ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0000691, Candler County **OFFICE** Preconstruction
NHS-0000-00(691)
New Rest Area on I-16 Median **DATE** July 26, 2006

FROM Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Michael Henry
Keith Golden
Joe Palladi
Paul Liles
Brent Story
Glenn Durrence
BOARD MEMBER

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. No. 0000691, Candler County
NHS-0000-00(691)
New Rest Area on I-16 Median

OFFICE Preconstruction

DATE June 20, 2006

FROM Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO David E. Studstill, Jr., P.E., Chief Engineer

SUBJECT PROJECT CONCEPT REPORT

This project consists of constructing a new rest area within GDOT right-of-way in the median of I-16 at approximately MP 97. The new facility will be located 7.0 miles west of the city of Metter and just west of the interchange of I-16 and SR 57. The purpose of this project is to construct a facility along I-16 that could be used as an information center or relief center during an evacuation of the Georgia coastal areas. During hurricane evacuation, I-16 becomes the major route of evacuation for thousands of people from the Georgia coastal areas. As a result, the Department has determined that there is a need for a facility between Savannah and Macon that could be used as an information center, command center, or as a relief site for thousands of travelers during an evacuation.

The project will include the construction of two new bridges that will "scissor" (flip the mainline eastbound and westbound directions) so that ingress to and from the rest area site will be provided on the right hand side of the mainline along both directions of I-16. West of the site, the eastbound mainline is proposed to bridge over the westbound mainline. East of the site, the westbound mainline is proposed to bridge over the eastbound mainline. As a result, in the vicinity of the rest area site, traffic is traveling in the appropriate direction for right-hand exit and entrance ramps. The rest area will include office space, display station area, restroom facilities, parking area, picnic areas, lighting, landscaping, overflow parking for hurricane evacuation, and water and sewer systems. The mainline detours will be constructed on temporary easement and no additional right-of-way will be required.

Environmental concerns include requiring a COE 404 Permit; a Categorical Exclusion will be prepared; time saving procedures are not appropriate.

The estimated costs for this project are:

	PROPOSED	APPROVED	FUNDING	PROG DATE
Construction (includes E&C and inflation)	$34,725,000	$7,134,000	L050	2010
Right-of-Way	$ 643,000	$ 642,000	L050	2008
Utilities*	-0-	-0-		

P. I. No. 0000691, Candler
June 20, 2006

I recommend this project concept be approved and alternative "5" be implemented.

MBP:JDQ/cj

Attachment

CONCUR _____
Buddy Gratton, P.E., Director of Preconstruction

APPROVE _____
for: Robert M. Callan, Administrator, FHWA

APPROVE _____
David E. Studstill, Jr., P.E., Chief Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE: NHS-0000-00(691) Candler
P.I. No. 0000691
I-16 Rest Area

OFFICE: Engineering Services

DATE: July 14, 2006

FROM: Brian K. Summers, Project Review Engineer

TO: Meg Pirkle, Assistant Director of Preconstruction

JUL 17 2006

SUBJECT: **CONCEPT REPORT**

We have reviewed the Concept Report submitted June 12, 2006 by the letter from Brent Story dated June 9, 2006, and have no comments:

The costs for this project are:

Construction	$30,064,862
Inflation	$1,503,243
E & C	$3,158,810
Reimbursable Utilities	$0.00
Right of Way	$642,320

REW

c: Brent Story, Attn.: Clay Bastain

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office Road and Airport Design

Project Number: NHS-0000-00(691)
County: Candler
P. I. Number: 0000691

Federal Route Number: I-16
State Route Number: 404

CONSTRUCTION OF NEW REST AREA ON I-16 MEDIAN

Recommendation for approval:

DATE 6-9-06 — Clay C. Bastian
Project Manager

DATE 6-9-06 — [signature]
State Road & Airport Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTIP) and/or the State Transportation Improvement Program (STIP).

DATE _____ — _____
State Transportation Planning Administrator

DATE _____ — _____
Director Office of Financial Management

DATE _____ — _____
State Bridge & Structural Design Engineer

DATE _____ — _____
State Environmental/Location Engineer

DATE _____ — _____
State Traffic Safety & Design Engineer

DATE _____ — _____
Jesup District Engineer

DATE 7/14/06 — Brian K. Summers RLA
Project Review Engineer

SCORING RESULTS AS PER MOG 2440-2

Project Number:	County:	PI No.:
NHS-0000-00(691)	Candler	0000691

Report Date:	Concept By:
June 9, 2006	DOT Office: Road Design
☒ Concept Stage	Consultant: Clark Patterson

Project Type: Choose One From Each Column			
	☒ Major	☐ Urban	☐ ATMS
	☐ Minor	☒ Rural	☐ Bridge Replacement
			☒ Building
			☐ Interchange Reconstruction
			☐ Intersection Improvement
			☐ Interstate
			☐ New Location
			☐ Widening & Reconstruction
			☐ Miscellaneous

FOCUS AREAS	SCORE	RESULTS
Presentation	100	
Judgement	100	
Environmental	100	
Right of Way	100	
Utility	100	
Constructability	100	
Schedule	100	

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

RECEIVED
JUL - 5 2006

INTERDEPARTMENT CORRESPONDENCE

FILE: **P.I. Nos. 0000691** **OFFICE:** Environment/Location

DATE: June 27, 2006

FROM: Harvey D. Keepler, State Environmental/Location Engineer

TO: Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

SUBJECT: **PROJECT CONCEPT REPORT**
NHS-0000-00(691) / Candler County
Construction of New Rest Area on I-16 Median

The above subject concept report has been reviewed. The project has potential habitat for federally listed Woodstork and state listed Parrot and Sweet Pitcher Plants. With several of the alternatives, preliminary stream and/or wetland impacts may be above the nationwide threshold. If this is correct, an individual permit with PAR may be required.

If you have any questions, please contact me at (404) 699-4401.

HDK/lc

Attachment

cc: Brian Summers
Keith Golden
Brent Story
Joe Palladi
Jamie Simpson
Glenn Durrence
Paul Liles

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office Road and Airport Design

Project Number: NHS-0000-00(691)
County: Candler
P. I. Number: 0000691

Federal Route Number: I-16
State Route Number: 404

CONSTRUCTION OF NEW REST AREA ON I-16 MEDIAN

Recommendation for approval:

DATE 6-9-06 Clay C. Bastian
Project Manager

DATE 6-9-06
State Road & Airport Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTIP) and/or the State Transportation Improvement Program (STIP).

DATE _____
State Transportation Planning Administrator

DATE _____
Director Office of Financial Management

DATE _____
State Bridge & Structural Design Engineer

DATE 6.21.06
State Environmental/Location Engineer

DATE _____
State Traffic Safety & Design Engineer

DATE _____
Jesup District Engineer

DATE _____
Project Review Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office Road and Airport Design

Project Number: NHS-0000-00(691)
County: Candler
P. I. Number: 0000691

Federal Route Number: I-16
State Route Number: 404

CONSTRUCTION OF NEW REST AREA ON I-16 MEDIAN

Recommendation for approval:

DATE 6-9-06 Clay C. Bastian
Project Manager

DATE 6-9-06 Burt A. Stone
State Road & Airport Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTIP) and/or the State Transportation Improvement Program (STIP).

DATE _____
State Transportation Planning Administrator

DATE 6-15-06 James T. Simpson
Director Office of Financial Management

DATE _____
State Bridge & Structural Design Engineer

DATE _____
State Environmental/Location Engineer

DATE _____
State Traffic Safety & Design Engineer

DATE _____
Jesup District Engineer

DATE _____
Project Review Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office Road and Airport Design

Project Number: NHS-0000-00(691)
County: Candler
P. I. Number: 0000691

Federal Route Number: I-16
State Route Number: 404

CONSTRUCTION OF NEW REST AREA ON I-16 MEDIAN

Recommendation for approval:

DATE 6-9-06 Clay C. Bastian
Project Manager

DATE 6-9-06
State Road & Airport Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTIP) and/or the State Transportation Improvement Program (STIP).

DATE 6/19/06
State Transportation Planning Administrator

DATE _____
Director Office of Financial Management

DATE _____
State Bridge & Structural Design Engineer

DATE _____
State Environmental/Location Engineer

DATE _____
State Traffic Safety & Design Engineer

DATE _____
Jesup District Engineer

DATE _____
Project Review Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office Road and Airport Design

Project Number: NHS-0000-00(691)
County: Candler
P. I. Number: 0000691

Federal Route Number: I-16
State Route Number: 404

CONSTRUCTION OF NEW REST AREA ON I-16 MEDIAN

Recommendation for approval:

DATE 6-9-06 — Clay C. Bastian
Project Manager

DATE 6-9-06 — [signature]
State Road & Airport Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTIP) and/or the State Transportation Improvement Program (STIP).

DATE _____ — _____
State Transportation Planning Administrator

DATE _____ — _____
Director Office of Financial Management

DATE _____ — _____
State Bridge & Structural Design Engineer

DATE _____ — _____
State Environmental/Location Engineer

DATE 6-22-06 — [signature]
State Traffic Safety & Design Engineer

DATE _____ — _____
Jesup District Engineer

DATE _____ — _____
Project Review Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office Road and Airport Design

Project Number: NHS-0000-00(691)
County: Candler
P. I. Number: 0000691

Federal Route Number: I-16
State Route Number: 404

CONSTRUCTION OF NEW REST AREA ON I-16 MEDIAN

Recommendation for approval:

DATE 6-9-06 — Clay C. Bastian
Project Manager

DATE 6-9-06 — [signature]
State Road & Airport Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTIP) and/or the State Transportation Improvement Program (STIP).

DATE _____ — _____
State Transportation Planning Administrator

DATE _____ — _____
Director Office of Financial Management

DATE 6/25/06 — Paul V. Liles Jr.
State Bridge & Structural Design Engineer

DATE _____ — _____
State Environmental/Location Engineer

DATE _____ — _____
State Traffic Safety & Design Engineer

DATE _____ — _____
Jesup District Engineer

DATE _____ — _____
Project Review Engineer

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: NHS-0000-00(691) Candler County
P.I. # 0000691

Office: Road Design

Date: June 9, 2006

Brent A Story

FROM: Brent A. Story, P.E., State Road and Airport Design Engineer

TO: Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

SUBJECT Project Concept Report

Attached is the original copy of the Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

BAS:JSS:CB:ss

Attachments

cc: Brian Summers, w/att.
Harvey Keepler, w/att.
Keith Golden, w/att.
Joe Palladi, w/att.
Jamie Simpson, w/att.
Glenn Durrance, Jesup w/att.
Paul Liles, w/att.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office Road and Airport Design

Project Number: NHS-0000-00(691)
County: Candler
P. I. Number: 0000691

Federal Route Number: I-16
State Route Number: 404

CONSTRUCTION OF NEW REST AREA ON I-16 MEDIAN

Recommendation for approval:

DATE 6-9-06 Clay C. Bastian
Project Manager

DATE 6-9-06
State Road & Airport Design Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Improvement Program (RTIP) and/or the State Transportation Improvement Program (STIP).

DATE _____
State Transportation Planning Administrator

DATE _____
Director Office of Financial Management

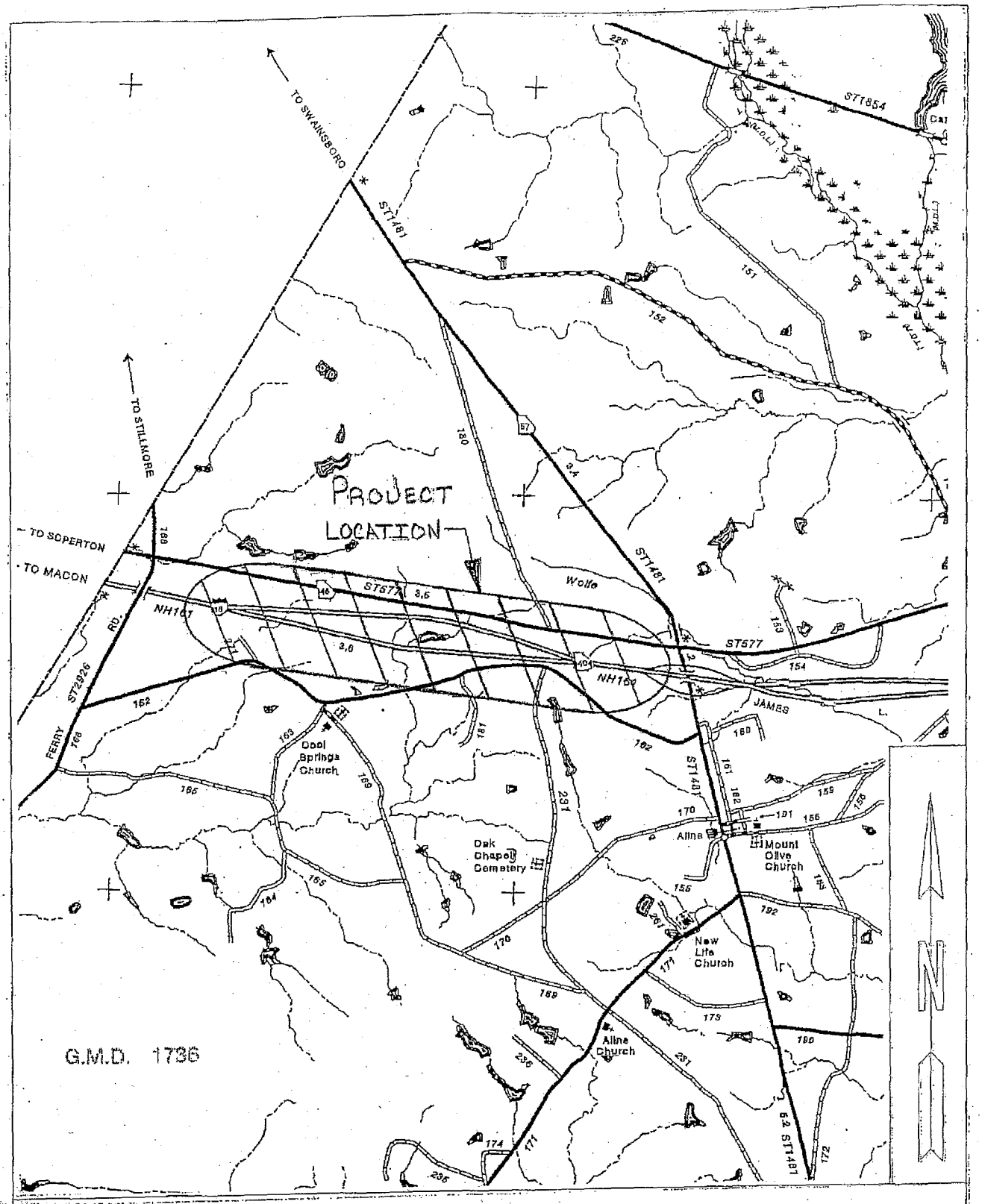
DATE _____
State Bridge & Structural Design Engineer

DATE _____
State Environmental/Location Engineer

DATE _____
State Traffic Safety & Design Engineer

DATE _____
Jesup District Engineer

DATE _____
Project Review Engineer



LOCATION SKETCH

PROJECT NO. NHS-0000-00 (691)

P.I. NO. 0000691

CANDLER COUNTY

Need and Purpose: In the recent years Georgia Coastal Cities have been forced to be evacuated due to the threat from past hurricanes. During hurricane evacuation, I-16 becomes the major route of evacuation for thousands of people from Georgia coastal areas. As a result, the Department has determined that there is a need for a facility between Savannah and Macon that could be used as an information center, command center or as a relief site for the thousands of travelers during the evacuation.

In addition, under AASHTO guidelines, the spacing recommendation between rest areas is from 30 miles to 60 miles. Before the proposed rest area, the closest rest area to Savannah on I-16 is located approximately 117 miles to the west in Laurens County, which it is over the recommended distance. This proposed rest area would give travelers an adequate location to stop over.

The purpose of this project is to construct a facility along I-16 that could be used as an information center or relief center during an evacuation of the Georgia coastal areas and a facility that would provide daily travelers with a place to stop and rest.

Description of the proposed project: The project consists of construction of a new rest area in the median of I-16 at approximately milepost 97. The new facility will be located 7 miles west of City of Metter and just west of the Interchange of I-16 and S.R. 57. This project will include the construction of two new bridges that will "scissor" (flip the mainline eastbound and westbound directions) so that ingress to and egress and from the rest area site will be provided on the right hand side of the mainline along both directions of I-16. The Rest Area will include office space, display station area, restroom facilities, parking area, picnic areas, lighting, landscaping, overflow parking for hurricane evacuation, and water and sewer systems. This project will provide the Department with a rest area facility for the traveling public between Dublin and Savannah and a facility that could be used as an information center or as a relief site during an evacuation of the Georgia Coastal areas. The total length of the proposed improvement is 2.55 miles

Is the project located in a Non-attainment area? _____Yes __X__No

PDP Classification: Major

Federal Oversight: Full Oversight (X), Exempt( ), State Funded( ), or Other ( )

Functional Classification: Interstate Principal Arterial

U. S. Route Number(s): I-16 **State Route Number(s):** S.R. 404

Traffic (AADT):

Current Year: (2007) 17,600 Design Year: (2027) 28,000

Existing design features:

- Typical Section: I-16: Two 12-ft lanes in each direction with rural outside shoulder & variable width depressed median
- Posted speed: 70 mph Maximum degree of curvature: N/A
- Maximum grade: N/A
- Width of right of way: N/A
- Major structures: N/A
- Major interchanges or intersections along the project: None
- Existing length of roadway: 0

Proposed Design Features:

- Proposed typical section: Ramps - One 16-ft lane with paved shoulder with ditches and with curb & gutter and One- 20-ft lane with curb and gutter. I-16 Mainline – Two 12-ft lanes with paved shoulders in each direction & variable width depressed median. I-16 Mainline Bridge - Three 12-ft. lanes with shoulders.
- Proposed Design Speed Ramp: 70 mph
- Proposed Design Speed Site: 15 mph
- Proposed Maximum grade Ramp: 4% Maximum grade allowable Ramp: 4%
- Proposed Maximum degree of curve Ramp: 1.1 Maximum degree allowable Ramp: 4.2
- Right of way
  - Width N/A
  - Easements: Temporary (X), Permanent ( ), Utility ( ), Other ( ).
  - Type of access control: Full (X), Partial ( ), By Permit ( ), Other ( ).
  - Number of parcels: 2 Number of displacements:
    - Business: 0
    - Residences: 0
    - Mobile homes: 0
    - Other: 0
- Structures:
  New Restroom Building
  Two Bridges 240-ft x 60-ft
- Major intersections and interchanges: None
- Traffic control during construction:
  Traffic will be maintained on the existing road during construction.
- Design Exceptions to controlling criteria anticipated:

	UNDETERMINED	YES	NO
HORIZONTAL ALIGNMENT:	( )	( )	(X)
ROADWAY WIDTH:	( )	( )	(X)
SHOULDER WIDTH:	( )	( )	(X)
VERTICAL GRADES:	( )	( )	(X)
CROSS SLOPES:	( )	( )	(X)
STOPPING SIGHT DISTANCE:	( )	( )	(X)
SUPERELEVATION RATES:	( )	( )	(X)
HORIZONTAL CLEARANCE:	( )	( )	(X)
SPEED DESIGN:	( )	( )	(X)

VERTICAL CLEARANCE:	( )	( )	(X)
BRIDGE WIDTH:	( )	( )	(X)
BRIDGE STRUCTURAL CAPACITY:	( )	( )	(X)

- Design Variances: None
- Environmental concerns: Stream and Wetland impact
- Level of environmental analysis:
  - Are Time Savings Procedures appropriate? Yes ( ), No (X),
  - Categorical exclusion (X),
- Utility involvements: Power, telephone, water & sewer

Project responsibilities:

- Design: Clark Patterson Associates
- Right of Way Acquisition: Georgia DOT
- Relocation of Utilities: N/A
- Letting to contract: Georgia DOT
- Supervision of construction: Georgia DOT & Clark Patterson Associates
- Providing material pits: Not determined
- Providing detours: Clark Patterson Associates

Coordination

- Initial Concept Meeting date and brief summary: 2-19-04 See attached minutes
- Concept meeting date and brief summary: 7-21-04 See attached minutes
- P. A. R. meetings, dates and results: N/A
- FEMA, USCG, and/or TVA: None to date
- Public involvement. None
- Local government comments: Included in concept meeting minutes
- Other projects in the area: None
- Other coordination to date: Coordination with County Candler and City of Metter

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: 24 Months.
- Time to complete preliminary construction plans: 12 Months.
- Time to complete right of way plans: 2 Months.
- Time to complete the Section 404 Permit: 12 Months.
- Time to complete final construction plans: 12 Months.
- Time to complete to purchase right of way: 12 Months

Water and sewer alternates considered:

1 Water and sewer provided by Candler County and City of Metter

a. Approximately 7.5 mile of 8" water main
Estimated construction cost: $ 1,737,800

b. Approximately 8.0 mile of 6" Force main
Estimated construction cost: $ 1,945,600

2 Preferred alternative
Water provided by the city of Metter and sewer system on site.

a. Approximately 7.5 mile of 8" water main
Estimated construction cost: $ 1,737,800

b. On site sewer system
Estimated construction cost: $ 671,500

3 Water and sewer systems on site.

a. On site well water system.
Estimated construction cost: $ 190,000

b. On site sewer system
Estimated construction cost: $ 671,400

Alternates Considered:

Alternate 1: Left entrance and exits to Rest Area - Presented in the initial concept meeting, alternate one proposes left-hand entrance and exit ramps connecting I-16 to the site. Because drivers expect right-hand access to and from controlled-access highways, the left-hand entrance and exit represents a much greater potential to confuse the driver. This confusion creates a higher incidence of rear end accidents with slower moving trucks and RV's that weave into the left lane to access the site or I-16. This alternate is not recommended due to the aforementioned safety reasons.

Alternate 2: Construct 4- Fly-over ramps and bridges – Construction of four fly-over bridges will allow right-hand access to and from the I-16 mainline. One ramp and fly-over bridge is proposed in each direction. Due to the location of the exit ramp for the SR 57 interchange, an auxiliary lane is required in the eastbound direction between the rest area/I-16 entrance ramp and the exit ramp for SR 57. The estimated construction cost including Wetland and Stream mitigation cost is **$30,603,300**. Additional right-of-way will be required for the construction of the ramps and detours. This alternate will create a tremendous permanent impact to the existing wetlands and streams located in the vicinity of the proposed fly-over ramps. Also, the construction of the four bridges on each approach and exit from the site is less aesthetically desirable.

Alternate 3: Extended Ramps with one fly-over – Alternate 3 studied the required length of the left-hand entrance ramps for a truck to accelerate to the 70 mph posted speed prior to entering the I-16 mainline. The westbound entrance ramp length requires approximately 6000 feet and the eastbound ramp length requires more than 8000 feet. This latter ramp creates an overlap/weaving conflict with the SR 57 exit ramp. To solve this problem, a fly-over bridge with an auxiliary lane to SR 57 is recommended. The I-16 mainline left-hand exits are proposed in each direction. The estimated construction cost, including wetland and stream mitigation, is **$19,251,680**. Additional right-of-way is required for fly-over construction. For reasons stated above, the left-hand exits and entrances make this alternate a less desirable solution.

Alternate 4: Raising I-16 Mainline with four bridges- This alternate reconstructs, for approximately 2 miles, each direction of the I-16 mainline by raising the its grade and constructing four mainline bridges over rest area entrance and exit ramps. Construction of an eastbound auxiliary lane is also required from the rest area to the SR 57 exit ramp. The reconstruction of I-16 at a higher elevation than the rest area will require over 2000 linear feet of retaining walls and will create less site visibility for the motoring public. The estimated construction cost including wetland and stream mitigation is **$31,353,780**. Right-of-way acquisition will be required for construction of the ramps and detours. This alternate is less preferred due to limited motorist site visibility.

Alternate 5: Scissoring the Mainline- Alternate 5 will "scissor" (flip the mainline eastbound and westbound directions) so that ingress to and from the rest area site will be provided on the right hand side of the mainline. West of the site the eastbound mainline is proposed to bridge over the westbound mainline. East of the site the westbound mainline is proposed to bridge over the eastbound mainline. As a result, in the vicinity of the rest area site, traffic is traveling in the appropriate direction for right-hand exit and entrance ramps. The mainline detours can be constructed on temporary easement and no additional right of way will be required. Wetland and stream impacts are temporary in the locations of the proposed detours. Additional landscaping is proposed in the vicinity of the bridges. The estimated construction cost, including wetland and stream mitigation costs, is **$ 35,367,236**. This preferred alternate creates a safer right-hand site entrances and exits. Accordingly, the proposed grade of the site in relation to the I-16 mainline will create a beautiful rest area for the state of Georgia.

No Build Alternate: This alternate does not meet the operational needs of this project.

Comments:

Alternate 5 exceeds the minimum recommended ramp terminal spacing distance of 2000 feet identified in Exhibit10-68 of the 2004 AASHTO Geometric Design of Highways and Streets. The distance between ramps terminals exceeds one mile from the rest area to the SR 57 interchange and seven miles from the rest area to the US 1 interchange. The Highway Capacity Manual identifies that the maximum length for which weaving analysis is conducted is 2500 lineal feet for all configuration types. The proposed locations of the rest area ramp terminals and the existing interchanges at the US 1 and SR 57 will provide more than sufficient weaving length and adequate space for signing to create a safe and operational access to I-16. An IJR is not required for this project.

Attachments:

1. Cost Estimates:
    a. Construction including E&C,
    b. Right of Way Cost
2. Sketch location map,
3. Building Layout
4. Typical Sections,
5. Minutes Initial Concept Meeting
6. Minutes of Concept Meeting
7. Federal Highway Administration Letter
8. Alternate Study Meeting Minutes and Report
9. Meeting of Additional Concept Meeting
10. Value Engineering Study Final Report Response
11. Value Engineering Study Implementation Recommendations

Concur: _____
Director of Preconstruction

Approve: _____
Division Administrator, FHWA

Approve: _____
Chief Engineer

Project Number: NHS-0000-00(691)
P. I. Number: 0000691
County: Candler

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: NHS-0000-00 (691) **COUNTY:** Candler
DATE: June 7, 2006 **ESTIMATED LETTING DATE:** 07/2008
PREPARED BY: Clark Patterson Associates **PROJECT LENGTH:** 2.9 miles

( ) PROGRAMMING PROCESS (X) CONCEPT DEVELOPMENT ( ) DURING PROJECT DEVELOPMENT

PROJECT COST	
A. RIGHT-TO-WAY	
1. PROPERTY (LAND & EASEMENT)	$ 185,000.00
2. DISPLACEMENTS: RES; O, BUS; O, M.H.; O	
3. OTHER COST (ADM/COST, INFLATION)	$ 457,320.00
SUBTOTAL: A	**$ 642,320.00**
B. REIMBURSABLE UTILITIES	$ 0.00
1. RAILROAD	
2. TRANSMISSION LINES	
3. SERVICES	
SUBTOTAL: B	**$ 0.00**
C. CONSTRUCTION	
1. GRADING AND DRAINAGE	
a. EARTHWORK Uncla. Exc. 297,521 CY @ $ 3.86 Borrow 441,351 CY @ $ 5.50	$ 3,575,862.00
b. DRAINAGE: 1) Side Drain Pipe	$ 165,000.00
2) Longitudinal System	$ 200,000.00
SUBTOTAL: C-1	**$ 3,940,862.00**
2. PAVING	
a. AGGREGATE BASE 121,600 Tons @ $ 16.5	$ 2,006,400.00
b. ASPHALT PAVING: 1) Surface 5,100 Tons @ $ 100.0	$ 510,000.00
2) Binder	
3) Base 34,000 Ton @ $ 100.0	$ 3,400,000.00
c. CONCRETE PAVEMENT 123,200 S.Y @ $ 65.0	$ 8,008,000.00
d. BITUM TACK COAT	$ 6,200.00
SUBTOTAL: C-2	**$ 13,924,400.00**
3. LUMP ITEMS	
a. GRASSING	$ 230,000.00
b. EROSION CONTROL	$ 350,000.00
c. TRAFFIC CONTROL	$ 400,000.00

d. WATER SYSTEM	$ 1,737,800.00
e. SEWER SYSTEM	$ 671,500.00
f. BRIDGES Two Bridges 67,200 SF @ $ 65.0 **WALLS 16,980 SF @ $ 65.0**	$ 5,471,700.00
g. REST ROOM BUILDING	$ 1,580,000.00
SUBTOTAL: C-3	**$ 10,441,000.00**
4. MISCELLANEOUS:	
a. SIGNING – MARKING/GUARDRAIL	$ 280,000.00
b. LANSCAPING	$ 600,000.00
c. CURB & GUTTER	$ 76,000.00
d. SIDEWALK & BOARDWALK	$ 200,000.00
e. PICNIC TABLE, SHELTERS, BENCHES, ETC.	$ 82,600.00
f. LIGHTING	$ 220,000.00
g. CLEARING & GRUBBING	$ 300,000.00
SUBTOTAL: C-4	**$ 1,758,600.00**

PROJECT COST	
A. RIGHT-TO-WAY	**$ 642,320.00**
B. REIMBURSABLE UTILITIES	**$ 0.00**
C. CONSTRUCTION	
1. GRADING AND DRAINAGE	$ 3,940,862.00
2. BASE AND PAVING	$ 13,924,400.00
3. LUMP SUM	$ 10,441,000.00
4. MISCELLANEOUS	$ 1,758,600.00
SUBTOTAL CONSTRUCTION COST	$ 30,064,862.00
E. & C. (10%)	$ 3,006,486.00
INFLATION (5% PER YEAR @ 1 YEARS)	$ 1,653,567.00
TOTAL CONSTRUCTION COST	**$ 34,724,915.00**
GRAND TOTAL PROJECT COST	**$ 35,367,236.00**

Preliminary Right of Way Cost Estimate

Don Brown
Right of Way Administrator
By: Jerry Milligan

Date: January 31, 2006
Project: NHS-0000-00(691)Candler
Existing/Required R/W: Varies/Varies
Project Termini: Interstate 16 Rest Area in Median Area
Project Description: Interstate 16 Rest Area in Median Area CR 507

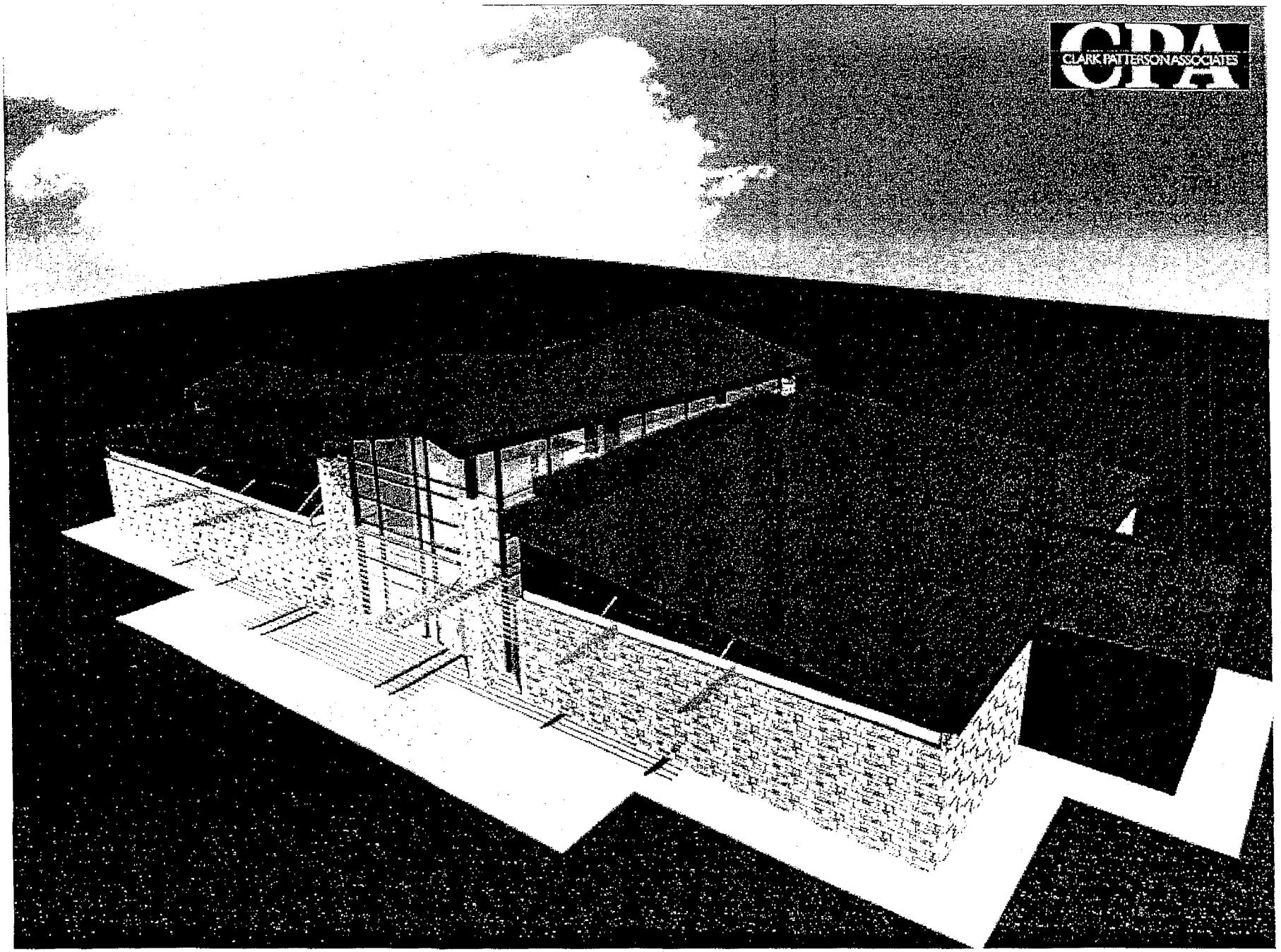
P.I. Number: 0000691
No. Parcels: 3

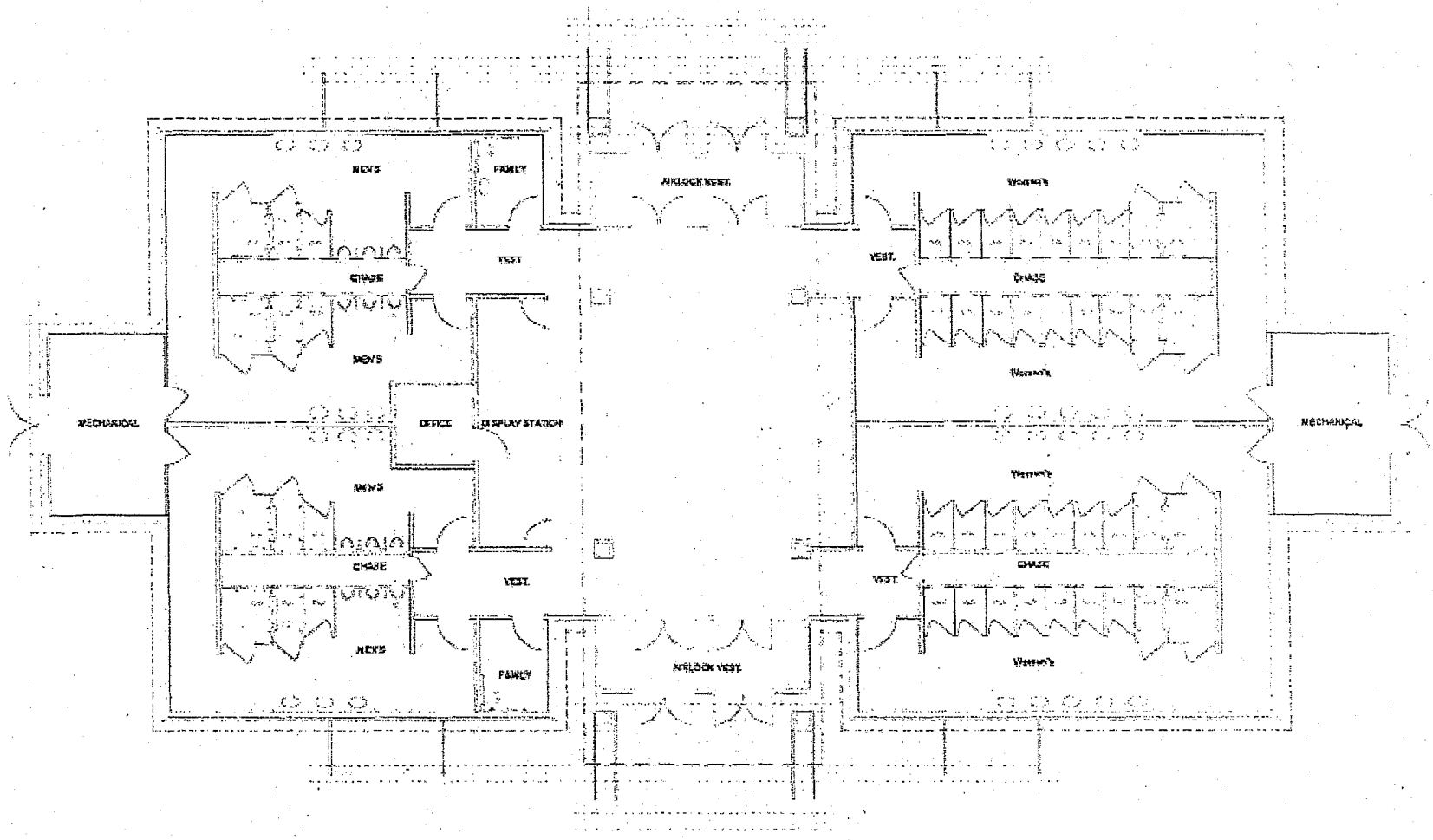
Land: Ag. / Res. ; 12.36 acres @ $ 15,000 / acre		$ 185,000
Improvements : None		0
Relocation: Residential (0) Commercial (0)		0
Damage : Proximity (0) parcel		0
Net Cost		$ 185,000

Net Cost		$ 185,000
Scheduling Contingency	55 %	101,750
Adm/Court Cost	60 %	172,050
Inflation Factor	40 %	183,520
		$ 642,320

Total Cost $ 642,350

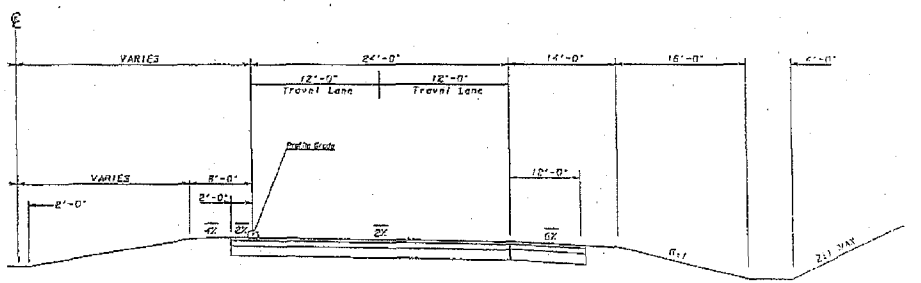
CPA
CLARK PATTERSON ASSOCIATES


CPA
CLARK PATTERSON ASSOCIATES


MENS
FAMILY
AIRLOCK VEST.
Women's
VEST.
CHASE
MENS
Women's
MECHANICAL
OFFICE
DISPLAY STATION
MECHANICAL
MENS
Women's
CHASE
VEST.
CHASE
MENS
FAMILY
AIRLOCK VEST.
Women's

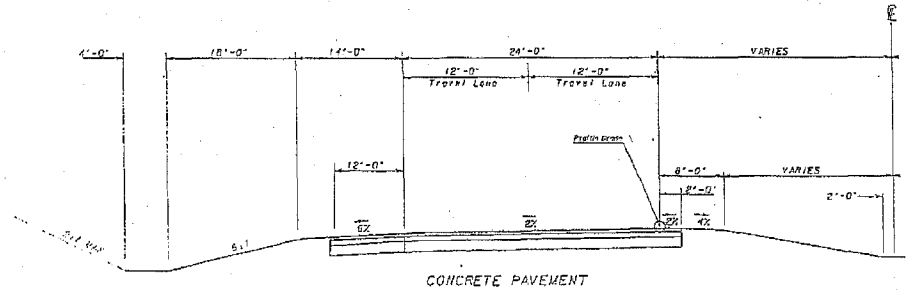
FLOOR PLAN

TYPICAL SECTIONS



CONCRETE PAVEMENT

I-16 EASTBOUND



CONCRETE PAVEMENT

I-16 WESTBOUND

GPA
DESIGN PROFESSIONALS
1600 Smithtown Road
Suite 200
Scottsville, Georgia 30024
770-831-9000 Tel. 770-831-9243 Fax

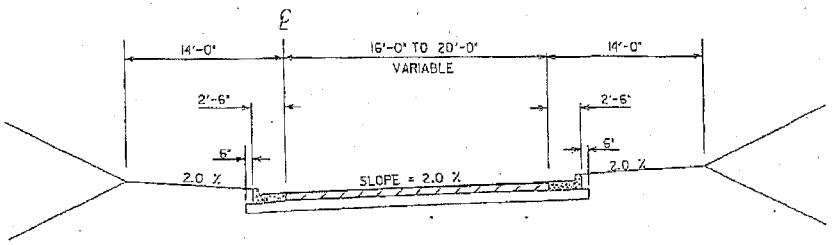
REVISION DATES

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE:
TYPICAL SECTIONS
REST AREA ON I-16 MEDIAN

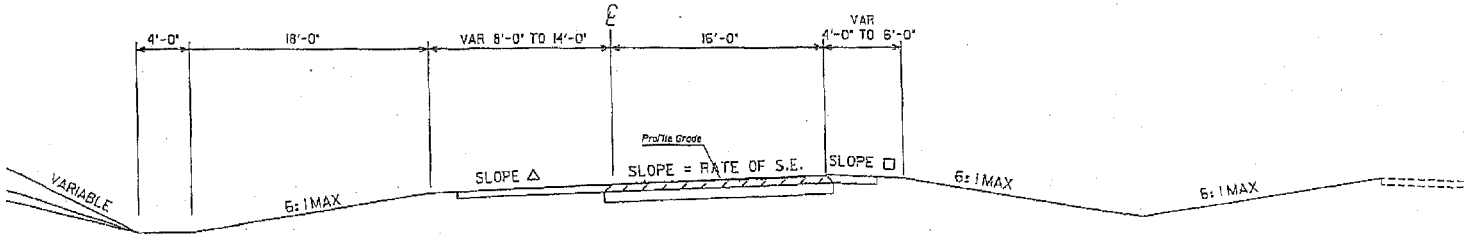
...\9408\DGN\LAYOUTS\typical.dgn 12/14/2005 5:02:16 PM

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

TYPICAL SECTIONS



RAMPS



RAMPS

PROJECT NO. NHS-0000-00(691)

P.I NO. 000069

CANDLER COUNTY

REST AREA ON I-16 MEDIAN

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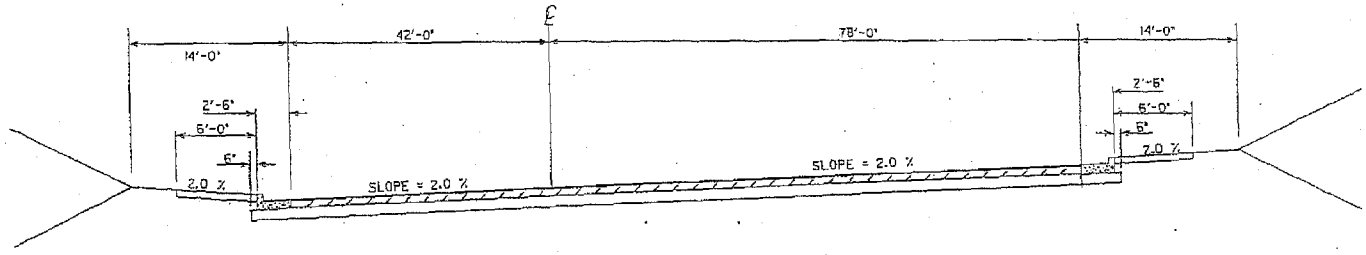
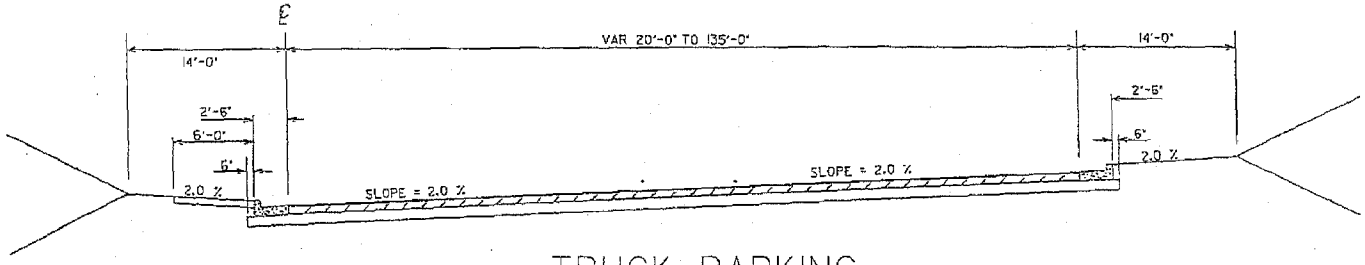
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

TYPICAL SECTIONS



CAR PARKING



TRUCK PARKING

PROJECT NO. NHS-0000-00(691)

P.I NO. 000691

CANDLER COUNTY

REST AREA ON I-16 MEDIAN

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CLARK PATTERSON ASSOCIATES

February 24, 2004

RE: NHS-0000-00 (691)
P.I. No: 0000691
US Route No. 16
State Route No. 404
Meeting Minutes

Meeting Date: February 19, 2004
Location: Jessup, District Office 5

Attendance List/Distribution:

Jerry Morris	GDOT	jerry.g.morris@dot.state.ga.us	404-656-5400
Clay Bastian	GDOT	clay.bastian@dot.state.ga.us	404-656-5400
Chuck Ray	GEMA	cray@gema.state.ga.us	912-486-7942
Dan Duprey	CPA	dduprey@clarkpatterson.com	770-831-9000
Phillip Steele	CPA	psteele@clarkpatterson.com	770-831-9000
Thomas Gill	GDOT	thomas.gill@dot.state.ga.us	912-427-5740
Tony Collins	GDOT	tony.collins@dot.state.ga.us	912-427-5715
Brad Saxon	GDOT	brad.saxon@dot.state.ga.us	912-427-5740
Howell Clements	GDOT	william.clements@dot.state.ga.us	912-427-5779
Lamar Samples	Candler County	candler@pineland.net	912-685-2835
Cliff Hendrix	City of Metter	chendrix@pineland.net	912-685-2835
Milton Futch	Candler County	candler@pineland.net	912-685-2835
Shrujal Amin	CPA	samin@clarkpatterson.com	770-831-9000
Adolfo Guzman	CPA	aguzman@clarkpatterson.com	770-831-9000
C. R. Jackson	GDOT	claude.jackson@dot.state.ga.us	912-427-5740

Items Discussed:

This meeting was scheduled to discuss design/construction issues involving the rest area to be constructed in Candler County approximately seven miles from the City of Metter in the median of US Interstate 16.

1. Jerry Morris opened the meeting explaining the project is in the preliminary concept phase and includes a rest area near a lake in the center median with overflow parking to the west of the lake. The attendees were invited to comment on the design and layout of the rest area.

2. Adolfo Guzman explained the nature and scope of the project and presented a conceptual layout prepared by Clark Patterson Associates. He invited the attendees to comment.

3. Brad Saxon indicated the need to restrict access to only the rest area during non-evacuation times. He also suggested that access to overflow parking be pushed further towards the rest area to prevent backups on the interstate and that some sort of barrier should be incorporated to prevent eastbound and westbound traffic from mixing.

4. It was agreed upon that a sub-base material be placed under the grassed overflow parking and that the size of the parking area be reduced.

5. Chuck Ray suggested that the proposed overflow parking area be converted to a staging area for emergency officials with no portable restroom facilities on the premises.

6. Thomas Gill indicated that there would be a law enforcement presence, but that resources could be stretched thin. There will be no 24 hour monitoring of the rest area.

7. The issue of liability was raised. It was the consensus of the state representatives that the state would be wary of taking on liability risks associated with housing and sheltering people in the overflow area in the event of an evacuation.

8. Jerry Morris suggested placing a fence around the overflow area to control access.

9. C.R. Jackson said there was no need for a State Patrol office to be housed in the facility, as there were plans underway to build one nearby. Lamar Samples followed by indicating the necessity for some sort of police presence to prevent crime that can be associated with this type of facility. Tony Collins said, nonetheless, there should be no provision for Georgia State Patrol offices at this time.

10. It was recommended that variable message signs be tied in with the existing camera detection system and placed in around the rest area to pass on pertinent information to the public. Chuck Ray suggested Peach State Radio also be utilized during evacuation. Signs should be posted informing the public to tune in to the local Peach State Affiliate to obtain emergency broadcasts.

11. Cliff Hendrix indicated the City of Metter was interested in maintaining a presence in the building. The city could provide personnel on special occasions to "man" the rest area and pass along local information to the traveling public. Lamar Samples said this space could function as a welcome center for the city. Clay Bastian suggested a small visitors table/kiosk could be used for information. Lamar Samples thought this would be ok, but he would check with the city to make sure.

12. Thomas Gill recommended placing vending machines in a climate controlled area. Adolfo Guzman offered examples of recently constructed rest areas as examples of this. Adolfo indicated that this recommendation would be incorporated in the design of the building.

13. Adolfo Guzman said that there would be studies done on the costs of running water and sewer lines from the city of Metter to the rest area. Lamar Samples said the Mayor of Metter was interested in bringing sewer lines parallel to SR 46. Milton indicated that EPD permitting may be an issue in the decision between treating on site versus running water and sewer lines. Cliff Hendrix said that chlorination of water may also be an issue

14. Tony Collins suggested that cost be developed for all the alternatives mentioned in dealing with water and sewer for the facility. Lamar Samples asked that the cost be analyzed with future development along the water/sewer lines be taken into consideration.

15. Cliff Hendrix said the county and city may be willing to contribute towards some of the cost associated with re-routing water and sewer if the SR 46 alternative was to be used. Currently, he said, the re was a 1.0 MGD sewer capacity and that the city was using 0.45 MGD, running near half it's capacity. Recently, the city implemented a pump station and was well aware of the cost associated with running lines

for a seven mile stretch. He concluded that the city definitely would like to have some say in the water/sewer layout. Adolfo Guzman indicated, from preliminary study, a need for several pumps combined with gravity flow for the lines to reach their final destination.

16. Phillip Steele displayed schematics of potential building layouts and asked for input. He conveyed that part of his task would involve the incorporation of the scenic lake setting into the building design. Suggestions were given to provide possible picnic areas behind the building that would showcase the lake. Jerry Morris indicated the need for a larger breezeway and also suggested that a fence should be placed around the entire lake to prevent possible liability issues that would result from personal injury or drowning.

17. Jerry Morris said this project was in the long-range plan, but that it was possible that it could be placed on the fast track at some point in the future.

18. Jerry summarized by stating that the concept would be retooled taking into account issues that were raised at this meeting. He said the estimates would be developed using the different alternates discussed.

This summarizes the items discussed during the meeting. Please inform Clark Patterson Associates of any misunderstandings, corrections, or omissions within seven days. A copy of the "sign in" list is attached.

Sincerely,

Shrujal Amin, P.E.
CLARK PATTERSON ASSOCIATES

Enclosure

NAME	REPRESENTING	PHONE	EMAIL
JERRY MORRIS	GDOT	404 656-5400	JERRY.G.MORRIS@DOT.STATE.GA.US
CLAY BASTIAN	GDOT	404 656-5400	CLAY.BASTIAN@DOT.STATE.GA.US
Chuck Ray	GEMA	912-486-7942	CRay@GEMA.state.ga.us
Dan Duprey	ClarkPatterson	770831 9000	DDuprey@ClarkPatterson.com
PHILLIP STEELE	CLARK PATTERSON	770.831.9000	PSTEELE@CLARKPATTERSON.COM
Thomas Gill	GDOT	912-427-5740	Thomas.Gill@DOT.STATE.GA.US
Tony Collins	GDOT	912-427-5715	Tony.Collins@dot.state.ga.us
BRAD SAXON	GDOT	912-427-5740	BRAD.SAXON@DOT.STATE.GA.US
Howell Clements	GDOT	912-427-5774	William.Clements@DOT.STATE.GA.US
LAMAR SAMPLES	CANDLER Co.	912-68-2875	CANDLER@PINELAND.NET
CLIFF HENDRIX	City of Metter	912-685-2527	Chendrix@Pineland.NET
Milton Futch	Candler Co.	912-685-2835	Candler@Pineland.NET
SHRUTAL AMIN	CLARK PATTERSON	770-831-9000	samin@clarkpatterson.com
Adolfo Guzman	Clark Patterson	770-831-9000	aguzman@clarkpatterson.com
C. R. JACKSON	GDOT A.E.		

July 27, 2004

RE: NHS-0000-00 (691)
P.I. No: 0000691
US Route No. 16
State Route No. 404
Concept Meeting Minutes

Meeting Date: July 21, 2004
Location: Jessup, District Office 5

Attendance List/Distribution:

Jerry Morris	GDOT	jerry.g.morris@dot.state.ga.us	404-656-5400
Adolfo Guzman	CPA	aguzman@clarkpatterson.com	770-831-9000
Phillip Steele	CPA	psteele@clarkpatterson.com	770-831-9000
Shrujal Amin	CPA	samin@clarkpatterson.com	770-831-9000
George Shenk, Jr.	GDOT	george.shenk@dot.state.ga.us	912-427-5779
Cliff Hendrix	City of Metter	chendrix@pineland.net	912-685-2835
Lamar Samples	Candler County	candler@pineland.net	912-685-2835
Milton Futch	Candler County	candler@pineland.net	912-685-2835
Barbara Bennett	Candler County	cancd@pineland.net	912-685-2822
Sheree Smart	GDOT	sheree.smart@dot.state.ga.us	912-427-5788
Teresa Scott	GDOT	teresa.scott@dot.state.ga.us	912-427-5788
Cynthia Phillips	GDOT	cynthia.y.phillips@dot.state.ga.us	912-427-5767
Tony Collins	GDOT	tony.collins@dot.state.ga.us	912-427-5715
Steve Williams	Excelsior EMC	scw2578@yahoo.com	912-685-2115
Mike Purvis	Pineland Telephone	purv2@pineland.net	912-685-2121
C. R. Jackson	GDOT	claude.jackson@dot.state.ga.us	912-427-5740
Gary Priester	GDOT	gary.priester@dot.state.ga.us	912-427-5710

Items Discussed:

This meeting was scheduled to discuss developments from the feedback that resulted from the pre-concept meeting in February.

1. Mr. Morris opened the meeting by identifying the project and providing a brief description of the rest area to be constructed in Candler County approximately seven miles from the City of Metter in the median of US Interstate 16. He then had then identified the attendees by having everyone give a brief introduction.

2. Mr. Amin of Clark Patterson Associates went through the draft concept report his firm is preparing and asked that attendees feel free to comment as the meeting went along.

3. Mr. Steele explained the major structures involved with the rest area. He showed the schematics and renderings for two options.

18. Mr. Guzman relayed that a Variable Message Sign is part of this contract and that placement would be coordinated with GDOT.

19. Mr. Priester recommended adding access for emergency vehicles to crossover from the eastbound to the westbound sides of the rest area. Mr. Morris agreed and stated that there shall be some sort of access designed for two-way traffic.

20. Finally, a general consensus was reached that the overflow parking be moved to the west of the rest area from the proposed eastern location.

This summarizes the items discussed during the meeting. Please inform Clark Patterson Associates of any misunderstandings, corrections, or omissions within seven days. A copy of the "sign in" list is attached.

Sincerely,

Shrujal Amin, P.E.
CLARK PATTERSON ASSOCIATES

Enclosure

4. Mr. Morris requested that a vestibule be incorporated on the front and back entrances.

5. The representatives for the City of Metter asked that there be security grilles designed for the kiosk as well as the vending areas.

6. Mr. Steele recommended incorporation of interior hallways into the restrooms, this will allow people to utilize both restrooms, but having the flexibility to lock the other half of the restrooms.

7. The meeting attendees agreed upon Option A with some modifications. The office will be retained. The façade of the building will be stone with a simulated copper metal roof. Phillip will work with interested parties after the PFPR on selection of final color schemes and materials to be used.

8. Mr. Guzman described four alternates that Clark Patterson Associates developed for water supply to the rest area. Mr. Samples recommended a crossing at SR 57 be considered to avoid buying right of way.

9. Mr. Hendrix recommended a feasibility analysis be done on the use of flushers in the system to prevent stagnant water from being a health issue.

10. Mr. Priester recommended that Clark Patterson Associates look into issues of chlorination in standing water as well as the introduction of an aeration system at the end of the water line.

11. Mr. Hendrix inquired about the cost difference between an 8" line and a 12" line. Mr. Priester indicated that the design should call for adequate supply to the rest area and the City of Metter will be required to pay for any upgrade in size to the design. Mr. Priester also indicated that the City of Metter will actually let the construction of water and sewer and that the design be adequate for the Department's use and the city can decide later what to actually install.

12. After Mr. Guzman explained the differences in the alternates, it was unanimously decided that alternate four with a looping connection be the chosen method of connection for water supply.

13. Mr. Guzman explained the sewer connection option and mentioned the main draw back to treating sewage off sight was the possibility of failure. He recommended treating wastewater on site using newer treatment methods.

14. Mr. Priester recommended additional study for the treatment on sight option. Mr. Guzman said that he would be in touch with sanitation and municipal engineers to created a more detailed study on the best option for the locale.

15. Ms. Phillips suggested Clark Patterson Associates look into the use of parallel lanes instead of a tapered design approach. Mr. Morris proposed facilitating a conversation with FHWA on the recommended design. Mr. Guzman explained that if a change were indeed necessary, it would be reflected at the time of Preliminary Plans.

16. Ms. Phillips also inquired about the distance from the nearest exit ramp on either side of the proposed location. She was concerned with there being adequate weaving distance. Mr. Guzman ensured her that there was more than enough room, but that he would look into it to be safe.

17. Mr. Guzman mentioned previous rest area designs have called for three phase electrical connections and this rest area would most likely call for the same connection. Mr. Williams stated that it would not be a major issue.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Georgia Division
61 Forsyth Street, S.W., Suite 17T100
Atlanta, Georgia 30303
November 1, 2004

IN REPLY REFER TO:
HTM-GA

Mr. Harold Linnenkohl
Commissioner
Georgia Department of Transportation
No. 2 Capitol Square, S.W.
Atlanta, Georgia 30334-1002

Attention: Mr. Jerry G. Morris, Project Manager

Subject: Project No. NHS-0000-00(691), Candler Co.
Project Concept Report
Safety Rest Area In Median of I-16

Dear Mr. Linnenkohl:

We have completed our review of the concept report for the subject proposed project. The scope of this project is to construct a new safety rest area in the median of I-16 near MP 97, which is approximately seven (7) miles west of Metter.

As discussed with Mr. Morris, the Project Manager, we concur that there would be some advantages to locating the rest area in the median (i.e., existing right-of-way, the need for only one building, etc.). However, the concept as described in the report would require motorists desiring to access the rest area to exit and re-enter the Interstate from the left side, which is not desirable. Therefore, as discussed, we are asking the Department to evaluate a cost-effective design that would allow traffic to exit and re-enter the Interstate mainline on the right side.

If you have any questions, please contact Floyd Moore at (404) 562-3654.

Sincerely,

Shassan Chandne

For Robert M. Callan, P.E.
Division Administrator

cc: Mr. Gerald M. Ross, State Road & Airport Design Engineer

November 10, 2005

RE: NHS-0000-00(691)
P.I. No. 0000691
SRA MP 97 Candler County

Meeting Date: November 9, 2005
Location: Bridge Design Conference Room

Attendance List:

Gus Shanine	FHWA	gus.shanine@fhwa.dot.gov	404-562-3632
Floyd Moore	FHWA	floyd.moore@fhwa.dot.gov	404-562-3654
Brent Story	GDOT	brent.story@dot.state.ga.us	404-656-5436
Jason McCook	GDOT	jason.mccook@dot.state.ga.us	404-657-8249
Kim Fulbright	GDOT	kim.fulbright@dot.state.ga.us	404-656-5407
Clay Bastian	GDOT	clay.bastian@dot.state.ga.us	404-656-5400
Adolfo Guzman	CPA	aguzman@clarkpatterson.com	770-831-9000
Joe Garland	CPA	jgarland@clarkpatterson.com	770-831-9000

This meeting was scheduled to present the additional alternates requested by FHWA during the June 20, 2005 meeting.

1. Mr. Story opened the meeting with a brief discussion of the meeting agenda.
2. Mr. Guzman discussed the five (5) alternates presented.
    a. Alternate # 1 - original layout
    b. Alternate # 2 - 4 fly-overs
    c. Alternate # 3 - Long ramps with 1 fly-over
    d. Alternate # 4 – Raise mainline (I-16) with 4 bridges
    e. Alternate # 5 – Scissoring of mainline (I-16)
3. Mr. Shanine states FHWA preferred alternate in number 5 scissoring of the mainline.

There was a general discussion following the alternates presentation. Items discussed included construction time, landscaping at scissors and picnic areas near lake. During this discussion Mr. Moore inquired will this construction accommodate future widening of I-16? Mr. Garland replies yes we have accounted for an additional lane with full shoulders on the bridges for the scissors. Mr. Shanine inquired about water supply and cost sharing with the city of Metter. He stated cost sharing should be negotiated. Also, Mr. Shanine stated if waterline is on I-16 R/W it should be place outside of future widening if possible to reduce chance of future relocation. Mr. Guzman indicated some wetland and stream impacts would be temporary and could be mitigated on site. Also, right of way would not be required only temporary easements for stage/ detour construction.

The next step will be to submit a new concept report for approval.

ALTERNATES STUDY REPORT

	ALTERNATE NO.1 LEFT ENTRANCES & EXITS	ALTERNATE No. 2 CONSTRUCTION OF 4-FLY-OVERS	ALTERNATE No.3 LONG RAMPS WITH 1-FLY-OVER		ALTERNATE No.5 SCISSORING OF MAINLINE
PRELIMINARY ESTIMATED WETLANDS IMPACT	1.97 acres	5.26 acres	2.03 acres		3.57 acres
PRELIMINARY ESTIMATED STREAM IMPACT	1,115-ft	6,019-ft	1,105-ft		4,772-ft
WETLAND MITIGATION COST	$35,928	$95,544	$36,960		$64,104
STREAM MITIGATION COST	$366,835	$2,773,264	$350,385		$2,034,260
TOTAL MITIGATION COST	$402,763	$2,868,808	$387,345		$2,098,364
ESTIMATED CONSTRUCTION COST	$13,189,120	$30,603,300	$19,251,680		$35,367,236

CLARK PATTERSON ASSOCIATES

February 13, 2006

RE: NHS-0000-00 (691)
P.I. No: 0000691
US Route No. 16
State Route No. 404
Meeting Minutes

Meeting Date: February 10, 2006
Location: Road and Airport Design

Attendance List/Distribution:

Mark Bartlett	FHWA	mark.bartlett@fhwa.dot.gov	404-562-3635
Floyd Moore	FHWA	floyd.moore@fhwa.dot.gov	404-562-3654
Brent Story	GDOT	brent.story@dot.state.ga.us	404-656-5436
Clay Bastian	GDOT	clay.bastian@dot.state.ga.us	404-656-5400
Walt Taylor	GDOT	walter.taylor@dot.state.ga.us	404-656-5400
Tony Collins	GDOT	tony.collins@dot.state.ga.us	912-427-5715
Jim Simpson	GDOT	jim.simpson@dot.state.ga.us	404-657-9152
Joe Garland	CPA	jgarland@clarkpatterson.com	770-831-9000
Adolfo Guzman	CPA	aguzman@clarkpatterson.com	770-831-9000

Items Discussed:

This meeting was scheduled to present the preferred design alternate to the District as a follow up to the meeting held with FHWA on June 20, 2005.

Mr. Guzman opened the meeting with a brief of the discussion of the five alternates studied including the preferred alternate with scissoring the mainline. This alternate will flip the mainline eastbound and westbound directions so that ingress to and from the rest area site will be provide on the right hand side of the mainline. West of the site the eastbound mainline is proposed to bridge over the westbound mainline. East of the site the westbound mainline is proposed to bridge over the eastbound mainline. As a result, in the vicinity of the rest area site, traffic is traveling in the appropriate direction for right-hand exit and entrance ramps. The mainline detours can be constructed on temporary easement and no additional right of way will be required. Wetland and stream impacts are temporary in the locations of the proposed detours. Additional landscaping is proposed in the vicinity of the bridges. Profile grades were developed for the mainline with a maximum 2% grade. He also stated that the right of way cost estimate for this alternate is $642,320.

Mr. Collins indicated that the District is in support of the preferred alternate presented. He questioned the cost on maintenance of the on site sewer treatment plant and supported a sewer hook up to the County.

Mr. Story stated that a value engineering study will be required to be completed prior to the approval of the concept. He also requested FHWA to check for the need for a public information open house meeting for this project. He mentioned the need for landscaping in the area of the proposed bridges to minimize the glare and to improve the aesthetics. Additional comments from Mr. Story questioned if the project will require a design exception. Mr. Guzman indicated that no design exceptions were required.

Mr. Bartlett commented that the temporary easement may be reduced by constructing additional width to the shoulder for a detour and using sheet piles in the area of the bridges. Mr. Guzman commented that CPA will study all possible alternates to reduce the temporary construction easement during the development of the construction staging plans.

This summarizes the items discussed during the meeting. Please inform Clark Patterson Associates of any misunderstandings, corrections, or omissions within seven days. A copy of the "sign in" list is attached.

Sincerely,

Adolfo Guzman, P.E.
CLARK PATTERSON ASSOCIATES

Georgia Department of Transportation

Meeting/Conference Record of Attendees

Project Name: NHS-0000-00(691)
Project ID: 0000691
Type of Meeting: Concept Team Meeting (Rev. Concept)

Date & Time
2/10/2006 10:00 AM
County:
Location: G.O. rm 44c

	Name	Organization	Telephone	E-mail
1	CLAY BASTIAN	GDOT ROAD DESIGN	404-656-5400	CLAY.BASTIAN@DOT.STATE.GA.US
2	Joe Garland	Clark Patterson ~~Assoc~~	770.831.9000	jgarland@clarkpatterson.com
3	WALT TAYLOR	GDOT ROAD DESIGN	404-656-5400	WALTER.TAYLOR@DOT.STATE.GA.US
4	Adolfo Guzman	Clark Patterson & Assc.	770-831-9000	aguzman@clarkpatterson.com
5	Brent Story	GDOT Road Design	656-5356	brent.story@dot.state.ga.us
6	FLOYD MOORE	FHWA	(404)562-3654	FLOYD.MOORE@FHWA.DOT.GOV
7	TONY COLLINS	GDOT - JESUP	912 427-5715	TONY.COLLINS@DOT.STATE.GA.US
8	JIM SIMPSON	GDOT - ROAD DESIGN	404-657-9192	jim.simpson@dot.state.ga.us
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DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE	NHS-0000-00 (691) Candler County PI No. 0000691 I-16 Median Rest Area	OFFICE	Road Design
		DATE	April 25, 2006
FROM	Brent Story, P.E., State Road and Airport Design Engineer		
TO	Brian Summers, P.E., Project Review Engineer Attention: Lisa Myers		
SUBJECT	VALUE ENGINEERING STUDY - FINAL REPORT RESPONSE		

Below are the responses to the Value Engineering Study conducted on March 20-22, 2006, for the above reference project. Each comment was studied and addressed by both the Department's Project Manager and the Consultant's Project Manager:

STRUCTURAL BRIDGES:

Value Engineering Alternative No. 2 - Reduce Span of proposed bridges to accommodate two lanes only.

COMMENTS: The proposed bridges are to accommodate a future eastbound and westbound lane. Due to the design, geometrics and staging to add an additional lane in the future, it is more cost effective to construct the bridge and approaches for three lanes in each direction at the time of the initial construction. The proposed traffic does not support the additional lane, I-16 is a major hurricane evacuation route and may be widened to accommodate a future lane sooner than the traffic warrants.

The concept for the proposed bridges to accommodate the future lane was suggested in a previous meeting with FHWA.

(The implementation of this alternative is not recommended).

ROADWAY/SITE:

Value Engineering Alternative No. 3 - Provide two rest area building within the median.

COMMENTS: The proposed area within the median is limited due to the existing lake and the eastbound and westbound lanes. This area will not allow the redesign of the mainline to meet the minimum speed design and have a remainder area large enough to accommodate two rest area buildings and overflow parking to for costal evacuation. Additional right of way will be required. The area to the north is limited due to a parallel SR 46.

(The implementation of this design suggestion is not recommended).

Value Engineering Alternative No. 4 - Provide two rest area building outside the median. .

COMMENTS: The area outside the median in the vicinity proposed location is limited and not large enough to construct adequate size rest areas due to the existing parallel SR 46 to the north and County Road 162 to the south. Each site will require approximately 15 acres not including the area for the overflow parking.

(The implementation of this design suggestion is not recommended).

Value Engineering Alternative No. 5 - Use Design Alternate 4.

COMMENTS: The reconstruction of I-16 at a higher elevation than the rest area will require over 2000 linear feet of retaining walls and will create less site visibility for the motoring public. This alternate is less preferred due to limited motorist site visibility.

(The implementation of this design suggestion is not recommended).

Value Engineering Alternative No.6 – Use Design Alternate 4 with only one entrance/exit per direction of travel to the rest area and two bridges.

COMMENTS: This alternative as shown in the sketch will allow the motorists to interact with the motorists in the other direction on the interstate. This will create the potential for a wrong way movement. This alternate will also will require a turn-a-round for trucks which can not be constructed at this site. The one entrance/exit ramp per direction of travel creates conflict points at the ramp terminus. This type design does not meet the driver expectations for rest areas. The raising of the mainline will create less site visibility.

(The implementation of this alternative is not recommended).

Value Engineering Alternative No. 8 – Balance the cut and fill on the site

COMMENTS: This recommendation should be carried forth. The plans will make every effort to balance the earthwork during the development of the construction plans while focusing on the impacts on the wetlands and the aesthetics of the site.

(The implementation of this alternative is recommended.).

Value Engineering Alternative No. 9 – Construct Design Alternate 1.

COMMENTS: Alternate one proposes left-hand entrance and exit ramps connecting I-16 to the site. Because drivers expect right-hand access to and from controlled-access highways, the left-hand entrance and exit represents a much greater potential to confuse the driver. This confusion creates a higher incidence of rear end accidents with slower moving trucks and RV's (using right-side rear view mirrors) that weave into the left or high-speed lanes of I-16.

(The implementation of this alternative is not supported by FHWA).

Value Engineering Alternative No. 12 – Use a septic tank sewer system.

COMMENTS: This recommendation should be carried forth. We will review several alternates to include a septic tank sewer system on site.

(The implementation of this alternative is recommended.).

Value Engineering Alternative No. 18A – Construct one rest area at the I-16/SR 57 interchange.

COMMENTS: There are many variables used to locate new rest areas as outlined in the AASHTO Guide for Development of Rest Areas on Major Arterials and Freeways. Several are unique site qualities, Including scenic view, natural features, geometrics of highway access and right of way considerations. The construction of a rest area as proposed in the median includes these qualities. The special site opportunities at this location will provide opportunities for travelers to experience and interact with the natural environment as pedestrians. The selection of a rest area site at confined areas (I-16/SR 57 interchange) should be avoided if possible. It is important the state maintains a positive public image and gain cooperation from the landowners for the development of the rest area. The land in the area at the interchange has some development and the remaining properties are likely to be developed. The acquisition of right-of-way at the interchange will have opposition and will require long delays for negotiation.

(The implementation of this alternative is not recommended).

Value Engineering Alternative No. 18B – Construct two rest areas at the I-16/SR 57 interchange.

COMMENTS: There are many variables used to locate new rest areas as outlined in the AASHTO Guide for Development of Rest Areas on Major Arterials and Freeways. Several are unique site qualities, Including scenic view, natural features, geometrics of highway access and right of way considerations. The construction of a rest area as proposed in the median includes these qualities. The special site opportunities at this location will provide opportunities for travelers to experience and interact with the natural environment as pedestrians. The selection of a rest area site at confined areas (I-16/SR 57 interchange) should be avoided if possible. It is important the state maintains a positive public image and gain cooperation from the landowners for the development of the rest area. The land in the area at the interchange has some development and the remaining properties are likely to be developed. The acquisition of right-of-way at the interchange will have opposition and will require long delays for negotiation.

(The implementation of this alternative is not recommended).

Value Engineering Alternative No. 25/26 – Reduce the number of plumbing fixtures and size of restroom building.

COMMENTS: The AASHTO Guide for Development of Rest Areas on Major Arterials and Freeways figure 13 (Rest-area design calculations form) was used to determined the number of plumbing fixtures. The number of plumbing fixtures and proposed size of the restroom building is sized such to close one section during the off peek time of operation during the cleaning and maintenance of the facility. A plumbing fixture reduction to 30 will not meet the guidelines mentioned above. Also this reduced size is not consistent with the other rest areas and welcome centers locations though out the state.

(The implementation of this alternative is not recommended).

Value Engineering Alternative No. 27 – Use locally available building materials.

COMMENTS: This recommendation should be carried forth. The plans will include local available building materials during the development of the construction plans.

Value Engineering Alternative No. 29– Use porous pavement for the emergency parking lot.

COMMENTS: The emergency parking lot is anticipated to be used during hurricane evacuation. The use of porous pavement is more costly than the typical section proposed.

(The implementation of this alternative is not recommended).

Value Engineering Alternative No. 31 – Reduce the building pad elevation/fill requirement.

COMMENTS: This recommendation will be reviewed further during the preliminary plan phase to adjust the building finished floor elevation during the development of the ramp and mainline profiles.

BAS:CB:ss

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: NHS-0000-00(691) Candler
P.I. No. 0000691
I-16 Safety Rest Area

OFFICE: Engineering Services

DATE: May 15, 2006

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

TO: Brent Story, PE, State Road Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

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

ALT #	Description	Potential Savings/LCC	Implement	Comments
2	Reduce span of proposed bridges to accommodate two lanes only	$659,511	No	Since I-16 is a Hurricane Evacuation Route, it is anticipated that this road may be widened prior to future traffic needs in order to facilitate emergency evacuations.
3	Provide two Rest Area buildings with the median	$8,747,844	No	Not consistent with Concept Report. There would also be additional future operating and maintenance costs with two buildings rather than one. Would have left hand exits to emergency parking area.
4	Provide two Rest Area buildings outside the median	$7,706,244	No	Not consistent with Concept Report. There would also be additional future operating and maintenance costs with two buildings rather than one. Additional right of way would be required.

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ALT #	Description	Potential Savings/LCC	Implement	Comments
5	Use Design Alternate 4	$2,241,709	No	Design Alternate 4 called for raising the grade on I-16 for almost two miles and constructing the four mainline bridges over the Rest Area ramps. This would require over 2000' of Retaining Walls and would create less visibility for the traveling public to see the Rest Area site.
6	Use Design Alternate 4 with only one entrance/exit per direction of travel to the Rest Area and two bridges	$2,304,463	No	See comments under No. 5. Additionally, having only one entrance/exit ramp in each direction introduces the possibility of wrong way movements and does not meet driver expectations.
8	Balance the cut and fill on site	Design Suggestion	Yes	This will be done.
9	Construct Design Alternate 1	$17,776,459	No	Design Alternate 1 called for left-hand entrance and exit ramps at the Rest Area. This does not meet driver expectations and results in greater potential to confuse the driver.
12	Use a septic tank sewer system	$544,582	Yes	This should be done.
18A	Develop one Rest Area at the I-16/S.R. 57 Interchange	$17,941,259	No	Introduces Rest Area traffic with normal local traffic. Also results in two merge points being relatively close together.
18B	Develop two Rest Areas at the I-16/S.R. 57 Interchange	$15,400,259	No	Introduces Rest Area traffic with normal local traffic. Also results in two merge points being relatively close together.
25/26	Reduce the number of plumbing fixtures and size of the restroom building	$507,351	No	Doesn't meet the guidelines specified in the AASHTO Guide for the Development of Rest Areas which allows for one restroom section to be closed for routine cleaning and maintenance while another section remains open.

ALT #	Description	Potential Savings/LCC	Implement	Comments
27	Use locally available building materials	Design Suggestion	Yes	This will be done.
29	Use porous pavement for the emergency parking lot	-$455,192 (cost increase)	No	Results in a cost increase. The emergency parking lot will only be used during hurricane evacuations.
31	Reduce the building pad elevation/fill requirement	Design Suggestion	Yes	This will be done.

A meeting was held on May 12, 2006 to discuss the above recommendations. Floyd Moore of FHWA, Clay Bastian of Road Design, and Brian Summers and Ron Wishon of Engineering Services were in attendance.

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

Approved: _____ **Date:** 5/15/06
David E. Studstill, Jr., P. E., Chief Engineer

Approved: _____ **Date:** 6/2/06
for **Robert Callan, P. E., FHWA Division Administrator**

BKS/REW

Attachments

c: Gus Shanine, Floyd Moore, FHWA
Brad Saxon
Will Murphy
C.R. Jackson
Clay Bastian
Steve Gaston
Nabil Raad
Lisa Myers