-4: Eliminate the 6-inch GAB under the sidewalks

The original design includes the placement of 6 inches of GAB under the sidewalks.

This recommendation would eliminate the 6 inches of GAB under the sidewalk. The placement of GAB material under sidewalks is not a normal practice and is unnecessary.

The total potential savings if accepted is \$42,000.

Project – Encore Parkway Streetscape & Big Creek Greenway Extension

SUMMARY OF POTENTIAL COST SAVINGS

ITEM No.	CREATIVE IDEA DESCRIPTION	ORIGINAL INITIAL COST	PROPOSED INITIAL COST	INITIAL COST SAVINGS	FUTURE SAVINGS	TOTAL LIFE CYCLE SAVINGS
	RECOMMENDATIONS					
A-2	Construct a 12-foot multi-use path on the north side of Encore Parkway with a separate bridge over SR 400 just north of the existing Encore Parkway Bridge.	\$8,438,000	\$2,464,000	\$5,974,000	N/A	\$5,974,000
A-2.1	<u>Alternative to Idea A-2</u> Extend the Big Creek Greenwood multi-use path on a new alignment through the North Point Mall area and cross SR 400 about 2,000 feet north of the existing Encore Parkway Bridge.	\$11,884,000	\$5,126,000	\$6,758,000	N/A	\$6,758,000
A-2.2	<u>Alternative to Idea A-2</u> Add bikes lanes and sidewalks to existing Encore Parkway and construct a new 3-lane bridge suitable for future widening.	\$5,955,000	\$2,816,000	\$3,139,000	N/A	\$3,139,000
A-4	Eliminate the sixteen large internal planter boxes next to the sidewalk and reduce the width of the Encore Parkway Bridge.	\$600,000	\$0	\$600,000	N/A	\$600,000
A-4.1	<u>Alternative to Idea A-4</u> Reduce the width of the sixteen large sidewalk planter boxes, attach them to the parapets, and reduce the width of the Encore Parkway Bridge.	\$300,000	\$0	\$300,000	N/A	\$300,000

Project – Encore Parkway Streetscape & Big Creek Greenway Extension

SUMMARY OF POTENTIAL COST SAVINGS

ITEM No.	CREATIVE IDEA DESCRIPTION	ORIGINAL INITIAL COST	PROPOSED INITIAL COST	INITIAL COST SAVINGS	FUTURE SAVINGS	TOTAL LIFE CYCLE SAVINGS
A-7	Reduce the width of the Encore Parkway Bridge pilasters and make them line-up with the inside part of the side parapet.	\$4,200,000	\$4,120,000	\$80,000	N/A	\$80,000
A-11	Remove the eight large planter boxes from the median of the Encore Parkway Bridge and replace them with small boxes suitable for ground cover plants/flowers.	\$80,000	\$40,000	\$40,000	N/A	\$40,000
A-14	Reduce the length of the Encore Parkway Bridge by eliminating the 50-foot end spans.	\$4,400,000	\$3,400,000	\$1,000,000	N/A	\$1,000,000
A-18	Reduce the width of the Encore Parkway Bridge by adding pedestrian plazas at the ends of the bridge in-lieu-of placing benches and wide shoulder areas on the bridge.	\$5,400,000	\$5,000,000	\$400,000	N/A	\$400,000
B-7	Construct the Big Creek connector multi-use path alongside the existing entrance road wall (SW side) and reduce the width of the entrance road or shift the entrance road to the NE	\$186,000	\$48,000	\$138,000	N/A	\$138,000
D-1	Lower the Encore Parkway profile between Station 103+50 and Station 113+00.	\$118,000	\$8,000	\$110,000	N/A	\$110,000
O-1	Construct 5-foot sidewalks along both sides of Encore Parkway in-lieu-of 8-foot sidewalks.	\$117,000	\$73,000	\$44,000	N/A	\$44,000

Project – Encore Parkway Streetscape & Big Creek Greenway Extension

SUMMARY OF POTENTIAL COST SAVINGS

ITEM No.	CREATIVE IDEA DESCRIPTION	ORIGINAL INITIAL COST	PROPOSED INITIAL COST	INITIAL COST SAVINGS	FUTURE SAVINGS	TOTAL LIFE CYCLE SAVINGS
O-1.1	Alternative to Idea O-1 Construct a 12-foot multi-use path on the north side of Encore Parkway, a 5-foot sidewalk on the south side of the parkway, and eliminate the bike lanes in the roadway.	\$4,358,000	\$4,164,000	\$194,000	N/A	\$194,000
O-4	Eliminate the 6-inch GAB under the sidewalks	\$42,000	\$0	\$42,000	N/A	\$42,000

STUDY IDENTIFICATION

Study Identification

Project: Encore Parkway Streetscape & Big Creek Greenway Extension	Date: July 18-21, 2011
Location: City of Alpharetta, Georgia	

VE Team Members

Name:	Title:	Organization:	Telephone:
George Obaranec PE, AVS	Highway Design	AMEC	770-421-3346
Greg Grant PE	Structures	RS&H	678-528-7229
Jeff VanDyke PE	Highway Design	RS&H	678-528-7234
Keith Borkenhagen PE, CVS	VE Team Facilitator	AMEC	623-556-1875

Project Description

This project would reconstruct Encore Parkway from Westside Parkway to North Point Parkway in the City of Alpharetta. The reconstruction would widen the 0.44-mile Encore Parkway, add bike lanes, add wide sidewalks, and replace the existing Encore Parkway Bridge over SR 400 with a new 400-foot structure that would carry both vehicular (2 lanes with a wide median) and pedestrian/bike traffic. The new bridge would be constructed wide enough to be reconfigured to 4-lanes with bike lanes when future traffic warrants and will accommodate future widening and managed lanes on SR 400. Major contract work items include bridge construction, roadway embankment, asphalt pavement, MSE walls, streetscaping, landscaping, sidewalks and bridge removal. The total estimated project cost including right-of-way (R/W) is \$11.9 million.

Conditions/Constraints

The VE team was presented with the following conditions/constraints to consider when developing their recommendations:

- the horizontal alignment of the bridge could not be moved,
- to avoid impacting the stream located south of the Encore Parkway/North Point Parkway intersection, and
- to accommodate the proposed streetscaping/landscaping for the project.

Project Briefing

The VE team received a project briefing by Keith Kunst, PE of Arcadis and Robert Hughes, PE, GDOT Project Manager. The following comments were presented:

- The purpose of the project is to construct a corridor for multimodal (bike/pedestrian) transportation between the Verizon Amphitheater/residential community on the west side of SR 400 and the North Point Mall Commercial/Office area on the east side of SR 400. The bike/pedestrian facility will also tie into the Big Creek Greenway trailhead.
- The City of Alpharetta wants a pedestrian facility from the Big Creek Greenway trailhead to the Verizon Amphitheater.
- The proposed project will reconstruct/widen Encore Parkway, add bike lanes and sidewalks, add streetscaping and landscaping, and replace the Encore Parkway Bridge over SR 400. The upgrade will initially include a two lane roadway with a center turn lane, bike lanes, and sidewalks. It will ultimately become a four-lane roadway with left turn bays, bike lanes and sidewalks when traffic warrants.
- This project has \$5 million in LCI grants with local matching funds to pay for the streetscaping/landscaping and bike/pedestrian facilities. \$1,000,000 has been allocated to add aesthetic improvements to the new Encore Parkway Bridge over SR 400. Additional funding sources will have to be identified for the remainder of the project.
- The length of the new bridge is being designed to accommodate the ultimate build-out of SR 400, include HOV/HOT multi-use lanes and possible MARTA expansion. The proposed bridge will be 400 feet long.
- The new bridge is being designed to accommodate SR 400 HOV/HOT access ramps.
- The multi-use path is being placed on the right side of North Point Parkway to connect with the Big Creek Greenhead trailhead. The multi-use path can be placed within the existing North Point Parkway R/W. This will help minimize stream impacts on the south side of the road.
- The connection to the trailhead will go through the parking lot adjacent to the trailhead entrance driveway.

Figure 1: Project Location

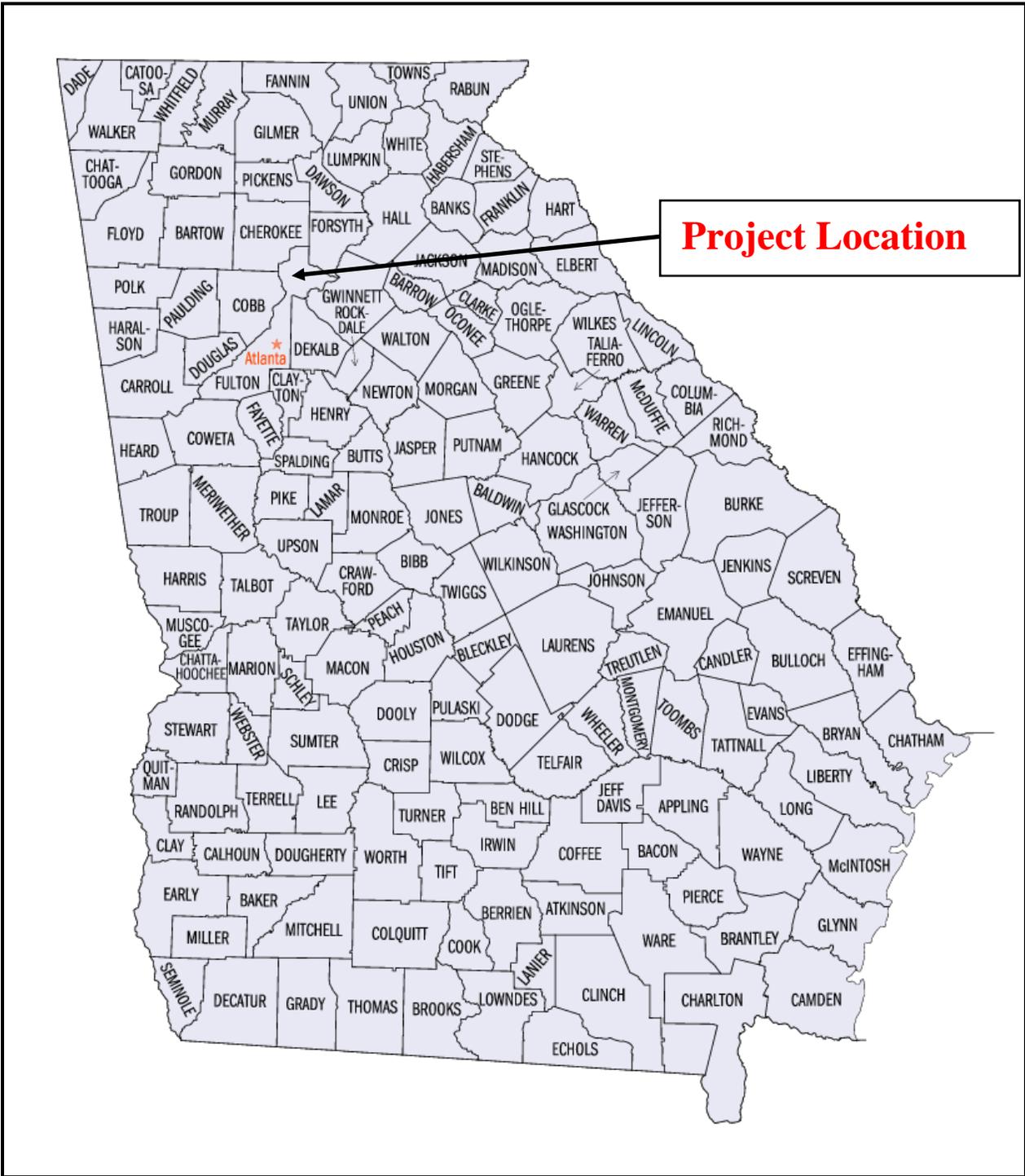
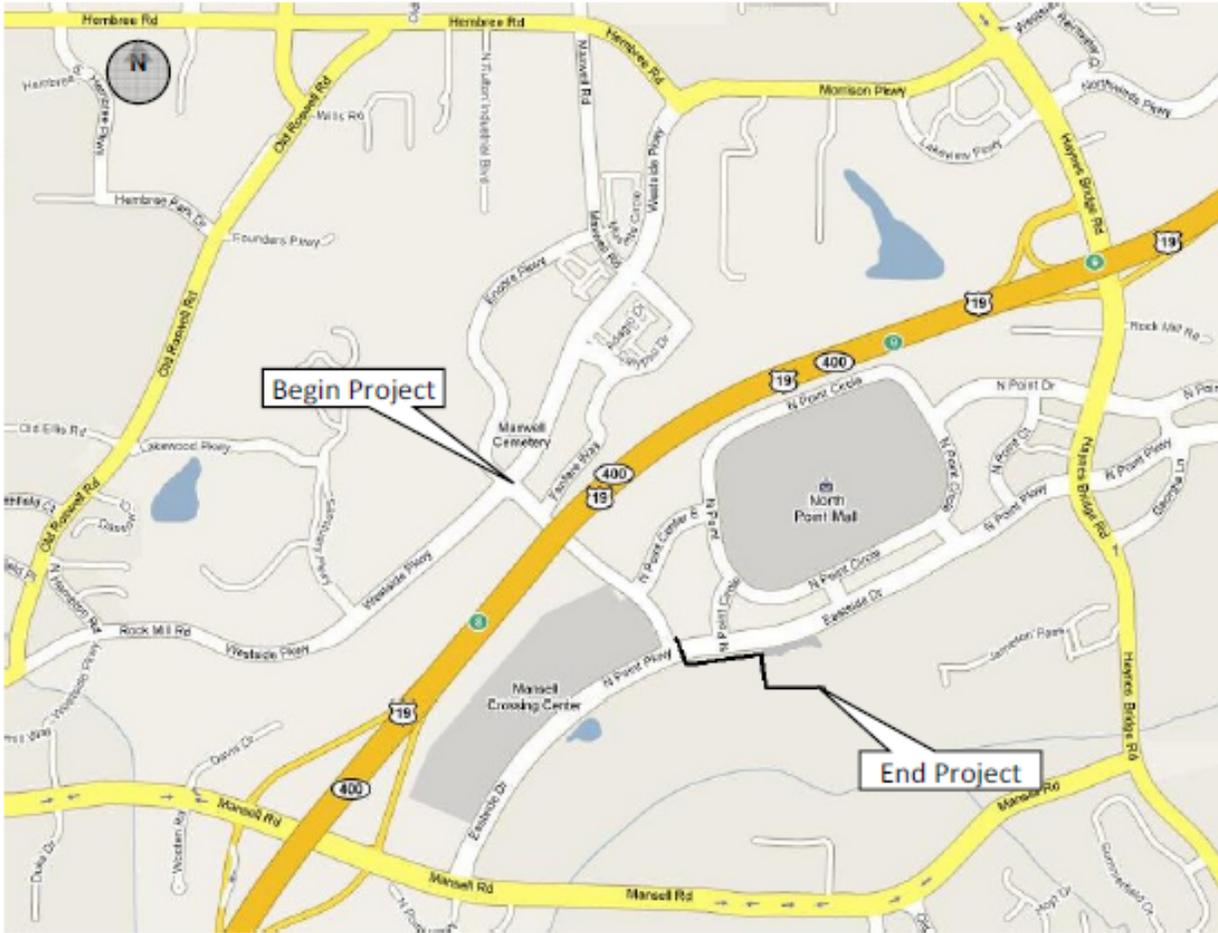


Figure 2: Project Sketch Map

Not to Scale



VE RECOMMENDATIONS

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
A-2

Sheet No.:
1 of 7

CREATIVE IDEA: Construct a 12-foot multi-use path on the north side of Encore Parkway with a separate bridge over SR 400 north of the existing Encore Parkway Bridge.

Comp By: G.C.G. Date: 7/19/2011 Checked By: K.B. Date: 7/25/2011

Original Concept: The original design concept reconstructs the existing Encore Parkway Bridge to carry both vehicular (2 lanes with a wide median) and pedestrian/bike traffic. The new bridge would be wide enough to be reconfigured to 4-lanes with bike lanes when future traffic warrants. This concept also widens Encore Parkway, adds bike lanes to the parkway, and adds sidewalks.

Proposed Change: This recommendation would retain the existing Encore Parkway Bridge/Roadway and construct a separate parallel pedestrian/bike bridge and multi-use path between Westside Parkway and N. Point Parkway. The multi-use facility would be constructed in the open area on the north side of the parkway and cross SR 400 north of the existing bridge.

Justification: The stated need and purpose of this project is to develop the corridor as a multimodal facility connecting the high density residential centers on the west side of SR 400 with the North Point Mall Commercial area on the east side of SR 400. The multimodal facility is to include streetscaping, landscaping, dedicated bike lanes, wide sidewalks, and connect to the existing trailhead of Big Creek Greenway. These amenities will be paid for using LCI funds which cannot be used for street improvements, therefore requiring other funding sources to be secured to pay for the additional roadway/bridge improvements.

This VE concept provides for the needed multimodal facility without the additional roadway/bridge improvements contained in the original design. An additional issue of the Encore Parkway Bridge/Multimodal facility crossing SR 400 is the fact that the future cross section of SR 400 is unknown at this time. Several projects are planned and others are speculated for the area, but the timing and configuration of these projects is unknown. With this uncertainty, the original design approach is to determine the worst case scenario and design a long bridge to meet that scenario. Doing so has created main span lengths of 150 feet (Total Bridge length of 400 feet with spans of 50 feet, 150 feet, 150 feet, and 50 feet).

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$8,438,000		
Proposed	\$2,464,000		
Savings	\$5,974,000		\$5,974,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$5,974,000

CONTINUATION

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-2
Client: City of Alpharetta/GDOT
Sheet 2 of 7

The VE concept maintains the existing Encore Parkway Bridge/Roadway as is and constructs a separate multi-use path on the north side of the existing parkway with its own multi-use path bridge across SR 400 (north side of the existing bridge). This concept meets the need and purpose of the project, could be constructed using only LCI funds, and eliminates the need to secure other funding to widen the existing parkway/bridge until such time as traffic warrants and the future cross section of SR 400 is determined.

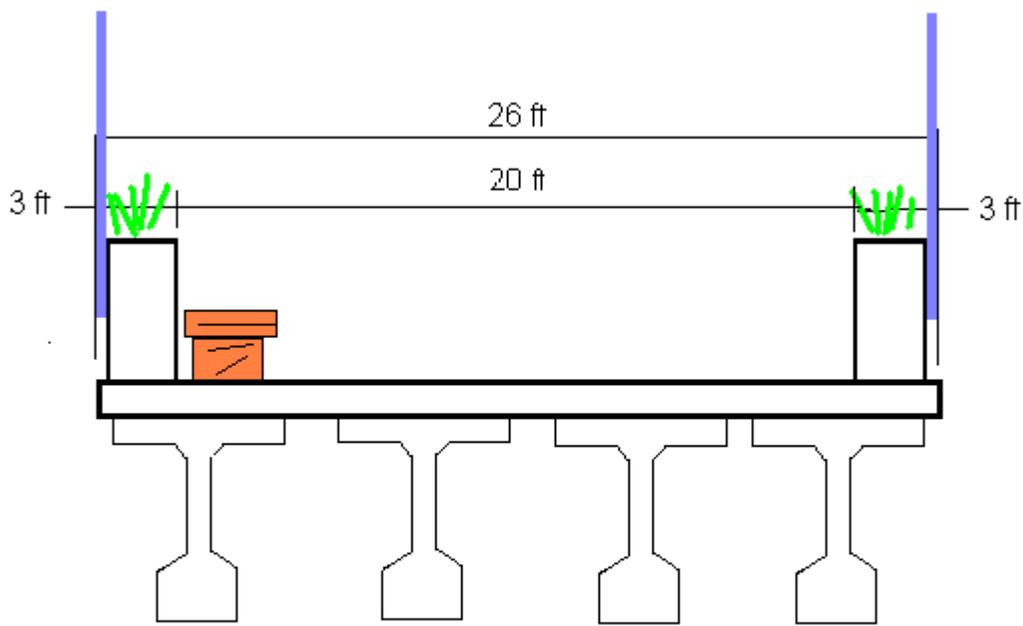
Constructing a parallel multi-use bridge on the north side of the existing bridge could impact future widening and roadway improvements on Encore Parkway. This could potentially require reconstructing the bridge to provide the complete scope of improvements required for Encore Parkway. For this reason consideration should be given to constructing the multi-use path bridge as a prefabricated bridge so it can be removed and reused/relocated.

SKETCH

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-2
Client: City of Alpharetta/GDOT
Sheet 3 of 7

Typical Crosssection of Multi-Use Path Bridge (Could incorporate planters, benches, arbors, etc.)



Bridge is comprised of 4 – 72” Bulb T prestressed concrete beams with CIP concrete deck.
3 foot allowance for side parapets.

COST WORKSHEET

Project: Encore Parkway Streetscape & Big Creek Greenway Extension					Idea No.: A-2 Client: City of Alpharetta/ GDOT Sheet 4 of 7		
					CONSTRUCTION ELEMENT		ORIGINAL ESTIMATE
Item	Unit	No. Units	Cost/Unit	Total Cost	No. Units	Cost/Unit	Total Cost
Original Design:							
Removal of Existing Bridge	C Est			\$250,000			
Bridge Complete	SF	42,000	\$100	\$4,200,000			
MSE Walls 20-30 FT	SF	7,700	\$40	\$308,000			
Bridge Landscaping allowance	C Est	1		\$1,200,000			
Grading Complete	C Est	1		\$1,100,000			
Asphalt Pavement	C Est	1		\$468,000			
Traffic Signals, Markings, etc.	C Est	1		\$444,000			
Tennessee Field Stone	C Est	1		\$262,000			
Concrete Sidewalk	C Est	1		\$110,000			
Concrete Curb & Gutter	C Est	1		\$96,000			
VE Design:							
Pedestrian Bridge (400 X 26)	SF				10,400	\$150	\$1,560,000
Bridge Landscaping allowance	LS				1		\$400,000
MSE Walls 20-30 ft	LS				4,600	\$40	\$185,600
12' Pedestrian/Bike Trail	SY				2,533	\$25.00	\$63,325
6" GAB	SY				2,533	\$9.54	\$24,165
Grading Complete	LS				1		\$100,000
Asphalt Pavement	LS				0		\$0
Traffic Signals, Markings, etc.	LS				0		\$0
Tennessee Field Stone	LS				1/2		\$131,000
SUBTOTAL							
				\$8,438,000			\$2,464,090
TOTAL ROUNDED							
				\$8,438,000			\$2,464,000

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-2
 Client: City of Alpharetta/GDOT
 Sheet 5 of 7

Width of Pedestrian Bridge - Proposed

3 ft allowance for left parapet
 10 ft sidewalk
 10 ft bike lane
 3 ft allowance for right parapet

 26 ft

Width of MSE Wall - Original

Bridge Width 105 ft
 Distance along wall beyond bridge 24 ft total (each side)

MSE Walls

	Length	height	Area
	153	20	3060
0.5	40	20	400
0.5	40	20	400
			3860
		x	2
	total area		7720

Under Bridge
 side slope left
 side slope right
 total area 1 side

	7700
cost per sq ft	\$ 40.00
total area	\$ 308,800.00

Pedestrian/Bike Path on North Side of Encore Parkway to connect to Pedestrian Bridge:

Concrete Path = 12 ft x 1,900 ft = 22,800 SF/9 = 2,533 SY @ \$25.00 = \$63,325

GAB under concrete path = 2,533 SY @ \$9.54 = \$24,165

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-2
 Client: City of Alpharetta/GDOT
 Sheet 6 of 7

Width of MSE Wall - Proposed

Bridge Width 28 ft
 Distance along wall beyond bridge 24 ft total (each side)

MSE Walls

	Length	height	Area
	76	20	1520
0.5	40	20	400
0.5	40	20	400
			2320
		x	2

Under Bridge
 side slope left
 side slope right
 total area 1 side

total area 4640

	4600
cost per sq ft	\$ 40.00
total area	\$ 185,600.00

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-2
Client: City of Alpharetta/GDOT
Sheet 7 of 7

VE Team Assumed Bridge Landscaping Breakout

Bridge Landscaping Estimate

\$1,200,000.00

Item	Sides	Length	Cost/ft	Cost
Fencing	2	400	\$200.00	\$160,000.00
Arbor	2	400	\$200.00	\$160,000.00
planters on the side walk	2	400	\$100.00	\$80,000.00
planters in the median	1	400	\$200.00	\$80,000.00
stone on parapet	2	400	\$200.00	\$160,000.00
Large Pilasters	2	3	\$5,000.00	\$30,000.00
small pilasters	2	6	\$1,000.00	\$12,000.00
benches on bridge	2	8	\$500.00	\$8,000.00

	Columns	Width	Height	ST Cost x 2 sides	
decorative columns	3	110	10	\$200.00	\$220,000.00
misc					\$60,800.00
	sides	length	height	SF Cost	
staining superstructure	2	400	8	\$10.00	\$50,000.00
walls beneath bridge	Sides	Length	Height	CF Cost	
Fill	2	140	16	\$10.00	\$44,800.00
	sides	length	height	SF Cost	
wall 1	2	120	4	\$40.00	\$38,400.00
wall 2	2	140	4	\$40.00	\$44,800.00
wall 3	2	160	4	\$40.00	\$51,200.00
					\$1,200,000.00

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.: A-2.1	Sheet No.: 1 of 6	CREATIVE IDEA: Extend the Big Creek Greenwood pedestrian/bike path on a new alignment through the North Point Mall area and cross SR 400 north of the existing Encore Parkway Bridge.
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Comp By: G.A.O. Date: 7/18/2011 Checked By: K.B. Date: 7/25/2011

Original Concept: The original design to provide multimodal (pedestrian/bike) connectivity from the west side of SR 400, through the North Point Commercial area, and connect to the trailhead of Big Creek Greenwood would construct pedestrian and bike lane improvements on Encore Parkway. This design widens Encore Parkway (ultimate 4-lanes), adds bicycle lanes, adds 8-foot sidewalks on both sides, and replaces the existing Encore Parkway Bridge to carry both vehicular (2 lanes with a wide median) and pedestrian/bike traffic. The new bridge would be reconfigured to 4-lanes when future traffic warrants and would accommodate future widening and managed lanes on SR 400.

Proposed Change: This recommendation would realign the multimodal pedestrian/bike facility. The realigned facility would start at the Big Creek Greenway trailhead parking area, follow North Point Parkway to its intersection with the North Point Mall entrance (Station 67+00), cross North Point Parkway and follow a new alignment through the mall/office park buffer area to a new crossing of SR 400 about 2,000 feet north of the Encore Parkway Bridge. On the west side of SR 400, the new path would follow the alignment of Calypso Drive/Fanfare Way and continue to the intersection of Westside Parkway and Maxwell Road. This alignment is the recommended one based on the VE Team's review of the current conditions. Minor adjustments can be incorporated and still provide similar benefits.

Justification: The stated need and purpose of this project is to develop the corridor as a multimodal facility connecting the high density residential centers on the west side of SR 400 with the North Point Mall Commercial area on the east side of SR 400. The multimodal facility is to include streetscaping, landscaping, dedicated bike lanes, wide sidewalks, and connect to the existing trailhead of Big Creek Greenway. These amenities will be paid for using LCI funds which cannot be used for street improvements, therefore requiring other funding sources to be secured to pay for the additional roadway/bridge improvements.

The VE recommended alignment provides for the needed multimodal connectivity in a more direct alignment than the Encore Parkway alignment. Constructing a new multi-use path

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$11,884,000		
Proposed	\$5,126,000		
Savings	\$6,758,000		\$6,758,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$6,758,000

CONTINUATION

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-2.1
Client: City of Alpharetta/GDOT
Sheet 2 of 6

bridge over SR 400 north of the existing Encore Parkway crossing brings the new path closer to the Mall area shops, business office buildings, and the residential area surrounding the Verizon Amphitheater. This concept meets the need and purpose of the project and could be constructed using only the available LCI funds.

This concept allows the existing Encore Parkway crossing of SR 400 to remain in its current configuration while allowing for its future widening to 4-lanes at such time as new development or standard traffic growth warrants its expansion. Delaying the reconstruction of the Encore Parkway Bridge over SR 400 would provide time to develop a more economical design since the future cross section of SR 400 is unknown at this time. Several projects are planned and others are speculated for the area, but the timing and configuration of these projects is unknown. With this uncertainty, the original bridge design approach is to determine the worst case scenario and design a long bridge to meet that scenario. Doing so has created main span lengths of 150 feet (Total Bridge length of 400 feet with spans of 50 feet, 150 feet, 150 feet, and 50 feet).

This concept would construct the multi-use path along the existing buffer area south of the road between the North Point Mall and the two North Point Business centers to the south. This buffer area is wide enough to allow the construction of an 18-foot wide multi-use path with landscaping. The path would be 6-inch thick concrete. The multi-use path would cross SR 400 on a new 20-foot wide bridge that would also be wide enough for streetscape amenities.

Constructing the multi-use path through the Mall/Business Office area would potentially increase path usage; provide better connectivity, and a better extension of the Big Greenway Trailhead. Placing the path through this area will also add additional points of destination including the North Point Mall, business offices and the Verizon Amphitheater.

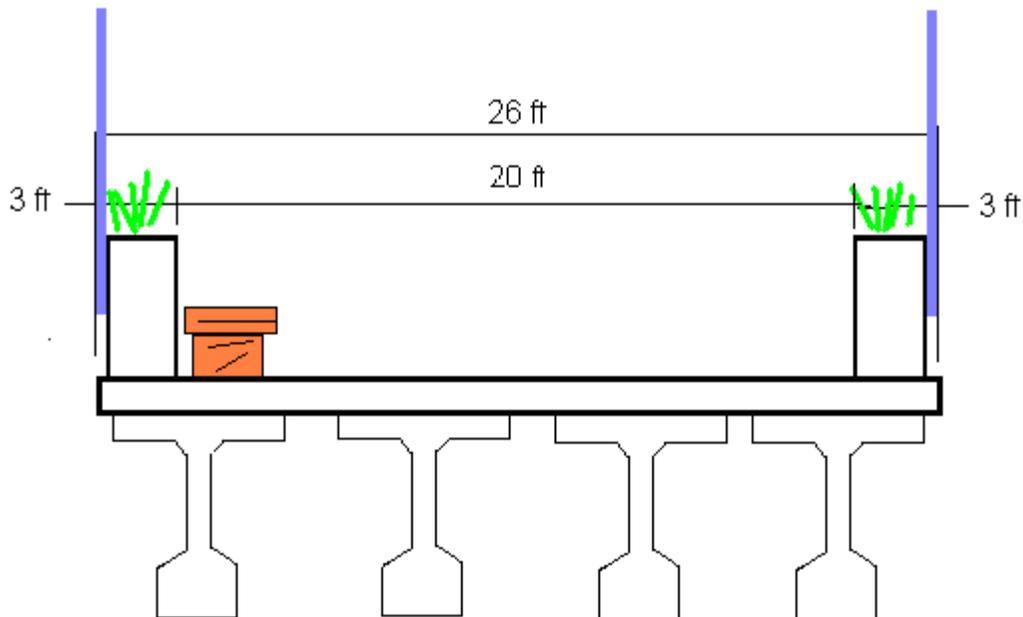
Additional cost savings can be realized if some of the R/W could be donated rather than purchased.

SKETCH

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-2.1
Client: City of Alpharetta/GDOT
Sheet 3 of 6

Typical Crosssection of Multi-Use Path Bridge (Could incorporate planters, benches, arbors, etc.)



Bridge is comprised of 4 – 72” Bulb T prestressed concrete beams with CIP concrete deck.
3 foot allowance for side parapets.

SKETCH

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-2.1
Client: City of Alpharetta/GDOT
Sheet 3 of 6

Relocated Multi-Use Path through Mall/Office Complex Buffer Area

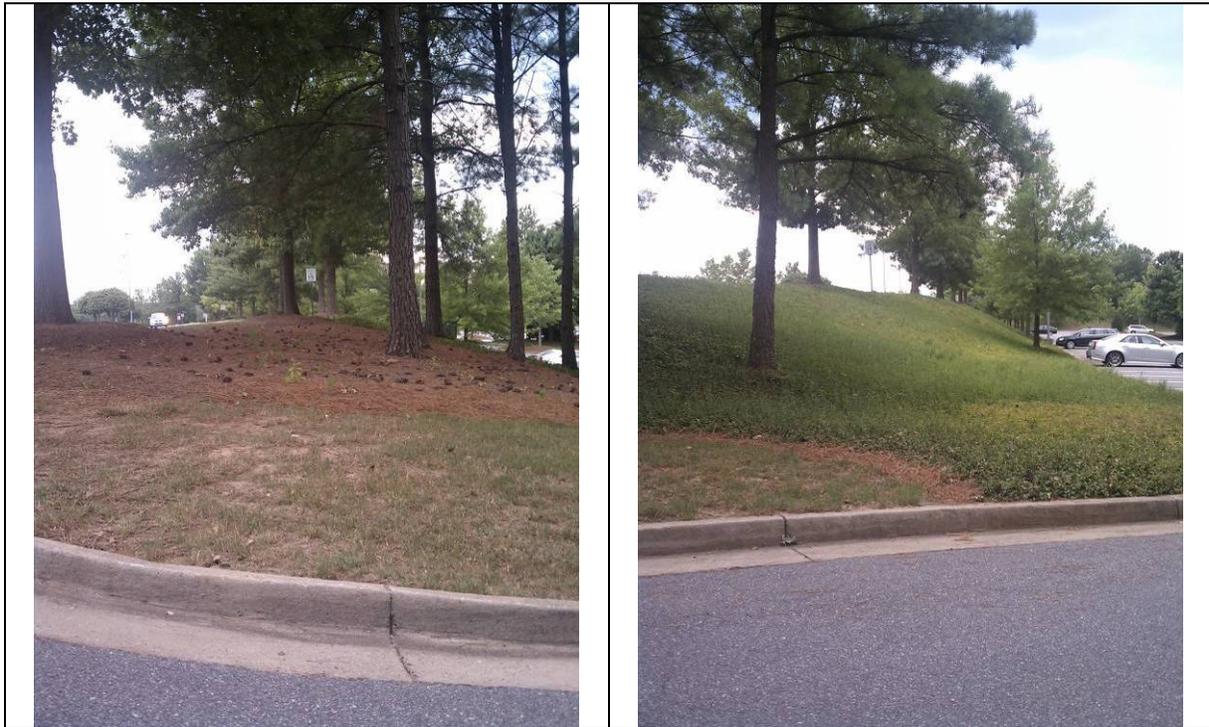


SKETCH

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-2.1
Client: City of Alpharetta/GDOT
Sheet 4 of 6

**Existing Buffer Area between the Mall and Business Office Area
(Recommended location for realigned multi-use path through the project area.)**



CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-2.1
Client: City of Alpharetta/GDOT
Sheet 6 of 6

VE Concept: - Construct a pedestrian/bike path on new alignment:

Assume a path width of 18 feet wide with 1,500 feet on west side of SR 400 and 2,200 feet on the east side of SR 400.

Paved path = 18 ft x (1,500 ft + 2,200 ft) = 66,600 SF/9 = **7,400 SY**

NOTE: Use a 6-inch sidewalk thickness due to suggested 18-foot path width
Assume a \$40/SY cost for 6-inch path

Retaining Wall: Assume 1,500 ft of retaining wall through Mall area x (5 ft) = **7,500 SF**

Embankment:

Retaining Wall embankment area = (18 ft x 5 ft x 1/2 ft) x 1,500 ft = 67,500 CF

West side embankment area = (18 ft + 22 ft)/2 x 3 ft x 1,500 ft = 45,000 CF

East side (no wall) embankment area = (18 ft + 22 ft)/2 x 3 ft x 700 ft = 21,000 CF

Total = (67,500 CF + 45,000 CF + 21,000 CF)/27 = 4,944 CY Use **5,000 CY**

New R/W

Assume R/W width of 30 feet (1,500 + 2,200) x 30 ft = 111,000 SF = 2.548 acres

From R/W cost estimate \$15 per SF x 111,000 SF = **\$1,665,000**

This represents a worst case R/W scenario since some of the required R/W through the Mall /Office Park area could be donated and/or is already under control by NFCID.

New bridge area; length 400 ft; assume 26 ft wide

400 ft x 26 ft = **10,400 sq ft**

Landscaping:

Assume a **\$500,000** cost to streetscape/landscape the bridge

Assume a **\$500,000** cost to landscape the Pedestrian/Bike Path

Big Creek Greenway path connection to N. Point Parkway/Mall Entrance intersection:

Assume **\$100,000**

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.: A-2.2	Sheet No.: 1 of 5	CREATIVE IDEA: Add bikes lanes and sidewalks to existing Encore Parkway and construct a new 3-lane (two through lanes plus turn lane & bike lanes) bridge suitable for future widening.
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Comp By: G.A.O. Date: 7/20/2011 Checked By: K.B. Date: 7/25/2011

Original Concept:

The original design concept reconstructs the existing Encore Parkway Bridge to carry both vehicular (2 lanes with a wide median) and pedestrian/bike traffic. The new bridge would be wide enough to be reconfigured to 4-lanes with bike lanes when future traffic warrants. This concept also widens Encore Parkway, adds bike lanes to the parkway, and adds sidewalks.

Proposed Change:

This recommendation would add bike lanes and sidewalks to existing Encore Parkway and construct a new 3-lane bridge (2 through lanes, a center turn lane, and bike lanes) that could be widened in the future when traffic warrants.

Justification:

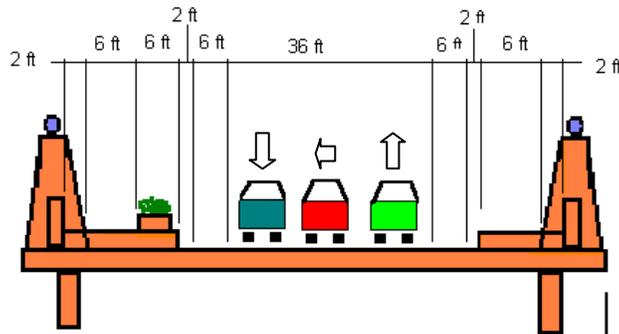
Potential future SR 400 widening projects, many that are not even programmed at this time, are dictating the design of this project, thereby increasing project scope and costs. This recommendation addresses the need and purpose for the project while constructing only the improvements needed at this time. It also includes provisions for future expansion when warranted. This recommendation allows for the re-use of the existing landscaping along Encore Parkway where there are many mature decorative trees (12 – 15 inch oaks, birches and cherry trees).

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$5,955,000		
Proposed	\$2,816,000		
Savings	\$3,139,000		\$3,139,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$3,139,000

SKETCH

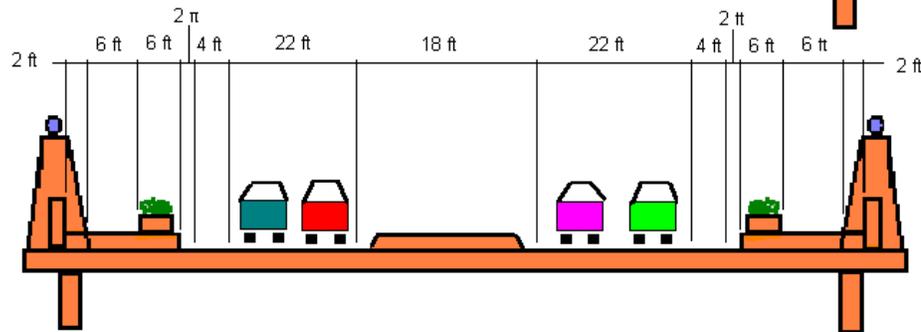
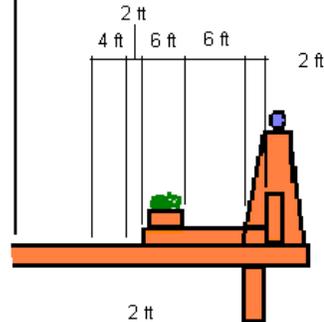
Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-2.2
 Client: City of Alpharetta/GDOT
 Sheet 2 of 5



Phase I 3-lane Bridge with bike lanes & landscaped south shoulder with modified north shoulder

Phase II Widen Bridge to achieve ultimate section & landscaped north shoulder



Ultimate full width Bridge section with streetscaping & landscaping

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-2.2
Client: City of Alpharetta/GDOT
Sheet 4 of 5

Additional pavement: Two 4-foot wide bike lanes; Station 102+00 to Station 124+00;
2,200 ft – 400 ft (bridge length) = 1,800 ft
Total area 1,800 x 2 x 4 = 14,400 SF/9 = 1,600 SY

Assume resurfacing; 2 in, full roadway width, 36 ft
36 ft x 1,800 ft = 64,800 SF/9 = 7,200 SY
(2/12 ft) (150 #/CF) (1 ton/2000 #) = 0.0125 ton/SF

Resurface cost: = (0.0125 ton/SF x 9 SF/SY x \$60/ton = \$8.21/SY Use **\$8.50/SY**

Encore Parkway Pavement Costs:

Use Asphalt pavement; 8 in asphalt/10 inch GAB

(8/12 ft) (150 #/CF) (1 ton/2000 #) = 0.05 ton/SF

Cost per SY

(0.05 ton/SF x 9 SF/SY x \$60/ton) + \$15 per SY = \$27.00 + \$15.00 = **\$42.00/SY**

Total asphalt pavement cost on current design:

157,500 + 48,800 + 93,500 + 72,000 + 51,000 + 3,000 = **\$425,800**

Eliminated median; 1,800 ft – 200 ft (median openings) = 1,600 ft; average width – 8 ft

1,600 x 8 = 12,800 SF/9 = **1,422 SY**

Curb & Gutter = (2 x 1,800 ft) – bridge & intersections = **3,200 LF**

Sidewalks = 2 x 8 ft x 1,800 ft = 28,800 SF/9 = **3,200 SY**

Bridge costs

Current dimensions: 400 ft x 105 ft = **42,000 sq ft**

Recommended design 400 ft x 64 ft = **25,600 sq ft**

Assume reduced R/W costs; 80%; 1,410,000 x 0.80 = **\$1,128,000**

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-2.2
Client: City of Alpharetta/GDOT
Sheet 5 of 5

VE Team Assumed Bridge Landscaping Breakout

Bridge Landscaping Estimate

\$1,200,000.00

Item	Sides	Length	Cost/ft	Cost
Fencing	2	400	\$200.00	\$160,000.00
Arbor	2	400	\$200.00	\$160,000.00
planters on the side walk	2	400	\$100.00	\$80,000.00
planters in the median	1	400	\$200.00	\$80,000.00
stone on parapet	2	400	\$200.00	\$160,000.00
Large Pilasters	2	3	\$5,000.00	\$30,000.00
small pilasters	2	6	\$1,000.00	\$12,000.00
benches on bridge	2	8	\$500.00	\$8,000.00

	Columns	Width	Height	ST Cost x 2 sides	
decorative columns	3	110	10	\$200.00	\$220,000.00
misc					\$60,800.00
	sides	length	height	SF Cost	
staining superstructure	2	400	8	\$10.00	\$50,000.00
	Sides	Length	Height	CF Cost	
walls beneath bridge					
Fill	2	140	16	\$10.00	\$44,800.00
	sides	length	height	SF Cost	
wall 1	2	120	4	\$40.00	\$38,400.00
wall 2	2	140	4	\$40.00	\$44,800.00
wall 3	2	160	4	\$40.00	\$51,200.00
					\$1,200,000.00

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
A-4

Sheet No.:
1 of 5

CREATIVE IDEA: Eliminate the sixteen large internal planters next to sidewalks and reduce the width of the Encore Parkway Bridge.

Comp By: J.V. Date: 07/19/2011 Checked By: K.B. Date: 07/20/2011

Original Concept:

The original design proposes to construct large planter boxes on the bridge shoulder to provide a planting location for shrubs. Eight planter boxes are proposed on each bridge shoulder for a total of sixteen planter boxes. The boxes are assumed to be about 6 feet wide to align with the 6-foot grass buffer between the curb and proposed sidewalk.

Proposed Change:

This recommendation would eliminate the 6-foot wide planter boxes from the bridge shoulders and reduce the width of the proposed new bridge. See Calculation Page for Bridge Shoulder Assumptions.

Justification:

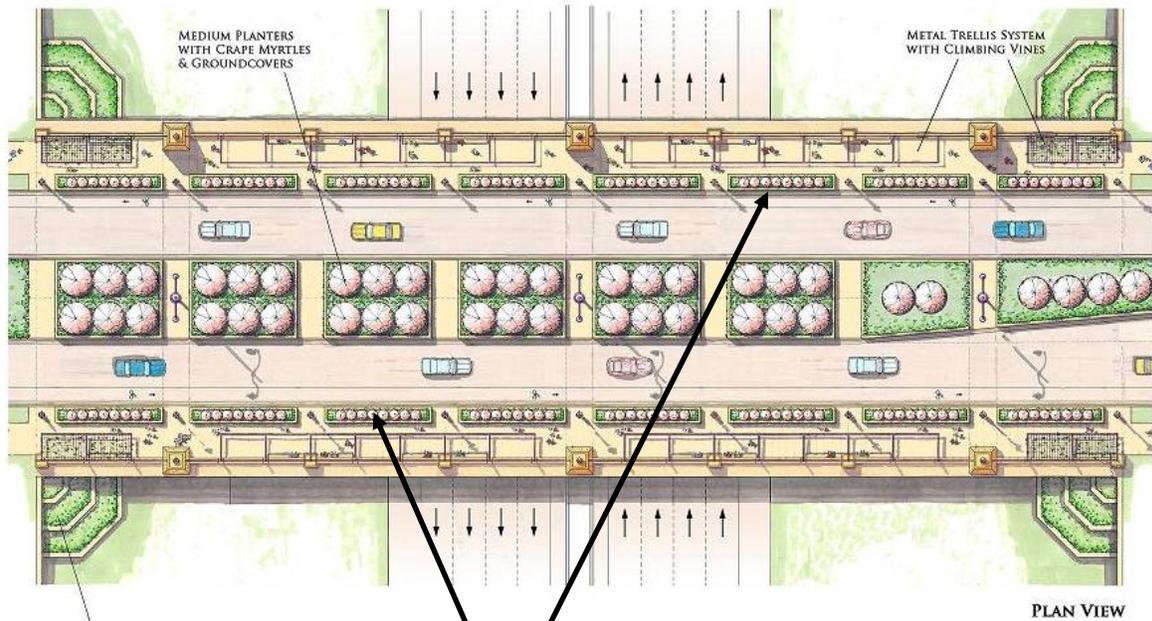
Removing the planter boxes from the bridge shoulders would reduce weight, eliminate the need for planter box drainage, eliminate plant maintenance, eliminate the need for plant irrigation on the shoulders, eliminate potential vehicle hang points (open areas between planters) and allow the bridge to be narrowed. This concept would require the roadway sidewalk to be shifted toward the back of curb as it approached the bridge to eliminate the 6-foot grass buffer and line-up with the revised bridge sidewalks.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$600,000		
Proposed	\$0		
Savings	\$600,000		\$600,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$600,000

SKETCH

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-4
Client: City of Alpharetta/GDOT
Sheet 2 of 5



PLAN VIEW

Remove all 16 Large Sidewalk Planter Boxes

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-4
Client: City of Alpharetta/GDOT
Sheet 4 of 5

Bridge Landscaping Savings:

See Landscaping Cost Allowance Table: **Use \$80,000**

Bridge Savings:

6 ft x 2 Shoulders x 400 ft x \$100/SF = **\$480,000**

Bridge Shoulder Assumptions:

<u>Original Bridge Shoulder:</u>		<u>Proposed Bridge Shoulder</u>	
Parapet	1.5'	Parapet w box	1.5'
Pilaster Drift	2.0'	Pilaster Drift	2.0'
Sidewalk	6.0'	Sidewalk	6.0'
Planter	6.0'	Planter	0.0'
Total	15.5'		9.5'

Net reduction is bridge width 6.0' per side or a total of 12.0'

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-4
 Client: City of Alpharetta/GDOT
 Sheet 5 of 5

VE Team Assumed Bridge Landscaping Breakout

Bridge Landscaping Estimate

\$1,200,000.00

Item	Sides	Length	Cost/ft	Cost
Fencing	2	400	\$200.00	\$160,000.00
Arbor	2	400	\$200.00	\$160,000.00
planters on the side walk	2	400	\$100.00	\$80,000.00
planters in the median	1	400	\$200.00	\$80,000.00
stone on parapet	2	400	\$200.00	\$160,000.00
Large Pilasters	2	3	\$5,000.00	\$30,000.00
small pilasters	2	6	\$1,000.00	\$12,000.00
benches on bridge	2	8	\$500.00	\$8,000.00

	Columns	Width	Height	ST Cost x 2 sides	
decorative columns	3	110	10	\$200.00	\$220,000.00
misc					\$60,800.00
	sides	length	height	SF Cost	
staining superstructure	2	400	8	\$10.00	\$50,000.00
walls beneath bridge	Sides	Length	Height	CF Cost	
Fill	2	140	16	\$10.00	\$44,800.00
	sides	length	height	SF Cost	
wall 1	2	120	4	\$40.00	\$38,400.00
wall 2	2	140	4	\$40.00	\$44,800.00
wall 3	2	160	4	\$40.00	\$51,200.00
					\$1,200,000.00

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.: A-4.1	Sheet No.: 1 of 5	CREATIVE IDEA: <u>Alternative to Idea A-4</u> Reduce the width of the sixteen large sidewalk planter boxes, attach them to the bridge parapets, and reduce the width of the Encore Parkway Bridge.
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Comp By: J.V. Date: 07/19/2011 Checked By: K.B. Date: 07/20/2011

Original Concept:

The original design proposes to construct planter boxes on the bridge shoulder to provide a planting location for shrubs. Eight planter boxes are proposed on each bridge shoulder for a total of sixteen planter boxes. The boxes are assumed to be about 6 feet wide to align with the 6-foot grass buffer between the curb and proposed sidewalk.

Proposed Change:

This recommendation would eliminate the 6-foot wide planter boxes from the bridge shoulders and construct smaller planter boxes integral to/with the bridge side parapet. The planters adjacent to the side parapet could be reduced to approximately 4.5 feet in width allowing the proposed new bridge to be narrower. See Calculation Page for Bridge Shoulder Assumptions.

Justification:

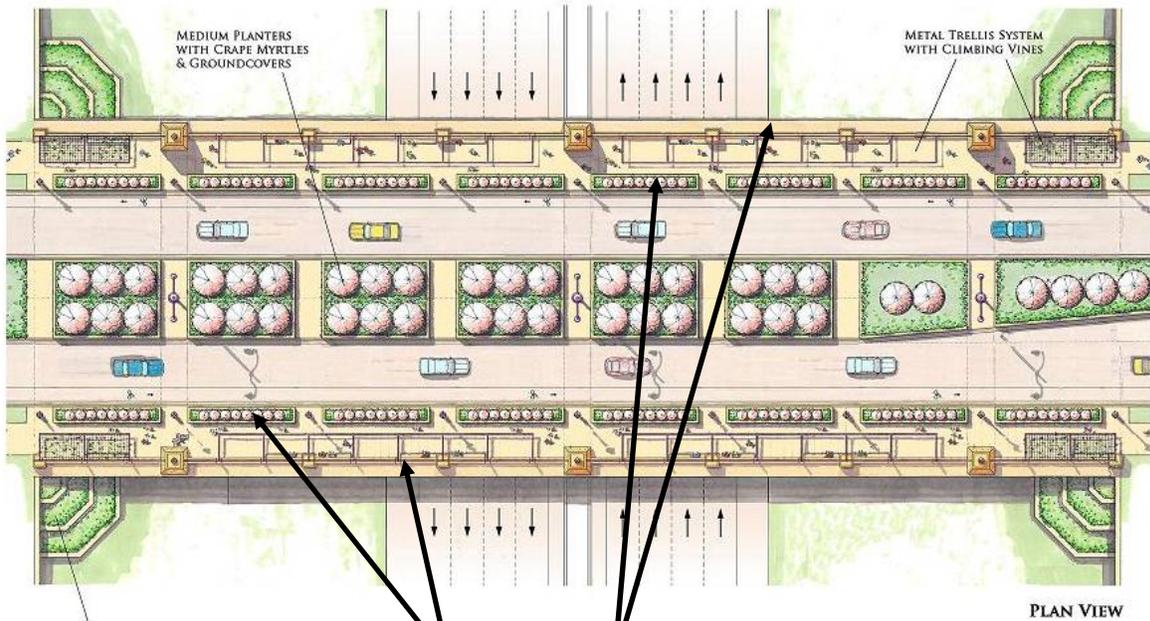
Removing the planters from the bridge shoulders and moving them adjacent to the side parapet at a reduced size would reduce weight, reduce planter box drainage, eliminate potential vehicle hang points (open areas between planters) and allow the bridge to be narrowed. This concept would require the roadway sidewalk to be shifted toward the back of curb as it approached the bridge to eliminate the 6-foot grass buffer and line-up with the revised bridge sidewalks.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$300,000		
Proposed	\$0		
Savings	\$300,000		\$300,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$300,000

SKETCH

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-4.1
Client: City of Alpharetta/GDOT
Sheet 2 of 5



Reduce the Size of the 16 Sidewalk Planter Boxes and Relocate alongside Bridge Parapets

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-4.1
Client: City of Alpharetta/GDOT
Sheet 4 of 5

Original Design:

Bridge Landscaping Savings:

The parapet/planter boxes would save approximately 25% (one side) of the planter boxes. From the Landscaping Cost Model, the planter boxes are assumed at \$80,000. $\$80,000 \times 25\%$ equals **\$20,000**

Bridge Savings:

$3.5 \text{ ft} \times 2 \text{ Shoulders} \times 400 \text{ ft} \times \$100/\text{SF} = \mathbf{\$280,000}$

Bridge Shoulder Assumptions:

<u>Original Bridge Shoulder:</u>	<u>Proposed Bridge Shoulder</u>
Parapet 1.5'	Parapet w box 6.0'
Pilaster Drift 2.0'	Pilaster Drift 0.0'
Sidewalk 6.0'	Sidewalk 6.0'
Planter 6.0'	Planter 0.0'
<u>Total 15.5'</u>	<u>12.0'</u>

Net reduction is bridge width 3.5' per side or a total of 7.0'

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-4.1
Client: City of Alpharetta/GDOT
Sheet 5 of 5

VE Team Assumed Bridge Landscaping Breakout

Bridge Landscaping Estimate

\$1,200,000.00

Item	Sides	Length	Cost/ft	Cost
Fencing	2	400	\$200.00	\$160,000.00
Arbor	2	400	\$200.00	\$160,000.00
planters on the side walk	2	400	\$100.00	\$80,000.00
planters in the median	1	400	\$200.00	\$80,000.00
stone on parapet	2	400	\$200.00	\$160,000.00
Large Pilasters	2	3	\$5,000.00	\$30,000.00
small pilasters	2	6	\$1,000.00	\$12,000.00
benches on bridge	2	8	\$500.00	\$8,000.00

	Columns	Width	Height	ST Cost x 2 sides	
decorative columns	3	110	10	\$200.00	\$220,000.00
misc					\$60,800.00
	sides	length	height	SF Cost	
staining superstructure	2	400	8	\$10.00	\$50,000.00
	Sides	Length	Height	CF Cost	
walls beneath bridge					
Fill	2	140	16	\$10.00	\$44,800.00
	sides	length	height	SF Cost	
wall 1	2	120	4	\$40.00	\$38,400.00
wall 2	2	140	4	\$40.00	\$44,800.00
wall 3	2	160	4	\$40.00	\$51,200.00
					\$1,200,000.00

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
A-7

Sheet No.:
1 of 4

CREATIVE IDEA: Reduce the width of the Encore Parkway Bridge Pilasters and make them line-up with inside part of the side parapet.

Comp By: J.V. Date: 07/20/2011 Checked By: K.B. Date: 07/20/2011

Original Concept:

The original design proposes to construct wide pilasters on the bridge to add aesthetics, create room for benches and smaller pilasters along the side parapet of the bridge. The pilasters are assumed to add approximately 2-feet to the bridge shoulders.

Proposed Change:

This recommendation would reduce the large bridge pilaster approximately 1-foot to match the smaller pilasters or inside portion of the side parapet. This would therefore reduce the bridge shoulder width.

Justification:

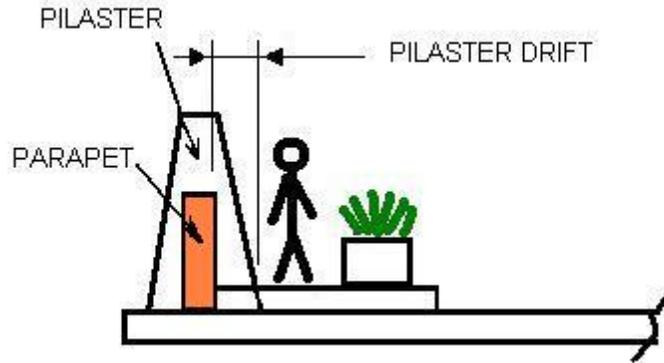
Reducing the pilaster width would allow the bridge shoulders and overall width to be reduced by 1-foot each side of the bridge. This concept reduces the cost of the new bridge without impacting its aesthetic value.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$4,200,000		
Proposed	\$4,120,000		
Savings	\$80,000		\$80,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$80,000

SKETCH

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-7
Client: City of Alpharetta/GDOT
Sheet 2 of 4



CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-7
 Client: City of Alpharetta/GDOT
 Sheet 4 of 4

Original Design:

Bridge: 105 ft wide x 400 ft long = 42,000 SF x \$100/SF = \$4,200,000

VE Concept:

Bridge (assume pilaster width reduction reduces shoulder width 1-foot on each side)
 103 ft wide x 400 ft long = 41,200 SF x \$100/SF = \$4,120,000

Original Concept - 2 Lane

	Out to Out	Edge of Gutter to Edge of Gutter
parapet	1.5	
Pilaster drift	2	
sidewalk	6	
planter	6	
curb & gutter	2	
Bike Lane	4	4
Travel Lane	14	14
Travel Lane	0	0
Curb & Gutter	2	2
Raised Median	30	30
Curb & Gutter	2	2
Travel Lane	0	0
Travel Lane	14	14
Bike Lane	4	4
curb & gutter	2	
Planter	6	
Sidewalk	6	
Pilaster drift	2	
parapet	1.5	
	105	70

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
A-11

Sheet No.:
1 of 4

CREATIVE IDEA: Remove the eight large planter boxes from the median of the new bridge and replace them with small planter boxes suitable for ground cover/flowers.

Comp By: G.C.G. Date: 7/19/2011 Checked By: K.B. Date: 7/15/2011

Original Concept:

Original concept constructs median planter boxes with sufficient depth to contain “Muscogee” Crepe Myrtles in the median. No depth dimension was provided in the concept drawings. The VE team estimated that the planter boxes would be 42 inches deep and composed of retaining wall stems above the bridge structural deck. The planter boxes will have a fieldstone wall finish and a wider top cap.

Proposed Change:

It is recommended the existing median width be maintained and the large planter boxes be removed and replace with low level planter boxes 18 inches deep.

Justification:

The weight of the median planter boxes and their retained soil will need to be accounted for in the design of the bridge. Accommodation for planter drainage will also need to be addressed in the design of the bridge. Installing shallower planter boxes would reduce the additional weight on the bridge and their lower volume of soil would require less drainage allowance due to less volume available to store water in the low level planters.

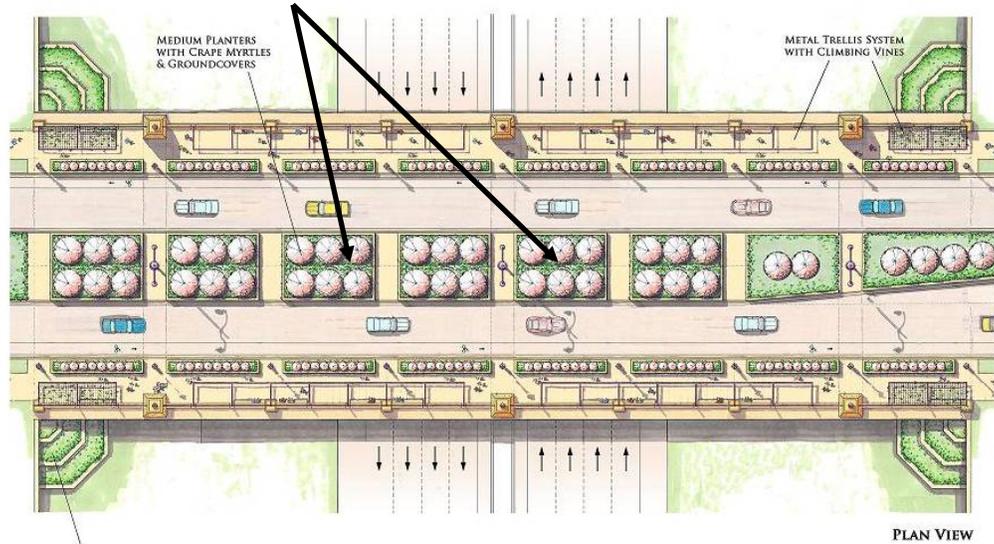
COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$80,000		
Proposed	\$40,000		
Savings	\$40,000		\$40,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$40,000

SKETCH

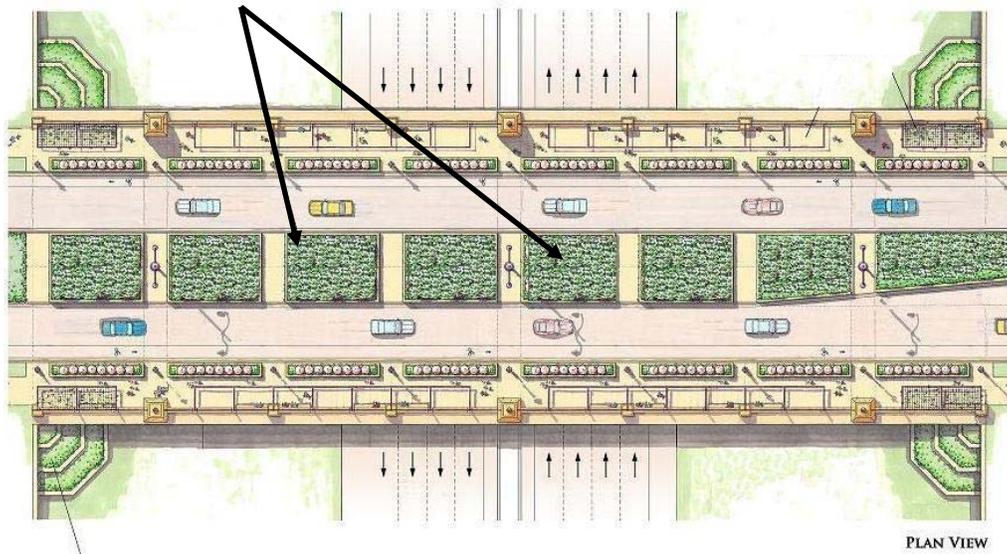
Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-11
Client: City of Alpharetta/GDOT
Sheet 2 of 4

Original Concept Median/Large Planter Boxes with Crape Myrtles



VE Proposed Concept Small Planter Boxes with Flowers/Groundcover



CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-11
 Client: City of Alpharetta/GDOT
 Sheet 4 of 4

VE Team Assumed Bridge Landscaping Breakout

Bridge Landscaping Estimate

\$1,200,000.00

Item	Sides	Length	Cost/ft	Cost
Fencing	2	400	\$200.00	\$160,000.00
Arbor	2	400	\$200.00	\$160,000.00
planters on the side walk	2	400	\$100.00	\$80,000.00
planters in the median	1	400	\$200.00	\$80,000.00
stone on parapet	2	400	\$200.00	\$160,000.00
Large Pilasters	2	3	\$5,000.00	\$30,000.00
small pilasters	2	6	\$1,000.00	\$12,000.00
benches on bridge	2	8	\$500.00	\$8,000.00

	Columns	Width	Height	ST Cost x 2 sides	
decorative columns	3	110	10	\$200.00	\$220,000.00
misc					\$60,800.00
	sides	length	height	SF Cost	
staining superstructure	2	400	8	\$10.00	\$50,000.00
walls beneath bridge	Sides	Length	Height	CF Cost	
Fill	2	140	16	\$10.00	\$44,800.00
	sides	length	height	SF Cost	
wall 1	2	120	4	\$40.00	\$38,400.00
wall 2	2	140	4	\$40.00	\$44,800.00
wall 3	2	160	4	\$40.00	\$51,200.00
					\$1,200,000.00

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
A-14

Sheet No.:
1 of 5

CREATIVE IDEA:

Reduce the length of Encore Parkway Bridge by eliminating the 50-foot end spans.

Comp By: G.C.G. Date: 7/19/2011 Checked By: K.B. Date: 7/25/2011

Original Concept:

The original design proposes a 4-span bridge with MSE vertical abutments. The proposed spans are 50 feet, 150 feet, 150 feet, and 50 feet (total length = 400 feet). The center spans are sized to clear an undetermined future cross section of SR 400. The bridge has vertical abutments composed of MSE walls with planter walls in front. Short end spans add length to the bridge, but do not span any present or foreseeable features. Architectural treatments are present on the 3 interior bents. The treatments primarily consist of base of column surface texture, width and color enhancements.

Proposed Change:

It is recommended the end spans be eliminated and to shift the original concept MSE walls toward the median of SR 400 to reduce the length of the bridge. The planter walls will be retained in this design. It is noted that the planter walls may need to be removed to satisfy the future lane configuration of SR 400. The revised bridge will consist of two 150-foot spans for a total length of 300 feet.

The original concept Bent 2 and Bent 4 wall piers will not be required. The architectural treatment of Bents 2 and 4 will not be required.

Justification:

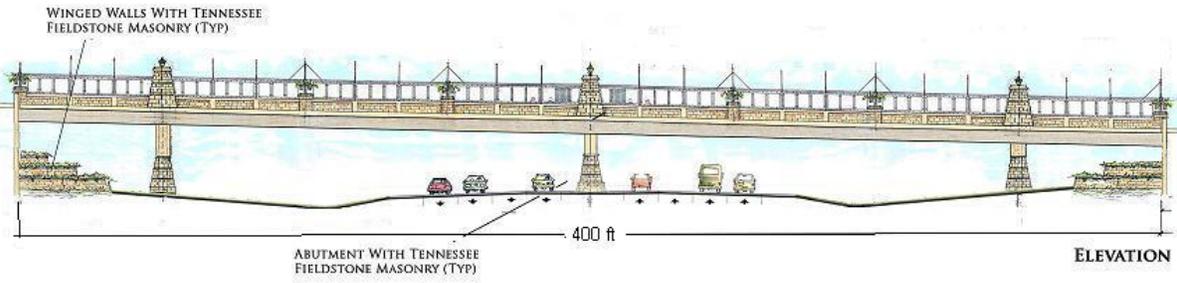
The end spans in the original design are not needed to clear traffic lanes or other features. They also do not serve to allow for a 2:1 end slope. It appears they are present to add architectural interest only. Eliminating the end spans saves significant cost yet allow for architectural treatment of the center pier and the presence of the tiered abutment planter walls until such time that a future SR 400 widening may require them to be removed.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$4,400,000		
Proposed	\$3,400,000		
Savings	\$1,000,000		\$1,000,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$1,000,000

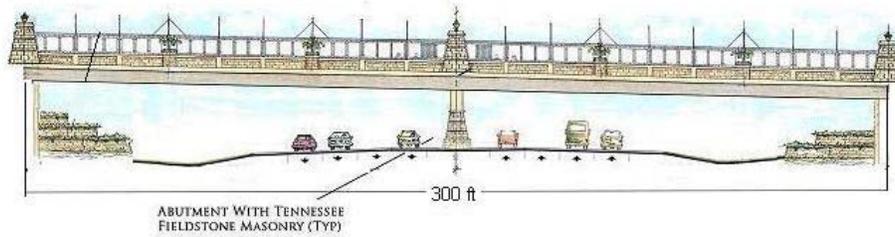
SKETCH

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-14
Client: City of Alpharetta/GDOT
Sheet 2 of 5



Original Concept



VE Proposed Concept (Eliminate 50-foot End Spans)

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-14
Client: City of Alpharetta/GDOT
Sheet 4 of 5

Encore Parkway Pavement Costs:

Use Asphalt pavement; 8 in asphalt/10 inch GAB

$$(8/12 \text{ ft}) (150 \text{ \#/CF}) (1 \text{ ton}/2000 \text{ \#}) = 0.05 \text{ ton/SF}$$

Cost per SY

$$(0.05 \text{ ton/SF} \times 9 \text{ SF/SY} \times \$60/\text{ton}) + \$15 \text{ per SY} = \$27.00 + \$15.00 = \mathbf{\$42.00/SY}$$

Additional Encore Parkway Pavement:

$$2 \times (50 \text{ ft} \times 70 \text{ ft}) = 7,000 \text{ SF}/9 = 778 \text{ SY} @ \$42.00 = \mathbf{\$32,676}$$

Additional sidewalk:

$$4 \times (50 \text{ ft} \times 8 \text{ ft}) = 1,600 \text{ SF}/9 = 178 \text{ SY} @ \$25.00 = \mathbf{\$4,450}$$

Additional Embankment:

$$2 \times (50 \text{ ft} \times 70 \text{ ft} \times 30 \text{ ft}) + 4 \times (30 \text{ ft} \times 60 \text{ ft} \times 1/2) \times 50 \text{ ft}$$

$$210,000 \text{ CF} + 180,000 \text{ CF} = 390,000 \text{ CF}/27 = 14,445 \text{ CY} @ \$6.00 = \mathbf{\$86,670}$$

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-14
 Client: City of Alpharetta/GDOT
 Sheet 5 of 5

VE Team Assumed Bridge Landscaping Breakout

Bridge Landscaping Estimate

\$1,200,000.00

Item	Sides	Length	Cost/ft	Cost
Fencing	2	400	\$200.00	\$160,000.00
Arbor	2	400	\$200.00	\$160,000.00
planters on the side walk	2	400	\$100.00	\$80,000.00
planters in the median	1	400	\$200.00	\$80,000.00
stone on parapet	2	400	\$200.00	\$160,000.00
Large Pilasters	2	3	\$5,000.00	\$30,000.00
small pilasters	2	6	\$1,000.00	\$12,000.00
benches on bridge	2	8	\$500.00	\$8,000.00

	Columns	Width	Height	ST Cost x 2 sides	
decorative columns	3	110	10	\$200.00	\$220,000.00
misc					\$60,800.00
	sides	length	height	SF Cost	
staining superstructure	2	400	8	\$10.00	\$50,000.00
walls beneath bridge	Sides	Length	Height	CF Cost	
Fill	2	140	16	\$10.00	\$44,800.00
	sides	length	height	SF Cost	
wall 1	2	120	4	\$40.00	\$38,400.00
wall 2	2	140	4	\$40.00	\$44,800.00
wall 3	2	160	4	\$40.00	\$51,200.00
					\$1,200,000.00

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
A-18

Sheet No.:
1 of 6

CREATIVE IDEA: Reduce the width of the Encore Parkway Bridge by adding Pedestrian Plazas at the ends of the bridge in-lieu-of placing benches and wide shoulder areas on the bridge.

Comp By: G.C.G. Date: 7/19/2011 Checked By: K.B. Date: 7/25/2011

Original Concept:

The Original design would construct a 105-foot wide bridge. This width provides for an edge of pavement to edge of pavement width of 70 feet. The remaining 35 feet of bridge width is taken-up by the parapets, pilaster drift, sidewalks, planters, and curb & gutters. The wide shoulder areas provide aesthetic and pedestrian friendly features.

Proposed Change:

This recommendation would reduce the bridge width to 93 feet by relocating/expanding many of the aesthetic and pedestrian friendly features to large pedestrian plazas at the four corners of the bridge. These areas would be larger versions of the smaller rest areas/plazas at the intersections corners.

Justification:

The proposed concept concentrates the pedestrian friendly features to “gathering points” at the four corners of the bridge. This maintains the context of the corridor and saves cost by reducing the width of the bridge. These “plaza” areas fit within the existing right of way and would provide a larger total gathering area than the linear areas on the bridge. The landscaping allowance is sufficient to allow for additional features (benches, tables, gazebos, additional walls, large scale landscaping, fountains, etc.), to be added to these areas at a lower construction cost and with less maintenance.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$5,400,000		
Proposed	\$5,000,000		
Savings	\$400,000		\$400,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$400,000

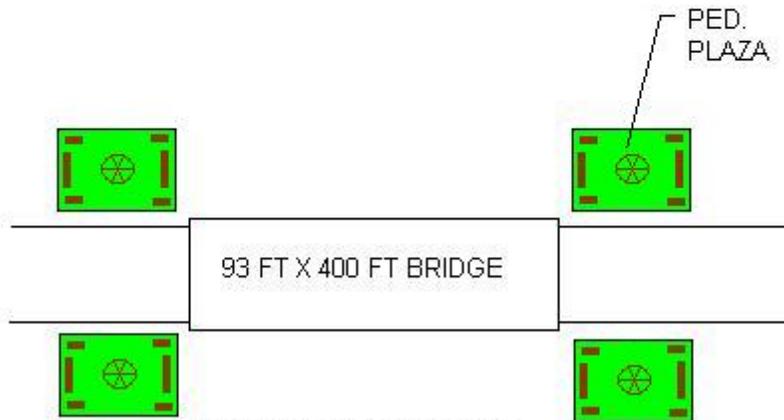
SKETCH

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-18
Client: City of Alpharetta/GDOT
Sheet 2 of 6



ORIGINAL CONCEPT



PROPOSED ALTERNATIVE

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-18
 Client: City of Alpharetta/GDOT
 Sheet 4 of 6

Original Concept

Proposed Change

Original Concept - 2 Lane			Proposed Concept - Narrow Bridge		
	Out to Out	Edge of Gutter to Edge of Gutter		Out to Out	Edge of Gutter to Edge of Gutter
parapet	1.5		parapet	1.5	
Pilaster drift	2		Pilaster drift	2	
sidewalk	6		sidewalk	6	
planter	6		planter	0	
curb & gutter	2		curb & gutter	2	
Bike Lane	4	4	Bike Lane	4	4
Travel Lane	14	14	Travel Lane	14	14
Travel Lane	0	0	Travel Lane	0	0
Curb & Gutter	2	2	Curb & Gutter	2	2
Raised Median	30	30	Raised Median	30	30
Curb & Gutter	2	2	Curb & Gutter	2	2
Travel Lane	0	0	Travel Lane	0	0
Travel Lane	14	14	Travel Lane	14	14
Bike Lane	4	4	Bike Lane	4	4
curb & gutter	2		curb & gutter	2	
Planter	6		Planter	0	
Sidewalk	6		Sidewalk	6	
Pilaster drift	2		Pilaster drift	2	
parapet	1.5		parapet	1.5	
	105	70		93	70

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: A-18
Client: City of Alpharetta/GDOT
Sheet 5 of 6

Calculate a cost per sq ft for bridge landscaping

Original Concept

$$\$1,200,000 / (105 \text{ ft} \times 400 \text{ ft}) = \$28.57/\text{SF}$$

Proposed Alternative

$$\$28.57 \times (93 \text{ ft} \times 400 \text{ ft}) = \$28.57 \times 37,200 \text{ SF} = \$1,062,857$$

Allowance for Pedestrian Plazas for the Proposed Concept:

There are 4 corners of the Bridge.

Allow \$50,000 per area for: Arbors, Fieldstone accent walls, Pavers, Benches and additional landscaping (Very Conservative)

$$4 \times \$50,000 = \$200,000$$

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: A-18
 Client: City of Alpharetta/GDOT
 Sheet 6 of 6

VE Team Assumed Bridge Landscaping Breakout

Bridge Landscaping Estimate

\$1,200,000.00

Item	Sides	Length	Cost/ft	Cost
Fencing	2	400	\$200.00	\$160,000.00
Arbor	2	400	\$200.00	\$160,000.00
planters on the side walk	2	400	\$100.00	\$80,000.00
planters in the median	1	400	\$200.00	\$80,000.00
stone on parapet	2	400	\$200.00	\$160,000.00
Large Pilasters	2	3	\$5,000.00	\$30,000.00
small pilasters	2	6	\$1,000.00	\$12,000.00
benches on bridge	2	8	\$500.00	\$8,000.00

	Columns	Width	Height	ST Cost x 2 sides	
decorative columns	3	110	10	\$200.00	\$220,000.00
misc					\$60,800.00
	sides	length	height	SF Cost	
staining superstructure	2	400	8	\$10.00	\$50,000.00
walls beneath bridge	Sides	Length	Height	CF Cost	
Fill	2	140	16	\$10.00	\$44,800.00
	sides	length	height	SF Cost	
wall 1	2	120	4	\$40.00	\$38,400.00
wall 2	2	140	4	\$40.00	\$44,800.00
wall 3	2	160	4	\$40.00	\$51,200.00
					\$1,200,000.00

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
B-7

Sheet No.:
1 of 4

CREATIVE IDEA: Construct the Big Creek connector multi-use path alongside the existing entrance road wall (SW side) and reduce the width of the entrance road or shift the entrance road to the NE.

Comp By: GAO Date: 7/20/2011 Checked By: K.B. Date: 7/25/2011

Original Concept:

Construct the new multi-use trail through the parking area adjacent to the Big Creek access driveway acquiring additional right of way and using retaining walls.

Proposed Change:

Use the existing area along the Big Creek access driveway to construct the multi-use trail. This will require constructing new curbing and pavement on the east side and using all the available area on the west side, up to the existing wall. This will eliminate any construction on the parking lot side of the existing retaining wall.

Justification:

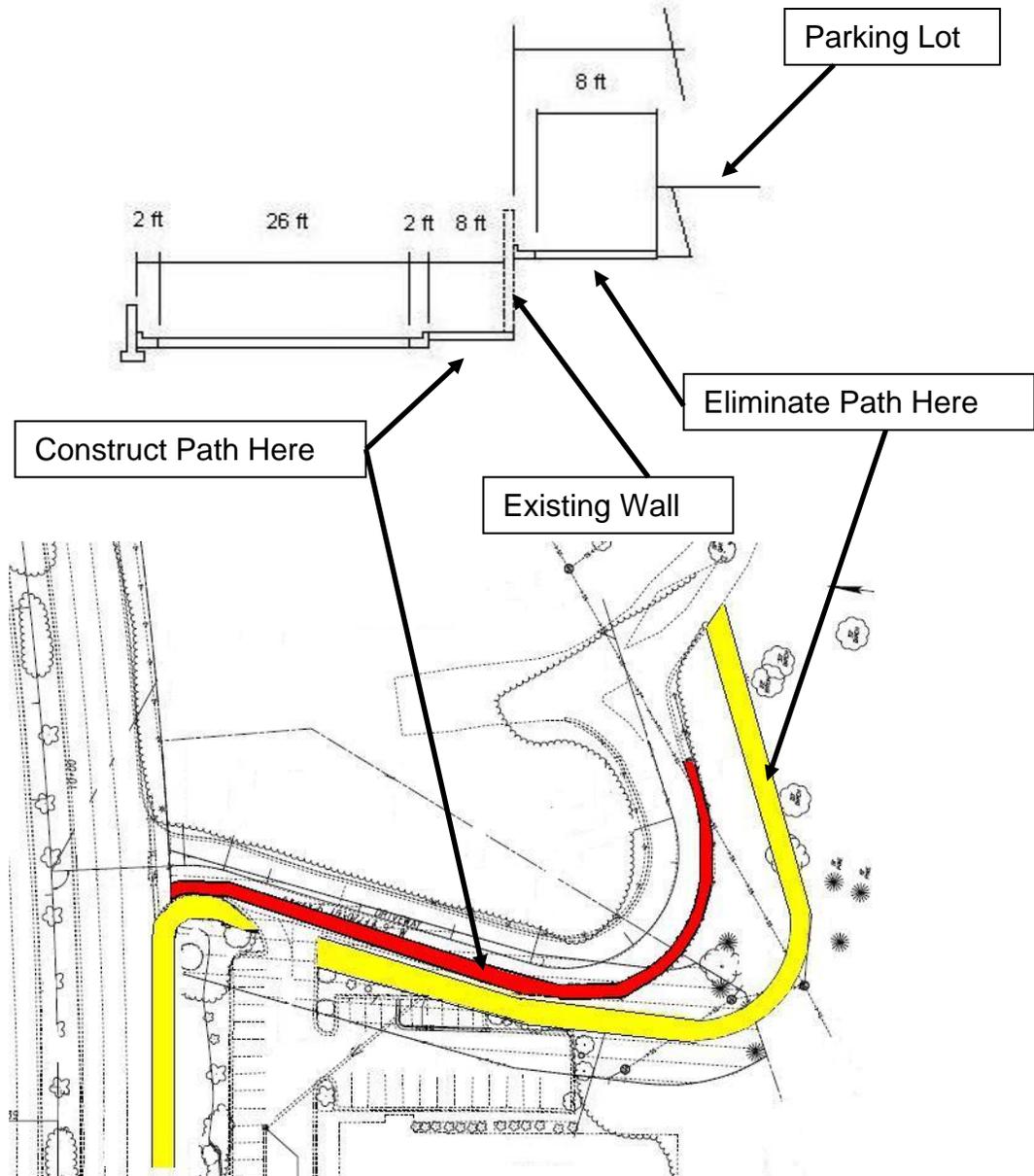
The existing Big Creek access driveway is 30 feet wide. This recommendation uses the available space along the existing access driveway to include the 8-foot wide multi-use trail and eliminates the costly R/W acquisition and encroachment into the adjacent parking area. The trail alignment will follow the access driveway profile which is steep in some areas, up to 8 % however, if the trail follows this driveway, the compatibility with ADA guidelines is satisfied. This recommendation also provides for 2 feet curb and gutter and 13 feet lane widths. If field conditions warrant, header curb and narrower lanes can be used to save more space.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$186,000		
Proposed	\$48,000		
Savings	\$138,000		\$138,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			138,000

SKETCH

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: B-7
Client: City of Alpharetta/GDOT
Sheet 2 of 4



COST WORKSHEET

Project: Encore Parkway Streetscape & Big Creek Greenway Extension					Idea No.: B-7 Client: City of Alpharetta/ GDOT Sheet 3 of 4		
CONSTRUCTION ELEMENT		ORIGINAL ESTIMATE			NEW ESTIMATE		
Item	Unit	No. Units	Cost/Unit	Total Cost	No. Units	Cost/Unit	Total Cost
Original Design:							
Concrete Sidewalk	SY	400	\$25	\$10,000			
6-inch GAB	SY	400	\$10	\$3,816			
Reduced Retaining Walls	SF	720	\$40	\$28,800			
Reduce R/W	SF	9,600	\$15	\$144,000			
VE Design							
Asphalt Pavement	SY				178	\$42	\$7,476
Concrete Curbing	LF				600	\$10	\$8,000
Concrete Sidewalk	SY				356	\$25	\$8,000
6-inch GAB	SY				356	\$10	\$3,396
Misc Demolition/Earthwork	LS				1	\$20,000	\$20,000
SUBTOTAL				\$186,616			\$47,772
TOTAL ROUNDED				\$186,000			\$48,000

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: B-7
Client: City of Alpharetta/GDOT
Sheet 4 of 4

Total length of driveway/multi-use trail station 10+50 to 14+50 = 400 feet

Current Design:

Concrete trail – 450 feet length; $450 \times 8 = 3,600 \text{ SF}/9 = 400 \text{ SY}$

Retaining wall – 120 feet length; average height = 6 feet
 $120 \text{ ft} \times 6 \text{ ft} = 720 \text{ SF}$

Right of Way required:

$320 \text{ ft} \times 30 \text{ ft} = 9,600 \text{ SF}$

From R/W calculations; \$15 per SF

Recommended Design:

Additional concrete curbing
 $2 \times 400 \text{ ft} = 800 \text{ ft}$

Additional pavement required – $400 \text{ ft} \times 4 \text{ ft} = 1,600 \text{ SF}/9 = 178 \text{ SY}$

New multi use trail – $400 \text{ ft} \times 8 \text{ ft} = 3,200 \text{ SF}/9 = 356 \text{ SY}$

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.: D-1	Sheet No.: 1 of 4	CREATIVE IDEA: Lower Encore Parkway profile between Station 103+50 and 113+00.
-------------------------	-----------------------------	------------------------------------------------------------------------------------------

Comp By: GAO Date: 7/20/2011 Checked By: K.B. Date: 7/25/2011

Original Concept:

The current Encore Parkway profile between Station 103 and Station 113 appears to have excessive vertical clearance over SR 400. Current clearance is up to 22 – 25 feet.

Proposed Change:

This recommendation would lower the Encore Parkway profile between Station 103 and Station 113 to provide a minimum vertical clearance over SR 400 of 17 +/- feet. This dimension is measured to the ultimate build-out but should be verified and reviewed.

Justification:

There appears to be excessive vertical clearance incorporated into the Encore Parkway original profile. The original profile provides about 22 – 25 feet over SR 400 on the east side of the crossing. Lowering the profile closer to minimum 17-foot standard would reduce the 9 % grade on the NE side of the bridge and reduce several project elements including earthwork, pavement construction, retaining walls and R/W impacts. Lowering the profile will also result in a cost savings to the project.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$118,000		
Proposed	\$8,000		
Savings	\$110,000		\$110,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$110,000

SKETCH

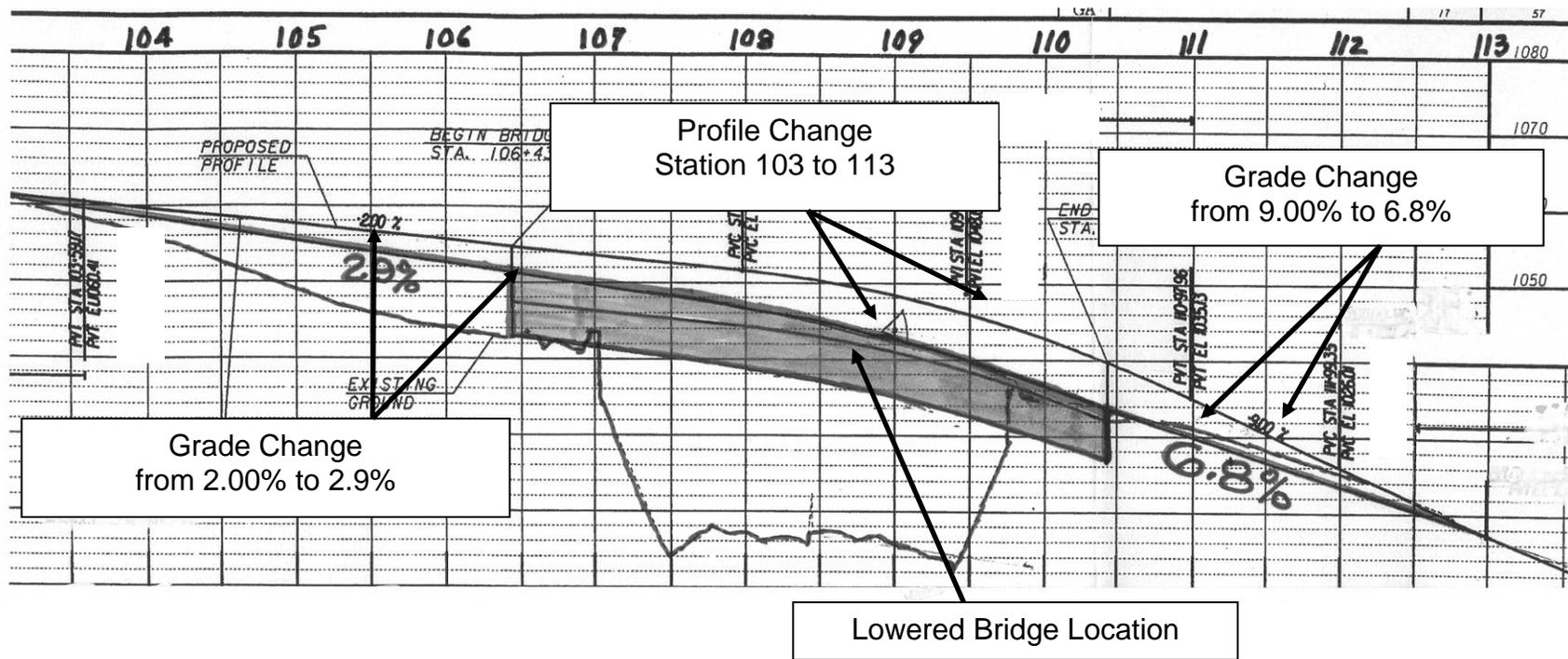
Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: D-1

Client: City of Alpharetta/GDOT

Sheet 2 of 4

Lower Encore Parkway Profile between Station 103+50 and 113+00.



CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: D-1
Client: City of Alpharetta/GDOT
Sheet 4 of 4

Re-use an additional 300 ft of pavement; Station 103+50 to 104+00; Station 110+50 to 113+00
300 ft x 36 ft wide = 10,800 SF/9 = **1,200 SY**

Encore Parkway Pavement Costs:

Asphalt pavement; 8 in asphalt/10 inch GAB

(8/12 ft) (150 #/CF) (1 ton/2000 #) = 0.05 ton/SF

Cost per SY

(0.05 ton/SF x 9 SF/SY x \$60/ton) + \$15 per SY = \$27.00 + \$15.00 = **\$42.00/SY**

Asphalt resurfacing; 2 in asphalt

(2/12 ft) (150 #/CF) (1 ton/2000 #) = 0.0125 ton/SF

Cost per SY

(0.0125 ton/SF x 9 SF/SY x \$60/ton) = \$6.75 SY; **Use \$7.00/SY**

Reduced earthwork; average height reduction – 2 ft; width – 120 ft, 300 ft length

2 x 120 ft x 300 ft = 72,000 CF/27 = **2,667 CY**

Reduced MSE wall surface; 2 ft height

2 x 181 ft length = **362 SF**

Reduced right of way; assume 4 foot reduction on each side in easement area

From R/W calculations ; \$15 per sq ft for R/W x 0.5 = \$7.50 for easements

300 ft x 2 x (4) ft = **2,400 SF**

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
O-1

Sheet No.:
1 of 3

CREATIVE IDEA:

Construct 5-foot sidewalks along both sides of Encore Parkway in lieu of 8-foot sidewalks

Comp By: J.V. Date: 07/20/2011 Checked By: K.B. Date: 07/20/2011

Original Concept:

The original design proposes to construct 8-foot wide concrete sidewalks on both shoulders. The proposed sidewalk is 4-in thick on 6-in thick GAB within an 18-foot graded shoulder.

Proposed Change:

This recommendation proposes to reduce the 8-foot wide concrete sidewalk to 5-foot wide.

Justification:

Reducing the sidewalk width to a standard 5-foot sidewalk would reduce concrete sidewalk cost. The proposed sidewalk does not have to be shared with bicycles due to the proposed bike lane and 5-foot wide is considered adequate for pedestrians.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$117,000		
Proposed	\$73,000		
Savings	\$44,000		\$44,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$44,000

COST WORKSHEET

Project: Encore Parkway Streetscape & Big Creek Greenway Extension					Idea No.: O-1 Client: City of Alpharetta/ GDOT Sheet 2 of 3		
CONSTRUCTION ELEMENT		ORIGINAL ESTIMATE			NEW ESTIMATE		
Item	Unit	No. Units	Cost/Unit	Total Cost	No. Units	Cost/Unit	Total Cost
Original Design:							
4-inch Concrete Sidewalk	SY	3,375	\$25.00	\$84,375			
6-inch GAB	SY	3,375	\$9.54	\$32,198			
Proposed Design:							
4-inch Concrete Sidewalk	SY				2,110	\$25.00	\$52,750
6-inch GAB	SY				2,110	\$9.54	\$20,129
SUBTOTAL				\$116,573			\$72,879
TOTAL ROUNDED				\$117,000			\$73,000

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: O-1
Client: City of Alpharetta/GDOT
Sheet 3 of 3

Original Design:

4" Sidewalk

8 ft wide x 1,900 ft long x 2 sides x SY/9 SF = 3,375 SY x \$25.00/SY = \$84,375

6" GAB

8 ft wide x 1,900 ft long x 2 sides x SY/9 SF = 3,375 SY x \$9.54/SY = \$32,198

VE Concept:

4" Sidewalk

5 ft wide x 1,900 ft long x 2 sides x SY/9 SF = 2,110 SY x \$25.00/SY = \$52,750

6" GAB

5 ft wide x 1,900 ft long x 2 sides x SY/9 SF = 2,110 SY x \$9.54/SY = \$20,129

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
O-1.1

Sheet No.:
1 of 4

CREATIVE IDEA: Alternative to Idea O-1 Construct a 12-foot multi-use path on the north side of Encore Parkway and a 5-foot sidewalk on the south side, and eliminate the bike lanes.

Comp By: J.V. Date: 07/20/2011 Checked By: K.B. Date: 07/20/2011

Original Concept:

The original design proposes to construct 8-foot wide concrete sidewalks on both shoulders. The proposed sidewalk is 4-inch thick on 6-inch thick GAB within an 18-foot graded shoulder. The original design also includes 6-foot bike lanes (future 4-foot bike lane) on both sides of the roadway.

Proposed Change:

This recommendation proposes to construct a 12-foot concrete multi-use path on the north side of Encore Parkway and a 5-foot concrete sidewalk on the south side of Encore Parkway. This concept would also remove the proposed bike lanes from Encore Parkway.

Justification:

A 12-foot multi-use path is acceptable for bicyclists and pedestrians. Shifting the bicyclists to the multi-use path allows the bike lanes to be removed from Encore Parkway. The proposed bike lanes do not connect to any other bike lanes. Additionally, the sidewalk on the south side of Encore Parkway could be reduced from 8-foot wide to a standard 5-foot wide sidewalk due to the multi-use path on the north side.

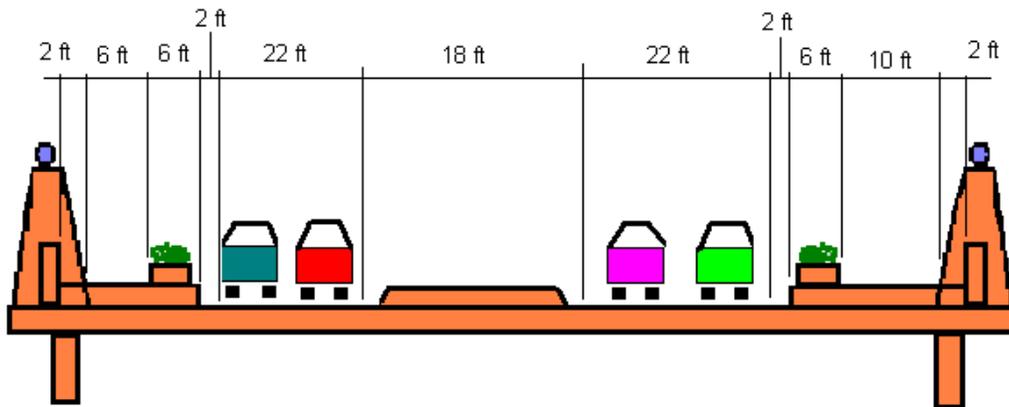
To improve connectivity to the Big Creek Greenway, the multi-use path should be located on the north side of Encore Parkway. The north side shoulder of the new Encore Parkway Bridge over SR 400 would need to be widened to accommodate a 10-foot multi-use path.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$4,358,000		
Proposed	\$4,164,000		
Savings	\$194,000		\$194,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$194,000

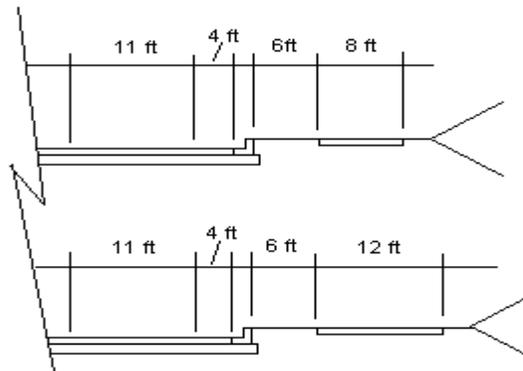
SKETCH

Project: Encore Parkway Streetscape & Big Creek Greenway Extension

Idea No.: O-1.1
 Client: City of Alpharetta/GDOT
 Sheet 2 of 4



Encore Parkway Bridge with 10-foot Multi-Use Path Crossing on the North Side



North side sidewalk being widened to 12-foot multi-use path

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.: O-1.1
Client: City of Alpharetta/GDOT
Sheet 4 of 4

Original Design:

Sidewalk

8 ft wide x 1,900 ft long x 2 sides x SY/9 SF = 3,375 SY x \$25.00/SY = \$84,375

6" GAB

8 ft wide x 1,900 ft long x 2 sides x SY/9 SF = 3,375 SY x \$9.54/SY = \$32,198

Asphalt Pavement Overlay – NE Bike Lane Only

4 ft wide (ultimate section) x 1,900 ft long x SY/9 SF = 845 SY x \$7.00/SY = \$5,915

Asphalt Pavement Full Depth – SW Bike Lane Only

4 ft wide (ultimate section) x 1,900 ft long x SY/9 SF = 845 SY x \$42.00/SY = \$35,480

Bridge

105 ft wide x 400 ft long = 42,000 SF x \$100/SF = \$4,200,000

VE Concept:

Sidewalk

((5 ft wide x 1,900 ft long) + (12 ft wide x 1,900 ft)) x SY/9 SF = 3,590 SY x \$25.00/SY = \$89,750

6" GAB

((5 ft wide x 1,900 ft long) + (12 ft wide x 1,900 ft)) x SY/9 SF = 3,590 SY x \$9.54/SY = \$34,249.

Asphalt Pavement Overlay – Bike Lane Only

0

Asphalt Pavement Full Depth – Bike Lane Only

0

Bridge (eliminate bike lanes (8 feet), add additional north side shoulder width (4 feet))

101 FT wide x 400 ft long = 40,400 SF x \$100/SF = \$4,040,000

DEVELOPMENT AND RECOMMENDATION PHASE

Encore Parkway Streetscape & Big Creek Greenway Extension

IDEA No.:
O-4

Sheet No.:
1 of 3

CREATIVE IDEA:
Eliminate the 6-inch GAB under the sidewalk

Comp By: J.V. Date: 7/20/2011 Checked By: K.B. Date: 7/25/2011

Original Concept:

The original design includes the placement of 6 inches of GAB under the sidewalks.

Proposed Change:

This recommendation would eliminate the 6 inches of GAB under the sidewalk.

Justification:

The placement of GAB material under sidewalks is not a normal practice and is unnecessary.

COST SUMMARY	INITIAL COST	FUTURE COST	TOTAL L. C. COST SAVINGS
Original	\$42,000		
Proposed	\$0		
Savings	\$42,000		\$42,000
FUTURE COST: – Savings		N/A	N/A
TOTAL PRESENT WORTH SAVINGS			\$42,000

COST WORKSHEET

Project: Encore Parkway Streetscape & Big Creek Greenway Extension					Idea No.: O-4 Client: City of Alpharetta/ GDOT Sheet 2 of 3		
CONSTRUCTION ELEMENT		ORIGINAL ESTIMATE			NEW ESTIMATE		
Item	Unit	No. Units	Cost/Unit	Total Cost	No. Units	Cost/Unit	Total Cost
Original Design:							
GAB under the sidewalk	SY	4,400	\$9.54	\$41,976			
VE Design:							
GAB under the sidewalk	SY				0		\$0
SUBTOTAL				\$41,967			\$0
TOTAL ROUNDED				\$42,000			\$0

CALCULATIONS

Project: Encore Parkway Streetscape & Big Creek
Greenway Extension

Idea No.:
Client: City of Alpharetta/GDOT
Sheet 3 of 3

Plan estimate for sidewalk: 4,400 SY

Sources

Approving/Authorizing Persons

Name:	Position:	Telephone:
Ron Wishon	Engineering Services	404-631-1753
Robert Hughes	Project Manager	404-631-1799

Personal Contacts

Name:	Telephone:	Notes:
Robert Hughes	404-631-1799	Project briefing
Keith Kunst	770-309-3325	Project briefing
Keith Kunst	770-309-3325	Breakdown of Bridge Landscaping/Streetscaping Items

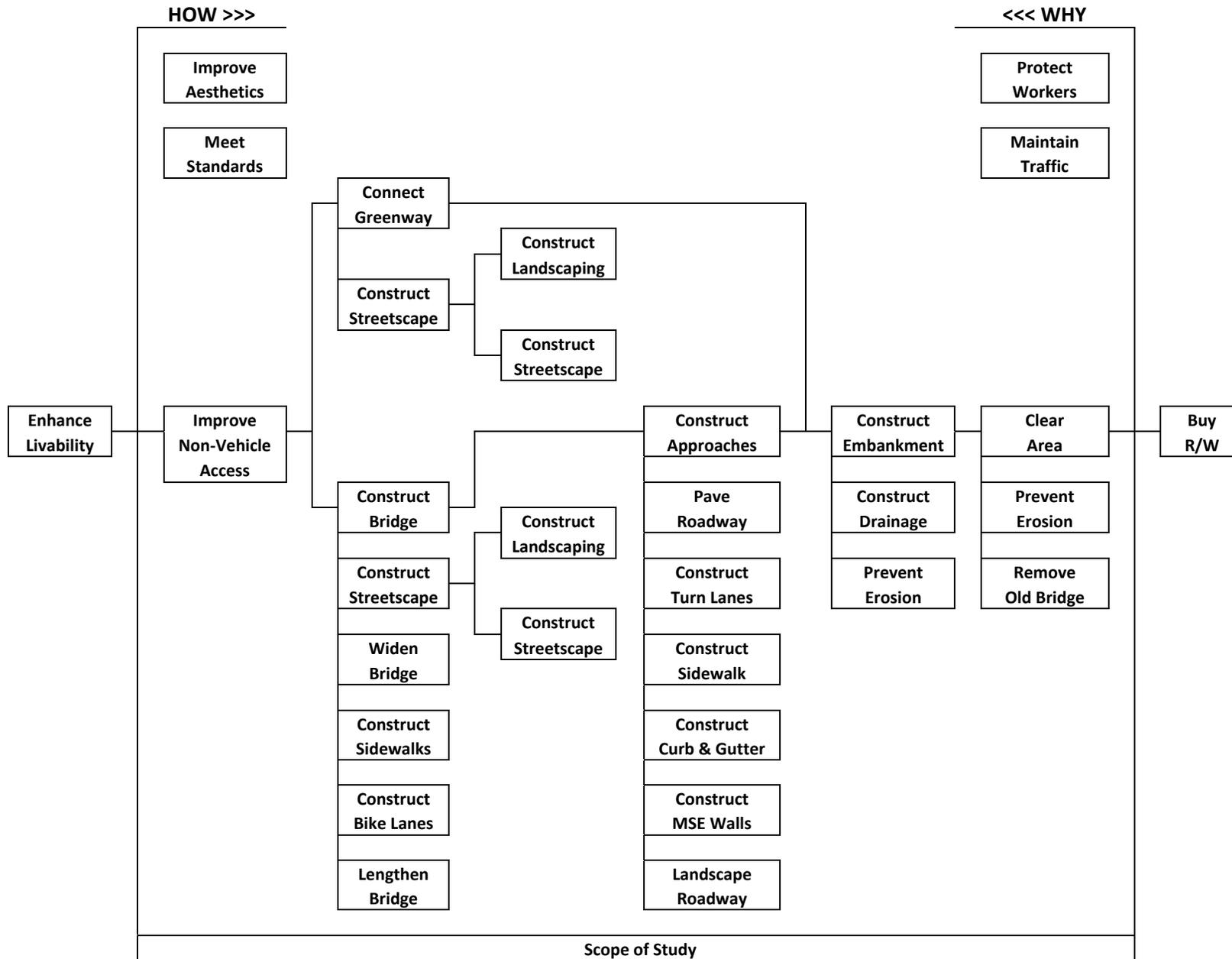
Documents/Abstracts

Reference:	Reference:
Project Concept Report	Bridge Streetscaping Layouts
Preliminary Plans	Bridge Landscaping Concept Layout
Project Cost Estimate	Project Layout Concept
Project Cross Sections	R/W Cos Estimate
Project Profile	Project Constraint List
Project Traffic Counts	Project Typical Sections

Encore Parkway Streetscape & Big Creek Greenway Extension

Cost Model/Distribution

Item	Description	\$ Amount	% of Total Project
A	Bridge	\$4,200,000	35.3%
B	Right of Way	\$1,410,000	11.9%
C	Bridge Landscaping	\$1,200,000	10.1%
D	Grading Complete	\$1,100,000	9.3%
E	Other Landscaping	\$938,000	7.9%
F	Traffic Control	\$620,000	5.2%
G	Asphalt Pavement	\$468,000	3.9%
H	Traffic Signals, Markings, & Signing	\$444,000	3.7%
I	MSE Walls	\$308,000	2.6%
J	Tennessee Field Stone	\$262,000	2.2%
K	Bridge Removal	\$250,000	2.1%
L	Miscellaneous	\$225,000	1.9%
M	Erosion Control	\$140,000	1.2%
N	Concrete Retaining Walls	\$113,000	1.0%
O	Concrete Sidewalk	\$110,000	0.9%
P	Concrete Curb & Gutter	\$96,000	0.8%
	Subtotal	\$11,884,000	
	Price Adjustment – Asphalt Cement	\$204,000	
	Price Adjustment – Diesel Fuel	\$69,000	
	Price Adjustment – Unleaded Fuel	\$21,000	
	Inflation (2 years @ 5%)	\$1,104,000	
	Grand Total	\$13,282,000	



INFORMATION PHASE – FUNCTION ANALYSIS

Project:

Function: Improve Non-vehicle Access

ITEM No.	DESCRIPTION	FUNCTION		INITIAL DOLLARS		
		Verb	Noun	Cost	% of Total	Worth/Save
A	Bridge	Cross	Roadway	\$4,200,000	35.3%	Yes
		Carry	Lanes			
		Carry	Sidewalks			
		Accommodate	Future Lanes			
		Accommodate	MARTA Lanes			
		Enable	Streetscape			
		Separate	Traffic			
		Accommodate	Future HOV/IC			
		Accommodate	Bike Lanes			
B	Right of Way (R/W)	Store	Project	\$1,410,000	11.9%	Yes
		Widen	Roadway			
		Connect	Greenway Trail			
C	Bridge Landscaping	Accommodate	Pedestrians	\$1,200,000	10.1%	Yes
		Protect	Pedestrians			
		Provide	Seating Areas			
		Create	Park Setting			

INFORMATION PHASE – FUNCTION ANALYSIS

Project:

Function: Improve Non-vehicle Access

ITEM No.	DESCRIPTION	FUNCTION		INITIAL DOLLARS		
		Verb	Noun	Cost	% of Total	Worth/Save
C	Bridge Landscaping (continued)	Grow	Vegetation			
		Shade	Pedestrians			
		Separate	Turn Lanes			
		Light	Pedestrian Area			
		Light	Roadway			
		Widen	Bridge			
		Beautify	Structure			
		Improve	Aesthetes			
		Foster	Livability			
D	Grading Complete	Establish	Profile	\$1,100,000	9.3%	Yes
		Construct	Roadway			
		Clear	Area			
		Remove	Old Roadway			
		Achieve	Grade			
		Construct	Approaches			
		Construct	Bike Path			

INFORMATION PHASE – FUNCTION ANALYSIS

Project:

Function: Improve Non-vehicle Access

ITEM No.	DESCRIPTION	FUNCTION		INITIAL DOLLARS		
		Verb	Noun	Cost	% of Total	Worth/Save
E	Other Landscaping	Plant	Trees	\$938,000	7.9%	Yes
		Foster	Livability			
		Grow	Vegetation			
		Improve	Aesthetics			
F	Traffic Control	Stage	Construction	\$620,000	5.2%	No
		Remove	Structure			
		Protect	Worker			
		Direct	Traffic			
G	Asphalt Pavement	Support	Vehicles	\$468,000	3.9%	Yes
		Widen	Roadway			
		Construct	Turn Lanes			
		Construct	Bike Lanes			
H	Traffic Signals, Markings, Signing	Direct	Traffic	\$444,000	3.7%	No
		Identify	Crossings			
		Inform	Motorists			

INFORMATION PHASE – FUNCTION ANALYSIS

Project:

Function: Improve Non-vehicle Access

ITEM No.	DESCRIPTION	FUNCTION		INITIAL DOLLARS		
		Verb	Noun	Cost	% of Total	Worth/Save
I	MSE Walls	Retain	Embankment	\$308,000	2.6%	Yes
		Minimize	Impacts			
J	Field Stone	Improve	Aesthetics	\$262,000	2.2%	Yes
		Beautify	Structure			
		Improve	Appearance			
		Decorate	Bridge			
		Decorate	Streetscape			
K	Bridge Removal	Demo	Structure	\$250,000	2.1%	No
		Clear	Site			
		Accommodate	Construction			
L	Miscellaneous	Construct	Project	\$225,000	1.9%	No
M	Erosion Control	Limit	Sediment	\$140,000	1.2%	No
		Protect	Stream			
		Control	Run-off			

INFORMATION PHASE – FUNCTION ANALYSIS

Project:

Function: Improve Non-vehicle Access

ITEM No.	DESCRIPTION	FUNCTION		INITIAL DOLLARS		
		Verb	Noun	Cost	% of Total	Worth/Save
N	Concrete Retaining Wall	Retain	Embankment	\$113,000	1.0%	Yes
		Limit	Impact			
		Protect	Trail			
O	Concrete Sidewalk	Accommodate	Pedestrians	\$110,000	0.9%	Yes
		Accommodate	Bikes			
		Provide	Access			
P	Concrete Curb & Gutter	Control	Drainage	\$96,000	0.8%	No
		Prevent	Crossovers			
		Prevent	Turns			

CREATIVE PHASE Creative Idea Listing		JUDGMENT PHASE Idea Evaluation	
No.	CREATIVE IDEA	COMMENTS	IDEA RATING
A	Bridge		
A-1	Widen the existing bridge to accommodate streetscaping.	4-lane structure not required.	✓
A-2	Construct a separate pedestrian/bike bridge over SR 400 alongside the existing bridge.	Meet function of accommodating Pedestrian/Bike connectivity, streetscaping	✓
A-3	Extend the greenway pedestrian/bike trail on new location through the Mall area and across SR 400.	Takes trail connection through Mall area, requires R/W, keeps Encore Parkway as is	✓
A-4	Eliminate the internal planters next to the sidewalk and narrow the bridge.	Reduce bridge width, reduce bridge dead load, reduce bridge aesthetics, reduce cost	✓
A-5	Shift the internal planters from next to the roadway to next to the side barrier and reduce their width to reduce the width of the bridge.	Reduce bridge width, reduce bridge dead load, reduce bridge aesthetics, reduce cost	✓
A-6	Eliminate the benches from the bridge and install them alongside the roadway portion of the project.	Reduce bridge width, locate benches in a more practicable location	✓
A-7	Reduce the size of the Bridge Pilasters and make them line-up with the inside part of the side barrier.	Combine with Idea A-6	✓
A-8	Eliminate the center Bridge Pilaster to allow for the addition on the future HOV I/C lanes	Unnecessary feature, has to be removed to construct future HOV lane ramps, no set time	X
✓ = Will be considered further; X = will be dropped; DS = Design suggestion –written for consideration by design team			

CREATIVE PHASE Creative Idea Listing		JUDGMENT PHASE Idea Evaluation	
No.	CREATIVE IDEA	COMMENTS	IDEA RATING
A-9	Reduce the width of the proposed landscaped median.	Reduce the bridge width, reduce cost	✓
A-10	Construct the full 4-lane bridge width with a narrower median/planter/landscaped area.	See Idea A-9	X
A-11	Remove the planter boxes from the median.	Eliminate trees, remove dead load	✓
A-12	Eliminate the median lighting on the bridge.	Lights not needed in bridge median	✓
A-13	Replace the Arbor with decorative fencing.	Simplify construction, Reduce cost,	✓
A-14	Reduce the length of the bridge by eliminating the end spans.	Reduce cost, Simplify construction, Spans not needed.	✓
A-15	Construct a 2-lane bridge with reverse crown and full streetscaping on one side and partial streetscaping on the other side.	Meets streetscape goals, accommodates traffic, allows for future expansion, Reduce cost	✓
A-15.1	Construct a 2-lane bridge with full streetscaping.	See Idea 15	X
A-16	Use a form liner with stain in-lieu-of field stone.	Loss of visual impact	X
A-17	Lower the profile of the bridge to minimize embankment and achieve a better grade for the future HOV I/C Lanes.	See Idea D-1	X
A-18	Narrow the bridge and add Pedestrian Plazas at the end of the bridges in-lieu-of placing benches on the bridge.	Reduce bridge width, accommodate pedestrians	✓
✓ = Will be considered further; X = will be dropped; DS = Design suggestion –written for consideration by design team			

CREATIVE PHASE Creative Idea Listing		JUDGMENT PHASE Idea Evaluation	
No.	CREATIVE IDEA	COMMENTS	IDEA RATING
B	Right of Way (R/W)		
B-1	Buy more of the former Ethan Allen Parking lot on which to construct the Big Creek connector trail.	Additional signal costs, consolidate trail on north side, reduce impacts to stream area.	✓
B-2	Close the former Ethan Allan Parking entrance onto the Big Creek Parking entrance road.	Business closed, provide adequate R/W for trail connector.	✓
B-3	Signalize the former Ethan Allan/N. Point Parkway/N. Point Mall entrance intersection and take the access trail across N. Point Parkway and construct trail on the north side of the roadway.	See Idea O-3	X
B-4	Construct the Big Creek trail connector on the NE side of the Big Creek entrance road.	Shift away from existing stone wall, keep connector on existing entrance road	✓
B-5	Continue the trail connector north on N. Point Parkway and construct a new connector trail through the parking lot area.	Provide simpler access to Big Creek trail	✓
B-6	Construct a new 2-lane Encore Parkway within the existing R/W and with a Pedestrian/Bike trail on only the north side.	See idea D-2 and Idea A-15	X
B-7	Construct Big Creek connector trail alongside the existing entrance road wall (SW side) and reduce the width of the entrance road or shift the entrance road to the NE	Keep trail connector on existing entrance road	✓
✓ = Will be considered further; X = will be dropped; DS = Design suggestion –written for consideration by design team			

CREATIVE PHASE Creative Idea Listing		JUDGMENT PHASE Idea Evaluation	
No.	CREATIVE IDEA	COMMENTS	IDEA RATING
C	Bridge Landscaping		
C-1	Plant flowers/small shrubs on the bridge in-lieu-of trees in large planter boxes.	Reduce the bridge deal load,	✓
C-2	Use standard metal benches in-lieu-of stone benches on the bridge.	See Idea A 6	X
D	Grading Complete		
D-1	Modify the bridge profile and east approach roadway to reduce the roadway grade.	Reduce embankment area, possible reduction in the east side grade	✓
D-2	Construct the Encore Parkway as a 2-lane road in-lieu-of a 4-lane road.	Combine with Idea A-15	X
D-3	Construct only 5-foot sidewalks alongside Encore Parkway in-lieu-of 8-foot sidewalks.	See Idea O-1	X
D-4	Eliminate the retaining wall along Station 110+43 to Station 112+25.	See Idea N-1	X
E	Other Landscaping		
E-1	Weave the proposed sidewalks through the existing trees and save as many of the existing trees as possible.	Save existing trees, Maintain established growth areas	✓
✓ = Will be considered further; X = will be dropped; DS = Design suggestion –written for consideration by design team			

CREATIVE PHASE Creative Idea Listing		JUDGMENT PHASE Idea Evaluation	
No.	CREATIVE IDEA	COMMENTS	IDEA RATING
E-2	Move the benches off the bridge and place them along the roadway portion of the project.	See Idea A-6	X
F	Traffic Control		
F-1	Identify any impacts the closing of Encore Parkway will have on the adjacent SR 400 Interchanges.	Additional vehicles will be forced to go through the Interchange.	DS
F-2	Identify any impacts the closing of Encore Parkway will have on the Fire Station on the west side of SR 400.	Fire Station will not have direct access to buildings on the east side of SR 400	DS
H	Traffic Signals, Markings, and Signing		
H-1	Modify the left turn bays to eliminate the cross-hatched areas.	Cross hatched areas will be eliminated once 4-lane roadway is opened to traffic	X
I	MSE Walls		
I-1	Include unique architectural finishes on the MSE walls.	Panels are currently constructed with Ashlar Stone design	X
✓ = Will be considered further; X = will be dropped; DS = Design suggestion –written for consideration by design team			

CREATIVE PHASE Creative Idea Listing		JUDGMENT PHASE Idea Evaluation	
No.	CREATIVE IDEA	COMMENTS	IDEA RATING
N	Concrete Retaining Walls		
N-1	Eliminate the retaining wall along Station 110+43 to Station 112+25.	Wall is not needed, modify shoulder to eliminate	✓
O	Sidewalks		
O-1	Construct 5-foot sidewalks along both sides of the roadway in-lieu-of 8-foot sidewalks.	Dual sidewalks will provide adequate room for pedestrians, No sidewalks on existing roadway	✓
O-2	Construct a 10/12-foot pedestrian/bike trail on the north side of Encore Parkway and a 5-foot sidewalk on the south side of the road and eliminate the bike lanes in the roadway.	Places bikes on trail and removes them from the road thereby reducing the width of the roadway	✓
O-3	Signalize the former Ethan Allan/N. Point Parkway/N. Point Mall entrance intersection and take the access trail across N. Point Parkway and construct trail on the north side of the roadway.	Allows for a pedestrian/bike trail to be constructed on the north side of Encore Parkway	✓
O-4	Eliminate the GAB under the sidewalks	Unnecessary, Reduce costs	✓
✓ = Will be considered further; X = will be dropped; DS = Design suggestion –written for consideration by design team			

VE STUDY SIGN-IN SHEET

Project No.: N/A

County: Fulton

PI No.: 0010241

Date: July 18-21, 2011

Days

FIRST	LAST	NAME	EMPLOYEE ID NO.	DOT OFFICE OR COMPANY	PHONE NUMBER	EMAIL ADDRESS
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lisa L. Myers		Engineering Services	404-631-1770	lmyers@dot.ga.gov
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Matt Sanders		Engineering Services	404-631-1752	msanders@dot.ga.gov
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Melissa Harper		Construction	404-631-1971	mharper@dot.ga.gov
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Ken Werho		Traffic Operations	404-635-8144	kwerho@dot.ga.gov
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Ron Wishon		Engineering Services	404-631-1753	rwishon@dot.ga.gov
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Bill DuVall		Bridge Design	404-631-1883	bduvall@dot.ga.gov
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Keith Borkenhagen		AMEC (Mactec)	623-556-1875	kborkenhagen@msn.com
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	George Obaranec		AMEC (Mactec)	770-421-3346	GAOBARANEC@mactec.com
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Jeff VanDyke		RS&H	678-528-7234	Jeff.vandyke@rsandh.com
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Greg Grant		RS&H	678-528-7229	Greg.grant@rsandh.com
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Kim Baker		Arcadis	770-431-8666	kimberley.baker@arcadis-us.com
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Keith Kunst		Arcadis	770-309-3325	keith.kunst@arcadis-us.com
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Robert Hughes		GDOT OPD	404-631-1799	rhughes@dot.ga.gov
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Dennis Woodling		Atkins	678-247-2495	dennis.woodling@atkinsglobal.com

Check all that attend
 Did Not Attend
 12 Attended Project Overview (Day 1)
 12 Attended Project Presentation (Day 4)