

ORIGINAL TO GENERAL FILES

D.O.T. 66

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE IM-75-3(186) Whitfield County **OFFICE** Preconstruction
P. I. No. 610760
DATE March 27, 2000
FROM *CWHutto*
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
James Hughes
FHWA

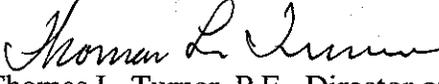
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE IM-75-3(186) Whitfield County
P.I. No. 610760

OFFICE Preconstruction

DATE January 14, 2000

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

TO Wayne Shackelford, Commissioner

SUBJECT PROJECT CONCEPT REPORT

This project is the I-75 at US 41/SR 3 (Rocky Face) interchange reconstruction in Whitfield County in two phases. The I-75 section of the project begins at the Rocky Face northbound exit ramp and extends north for approximately 0.72 mile. The US 41/SR 3 portion of the project begins at Tibbs Road west of I-75 and extends to old SR 3 east of I-75, for a total of 0.72 mile. State Route 3/US 41 is known as the North Dalton Bypass in this location and is a major truck route to industry in the Dalton area. Currently, US 41/SR 3 is a four lane urban roadway, two lanes in each direction separated by a 12' raised median with a posted speed of 45 MPH. I-75 consists of three lanes in each direction with a 40' depressed grassed median and a speed limit of 70 MPH.

I-75 is currently operating at an acceptable level-of-service (LOS) "C". However, the ramps are currently operating at levels-of-service "D" and "E". The loss of efficiency on the ramps can cause congestion on the freeway since some vehicles will avoid the outside lanes and the turbulence caused by entering/exiting vehicles. State Route 3/US 41 currently has a LOS of "E" just east of I-75 and "D" just west of I-75. As the traffic volumes grow, the ability of this interchange to operate efficiently will continue to deteriorate and delays will be experienced. The design year (2018) traffic projections are 127,300 VPD for I-75 and 70,900 VPD for US 41/SR 3.

Project IM-75-3(186) Whitfield County - Phase I, consists of adding a traffic signal, constructing the I-75 northbound exit ramp realignment, and temporarily accommodating a dual left turn movement onto US 41/SR 3 westbound, as well as the addition of a left turn lane on US 41/SR 3 eastbound for the I-75 northbound entrance ramp traffic.

IM-75-3(186) Whitfield
January 14, 2000

Project IM-75-3(186) Whitfield County - Phase II, consists of the reconstruction of the I-75 interchange with US 41/SR 3 which includes the widening of I-75 and its bridges over US 41/SR 3 and Mill Creek, the addition of a collector-distributor (CD) parallel to each side of I-75, and the widening and resurfacing of US 41/SR 3.

The widening of I-75 will consist of an auxiliary lane northbound and accommodations for a future fourth lane in each direction. State Route 3/US 41 will be widened to three, 12' lanes in each direction with a raised median and partial curb and gutter, as well as two, 12' left turn lanes onto both the I-75 northbound and southbound entrance ramps. Collector-distributor ramps will be added parallel to I-75 to separate I-75 traffic from both the proposed northbound exit ramp traffic and the proposed southbound exit ramp traffic. The CD will be separated from the I-75 mainline by a concrete barrier wall. The existing southbound exit loop ramp will be reconstructed and modified to accommodate only an easterly movement onto US 41/SR 3. A new I-75 southbound exit ramp will be constructed to achieve a westerly movement onto US 41/SR 3 only. The existing southbound entrance ramp will be realigned perpendicular to US 41/SR 3 to align with the proposed southbound exit ramp. A loop ramp in the northeast quadrant of the interchange will be added to accommodate the I-75 northbound exit movement onto US 41/SR 3 westbound. The existing northbound entrance ramp from US 41/SR 3 eastbound to I-75 northbound will be relocated. The existing I-75 northbound exit ramp will be retained and modified to align with the proposed I-75 northbound exit ramp accommodating the easterly movement onto US 41/SR 3. Once the proposed I-75 northbound exit loop ramp is constructed under Phase II, the dual left turn movement from the northbound exit ramp constructed under Phase I will be eliminated.

A design exception is required for substandard shoulders and horizontal clearance under the I-75 overpass. A slight profile grade change along US 41/SR 3 will be required to maintain minimum vertical clearance under the I-75 overpass bridge. Additional right-of-way is required to implement this project. Traffic will be maintained during construction.

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

The Office of Programming is requested to program a separate project for the Phase I construction. The estimated costs for these projects are:

Project IM-75-3(XXX) Whitfield County - Phase I

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG DATE</u>	<u>LET DATE</u>
Construction (includes E&C and inflation)	\$231,000	-----	2001 (proposed)	01-06(proposed)
Right-of-Way & Utilities	-----	-----		

IM-75-3(186) Whitfield
January 14, 2000

Project IM-75-3(186) Whitfield County - Phase II

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>PROG DATE</u>	<u>LET DATE</u>
Construction (includes E&C and inflation)	\$9,660,000	\$7,705,000	2003	02-07
Right-of-Way	\$ 600,000	\$2,000,000		
Utilities*	\$ 20,000	\$ 289,000		

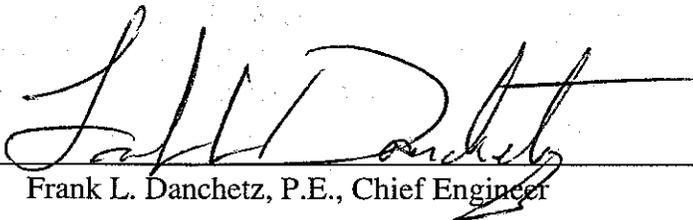
*Whitfield County signed LGPA for utilities on 6-23-97.

Improving the interchange will allow a more efficient movement of vehicles, thus increasing the operational efficiency of the facility. This project is in the STIP. I recommend this project concept be approved.

TLT:JDQ/cj

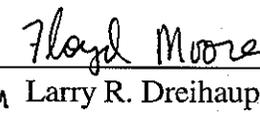
Attachment

CONCUR



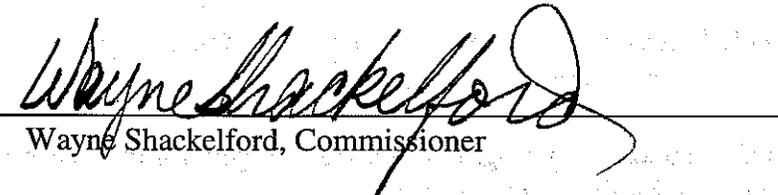
Frank L. Danchetz, P.E., Chief Engineer

APPROVE



for Larry R. Dreihaup, Division Administrator, FHWA

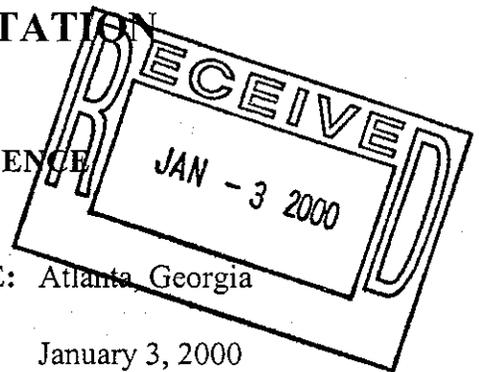
APPROVE



Wayne Shackelford, Commissioner

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE



FILE: IM-75-3(186) Whitfield
P.I. Number 610760

OFFICE: Atlanta, Georgia

DATE: January 3, 2000

FROM: David Mulling, Project Review Engineer *DTM*

TO: Wayne Hutto, Assistant Director of Pre-construction

SUBJECT: CONCEPT REPORT

We have reviewed the concept report submitted December 30, 1999 by the letter from James Kennerly dated December 22, 1999, and have no comments.

The costs for the project are:

	<u>Phase I</u>	<u>Phase II</u>
Construction	\$200,000	\$7,840,000
Inflation	\$ 10,000	\$ 940,000
E&C	\$ 21,000	\$ 880,000
Reimbursable Utilities	\$ 0	\$ 20,000 (LGPA)
Right of Way	\$ 0	\$ 600,000

DTM

c: Jim Kennerly

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

PROJECT CONCEPT REPORT

IM-75-3(186)
WHITFIELD COUNTY
P.I. NO. 610760
INTERCHANGE RECONSTRUCTION
I-75 @ US 41/SR 3 (ROCKY FACE)

FEDERAL ROUTE NO: I-75/US 41
STATE ROUTE NO: SR 401/SR 3
GADOT P.I. NO: 610760

Date of Report: Sept. 10, 1999

RECOMMENDATION FOR APPROVAL

12-28-99

DATE

James A. Kennedy GE
State Road & Airport Design Engineer

DATE

State Environmental/Location Engineer

DATE

State Traffic Operations Engineer

DATE

District Engineer

12/30/99

DATE

Conrad V. Yelton Jr.
State Bridge Engineer

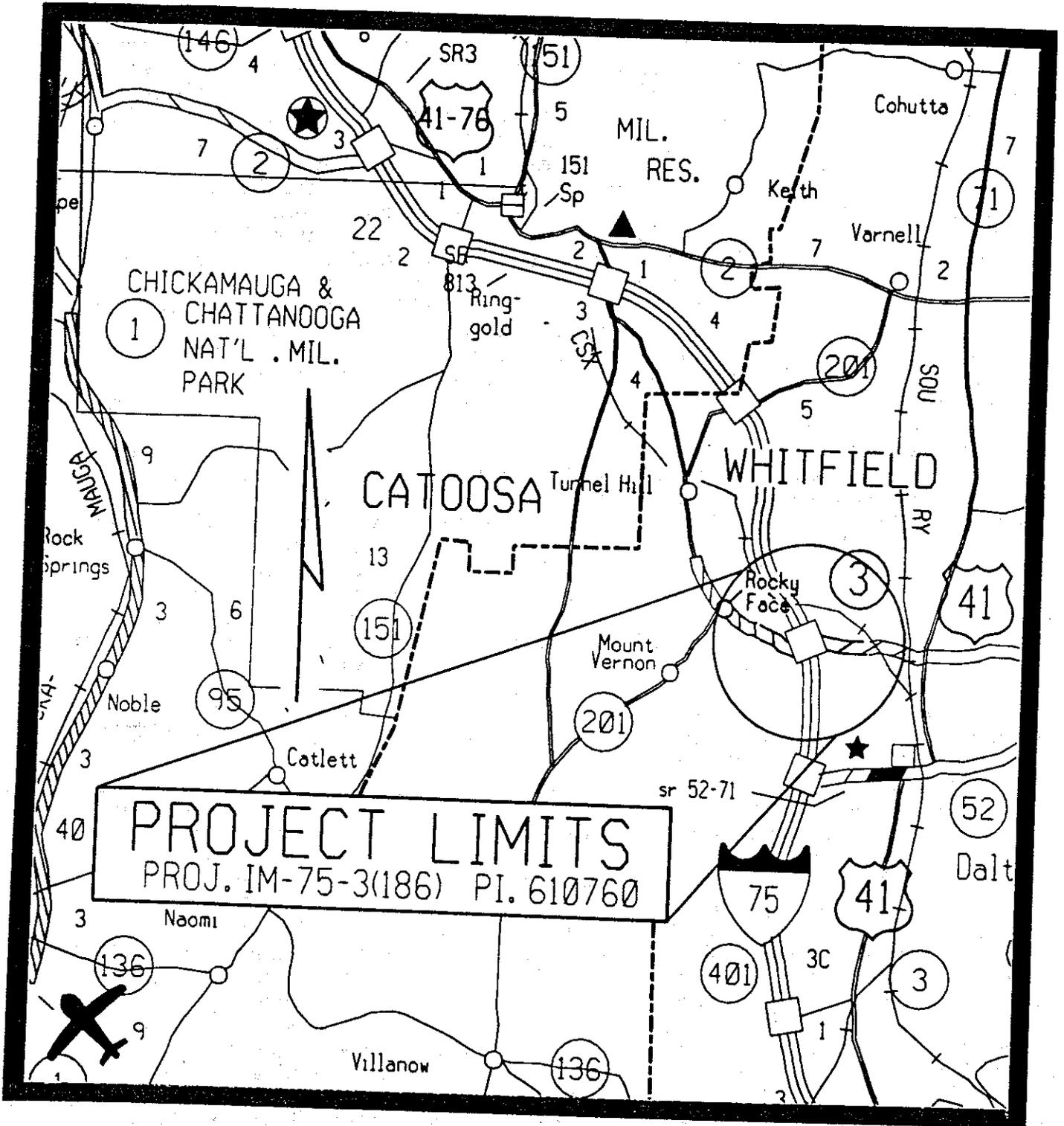
DATE

State Project Review Engineer

This project is contained in both the Regional Transportation Plan (RTP) and Transportation Improvement Plan (TIP). The concept as presented herein and submitted for approval resembles that which was modeled in the RTP and TIP.

DATE

State Transportation Planning Administrator



PROJECT MAP
IM-75-3(186)
WHITFIELD COUNTY
P.I. NO. 610760

PROJECT LOCATION & DESCRIPTION

This Interchange Reconstruction is proposed to be constructed under two Phases. The proposed Phase I* improvement to this project will be to add a traffic signal, construct the I-75 northbound exit ramp realignment, and temporarily accommodate a dual left turn movement onto US 41/SR 3 westbound, as well as the addition of a left turn lane on US 41/SR 3 eastbound for the I-75 northbound entrance ramp traffic. The proposed Phase II roadway and bridge project consists of the reconstruction of the I-75 interchange with US 41/SR 3 which includes the widening of I-75 and its bridges over US 41/SR 3 and Mill Creek, the addition of a collector distributor (CD) parallel to each side of I-75, and the widening and resurfacing of US 41/SR 3. The I-75 section of the project begins at the Rocky Face northbound exit ramp just northwest of the city of Dalton and extends north for approximately 0.727 miles. The US 41/SR 3 portion of the project begins at Tibbs Road west of I-75 and extends to Old SR 3 east of I-75, for approximately 0.721 miles.

The proposed concept report recommends the widening of I-75 and the I-75 bridges over both US 41/SR 3 and Mill Creek for CD ramp improvements and future traffic accommodation. US 41/SR 3 will be widened to 3-12 FT thru lanes in each direction with a raised median and partial curb and gutter, as well as 2-12 FT left turn lanes onto both the I-75 northbound and the I-75 southbound entrance ramps. Minor intersection improvements are required for existing Tibbs and Shugart Roads including signal upgrades and an additional left turn lane on Tibbs Road. A proposed auxiliary lane from the northbound exit ramp along US 41/SR 3 will become an exclusive right turn at Shugart Road. The outside eastbound thru lane between Shugart Road and Old SR 3 will become an exclusive right turn at Old SR 3. CD ramps will be added parallel to I-75 to separate I-75 traffic from both the proposed northbound exit ramp traffic and the proposed southbound exit ramp traffic. The CD will be separated from the I-75 thru lanes by a concrete barrier wall. The existing I-75 southbound exit loop ramp will be reconstructed and modified to accommodate only an easterly movement onto US 41/SR 3. A new I-75 southbound exit ramp will be constructed to achieve a westerly movement onto US 41/SR 3 only. The existing southbound entrance ramp will be realigned perpendicular to US 41/SR 3 to align with the proposed southbound exit ramp. A loop ramp in the northeast quadrant of the interchange will be added to accommodate the I-75 northbound exit movement onto US 41/SR 3 westbound. The existing northbound entrance ramp from US 41/SR 3 eastbound to I-75 northbound will be relocated. The existing I-75 northbound exit ramp will be retained and modified to align with the proposed I-75 northbound exit ramp accommodating the easterly movement onto US 41/SR 3 only. Once the proposed I-75 northbound exit loop ramp is constructed under Phase II, the dual left turn movement from the northbound exit ramp constructed under Phase I will be eliminated, leaving only the easterly movement onto US 41/SR 3.

PROJECT LENGTH:	I-75	0.727 miles
	US 41/SR 3	0.721 miles

* See comments on page 9.

TRAFFIC				
CURRENT			PROPOSED	
<u>YEAR</u>		<u>AADT</u>	<u>YEAR</u>	<u>AADT</u>
1998	(I-75)	77500	2018	(I-75)
1998	(US 41/SR 3)	44300	2018	(US 41/SR 3)
				127300
				70900

PDP CLASSIFICATION	FUNCTIONAL CLASSIFICATION	
MAJOR PROJECT/EXISTING LOCATION	I-75	URBAN INTERCHANGE
	US 41/SR 3	URBAN MINOR ARTERIAL

FULL OVERSIGHT (X)	EXEMPT ()	S/F ()
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PROJECT NEED & PURPOSE

[This project is the reconstruction of the interchange on I-75 at SR 3/US 41 in Whitfield County. State Route 3/US 41 is known as the North Dalton Bypass at this location, and is a major truck access route that serves the north Dalton area including carpet manufacturing facilities. Improvements to the interchange are needed due to continuing traffic growth, heavy truck usage, and turning volumes that result in traffic back ups onto the interchange ramps.

Interstate 75, in the area of this interchange, currently has three-lanes in each direction. Traffic volumes on I-75 in 1998 were approximately 58,200 vehicles per day (vpd) just south of the interchange, and 71,200 vpd just north of the interchange. The percentage of trucks is approximately 25% of the vehicular traffic. This project will also accommodate the future widening of Interstate 75. I-75 is currently operating at an acceptable level-of-service (LOS), 'C'.

State Route 3/US 41 also currently carries a high volume of vehicles, approximately 42,100 vpd east of the interchange in 1998 and 29,300 vpd west of the interchange. The truck percentage has been estimated at 15% for SR 3/US 41. State Route 3/US 41 currently has a LOS of 'E' just east of I-75, and 'D' just west of I-75. This shows that as the traffic volumes grow, the ability of this intersection to operate efficiently will continue to deteriorate, and delays will be experienced. Projected 2022 daily volumes on SR 3/US 41 range from 54,000 vpd to 76,800 vpd. The intersection will experience an unacceptable level-of-service, causing extensive congestion in the area. As the level-of-service decreases within the intersection, backups occur onto the ramps, with a loss of efficiency on the ramps and ramp junctions.

The ramps are currently operating at levels-of-service 'D' and 'E', which is lower than acceptable. The loss of efficiency on the ramps can cause congestion on the freeway, since some vehicles will avoid the outside lanes and the turbulence caused by entering/exiting vehicles.

Improving the interchange will allow a more efficient movement of vehicles. The northbound and southbound exits will be of single-exit design, thus increasing the operational efficiency of the facility. The single-exit design removes weaving from the main-line and transfers it to a slower speed facility; simplifies signing and the decision process; and satisfies driver expectancy. The single-exit ramps will utilize collector-distributor (C-D) roads separated from the I-75 main-line by using a concrete barrier wall. The entrance ramps to I-75 will also have a longer length, allowing motorists to attain the appropriate running speed of the freeway before reaching the tapered section, thus improving safety. State Route 3/US 41 will be widened to three-lanes in each direction, with appropriate turn lanes.

The proposed interchange improvements will allow the interchange to operate at an acceptable level-of-service through the 20-year design period. The northbound exit ramps will have a 2022 LOS of 'C' in the a.m. and 'B' in the p.m. The northbound entrance ramps will have a

PROJECT NEED & PURPOSE

future LOS of 'B' in the a.m. and 'C' in the p.m. The northbound ramp intersection at SR 3/US 41 will have a LOS of 'A' in the a.m. and 'B' in the p.m. The southbound exit ramp, entrance ramp and intersection with SR 3/US 41 also have levels-of-service similar to the northbound ramps, LOS 'B' and 'C', which are also acceptable.

The western terminus is at Tibbs Road (CR 0362), and SR 3/US 41 is currently a four-lane facility beyond Tibbs Road. A majority of the trucks utilize Tibbs Road to access the carpet manufacturing and retail facilities west of Interstate 75. The eastern terminus is at Shugart Road (CR 0325). Shugart Road provides access to the downtown Dalton area. East of Shugart Road, SR 3/US 41 is a four-lane facility. The Appalachian Scenic Corridor Study, a needs and feasibility study of east-west access across north Georgia, recommended the six-laning of SR 3/US 41 from I-75 easterly to SR 2/SR 52/US 76. Although identified, the recommendations have not yet been added to the Department's work program.

EXISTING ROADWAY

TYPICAL SECTION:

		<u>R/W WIDTH</u>
I-75	3 - 12 FT LANES EACH DIRECTION WITH A 40 FT DEPRESSED MEDIAN	328 FT
US 41/SR 3	2 - 12 FT LANES EACH DIRECTION WITH A 12 FT RAISED MEDIAN AND CURB AND GUTTER	164 FT

POSTED SPEED

MINIMUM RADIUS

MAXIMUM GRADES

I-75	70 MPH	3822 FT	0.5%
US 41/SR 3	45 MPH	820 FT	1.2%

MAJOR STRUCTURES:

1. I-75 bridges over US 41/SR 3 and Mill Creek.
2. Double 10 FT x 5 FT concrete bridge culvert located approximately 984 FT east of the I-75 and US 41/SR 3 interchange.
3. Single 5 FT x 5 FT concrete box culvert located under the existing I-75 northbound entrance ramp.
4. Single 5 FT x 5 FT concrete box culvert located under the I-75 and US 41/SR 3 interchange.

PROPOSED ROADWAY

TYPICAL SECTION: I-75 3 - 12 FT LANES IN EACH DIRECTION WITH AN AUXILIARY LANE NORTHBOUND AND ACCOMMODATIONS FOR A FUTURE FOURTH LANE.

US 41/SR 3 6 - 12 FT LANES WITH 20 FT RAISED MEDIAN, CURB AND GUTTER AND TURN LANES.

CD RAMP 1 - 18 FT LANE IN EACH DIRECTION PARALLEL TO I-75.

<u>DESIGN SPEED</u>	<u>MINIMUM RADIUS</u>	<u>MAX GRADE</u>
I-75 70 MPH	ALLOWABLE: 1920 FT	ALLOWABLE: 4.0%
	PROPOSED: 3822 FT	PROPOSED: MATCH EXIST
US 41/SR 3 45 MPH	ALLOWABLE: 606 FT	ALLOWABLE: 6.0%
	PROPOSED: 820 FT	PROPOSED: 2.0%

MAJOR STRUCTURES:

1. I-75 Bridge over US 41/SR 3 (226 FT x 108 FT) - retain and widen.
2. I-75 bridge over Mill Creek (262 FT x 70 FT) - retain and widen.
3. Double 10 FT x 5 FT concrete box culvert over Mill Creek - retain and extend.
4. Single 5 FT x 5 FT concrete box culvert at the I-75 and US 41/SR3 interchange - retain and extend.
5. Single 5 FT x 5 FT concrete box culvert under the existing I-75 northbound entrance ramp - remove.
6. Single 5 FT x 5 FT concrete box culvert under both the proposed I-75 northbound entrance ramp and exit loop ramp - add.

PROPOSED RIGHT OF WAY

R/W WIDTH: I-75 328 FT U.S. 41/S.R.3 164 FT

DISPLACEMENTS:

RESIDENTIAL: 0

COMMERCIAL, OUTBUILDINGS, & FENCING: 0

TYPE OF ACCESS CONTROL: I-75 Limited Access US 41/SR 3 By Permit

NUMBER OF PARCELS: 3+

COORDINATION

CONCEPT TEAM MEETING DATE: MAY 21, 1998
PERMITS REQUIRED (4f, COE, 404, etc.): TO BE DETERMINED
LEVEL OF PUBLIC INVOLVEMENT: PUBLIC HEARING TO BE HELD
TIME SAVING PROCEDURES APPROPRIATE: NO
OTHER PROJECTS IN THE AREA: NA

MISCELLANEOUS

TRAFFIC CONTROL DURING CONSTRUCTION: WIDEN UNDER TRAFFIC / STAGE CONSTRUCTION IS REQUIRED.

LEVEL OF ENVIRONMENTAL ANALYSIS: ENVIRONMENTAL ASSESSMENT

DESIGN EXCEPTIONS REQUIRED:

	<u>YES</u>	<u>NO</u>	<u>UNDETERMINED</u>
SUBST. HORIZONTAL ALIGNMENT	()	(X)	()
SUBST. ROADWAY WIDTH	()	(X)	()
SUBST. SHOULDER WIDTH	(X)	()	()
SUBST. VERTICAL GRADES	()	(X)	()
SUBST. CROSS SLOPES	()	(X)	()
SUBST. STOPPING SIGHT DIST.	()	(X)	()
SUBST. SUPERELEVATION RATES	()	(X)	()
SUBST. HORIZONTAL CLEARANCE	(X)	()	()
SUBST. SPEED DESIGN	()	(X)	()
SUBST. VERTICAL CLEARANCE	()	(X)	()
SUBST. BRIDGE WIDTH	()	(X)	()
SUBST. BR. STRUCTURE CAPACITY	()	(X)	()

UNDERGROUND STORAGE TANKS: 1 Possible

HAZARDOUS WASTE SITES: 0

ALTERNATIVES CONSIDERED	
1. NO BUILD	
2. ALTERNATE AS PROPOSED	

ESTIMATED COST			
CONSTRUCTION:	\$8,042,930	RIGHT-OF-WAY:	\$600,000
E & C (10) :	\$804,293	ACQUIRED BY :	D.O.T.
INFLATION :	\$1,194,375	UTILITIES :	\$ LGPA*
		ADJUSTED BY :	LGPA*
TOTAL CONSTRUCTION COST:		\$10,041,600	

*LGPA has been signed by Whitfield County to do the utilities. 6/23/97

COMMENTS:

Based on the design year 2015, the capacity analysis for Shugart Road results in a level of service of "B" for both AM and PM calculations.

Based on the design year 2015, the capacity analysis for Tibbs Road results in a level of service of "C" for both AM and PM calculations.

Design exceptions will be required for the substandard shoulder width and horizontal clearance under the I-75 overpass bridge along US 41/SR 3. Outside shoulders will have a 2.2 FT offset from edge of pavement to face of barrier. Existing horizontal clearance between the piers of the overpass bridge are 56 FT eastbound and 53 FT westbound. Arterials require a minimum of 10 FT of desirable shoulder for this class of roadway. Provisions are made for dual left turn lanes either side of the bridge entry. Bridge piers will be protected with side barrier walls with guardrail.

US 41/SR 3 will require a slight profile grade change 1 FT in order to maintain minimum vertical clearance under the I-75 overpass bridge widening.

Required bridge piers for the proposed I-75 northbound bridge widening will have to be designed around the existing 5 FT x 5 FT box culvert, which will be extended with the widening of US 41/SR 3.

An intermediate Phase I project needs to be programmed to upgrade the existing I-75 northbound exit ramp intersection with US 41/SR 3 to relieve congestion and backup onto the existing ramp.

ATTACHMENTS: COST ESTIMATE, US 41/SR 3 LANE ARRANGEMENT UNDER I-75 BRIDGE, TYPICAL SECTIONS, SKETCH MAP, MINUTES OF TEAM CONCEPT MEETING, R/W COST ESTIMATE, AND PRE-PROGRAMMING DOCUMENT.

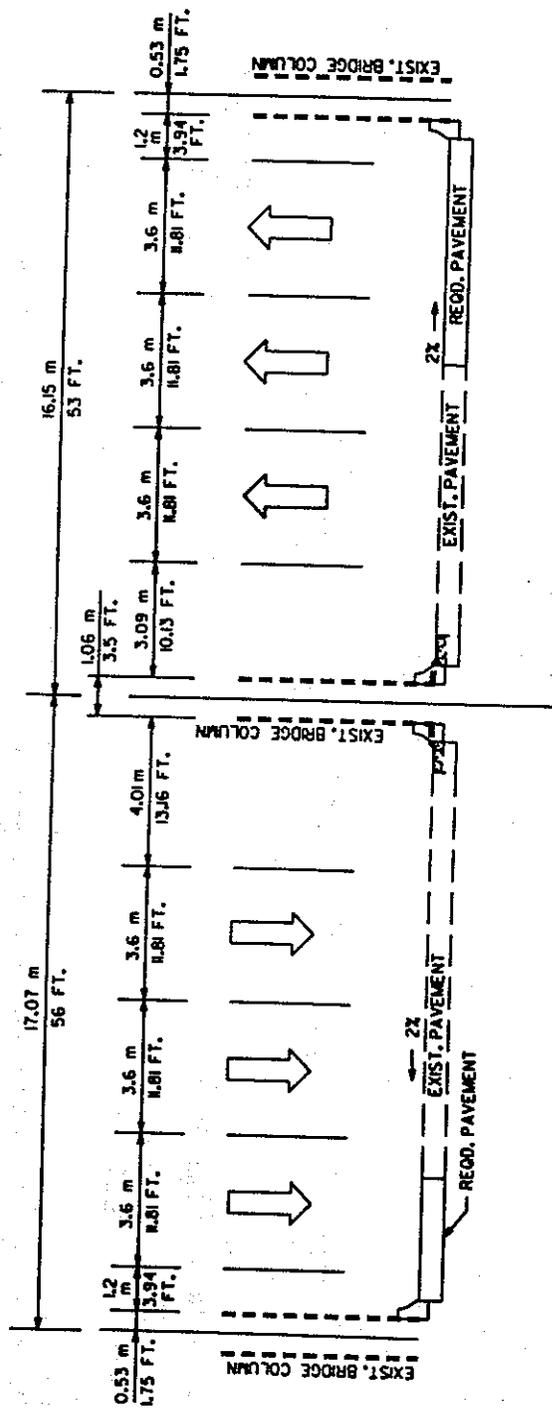
PROJECT COST	
C. CONSTRUCTION:	
1. MAJOR STRUCTURES	
a. BRIDGES	
1. I-75 bridge over US 41/SR 3 (226 FT x 108 FT x \$50)	\$ 1,220,400
2. I-75 bridge over Mill Creek (262 FT x 69 FT x \$50)	\$ 903,900
b. BRIDGE CULVERTS	
1. Double 10 FT x 5 FT	\$ 32,000
c. BOX CULVERTS	
1. Single 5 FT x 5 FT	\$ 12,000
2. Single 5 FT x 5 FT	\$ 15,000
d. RETAINING WALLS - FOR R/W CONTROL	\$ 75,000
SUBTOTAL: C-1	\$ 2,258,300
2. GRADING AND DRAINAGE:	
a. EARTHWORK - BORROW (163495 yd3 x \$3.00)	\$ 490,485
b. DRAINAGE:	
1) Longitudinal System	\$ 50,000
2) Curb and Gutter (10170 ft X \$13/ft)	\$ 132,210
SUBTOTAL: C-2	\$ 672,695

PROJECT COST		
3. BASE AND PAVING:		
a. GRADED AGGREGATE BASE, INCL. MATERIAL (51587 TONS x \$13)		\$ 670,635
b. ASPHALT PAVING:		
1) Asph. Conc. 12.5 mm (6944 TONS x \$33)		\$ 229,155
2) Asph. Conc. 19.0 mm (6614 TONS x \$32)		\$ 211,650
3) Asph. Conc. 25.0 mm (15873 TONS x \$32)		\$ 507,940
4) Asph. Conc. Leveling (694 TONS x \$36)		\$ 24,990
c. BITUMINOUS TACK COAT (13473 GL x \$0.83)		\$ 11,182
d. CONC. APPROACH SLABS (351FT x 30FT x \$87)		\$ 916,110
e. CONC. MEDIAN (35520 FT 2 x \$31)		\$ 1,101,120
f. INDENTATION RUMBLE STRIPS(3.7 Miles X \$424)		\$ 1,700
	SUBTOTAL: C-3	\$ 3,674,482
4. LUMP ITEMS:		
a. TRAFFIC CONTROL		\$ 200,000
b. CLEARING AND GRUBBING (75 Acre)		\$ 200,000
c. LANDSCAPING (GRASSING) (60 Acre)		\$ 100,000
d. EROSION CONTROL		\$ 150,000
e. SIGNALS		
1.) I-75 southbound ramp		\$ 50,000
2.) I-75 northbound ramp		\$ 50,000
3.) Tibbs Road (upgrade existing signal)		\$ 25,000
4.) Shugart Road (upgrade existing signal)		\$ 25,000
	SUBTOTAL: C-4	\$ 800,000

PROJECT COST	
5. MISCELLANEOUS:	
a. SIGNING & MARKING	\$ 75,000
b. GUARDRAIL (4265 ft x \$10)	\$ 42,650
c. TEMPORARY BARRIER-METHOD 2 (2300FT x \$26FT)	\$ 59,800
d. 4 INCH CONDUIT W/ INNERDUCT	\$ 360,000
SUBTOTAL: C-5	\$ 537,450
6. SPECIAL FEATURES	
SUBTOTAL: C-6	\$ 100,000

ESTIMATE SUMMARY	
A. RIGHT-OF-WAY	\$ 600,000
B. REIMBURSABLE UTILITIES	\$ LGPA*
C. CONSTRUCTION	
1. MAJOR STRUCTURES	\$ 2,258,300
2. GRADING AND DRAINAGE	\$ 672,695
3. BASE AND PAVING	\$ 3,674,482
4. LUMP ITEMS	\$ 800,000
5. MISCELLANEOUS	\$ 537,450
6. SPECIAL FEATURES	\$ 100,000
SUBTOTAL CONSTRUCTION COST	\$ 8,042,930
E. & C. (10%)	\$ 804,293
INFLATION (5% PER YEAR)	\$ 1,194,375
NUMBER OF YEARS	2.7
TOTAL CONSTRUCTION COST	\$ 10,041,600
GRAND TOTAL PROJECT COST	\$ 10,641,600

US 41/SR 3
 LANE ARRANGEMENT
 UNDER I-75 BRIDGE
 DETAIL

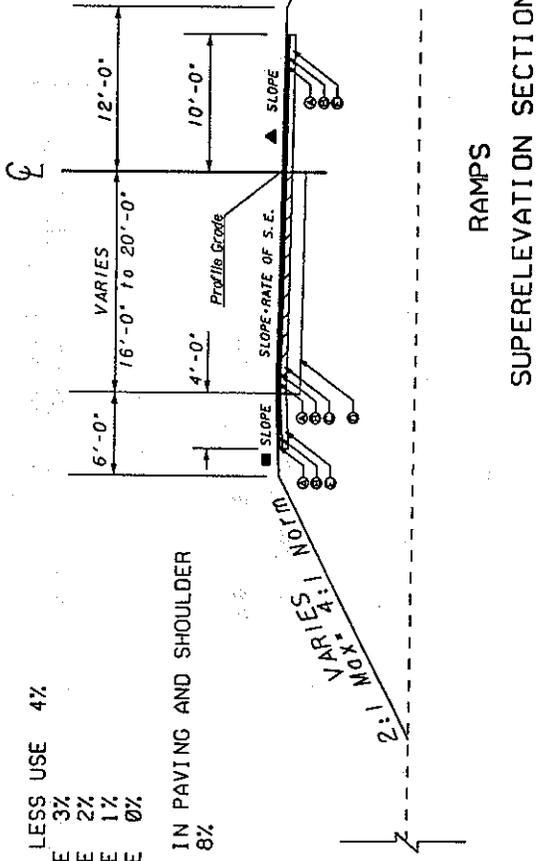
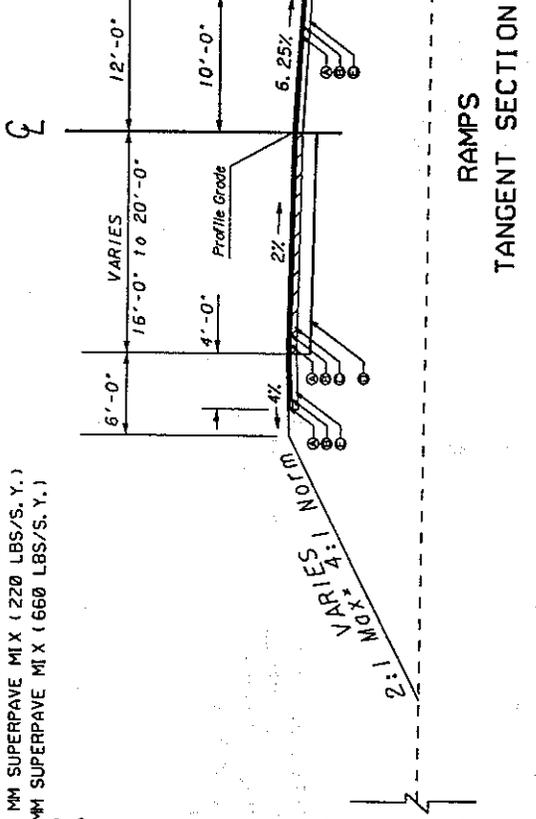


NOTE: SEE US 41/SR 3 TYPICAL SECTIONS FOR PAVEMENT DESIGN

DATE	PROJECT NUMBER	SCALE	TOTAL
04/	14-75-3-186		

REQUIRED PAVEMENT

- Ⓐ ASPHALTIC CONCRETE, 1.25 MM SUPERPAVE MIX (165 LBS/S. Y.)
- Ⓑ ASPHALTIC CONCRETE, 1.9 MM SUPERPAVE MIX (220 LBS/S. Y.)
- Ⓒ ASPHALTIC CONCRETE, 2.5 MM SUPERPAVE MIX (660 LBS/S. Y.)
- Ⓓ GRADED AGGREGATE BASE, 12'
- Ⓔ GRADED AGGREGATE BASE, 6'



▲ SLOPE 6% OR RATE OF S.E. WHICHEVER IS GREATER

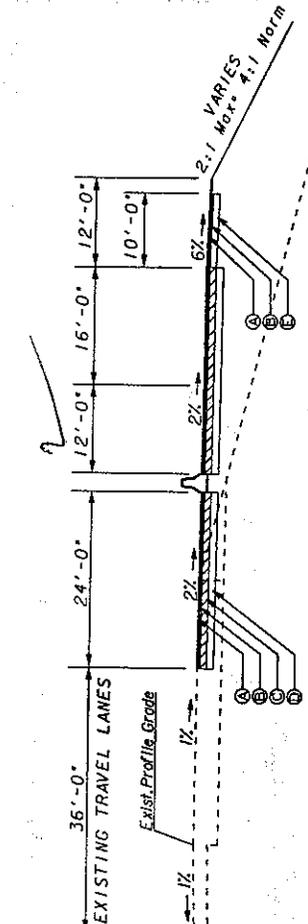
- SLOPE AS FOLLOWS:
- S.E. RATE OF 3% OR LESS USE 4%
- S.E. RATE OF 4% USE 3%
- S.E. RATE OF 5% USE 2%
- S.E. RATE OF 6% USE 1%
- S.E. RATE OF 8% USE 0%

ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 8%

RAMPS
TYPICAL SECTION

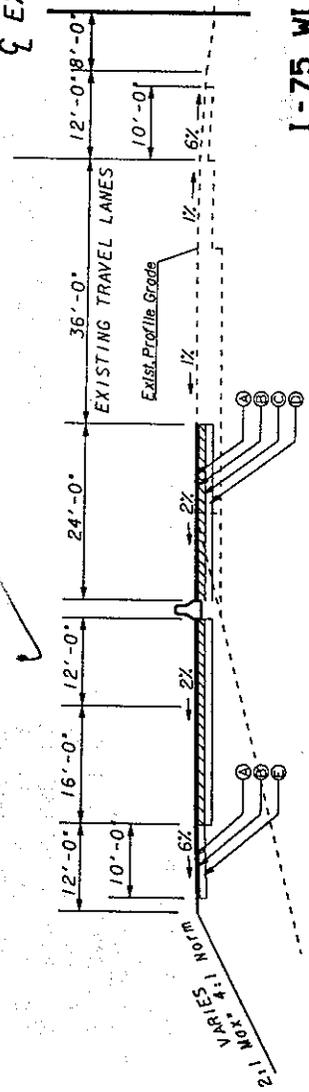
DATE	PROJECT NUMBER	SCALE
04/1	I-75-3 (166)	1"=40'

EXIST. ξ



I-75 WITH C-D TANGENT SECTION

ξ EXIST.



I-75 WITH C-D TANGENT SECTION

REQUIRED PAVEMENT

- Ⓐ ASPHALTIC CONCRETE, 12.5 MM SUPERPAVE MIX (165 LBS/S. Y.)
- Ⓑ ASPHALTIC CONCRETE, 19 MM SUPERPAVE MIX (440 LBS/S. Y.)
- Ⓒ ASPHALTIC CONCRETE, 25 MM SUPERPAVE MIX (1100 LBS/S. Y.)
- Ⓓ GRADED AGGREGATE BASE, 12"
- Ⓔ GRADED AGGREGATE BASE, 6"

△ SLOPE 6% OR RATE OF S. E. WHICHEVER IS GREATER

□ SLOPE AS FOLLOWS:

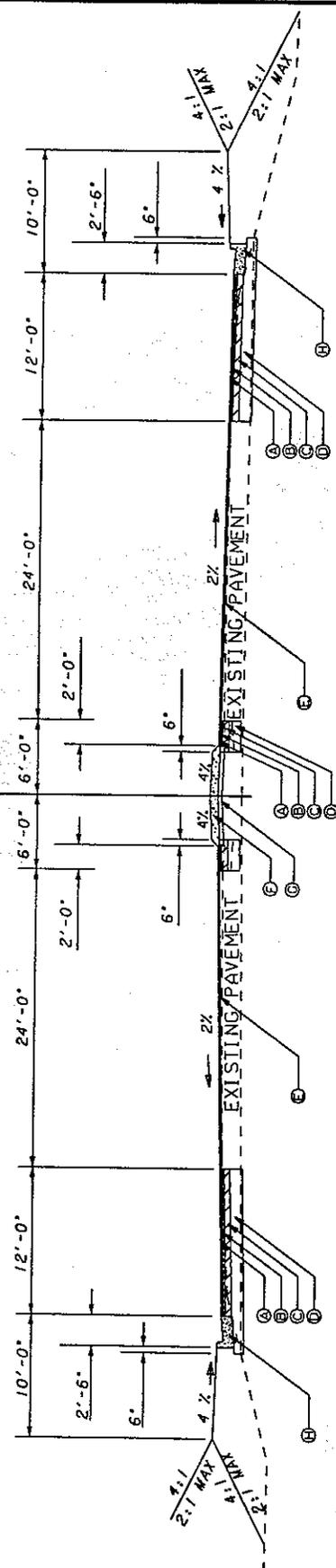
- S. E. RATE OF 3% OR LESS USE 4%
- S. E. RATE OF 4% USE 3%
- S. E. RATE OF 5% USE 2%
- S. E. RATE OF 6% USE 1%
- S. E. RATE OF 8% USE 0%

ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 8%

I-75
TYPICAL SECTION

DATE	PROJECT NUMBER
10/1/86	10-75-3 (186)
SCALE	DATE
1"=20'	10/1/86

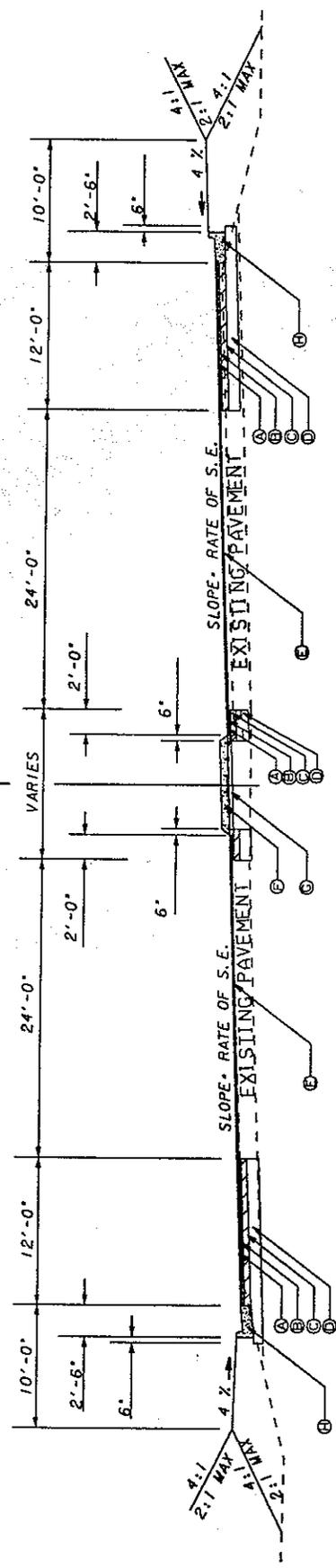
EXIST. ζ



US 41 / SR 3
TANGENT SECTION

- REQUIRED PAVEMENT
- A ASPHALTIC CONCRETE, 1.25 MM SUPERPAVE MIX (165 LBS/S. Y.)
 - B ASPHALTIC CONCRETE, 1.9 MM SUPERPAVE MIX (220 LBS/S. Y.)
 - C ASPHALTIC CONCRETE, 2.5 MM SUPERPAVE MIX (660 LBS/S. Y.)
 - D GRADED AGGREGATE BASE, 12"
 - E ASPHALTIC CONCRETE LEVELING, AS REQ'D
 - F CONCRETE MEDIAN, 190 MM - TYPE 7 FACE
 - G GRADED AGGREGATE BASE 100 MM
 - H CONC. CURB & GUTTER, 200 MM X 750 MM, TP2

EXIST. ζ



US 41 / SR 3
SUPERELEVATION SECTION

US 41 / SR 3
TYPICAL SECTION

ORIGINAL

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE IM-75-3(186)Whitfield County OFFICE Atlanta
P.I. NO. 610760
I-75 @ US 41/SR 3 Interchange
Reconstruction (Rocky Face) DATE June 15, 1998
FROM James A. Kennerly, State Road & Airport Design Engineer
TO SEE DISTRIBUTION

SUBJECT MINUTES OF DESIGN CONCEPT MEETING

The design concept team meeting for IM-75-3(186) in Whitfield County was held June 4, 1998 at 10:00 AM, in the Office of Road and Airport Design, Conference Room 444. Persons who were present representing the Georgia Department of Transportation are listed as follows:

Office of Road and Airport Design :

James Kennerly, State Road and Airport Design Engineer;
Hank Ashmore; Kevin Hosey; Robert Reid;
Danny Roberson; Marina Masody; and Richard Crowley.

Office Of Programming :

Bruce Maney

Office Of Traffic Operations :

Ken Estes

Office Of Right of Way :

Stan Peteet

Office of Bridge Design :

John P. Tieman

District 6:

Jim Hullett, Preconstruction Engineer, Kathy Spradley, Environmental,
W. Paul Simmons, Utilities, and Devon Woodworth, Area 3 Engineer.

Other Individuals present are listed as follows:

State Representative :

Honorable Charles Judy Poag (District 6)

FHWA:

David Kelly

City of Dalton:

John Wall & Benny Dunn

The meeting was opened by Kevin Hosey who welcomed our guests, described the project in general, the concept proposed, and the design considerations encountered. The walk-thru and detailed project description were presented by Robert Reid.

Project Description

Project IM-75-3(186) is the I-75 @ US 41/SR 3 interchange reconstruction in Whitfield County. The I-75 section of the project begins at the Rocky Face northbound exit ramp just northwest of the city of Dalton and extends north for approximately 1.7 kilometers. The US 41/SR 3 portion of the project begins at Tibbs Road west of I-75 and extends to Old SR 3 east of I-75, for approximately 1.16 kilometers. The project is currently programmed for construction in fiscal year 2001 and right of way in fiscal year 1999. The design year (2018) traffic projections are 127300 ADT for I-75 and 70900 ADT for US 41/SR 3.

The proposed concept for this project is to widen I-75 and its bridges over US 41/SR 3 and Mill Creek for Collector Distributor (CD) ramp improvements and future traffic accommodation. A new southbound exit ramp will be constructed in the northwest quadrant to accommodate US 41/SR 3 westbound traffic. A new loop ramp to accommodate the northbound exit traffic onto US 41/SR 3 westbound and a new northbound entrance ramp will be constructed in the northeast quadrant. Both the existing southbound entrance ramp and the existing southbound exit ramp will be reconstructed and reconfigured to accommodate the future widening along I-75 and the addition of a CD system parallel to I-75 in the southwest quadrant. The existing northbound exit ramp will be reconfigured with a maintenance project temporarily and will be retained and restriped to serve as the northbound exit ramp to US 41/SR 3 eastbound. US 41/SR 3 will be widened to 3-3.6 meter lanes in each direction with a raised median and partial curb and gutter. Between ramp intersections, 2 - 3.6 meter left turn lanes will be provided for traffic onto both the I-75 northbound and the I-75 southbound entrance ramps. An auxiliary lane will be provided between the northbound exit ramp and Shugart Road. The design speed is 110 km/h along I-75 and 70 km/h along US41/SR 3. Access will be limited access along I-75 and by permit along US 41/SR 3. A slight profile grade change along US 41/SR 3 will be required to maintain minimum vertical clearance under the I-75 overpass bridge.

Discussion was as follows :

Jim Kennerly suggested placing the proposed barrier under the I-75 bridge inside the columns instead of in front of them to provide a wider outside shoulder, which will require a design exception for shoulder width.

David Kelly asked about the length of the proposed design exception and Robert Reid estimated about 80 meters.

Mr. Kelly also asked if any pedestrian accommodations had been made through the interchange. Robert Reid replied that there were not any at this time.

Robert Reid mentioned that the "Mountain Crossing" bike route, as identified in "The Georgia Statewide Bicycle and Pedestrian Plan" will fall just outside of the current limits of this project at the Tibbs Road intersection.

Ken Estes asked what type of separation is proposed between I-75 and the proposed CD system. Robert Reid responded that a raised median was proposed. Jim Kennerly continued by asking what was the proposed width of the raised median. Robert Reid responded that it was 3.6 meters face of curb to face of curb. David Kelly was asked if that width needed to be reduced and he responded that it probably could be.

Ken Estes was concerned about the sight distance from the radius for the southbound exit ramp onto US 41/SR 3 westbound. Robert Reid said that we would study the sight distance as well as consider reducing the radius to increase the angle at the intersection. David Kelly then asked about the traffic control at the intersection and suggested that since there is a signal to control the left turning traffic from US 41/SR 3 onto the southbound entrance ramp that we could tie the southbound exit ramp directly into the signal and control the right turn onto US 41/SR 3 as long as the capacity analysis worked.

John Tieman expressed concern about the existing skewed culvert under the I-75 overpass bridge. He wanted to be sure that a thorough survey be done for the design of the extension of the columns associated with the bridge widening.

Jim Hullett suggested that we extend the dual lanes on the southbound entrance ramp further to accommodate the heavy truck traffic.

Kathy Spradley commented that a Categorical Exclusion (CE) will be pursued as the preferred environmental document. There were not any known archaeological or historical resources, but there are approximately 6.3 acres of disturbed wetlands, predominately in the northeast quadrant. Devon Woodworth commented that there are historical resources found west of Tibbs Road, outside of the current project limits.

Paul Simmons provided a Preliminary Utility Cost estimate and reported that the following is a breakdown of the cost for each utility with facilities located within the project limits.

<u>Utility Company</u>	<u>Reimbursable</u>	<u>Non-Reimb.</u>	<u>LGPA</u>
North Ga EMC	\$19,542.00	\$ 6,056.00	\$ 0.00
ALLTEL	\$ 0.00	\$434,907.00	\$ 0.00
Falcon Cable TV	\$ 0.00	\$ 0.00	\$ 0.00
Dalton Utilities	\$ 0.00	\$ 0.00	\$270,200.00
	-----	-----	-----
Sub Totals	\$19,542.00	\$440,963.00	\$270,200.00
Total Preliminary Utility Cost Estimate			\$730,705.00

He also noted that depending on the amount of work done to the bridge, the cost for Dalton Utilities could be reduced. The estimate is based on all new facilities.

Stan Peteet provided this office with a detailed Preliminary Right of Way Cost estimate before the meeting. The total proposed right of way cost estimate is \$600,000.

Both City of Dalton representatives, John Wall and Benny Dunn, agreed with the proposed concept.

Devon Woodworth stated that there is a consistent problem with drivers making wrong turns onto the existing southbound exit ramp, ignoring the existing signage. Jim Kennerly suggested that we make the proposed southbound entrance ramp improvements as part of the proposed maintenance project coordinated through Buddy Gratton.

Jim Hullet asked what procedure would the City of Dalton need to go through to make lighting a part of this project. Jim Kennerly suggested that the City request by letter that lighting be included in the contract and that an agreement could be drawn up for what cost the City would be responsible for.

David Kelly asked the City of Dalton if it had any provisions, rules, or regulations for pedestrian accommodations. John Wall stated that there were no ordinances or policies that required pedestrian accommodations at this time.

Devon Woodworth asked if landscaping proposed by the Carpet Merchants Association could become part of the contract. Jim Kennerly stated that an agreement could be worked up to accommodate the addition.

Jim Hullett recognized the entrance of one of our State Representatives, the Honorable Charles Judy Poag. Jim Kennerly welcomed Mr. Poag and asked what he thought of the project. He stated that it was a good idea to widen this location.

Jim Kennerly commented that we will conduct a Public Information Meeting to keep the public informed of the status of the project.

Kevin Hosey closed the meeting by thanking everyone for attending.

Status of Tasks

District 6: Need underground storage tank investigation and Hazardous waste sites.

Planning: Need a Need and Purpose Statement.

All other offices have completed the assigned tasks.

KDH
JAK:KDH:rlr

Preliminary Right of Way Cost Estimate

Stan For

David P. Meshberger
Right of Way Administrator
BY Stan Petect

Date	May 20, 1998		
Project	IM-75-3(186)Whitfield		
P.I. No.	610760		
Existing R/W	varies	Required R/W	varies
Number of parcels	10		
Project termini	I-75/SR 3 Interchange		
Project description	Interchange improvements		
Land			
Commercial			
0.25 ac @	\$ 250,000	\$ 62,500	
Comm Tract			
6.50 ac @	8,750	56,875	\$ 119,375
Improvements			
4 light stds, 1 sign & misc			35,000
Relocation			
none			
Consequential Damages			
Wetland replacement - 6.50 ac			<u>227,500</u>

Net Cost		\$ 381,875
Adm/Court Cost	45 %	171,844
Inflation Factor	10 %	<u>55,372</u>

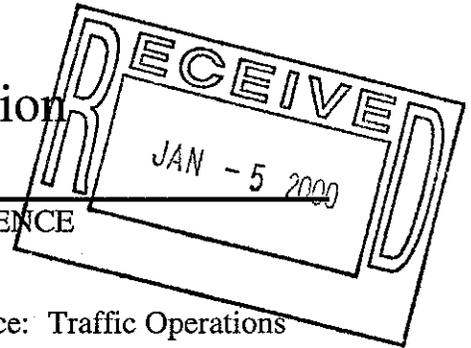
Total Cost \$ 600,000

Whitfield County Land Sales

Highest & Best Use	DB/Pg	Tax ID #	Size	Date	Sale Price	Value/ac
Commercial	2483/115	158-12-1-40	0.64	2/94	\$ 75,000	\$ 117,188
Commercial tract	2722/34	158-12-17 et al	36.974	4/96	1,175,500	31,793
	2664/17	159-12-1-76	2.95	10/95	80,500	27,288

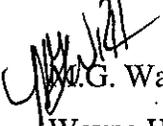
Department of Transportation
State of Georgia

INTERDEPARTMENTAL CORRESPONDENCE



File: IM-75-3(186)/Whitfield County
P.I. No. 610760

Office: Traffic Operations
Atlanta, Georgia
Date: January 4, 2000

From:  G. Waters, III, P.E., State Traffic Operations Engineer
To: Wayne Hutto, Assistant Director of Pre-construction
Subject: Project Concept Report Review

We have reviewed the revised concept report on the above project for the extensive reconstruction of the I-75 interchange at US 41/SR 3. This project will also widen I-75 and its bridges, over US 41/SR 3 and Mill Creek, to accommodate improvements to the CD ramp and for future traffic considerations.

The I-75 portion of the project begins at the I-75/US 41/SR 3(Rocky Face) northbound exit ramp, northwest of the city of Dalton, and extends in a northerly direction for .727 miles. The US 41/SR 3 section of the project begins at Tibbs Road, west of I-75, and extends to Old SR 3, east of I-75, for approximately .721 miles. US 41/SR 3 is known as the North Dalton Bypass in this location and is a major truck route to industry in the north Dalton area.

This revision changes the collector distributors(CD) roadway raised median, tangent to I-75, to a median barrier and adjusts the CD shoulder widths to match the mainline.

We believe this revised concept will improve safety and operational capacity along this section of roadway.

We therefore find this report satisfactory for approval.

MGW:TWS

Attachment (signature page)

c: David Studstill
James A. Kennerly, State Road and Airport Design Engineer
Attention: Robert Reid
David Mulling, w/ attachment
Marta Rosen
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(186)
WHITFIELD COUNTY
P.I. NO. 610760
INTERCHANGE RECONSTRUCTION
I-75 @ US 41/SR 3 (ROCKY FACE)

FEDERAL ROUTE NO: I-75/US 41
STATE ROUTE NO: SR 401/SR 3
GADOT P.I. NO: 610760

Date of Report: Sept. 10, 1999

RECOMMENDATION FOR APPROVAL

12-28-99

DATE

James A. Kennedy ^{GA}
State Road & Airport Design Engineer

DATE

State Environmental/Location Engineer

1-4-2000

DATE

Marion Albert
State Traffic Operations Engineer

DATE

District Engineer

DATE

State Bridge Engineer

DATE

State Project Review Engineer

This project is contained in both the Regional Transportation Plan (RTP) and Transportation Improvement Plan (TIP). The concept as presented herein and submitted for approval resembles that which was modeled in the RTP and TIP.

DATE

State Transportation Planning Administrator

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

PROJECT CONCEPT REPORT

**IM-75-3 (186)
WHITFIELD COUNTY
P.I. NO. 610760
INTERCHANGE RECONSTRUCTION
I-75 @ US 41/SR 3 (ROCKY FACE)**

FEDERAL ROUTE NO: I-75/US 41
STATE ROUTE NO: SR 401/SR 3
GADOT P.I. NO: 610760

Date of Report: Sept. 10, 1999

RECOMMENDATION FOR APPROVAL

12-28-99

DATE

James A. Kennedy *SE*
State Road & Airport Design Engineer

DATE

State Environmental/Location Engineer

DATE

State Traffic Operations Engineer

DATE

District Engineer

DATE

State Bridge Engineer

DATE

State Project Review Engineer

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State Transportation Planning Administrator

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

PROJECT CONCEPT REPORT

IM-75-3 (186)
WHITFIELD COUNTY
P.I. NO. 610760
INTERCHANGE RECONSTRUCTION
I-75 @ US 41/SR 3 (ROCKY FACE)

FEDERAL ROUTE NO: I-75/US 41
STATE ROUTE NO: SR 401/SR 3
GADOT P.I. NO: 610760

Date of Report: Sept. 10, 1999

RECOMMENDATION FOR APPROVAL

DATE

State Road & Airport Design Engineer

DATE

State Environmental/Location Engineer

DATE

State Traffic Operations Engineer

DATE

District Engineer

DATE

State Bridge Engineer

DATE

State Project Review Engineer

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DATE

11/15/99

Mark T. Row
State Transportation Planning Administrator

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

PROJECT CONCEPT REPORT

IM-75-3(186)
WHITFIELD COUNTY
P.I. NO. 610760
INTERCHANGE RECONSTRUCTION
I-75 @ US 41/SR 3 (ROCKY FACE)

FEDERAL ROUTE NO: I-75/US 41
STATE ROUTE NO: SR 401/SR 3
GADOT P.I. NO: 610760

Date of Report: Sept. 10, 1999

RECOMMENDATION FOR APPROVAL

12-28-99

DATE

James A. Kennedy
State Road & Airport Design Engineer

DATE

State Environmental/Location Engineer

DATE

State Traffic Operations Engineer

DATE

District Engineer

DATE

State Bridge Engineer

1/3/00

DATE

[Signature]
State Project Review Engineer

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DATE

State Transportation Planning Administrator

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

PROJECT CONCEPT REPORT

IM-75-3(186)
WHITFIELD COUNTY
P.I. NO. 610760
INTERCHANGE RECONSTRUCTION
I-75 @ US 41/SR 3 (ROCKY FACE)

FEDERAL ROUTE NO: I-75/US 41
STATE ROUTE NO: SR 401/SR 3
GADOT P.I. NO: 610760

Date of Report: Sept. 10, 1999

RECOMMENDATION FOR APPROVAL

DATE

State Road & Airport Design Engineer

DATE

State Environmental/Location Engineer

DATE

State Traffic Operations Engineer

DATE

10/29/99

William J. [Signature]
District Engineer

DATE

State Bridge Engineer

DATE

State Project Review Engineer

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DATE

State Transportation Planning Administrator