

ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE IM-75-3(189) Gordon County **OFFICE** Preconstruction
P. I. No. 610750
DATE February 8, 2000
FROM 
C. Wayne Hutto, Assistant Director of Preconstruction
TO SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

CWH/cj

Attachment

DISTRIBUTION:

Tom Turner
David Mulling
David Studstill (ATTN: Harvey Keeper)
Jerry Hobbs
Herman Griffin
Georgene Geary (ATTN: Michael Henry)
Marion Waters
Marta Rosen
Paul Liles
Don Mills
Jim Kennerly
Charles Law
FHWA

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE IM-75-3(189) Gordon County **OFFICE** Preconstruction
P.I. No. 610750
DATE November 10, 1999

FROM 
Thomas L. Turner, P.E., Director of Preconstruction

TO Wayne Shackelford, Commissioner

SUBJECT PROJECT CONCEPT REPORT

This project is the reconstruction of the I-75/SR 156 interchange in Gordon County. This project will incorporate the reconstruction of SR 156, beginning on the west side of I-75 at the intersection with Curtis Parkway/Warrior Drive and extending east crossing under I-75 to the Newtown Church Road intersection. The existing SR 156 under I-75 has insufficient capacity for current and future volumes. The proposed project will reconfigure the existing interchange to improve operational efficiency. State Route 156 is currently 2-4 lanes undivided roadway with curb and gutter on 60' of existing right-of-way. The existing I-75 is three lanes in each direction separated by a concrete median barrier. The existing bridge on I-75 over SR 156 is 115' x 135.2'. Traffic estimates are as follows:

<u>ROUTE</u>	<u>VPD 2002</u>	<u>VPD 2022</u>
SR 156/Redbud Road	16,700	26,900
I-75	65,000	104,000

A total of 49 accidents with 33 injuries occurred at the interchange between 1997 and 1998. The realignment of the I-75 ramps and the construction of turn lanes should reduce the number of accidents. The posted speed for SR 156 is 40 MPH and the design speed is 45 MPH.

The proposed project will remove and replace the existing I-75 bridge over SR 156/Redbud Road with a longer and wider structure (125' x 156') to accommodate the proposed widening of SR 156/Redbud Road. The SR 156/Redbud Road widening will provide two, 12' lanes in each direction separated by a variable width median. Exit and entrance ramps will be relocated to achieve separation and greater sight distance. The new bridge (single span) will require raising the profile grade on I-75 4.5' to provide the required vertical clearance of 16.5'. Traffic will be maintained utilizing staging and/or detours.

IM-75-3(189) Gordon
November 10, 1999

Environmental concerns include requiring a COE 404 permit; an Environmental Assessment will be prepared; a public hearing is required; time saving procedures are not appropriate.

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG DATE</u>	<u>LET DATE</u>
Construction (includes E&C and inflation)	\$5,631,000	\$5,900,000	2001	00-12
Right-of-Way	\$9,476,000	\$2,250,000		
Utilities*	LGPA	LGPA		

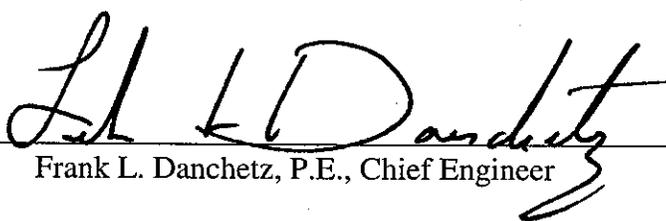
*Gordon County signed LGPA for public utilities; City of Calhoun signed LGPA for public utilities and refused LGPA for private utilities.

This project is in the STIP. I recommend this project concept be approved.

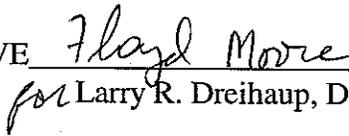
TLT:JDQ/cj

Attachment

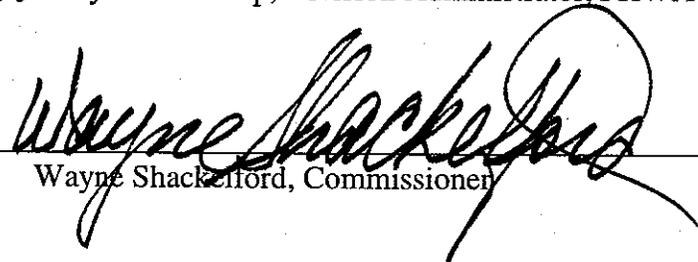
CONCUR


Frank L. Danchetz, P.E., Chief Engineer

APPROVE

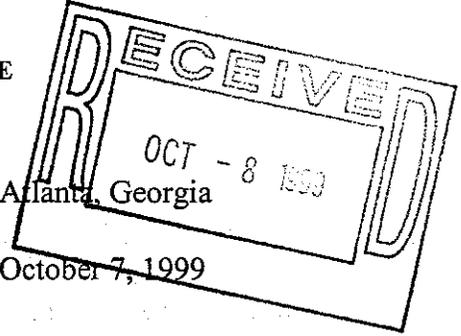

for Larry R. Dreihaupt, Division Administrator, FHWA

APPROVE


Wayne Shackelford, Commissioner

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE



FILE: IM-75-3(189) Gordon
P.I. Number 610750

OFFICE: Atlanta, Georgia

DATE: October 7, 1999

FROM: David Mulling, Project Review Engineer *DM*

TO: Wayne Hutto, Assistant Director of Pre-construction

SUBJECT: CONCEPT REPORT

We have reviewed the concept report submitted October 7, 1999 by the letter from James Kennerly dated October 5, 1999, and have no comments.

The costs for the project are:

Construction	\$4,654,000
Inflation	\$ 465,000
E&C	\$ 512,000
Reimbursable Utilities	\$?
Right of Way	\$9,476,000

DTM

c: Jim Kennerly

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

PROJECT CONCEPT REPORT

IM-75-3(189)
P.I. NO. 610750
GORDON COUNTY

U.S. ROUTE NO: I-75
STATE ROUTE NO: 156
GADOT P.I. NO: 610750

Date of Report: September 10,1999

RECOMMENDATION FOR APPROVAL

DATE

State Transportation Planning Administrator

DATE

State Transportation Programming Engineer

DATE

State Road Design Engineer

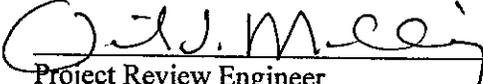
DATE

State Environmental/Location Engineer

DATE

District Engineer

10/7/99
DATE


Project Review Engineer

DATE

State Traffic Operations Engineer

DATE

State Bridge & Structural Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

PROJECT CONCEPT REPORT

IM-75-3(189)
P.I. NO. 610750
GORDON COUNTY

U.S. ROUTE NO: I-75
STATE ROUTE NO: 156
GADOT P.I. NO: 610750

Date of Report: September 10, 1999

RECOMMENDATION FOR APPROVAL

DATE

State Transportation Planning Administrator

DATE

State Transportation Programming Engineer

DATE

State Road Design Engineer

DATE

State Environmental/Location Engineer

DATE

Chandra J. ...
District Engineer

DATE

Project Review Engineer

DATE

State Traffic Operations Engineer

DATE

State Bridge & Structural Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

PROJECT CONCEPT REPORT

IM-75-3(189)
P.I. NO. 610750
GORDON COUNTY

U.S. ROUTE NO: I-75
STATE ROUTE NO: 156
GADOT P.I. NO: 610750

Date of Report: September 10, 1999

RECOMMENDATION FOR APPROVAL

11/17/99
DATE

Mark V. Riser
State Transportation Planning Administrator

DATE

State Transportation Programming Engineer

DATE

State Road Design Engineer

DATE

State Environmental/Location Engineer

DATE

District Engineer

10/7/99
DATE

C. J. Mealy
Project Review Engineer

DATE

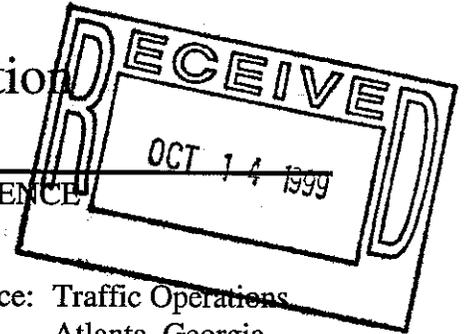
State Traffic Operations Engineer

DATE

State Bridge & Structural Engineer

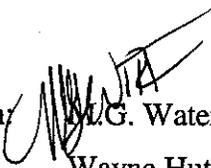
Department of Transportation
State of Georgia

INTERDEPARTMENTAL CORRESPONDENCE



File: IM-75-3(189)/Gordon County
P.I. No. 610750

Office: Traffic Operations
Atlanta, Georgia
Date: October 7, 1999

From:  W.G. Waters, III, P.E., State Traffic Operations Engineer
To: Wayne Hutto, Assistant Director of Preconstruction

Subject: Project Concept Report Review

We have reviewed the concept report on the above project for the reconstruction of SR 156(Redbud Road). The project begins at the Curtis Parkway/Warrior Drive intersection, west of the I-75 interchange, extends in an easterly direction, under I-75, to Newtown Church Road. The I-75 overpass will be reconstructed, to provide for the widening of SR 156.

SR 156 is currently a two to four lane roadway with curb and gutter and a posted speed limit of 40mph. I-75 consists of three lanes in each direction and has a posted speed limit of 70mph.

This project will widen SR 156 to a four lane divided roadway with a variable width (20 to 32 foot) raised median, curb and gutter, sidewalks on both sides, and outside shoulder widths of 12 feet. The design speed will be 45mph. Traffic on SR 156 is to be maintained through staging during construction. On I-75, traffic is to be maintained by providing a detour, utilizing the median area between the north and southbound lanes, keeping the same number of lanes.

We request that conduit be installed within the limits of this project, as well as on the newly constructed I-75 bridge, as part of this project. The conduit would be used for the future interconnection of the Advanced Transportation Management System components in this area. Our Traffic Operations Design Office can provide details cost estimates for inclusion in the project.

We believe this concept will improve safety and traffic operations along this section of roadway.

With the recommended statement, we find this report satisfactory for approval.

MGW:TWS

Attachment (signature page)

c: David Studstill

James A. Kennerly, State Road and Airport Design Engineer

Attention: Jim Simpson

David Mulling, w/ attachment

Marta Rosen

Karl Alff, TMC

Keith Golden, P.E., TMC

Paul Liles, State Bridge Design Engineer

General Files

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

PROJECT CONCEPT REPORT

IM-75-3(189)
P.I. NO. 610750
GORDON COUNTY

U.S. ROUTE NO: I-75
STATE ROUTE NO: 156
GADOT P.I. NO: 610750

Date of Report: September 10, 1999

RECOMMENDATION FOR APPROVAL

DATE

State Transportation Planning Administrator

DATE

State Transportation Programming Engineer

DATE

State Road Design Engineer

DATE

State Environmental/Location Engineer

DATE

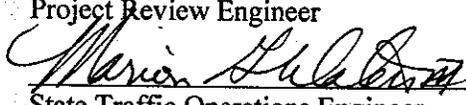
District Engineer

DATE

Project Review Engineer

10-8-99

DATE


State Traffic Operations Engineer

DATE

State Bridge & Structural Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

PROJECT CONCEPT REPORT

**IM-75-3(189)
P.I. NO. 610750
GORDON COUNTY**

U.S. ROUTE NO: I-75
STATE ROUTE NO: 156
GADOT P.I. NO: 610750

Date of Report: September 10, 1999

RECOMMENDATION FOR APPROVAL

DATE

State Transportation Planning Administrator

DATE

State Transportation Programming Engineer

DATE

State Road Design Engineer

DATE

State Environmental/Location Engineer

DATE

District Engineer

DATE

Project Review Engineer

DATE

State Traffic Operations Engineer

Oct. 16, 1999

DATE

Paul V. Teller Jr.

State Bridge & Structural Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF ROAD AND AIRPORT DESIGN

PROJECT CONCEPT REPORT

IM-75-3(189)
P.I. NO. 610750
GORDON COUNTY

U.S. ROUTE NO: I-75
STATE ROUTE NO: 156
GADOT P.I. NO: 610750

Date of Report: September 10, 1999

RECOMMENDATION FOR APPROVAL

DATE

State Transportation Planning Administrator

DATE

State Transportation Programming Engineer

12-7-99

DATE

James A. Kennedy
State Road Design Engineer

DATE

State Environmental/Location Engineer

DATE

District Engineer

DATE

Project Review Engineer

DATE

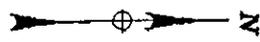
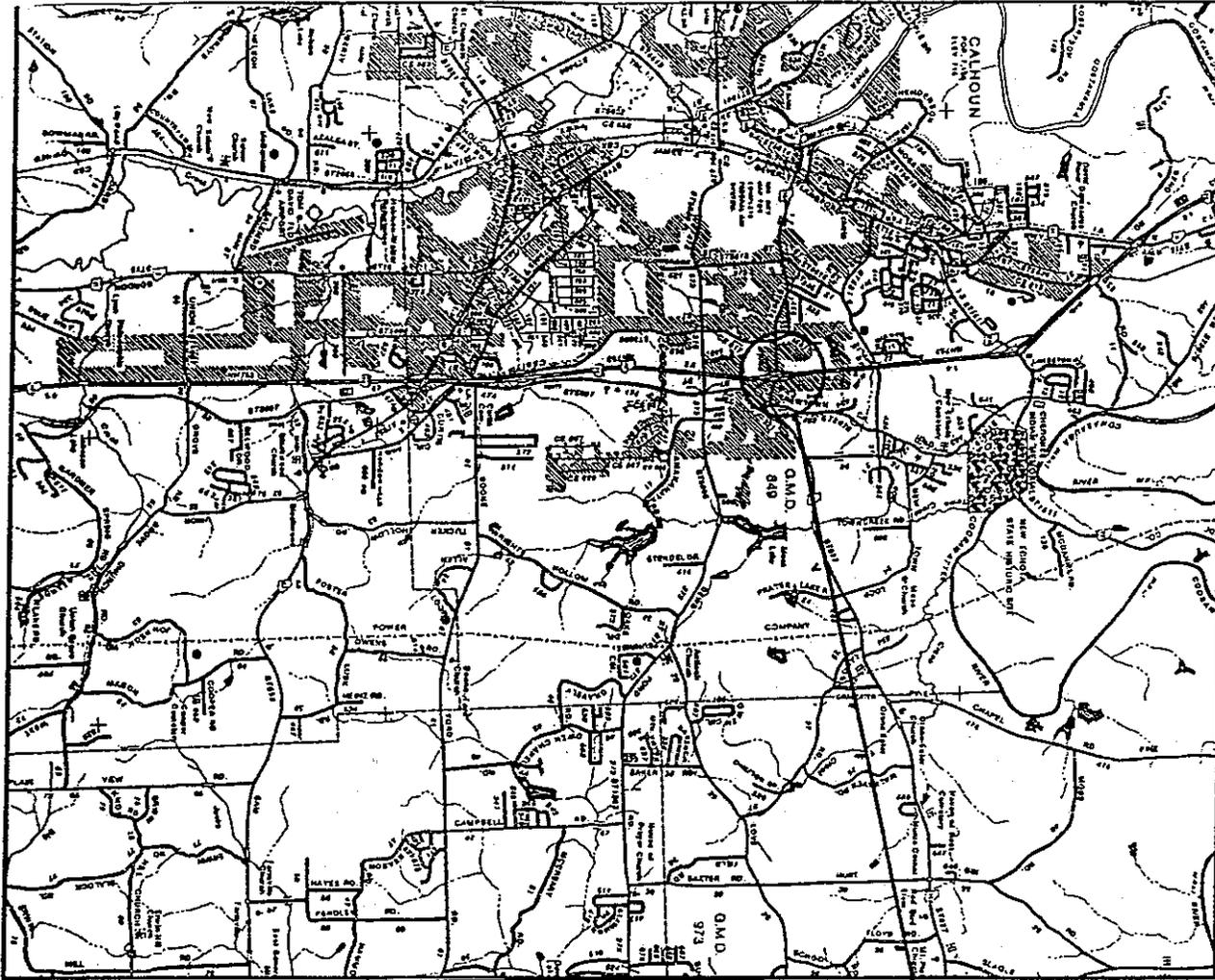
State Traffic Operations Engineer

DATE

State Bridge & Structural Engineer

PROJECT MAP - Project No. : IM-75-3(189)

LOCATION MAP



REDBUD ROAD /
INTERSTATE 75
PROJECT NO. : IM-75-3(189)
GORDON COUNTY

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	IM-75-3(189)		

PROJECT NUMBER: IM-75-3(189)

PROJECT LOCATION & DESCRIPTION

This project provides for the reconstruction of S.R.156, beginning on the west side of I-75, west of the intersection of Curtis Parkway/Warrior Drive and extends east crossing under I-75 to the Newtown Church Road intersection. The redesign of S.R.156/Redbud Road will provide two(2) east and west bound lanes separated by a variable width six(6)inch high curbed median. This reconstruction will require the replacement of the existing I-75 mainline bridge over S.R.156/Redbud Road to provide additional lanes with sufficient distance, adequate to store the left turns for ramp traffic. Also required is the realignment and reconstruction of all four(4) ramps comprising the I-75/Redbud Road diamond interchange. The ramps will be reconstructed using concrete pavement. Sidewalks will be provided on both sides of Redbud Road through the limits of the project. Also during the design phase of the project interchange lighting should be considered and addressed.

PROJECT LENGTH: 0.56 miles(S.R.156)/0.02 miles(I-75)

TRAFFIC

CURRENT		PROJECTED	
YEAR(2002)	AADT	YEAR(2022)	AADT
<u>S.R.156/Redbud Rd</u>	<u>16,700</u>	<u>S.R.156/Redbud Rd</u>	<u>26,900</u>
<u>I-75</u>	<u>65,000</u>	<u>I-75</u>	<u>104,000</u>

Trucks: 30%(I-75)—5%(S.R.156/Redbud Rd)

PDP CLASSIFICATION

MAJOR/EXISTING

FUNCTIONAL CLASSIFICATION

URBAN MINOR ARTERIAL/
RURAL PRINCIPAL INTERSTATE

Full-Oversight (X)

EXEMPT ()

SF ()

PROJECT NEED & PURPOSE

The Project would incorporate the reconstruction of SR 156, beginning on the westside of I-75 at the intersection of Curtis Parkway/Warrior Drive and extends east crossing under I-75 to the Newtown Church Road intersection. SR 156 /Redbud Road will, after reconstruction, have two east and west bound lanes separated by a variable width six inch high curbed median. Interstate 75 overpasses SR 156/Redbud Road currently and will continue to do so in the future. However, in order to provide for the widening of Redbud Road, the I-75 bridge will have to be reconstructed. In addition, all four ramps of the diamond interchange will have to be realigned and reconstructed along with the new bridge construction.

Current traffic on SR 156 is 16,700 AADT (2002). Future projected traffic is 26,900AADT (2022).

In 1989, the Department identified a priority list of interstate interchanges that had operational problems. This location was given a Priority 2. Sight distance under the I-75 bridge, and the accidents that occur as a result of this poor sight distance, is a problem that must be corrected. The current accidents/fatalities and injuries is shown for this location in the table below.

	Accidents	Fatalities	Injuries
SR 156/I-75 Vicinity	49	0	33

There are no other transportation projects in the vicinity of the proposed project. The proposed termini are logical in that the project begins at a four-lane section and ends at a two-lane section, where the traffic flow is less.

EXISTING ROADWAY

TYPICAL SECTION: Redbud Rd. variable width(48'to24') undivided Asph. Conc. Pavement Roadway with curb and gutter. I-75 is three lanes in each direction separated by a concrete median barrier.

R/W WIDTH

60 Feet

POSTED SPEED	MAX DEGREE OF CURVE	MAXIMUM GRADE
Redbud Road -- 40 MPH	<u>6.00 DEG.</u>	<u>3.50%</u>
I-75 -- 70 MPH	<u>1.00 DEG</u>	<u>1.27%</u>

MAJOR STRUCTURES:

1. I-75 Mainline Overpass Bridge (Length-115' X Width- 135'-2")

PROPOSED ROADWAY

TYPICAL SECTION: 4 lane urban curb & gutter roadway (2 lanes in each direction) separated by a variable width (20 ft. to 32 ft.) raised 6" high curbed median. Outside shoulder widths-12 ft.

DESIGN SPEED	MAX DEGREE OF CURVE	MAX GRADE
45MPH	8deg./ SR156-5deg./I-75 Ramp	4%/SR.156—3%/I-75 Ramps

MAJOR STRUCTURES:

I-75 Mainline Overpass Bridge. Proposed Length 125 Ft. X Width 156 Ft.

PROPOSED RIGHT OF WAY			
R/W WIDTH	DISPLACEMENTS		
<u>110 Ft./S.R.156—Var. width for Ramp reconstruction</u>	RES: <u>0</u>	BUS: <u>0</u>	M.H.: <u>0</u>
TYPE OF ACCESS CONTROL: Limited access controlled 100 Ft. beyond each ramp radius point along S.R. 156. S.R. 156 controlled by Driveway Permits			
NUMBER OF PARCELS: 29			

COORDINATION
CONCEPT TEAM MEETING DATE: August 4,1999
CONFORMS TO TIP/STIP: Yes
MEETS LOGICAL TERMINI REQUIREMENTS: Yes, See Need and Purpose Statement
P.A.R. MEETING: N/A (None Required)
LOCATION INSPECTION DATE: N/A
PERMITS REQUIRED (4f,COE, 404,etc.): Nationwide 404 Permit
LEVEL OF PUBLIC INVOLVEMENT: Public Information meeting and Public Hearing Required
TIME SAVING PROCEDURES APPROPRIATE: No
OTHER PROJECT IN THE AREA: None

SCHEDULING CONSIDERATIONS
TIME TO COMPLETE ENVIRONMENTAL: 6 MONTHS
TIME TO COMPLETE PRELIMINARY RD/RW PLANS: 6 MONTHS
TIME TO COMPLETE 404 PERMIT: 6 MONTHS
TIME TO COMPLETE FINAL CONSTRUCTION PLANS: 4 MONTHS
TIME TO BUY RIGHTS-OF-WAY: 12 MONTHS

MISCELLANEOUS

TRAFFIC CONTROL DURING CONSTRUCTION: Traffic will be maintained on I-75 by providing a detour, utilizing the median area between the north and south bound lanes keeping the same number of lanes. The Redbud road traffic will be maintained by staging and shifting the traffic under and through the northern end span on the existing bridge during construction of the new bridge. The proposed Ramp alignments have been shifted such that the existing ramps can remain open to traffic while the new ramps are staged constructed.

LEVEL OF ENVIRONMENTAL ANALYSIS: Environmental Assessment

DESIGN VARIATIONS REQUIRED: None known at this time

UNDERGROUND STORAGE TANKS: Field investigations required to determine level of involvement. Several gas station sites located adjacent to the proposed Right of Way.

HAZARDOUS SITES: A Soil Survey will be required. The report will indicate the level of involvement.

ALTERNATIVES CONSIDERED

1. NO BUILD
2. The construction of a new I-75 bridge over Redbud Road:
 - A. A one span bridge consisting of a single span 125 feet long.
 - B. A two span bridge consisting of spans 74 feet long
3. The new bridge requires :
 - A. Lowering the profile of Redbud road to obtain minimum clearance of 16 ft. 6in. or,
 - B. Raising the profile of I-75.

Note: The recommended alternate is to construct a single span bridge and reconstruct the profiles a minimum amount on both Redbud Road and I-75 to obtain the required clearance of 16'6".

ESTIMATED COST

CONSTRUCTION:	\$ 4,653,879	RIGHT-OF-WAY:	\$ 9,475,925
E & C (10) :	\$ 465,388	ACQUIRED BY :	D.O.T
INFLATION :	\$ 465,388	UTILITIES :	\$0
		ADJUSTED BY :	LGPA

ESTIMATED COST	
GRAND TOTAL CONSTRUCTION COST:	\$15,060,580

COMMENTS: Based on conceptual studies using file plans of the existing roadway design as a basis for data, the results are as follows: A single span bridge will require raising the profile of the I-75 roadway 4.5 feet to provide the required vertical clearance of 16.5 feet. The two span bridge only requires raising the profile 2.5 feet, however a two span bridge requires more traffic staging on Redbud Road as opposed to a single span. Both the single span and a two span bridge require some reconstruction to the I-75 roadway. Reconstruction of I-75 is conducive by reducing the length of the existing 1500 foot vertical curve. Based on constructability, costs and disruption to traffic a single span bridge is recommended.

ATTACHMENTS: cost estimate, typical sections and concept team meeting minutes.

PRELIMINARY COST ESTIMATE

PROJECT NUMBER: IM-75-3(189)

COUNTY: Gordon

DATE: May 26,1999

ESTIMATED LETTING DATE:

PREPARED BY: Parsons Brinckerhoff

PROJECT LENGTH: 0.56 mi./ S.R. 156

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

PROJECT COST	
A. RIGHT-TO-WAY:	
1. PROPERTY (LAND & EASEMENT)	\$3,328,000
2. DISPLACEMENTS; RES:0, BUS;0, M.H.:0	\$2,785,500
3. OTHER COST (ADM./COST, INFLATION)	\$3,362,425
SUBTOTAL:A	\$9,475,925
B. REIMBURSABLE UTILITIES:	
1. RAILROAD	\$

PROJECT COST	
2. TRANSMISSION LINES	\$
3. SERVICES	\$
SUBTOTAL:B	\$0
C. CONSTRUCTION:	
1. MAJOR STRUCTURES	\$
a. OVERPASSES- ML.I-75 Bridge (125'L X 156'W) @\$65/Ft	\$1,267,500
b. OTHER	\$
SUBTOTAL:C-1	\$ 1,267,500
2. GRADING AND DRAINAGE:	
a. EARTHWORK- Ramps 30,000CuYds/Redbud 25,000CuYds @\$3.50	\$192,500
b. DRAINAGE:	\$
1) Cross Drain Pipe & 2 Box Culverts	\$60,000
2) Curb and Gutter—6000 Lin. Ft. @ \$9.50	\$57,000
3) Longitudinal System(include catch basins) 20 ea. @\$1500ea and 3000ft- 18' @22.00/lin ft.	\$96,000
SUBTOTAL:C-2	\$405,500
3. BASE AND PAVING:	
a. AGGREGATE BASE-Ramps 16,800Tn.& I-75/Redbud 15,000@\$18/T	\$572,400
b. ASPHALT PAVING: Surface-4830Tn. @\$40/T	\$ 193,000
Binder—12,880 Tns-@\$35/T	\$ 450,800
Base—19,320Tns @\$35/T	\$676,200
SUBTOTAL:C-3.b	\$1,892,400
c. CONCRETE PAVING-Ramps 24,900SqYds @\$20.31	\$505,719
d. OTHER- Dr. Valley Gutter 467SqYds @\$40	\$18,680
SUBTOTAL:C-3	\$524,399

PROJECT COST	
4. LUMP ITEMS:	
a. GRASSING-25 Acs @ \$1000/Acs	\$25,000
b. CLEARING AND GRUBBING-19.3 Acs @ \$1000/Acs	\$19,300
c. LANDSCAPING	\$
d. EROSION CONTROL	\$150,000
e. TRAFFIC CONTROL	\$250,000
SUBTOTAL:C-4	\$419,300
5. MISCELLANEOUS:	
a. LIGHTING	\$
b. SIGNING - MARKING	\$75,000
c. GUARDRAIL - MODIFY END OF BRIDGE AND HANDRAIL	\$15,000
d. SIDEWALK	\$
SUBTOTAL:C-5	\$90,000
6. SPECIAL FEATURES-Conc. Retain Walls-66CuYds@\$330/CuYd	\$54,780
SUBTOTAL:C-6	

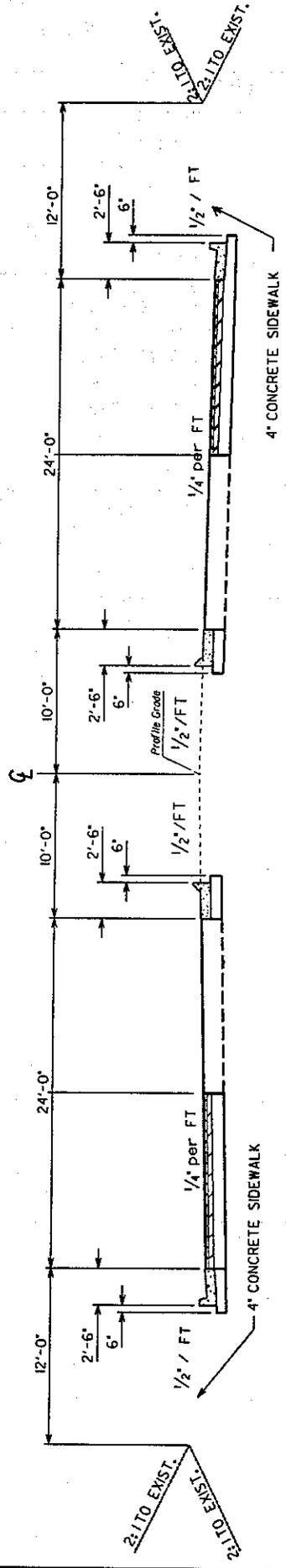
ESTIMATE SUMMARY	
A. RIGHT-OF-WAY	
	\$ 9,475,925
B. REIMBURSABLE UTILITIES	
	\$
C. CONSTRUCTION	
1. MAJOR STRUCTURES	\$1,267,500
2. GRADING AND DRAINAGE	\$405,500
3. BASE AND PAVING	\$1,892,400

ESTIMATE SUMMARY		
4. LUMP ITEMS		\$419,300
5. MISCELLANEOUS		\$90,000
6. SPECIAL FEATURES		\$54,780
SUBTOTAL CONSTRUCTION COST		\$4,653,879
E. & C. (10%)		\$465,388
INFLATION (5% PER YEAR)		\$465,388
NUMBER OF YEARS	2	
TOTAL CONSTRUCTION COST		\$5,584,655
GRAND TOTAL PROJECT COST		\$15,060,580

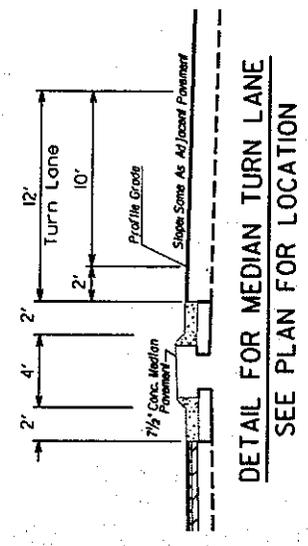
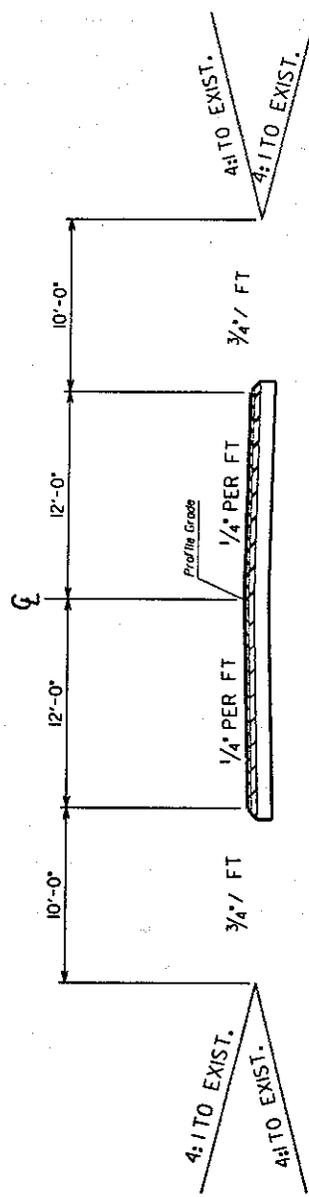
TYPICAL SECTIONS

STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
GA.	14-75-3(18)	1	3

PROPOSED REDBUD ROAD

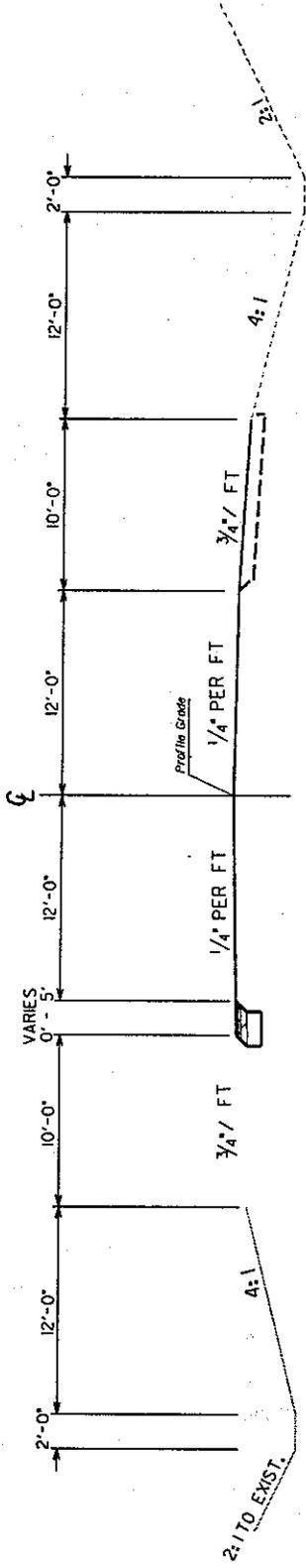


PROPOSED NEW SIDE STREETS

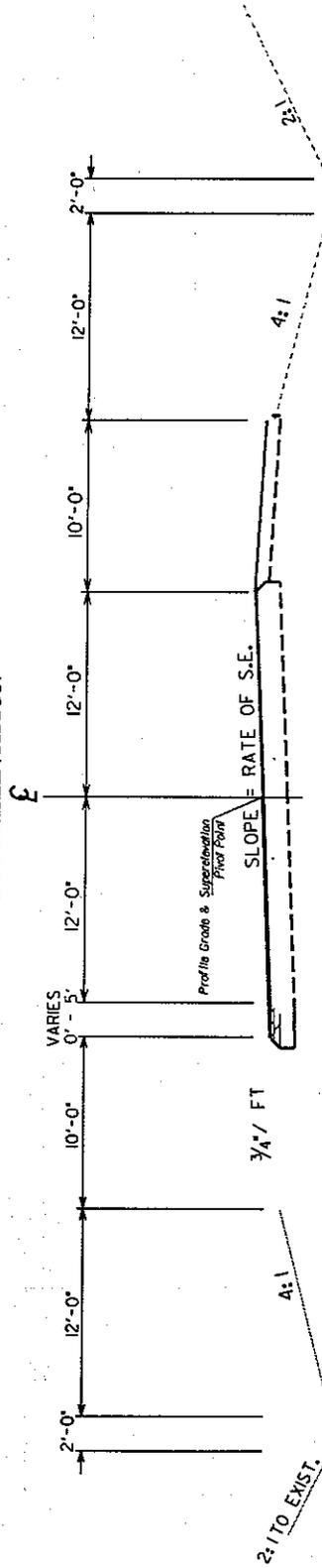


TYPICAL SECTIONS

PROPOSED REDBUD ROAD EAST OF NEWTON CHURCH ROAD
NORMAL CROWN



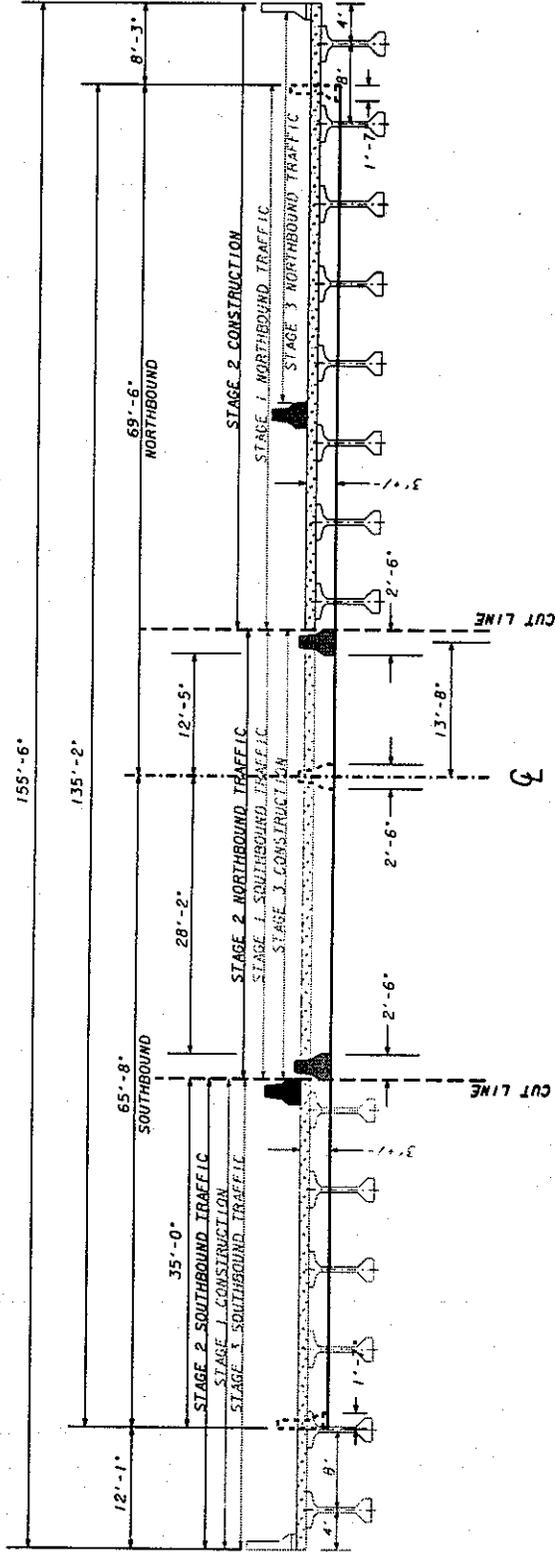
SUPERELEVATION



CONCEPTUAL TYPICAL SECTION FOR BRIDGE STAGING

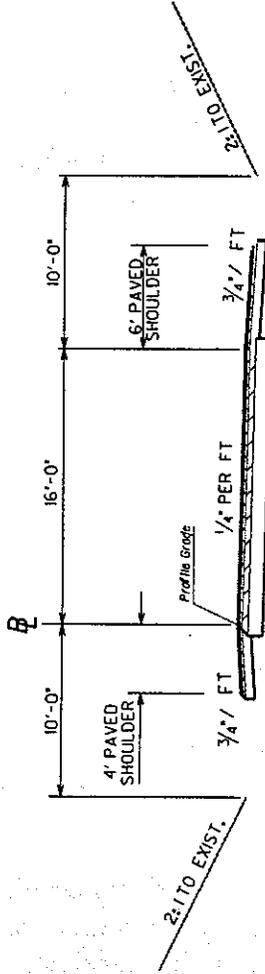
BRIDGE AT I-75 AND REDBUD ROAD (SR 156)

SCALE 1" = 6'

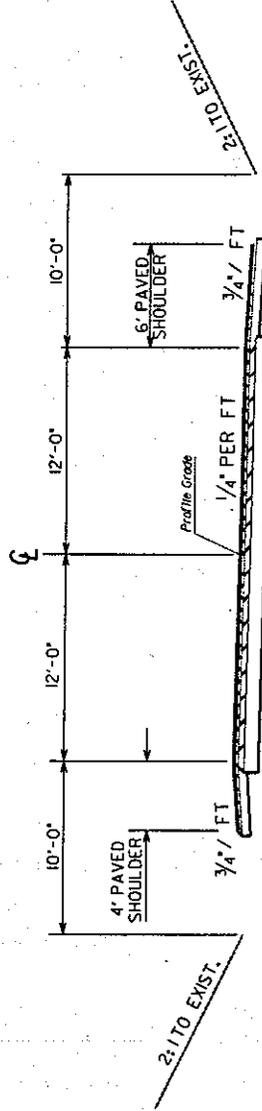


TYPICAL SECTIONS

PROPOSED INTERSTATE 75 ON RAMP



PROPOSED INTERSTATE 75 OFF RAMP



IM- 75-3(189) GORDON COUNTY
P.I. No. 610750
Work Order No. 26

MEMO TO FILE:

Minutes of Concept Team Meeting:

A concept team meeting was held at 10:00 a.m. on August 4, 1999 in the Road Design Conference Room. In attendance were: David Kelly, Joshua Grzegorzewski/FHWA
Greg Mayo, Jim Simpson, Tom Hodges, Nasar Rad/GDOT
Road Design
Dom Saulino, Jim Graybeal, Bryan Kapala / Parsons
Brinckerhoff
Jerry Wylie, Paul Barnett / Ga. Power Co.
Ken Estes, GDOT Traffic Operations
Janet Harvey, GDOT- Planning
Reba Scott, GDOT Programming
David Mulling, GDOT Eng. Services
Zewdie Behele, GDOT Env./Location
Jim Hullett, Dist. 6 Preconstruction Engineer
W. Paul Simmons, GDOT Dist.6 Utilities
Barry Dunaway, North Ga. EMC
Mark Williamson, City of Calhoun

The meeting began on time with Jim Simpson welcoming everyone to the meeting and beginning with introductory remarks concerning the project number and the reason for the meeting. He then introduced Jim Graybeal with Parsons Brinckerhoff to give a description of the design features proposed for the project.

Jim Graybeal also welcomed everyone to the meeting, and expressed appreciation in working with GDOT on the project. Jim G. then read the project description as it appeared in the draft concept report. Other items as discussed are listed below:

- 1- There is an old existing approved concept report approximately 8 years old.
- 2- Existing interchange designed in the late 50's as a compressed diamond interchange with no room for expansion based on the growth in the area.
- 3- Discussed the main reason for the project was to improve the sight distance at the ramp intersections on Redbud road.
- 4- Discussed using concrete as an alternate pavement to reconstruct the ramps in the interchange. The ramps are not included in the DOT on-going maintenance projects and will be replaced with concrete pavement.

- 5-Discussed raising the Mainline I-75 grade to obtain the required 16'-6" vertical clearance by reworking the 1500' vertical curve on I-75, and making some grade adjustments on Redbud Road underneath.
- 6-Discussed relocation of the northbound I-75 exit ramp with regards to possible channel change, or a possible solution to extend culvert in the existing ditch channel.
- 7-Discussed staging of I-75 mainline traffic to the median maintaining 3 lanes of traffic both north and southbound. Discussion indicated that three (3) lanes were needed due to the high volume of truck traffic, although some discussion was mentioned to reduce traffic to 2 lanes during daylight hours.
- 8-Discussed obtaining 100 feet limits of access in all four (4) ramp quadrants. This will require closing one driveway on each parcel near the ramp intersections.
- 9-Relocations of the ramps were discussed to provide stopping distance and needed acceleration lengths on the ramps. Also it was indicated that the nose and gore area's of the ramps would be designed and constructed for an additional future lane on I-75 north and southbound.
- 10-Construction of the proposed I-75 mainline bridge for future full width was discussed. The location of the outside barrier wall across the bridge was discussed with respect to the angle of impact and with potential space for people to park.
- 11-Discussed additional R/W required to relocate Ramps.
- 12-Discussed staging of Redbud Road through the end bent on the North side of the existing bridge. This would be required if a modification of the grade was needed.
- 13-Based on a proposed typical section of Redbud Road, (12' SHLDS, 48" pavement and 8' median) total 128 feet, the depth of beam required would probably be 72".
- 14-Discussed using a Soil-Nail walls and sheet piling for the endwalls on the proposed bridge.
- 15-Discussed cutting (cut line) the existing bridge at the location where the median section of bridge was added after the original north and southbound bridges were constructed.
- 16-The open center joint on the existing bridge was discussed with respect to wheel path. A solid white line along this joint during construction is desired.
- 17-The begin and end limits of Redbud Road were discussed, widen roadway 10 feet on both sides providing a 20 foot raised median from Curtis Parkway extending east to ramp intersections. Begin a 20 foot raised median on the east side of I-75 and extend east to

Newtown Church Road. Construction limits for the proposed Redbud Road would impact the front parking spaces at Shoney's

18-It was stated that a preliminary cost estimate for the I-75 and Redbud Road detours as presented would be approximately \$250,000.

19-It was discussed that Advent Drive on the east side of I-75 could be relocated to intersect with Newtown Church Road.

20-Median openings were discussed briefly, with locations given at Curtis Parkway and Newtown Church Road.

21-Approximate cost for a single span bridge would be \$975,000 and for a two span bridge, \$1,100,000.

22-Re-working of the I-75 mainline must meet design criteria for 70 MPH roadway.

23-The capacity analysis for Redbud road was discussed with respect to left turn storage lengths and number of through lanes. It was indicated that full length left turn storage lanes are required for the design traffic.

24-A right-of-way cost estimate conducted by GDOT indicated to acquire the four parcels adjacent to the ramp intersections would be an additional \$4,000,000.

25-It was indicated that walls may be required on the northbound entrance ramp at the Waffle House and on Redbud Road at the Scottish Inn on the east side of I-75.

26-It was indicated that the proposed typical section for I-75 mainline would be 155'-6", based on (14' inside and outside shlds., and 48' pavement with concrete median barrier.

27- Discussed other items on concept report that would require answer from GDOT to complete report before it could be submitted.

28- GDOT Road Design was to determine if project had logical termini and if a PAR meeting was required.

Listed below are other comments and questions from other concept team members:

City of Calhoun: Indicated a concern for their existing utilities hanging under the existing bridge with respect to relocating on the proposed bridge. Stated that the City had both gravity flow and force main sewer and water that would require relocation due to the project. Also the City expressed a desire to get a copy of the concept layout for future reference and planning. Also indicated a need for a traffic signal at Newtown Church Road based on traffic volumes and increased growth on the east side of I-75. The east side of I-75 is in the City and County. Indicated heavy pedestrian on Columbus circle.

Federal Highway Administration: Expressed concern about staging the I-75 traffic over the proposed bridge due to a possible 3.5 to 4.0 foot grade change required on I-75 to get the needed vertical clearance on Redbud Road. Also raised questions as to whether the new proposed ramps were to be constructed using concrete. Also expressed some concern about the 3 stage construction of the new bridge with the third stage closing in the middle. Indicated the need for sidewalks and interchange lighting should be considered and addressed in the concept report.

Georgia Power Company: Indicated no facilities within the limits of the project.

North Georgia EMC: Indicated that they had some facilities that would require relocations and ask how much additional R/W would be acquired in order for them to relocate. Also ask how far back from the new bridge would they be required to relocate.

Traffic Operations/General Office: Requested that the proposed lane shift at Curtis Parkway not be carried through the intersection. The transition should begin west of the existing Redbud Rd./ Curtis Pkwy/ Warrior Drive intersection. Also indicated that there was a new MOG out on Right Turn Deceleration lanes that will be required on this project. Indicated that this project will probably be designed for the ATMS system.

Office of Planning/General Office: Requested that provisions for the future 4th lane on I-75 be incorporated in the redesign of the ramps and the interchange. Indicated that they would provide a revised Need And Purpose Statement for the concept report. Also indicated that they would need a copy of the traffic study to complete this.

Office of Programming/General Office: Indicated that this project was schedule driven with less than 24 months before it was to be let to construction. Stressed how critical the schedule was based on the funding and that if it missed the let date didn't know how long it would take for it to get rescheduled. Requested that the critical time schedule be made a part of the concept report. Indicated that the Local Governments would be required to pick up the energy cost for lighting.

Office of Utilities/District 6: Requested copies of layouts, plans, or aerial photos to send to the utility companies in order that a determination of reimbursement cost can be worked out so that a Local Government Agreement can sent out to the City and County.

Office of Engineering Services: Indicated that they did not feel comfortable with the three-stage bridge construction and would like to see the bridge built in two stages. Discussed the costs for the bridge alternates (two span verses a single span). Also indicated that the cost estimate looked low especially the grading quantity.

Preconstruction Engineer/District 6: Requested that consideration be given to adding truck climbing lanes on the ramps. If warranted maybe extending the lane merge on the ramps is all that is required.

Office of Road and Airport Design: Requested that the concept report address the limits of access and to try and get 100 feet passed the radius returns. Also requested that sidewalks be added to Redbud Road in the area of the curb and gutter with the 20 foot grassed median. Indicated that a steep driveway would be required to tie in the Scottish Inn property on the east side of I-75 off of Redbud Road.

Office of Environmental Location: Requested status of taking the gas stations in the four ramp quadrants. Indicated that no work had begun on the environmental study.

This concluded the concept meeting.

IM- 75-3(189) GORDON COUNTY
P.I. No. 610750
Work Order No. 26

MEMO TO FILE:

Minutes of Progress / Working Meeting:

A working meeting was held at 9:00 on May 10, 1999 in the Road Design Conference Room. In attendance were: David Kelly, Chris Long/FHWA

Jim Kennerly, Joe Leoni, Tom Hodges, Nasar Rad/GDOT
Road Design

John Tiernan / GDOT Bridge Design

Dom Saulino, Jim Graybeal / Parsons Brinckerhoff

- 1- Discussed utilizing concrete ramps, and was this Interchange excluded from the on-going maintenance contracts. Decision: Ramps are not included in the maintenance projects and the ramps will be replaced with concrete pavement.
- 2- Discussed raising the Mainline I-75 grade to obtain the required 16'-6" required vertical clearance. Decision: Discussion seemed to indicate all agreed reworking the 1500' vertical curve on I-75 rather than lower the grade on Redbud road underneath.
- 3- Discussed relocation of the northbound I-75 exit ramp with regards to possible channel change. Comment: A possible solution to extend culvert in the existing ditch channel. Consultant to make recommendations.
- 4- Discussed staging of I-75 mainline traffic to the median maintaining 3 lanes of traffic both north and southbound. Decision: All seemed to agree that three (3) lanes were needed due to the high volume of truck traffic, although some discussion was mentioned to reduce traffic to 2 lanes during daylight hours.
- 5- Discussed obtaining 100 feet limits of access in all four (4) ramp quadrants. This may require closing one driveway on each parcel near the ramp intersections.
- 6- Relocations of the ramps were discussed to provide stopping distance and needed acceleration lengths on the ramps. Also it was indicated that the nose and gore area's of the ramps would be designed and constructed for an additional future lane on I-75 north and southbound.
- 7- The proposed location of the outside barrier wall across the bridge was discussed with respect to the angle of impact and with potential space for people to park. Decision: Most agreed to construct bridge for future full width.

- 8- Discussed additional R/W required to relocate Ramps.
- 9- Discussed staging of Redbud Road through the end bent on the North side of the existing bridge. This would be required if a modification of the grade was needed or a two span bridge is approved.
- 10- Based on a proposed typical section of Redbud Road, (12' SHLDS, 48" pavement and 8' median) total 128 feet, the depth of beam required would probably be 72".
- 11- Discussed using a Soil-Nail walls and sheet piling for the endwalls on the proposed bridge.
- 12- Discussed cutting (cut line) the existing bridge at the location where the median section of bridge was added after the original north and southbound bridges were constructed.
- 13- The open center joint on the existing bridge was discussed with respect to wheel path. Comment: It was agreed that a solid white line along this joint during construction is desired.
- 14- The begin and end limits of Redbud Road were discussed, widen roadway 10 feet on both sides from Curtis Parkway extending east to ramp intersections. Begin a 20 foot raised median on the east side of I-75 and extend east to Newtown Church Road. Construction limits for the proposed Redbud Road would impact the front parking spaces at Shoney's
- 15- It was stated that a preliminary cost estimate for the I-75 and Redbud Road detours as presented would be approximately \$200,000.
- 16- It was discussed that Advent Drive on the east side of I-75 could be relocated to intersect with Newtown Church Road.
- 17- Median openings were discussed briefly, with locations given a Curtis Parkway and Newtown Church Road.
- 18- Approximate cost for a single span bridge would be \$975,000 and for a two span bridge, \$1,100,000.
- 19- All agreed that the re-working of the I-75 mainline must meet design criteria for 70 MPH roadway.
- 20- The capacity analysis for Redbud road was discussed with respect to left turn storage lengths and number of through lanes. It was indicated that full length left turn storage lanes are required for the design traffic.

- 21- A right-of-way cost estimate conducted by GDOT indicated to acquire the four parcels adjacent to the ramp intersections would be an additional \$4,000,000.
- 22- It was indicated that walls may be required on the northbound entrance ramp at the Waffle House and on Redbud Road at the Scottish Inn on the east side of I-75.
- 23- It was indicated that the proposed typical section for I-75 mainline would be 155'-6", based on (14' inside and outside shlds., and 48' pavement with concrete median barrier.

Department of Transportation State of Georgia

Interdepartmental Correspondence

FILE R/W Cost Estimate **OFFICE** Atlanta
DATE July 9, 1998
FROM *DPM/SP* David P. Meshberger, Right of Way Administrator
TO James A. Kennerly, State Road & Airport Design Engineer
ATTN: Tom Hodges
SUBJECT Preliminary Right of Way Cost Estimate
Project: IM-75-3(189)Gordon
P.I. No.: 610750
Description: I-75 bridge @ SR 156/Redbud Road

As per your request, attached is a copy of the approved Preliminary Right of Way Cost Estimate on the above referenced project.

If you have any questions, please contact Stan Peteet or Dean Williamson of this office at (770)986-1009.

DPM:SBP:sp

Attachments

c: Bob Mustin, Engineering Services
Steve Crawford

Revised as per
 telephone conversation
 with Stanley Peteet

Preliminary Right of Way Cost Estimate

Stan for

David P. Meshberger
 Right of Way Administrator
 BY Stan Peteet

Date July 9, 1998
 Project IM-75-3(189)Gordon
 P.I. No. 610750
 Existing R/W Varies
 Number of parcels 11
 Project termini I-75 & SR 156/Redbud Road
 Project description I-75 bridge reconstruction
 Land

Required R/W Varies

Commercial	10			
	0.50 ac @	250,000	125,000	<i>2,500,000</i>
Secondary Commercial				
	0.67 <i>5</i> ac @	125,000	83,750	<i>625,000 - 208,750 = 3,328,000.00</i>
Improvements				
13 signs & misc				203,000
Relocation				
2 consequential business				40,000
Consequential Damages				
Access loss - 4 par		2,400,000		
Cost to Cure - 2 par		125,000		
Parking loss - 1 par		5,000		
Wetland replacement - 1 par		12,500		<u>2,542,500</u> <i>6,113,500</i>

Net Cost		\$	2,994,250	<i>6,113,500</i>
Adm/Court Cost 45 %			1,347,413	<i>2,751,075</i>
Inflation factor 10 %			<u>434,166</u>	<i>611,350</i>

Total Cost \$ ~~4,775,000~~ ^{*824*} *9,475,925*

*Jim Graybeal
 PB*

Gordon County Land Sales

Highest & Best Use	DB/Pg	Tax ID #	Size	Date	Sale Price	Value/ac
Commercial	456/557	C65-35	1.44	8/95	1,281,000	264,583
	499/272	41A-60	1.40	12/96	325,000	232,143
	405/461	C72-33	0.48	9/93	125,000	208,333
Secondary Comm	448/135	C72-3	4.20	4/95	1,352,014	131,429
	473/284	41B-9	1.50	2/96	690,000	126,667
	428/488	41B-12	0.909	6/94	125,000	110,000

NOTE: All the above are extracted values. There were no pure land comparable sales. These are believed to be accurate reflections of the market.