

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0000804, Turner County **OFFICE** Preconstruction
NHS-0000-00(804)
I-75 from Tift County Line to SR 159 **DATE** December 7, 2006

FROM *C. John Furlk*
Genetha Rice-Singleton, Assistant Director of Preconstruction

TO *GRS* SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

GRS/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keeper
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Babs Abubakari
Joe Sheffield
BOARD MEMBER
FHWA

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NHS-0000-00(804) Turner County OFFICE Consultant Design
P. I. Number 0000804
I-75 from Tift County Line to SR 159

DATE June 26, 2006

FROM  Mohammed (Babs) Abubakari, P.E., State Consultant Design Engineer

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

SUBJECT **Revised Project Concept Report**

Attached is the original copy of the Revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP). The approved concept report is to be revised to update the need and purpose statement, revise the typical section of the crossroads, add an auxiliary lane on I-75 between a rest area and an interchange, and add a bridge replacement for the bridge on SR 32 at Hat Creek.

The original concept report and revised concept report for project NH-IM-75-1(215), the Phase I I-75 widening project, contained a need and purpose statement that was very specific to that phase of the project. It spoke of the need to widen I-75 to add additional capacity and referenced level of service upgrades and accident history for I-75 only. The revised need and purpose statement references the Phase I project, but it more adequately describes the reasons for the Phase II project and provides traffic and accident information specific to the interchanges.

The original concept report recommended the widening of the three overpass bridges from an existing two lane section to a four lane section. This widening can not be justified based on future traffic projections at these interchanges. The SR 32 interchange is part of an active GRIP corridor and it is recommended that this interchange be constructed with four lanes and a 20-foot raised median. The bridges at Inaha Road and SR 159 will still need to be replaced to fulfill the need and purpose of this project but will no longer need to be constructed using a four lane typical section. The new typical section is to remain a two lane, non-divided roadway, but left turn bays will be added from the crossroad to the on-ramps of I-75.

The original concept report did not address the need to replace the SR 32 bridge over Hat Creek. This bridge is located 600 feet west of the existing southbound ramps and will need to be replaced based upon the January 7, 2003 memorandum regarding state guidelines related to raised medians at interchanges. It will be necessary to reconstruct this bridge because the new profile is higher than the bridge's existing elevation and it will need to accommodate a 20-foot raised median.

Based upon weaving analysis calculations performed as a part of the Interchange Modification Report for the Inaha Road interchange and the close proximity of the proposed southbound off-ramp to the existing rest area southbound on-ramp, it will be necessary to add an auxiliary lane to I-75 between these ramps.

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

DATE 7/24/06



State Transportation Planning Administrator

DISTRIBUTION:

- Brian Summers, P.E., Project Review Engineer
- Harvey Keeper, State Environmental/Location Engineer
- Keith Golden, State Traffic Safety and Design Engineer
- Joe Palladi, P.E., State Transportation Planning Administrator
- Jamie Simpson, State Financial Management Administrator
- Joe Sheffield, District 4 Engineer
- Paul Liles, P.E., State Bridge Design Engineer

REVISED PROJECT CONCEPT REPORT

Need and Purpose: See Attachment

Project location: The project is located in Turner County, beginning at the Tift County Line (MP 75.29) and ending just north of SR 159 (MP 83.95) for a total project length of 11.3 miles.

Description of the approved concept:

The project will be constructed in two phases.

Phase 1: Consists of widening the existing four lane mainline of I-75 to six lanes.

Phase 2: Consists of the reconstruction of the interchange at CR 252 – Inaha Rd. with a diamond interchange, SR 32 with a diamond interchange, CR 33 – Bussey Rd. with a diamond interchange, SR 112 – East Washington Ave. with a diamond interchange, and SR 159 with a partial cloverleaf interchange with a loop ramp in the northeast quadrant. These interchanges will be designed to accommodate a future 8 lane typical section of I-75. These overpasses will be widened to four lanes at the interchanges. The phase 2 project has a current project number of NHS-0000-00(804).

PDP Classification: Major X Minor _____

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

Functional Classification: Rural Principal Arterial

U. S. Route Number(s): I-75 **State Route Number(s):** 401

Traffic (AADT) as shown in the approved concept:

Current Year(2002): 41,300 Design Year(2022): 63,000

Proposed features to be revised:

- Need and Purpose – original need and purpose was specific to the Phase I widening of I-75
- Typical section – original typical sections for Inaha Road and SR159 recommended a four lane reconstruction
- Added Auxiliary Lane – the original concept report did not evaluate the need for auxiliary lanes.
- Added Bridge – the original concept report did not address the need to replace the bridge on SR 32 over Hat Creek.

Describe the revised feature to be approved:

Need and Purpose

The original concept report and revised concept report for project NH-IM-75-1(215) contains a need and purpose that is specific to the widening of I-75 from two lanes to three lanes and no detail concerning the interchange reconstruction to follow. It describes the additional capacity and level of service improvements from the additional lanes but does not include any verbiage on the interchange reconstruction in the Phase II project. The revised need and purpose is specific to this project and describes the need to reconfigure the interchanges along this section of I-75 to improve vertical clearance, sight distance, and acceleration / deceleration lengths of the ramps. The original and revised need and purpose documents have been added to this document as attachments.

Typical Section

The original concept report recommended that the three overpass bridges (Inaha Road, SR 32, and SR 159) be widened from their current two lane typical section to four lanes with a 20-foot raised median in the vicinity of I-75. After conducting detailed traffic analyses, as a part of the Interchange Modification Reports (IMRs), at these three locations where overpass bridges are being reconstructed, this lanage can no longer be justified. There is insufficient traffic to warrant this extent of widening at all interchanges. The SR 32 interchange is proposed to be widened as in the original concept with four lanes and a 20-foot raised median because this route is part of an active GRIP corridor with currently programmed projects to widen SR 32 from I-75 to Ocilla. Outside shoulders for SR 32 will be 10 feet with a 6.5-foot paved portion for the Wiregrass Trail bike route that is located on this roadway. The Inaha Road and SR 159 bridges will still need to be replaced to fulfill the need and purpose of this project but will no longer need to be constructed using the typical section presented in the original concept report. These bridges need to be replaced to provide required horizontal clearance, correct sight distance deficiencies and allow for future widening of I-75. The new typical section for these routes is to remain a two lane, non-divided roadway. For safety purposes these routes will have left turn bays added from the crossroad to the on-ramps of I-75. The outside shoulders for SR 159 will be 10 feet with a 6.5-foot paved portion and the Inaha Road outside shoulder will be 6 feet total with 2 feet paved and sloped at the same rate as the mainline paving. All routes whether overpass or underpass will have added right turn bays to the on-ramps to help separate slower traffic from the through movements.

Auxiliary Lane

Based on traffic weaving analysis that was performed as part of the IMR for the Inaha Road interchange, an auxiliary lane will be needed between the southbound rest area on-ramp and the southbound Inaha Road off-ramp. The level of service for the merge and diverge deteriorates to unacceptable levels when the Inaha Road off-ramp is lengthened

as a part the interchange reconstruction. This auxiliary lane will promote safety by providing a longer distance to identify gaps, accelerate or decelerate, and merge into traffic.

Bridge

The original concept report did not address the need to replace the bridge on SR 32 over Hat Creek. This bridge is located approximately 600 feet west of the existing southbound ramps and will be impacted by the reconstruction of SR 32 proposed in this project. This bridge will need to be replaced as a part of this project because SR 32 is being widened from 2 lanes to 4 lanes and the grade at this crossing will be higher than the existing grade. The bridge is also being lengthened to clear the wetlands adjoining Hat Creek and to keep roadway fill from an existing channel that runs parallel to SR 32. This bridge will also require a raised median to comply with the January 7, 2003 memorandum concerning raised medians at interchanges.

Updated traffic data (AADT):

Current Year(2012): 46,000 Design Year(2032): 68,600

Programmed/Schedule:

P.E. FY05 R/W: FY06 Construction: FY08

Revised cost estimates:

1. Construction cost including inflation and E&C,
2. Right-of-Way, and
3. Utilities

Is the project located in a Non-attainment area? Yes _____ No X

Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Attachments:

1. Sketch Map
2. Original Need and Purpose
3. Revised Need and Purpose
4. Cost Estimate
5. Typical Sections
6. Traffic Projections

• **Full Oversight projects**

If the project has full Federal oversight, the signature blocks should include the following:

Concur: Buddy [Signature]
Director of Preconstruction

Approve: Richard Wayne Fedora
for Division Administrator, FHWA

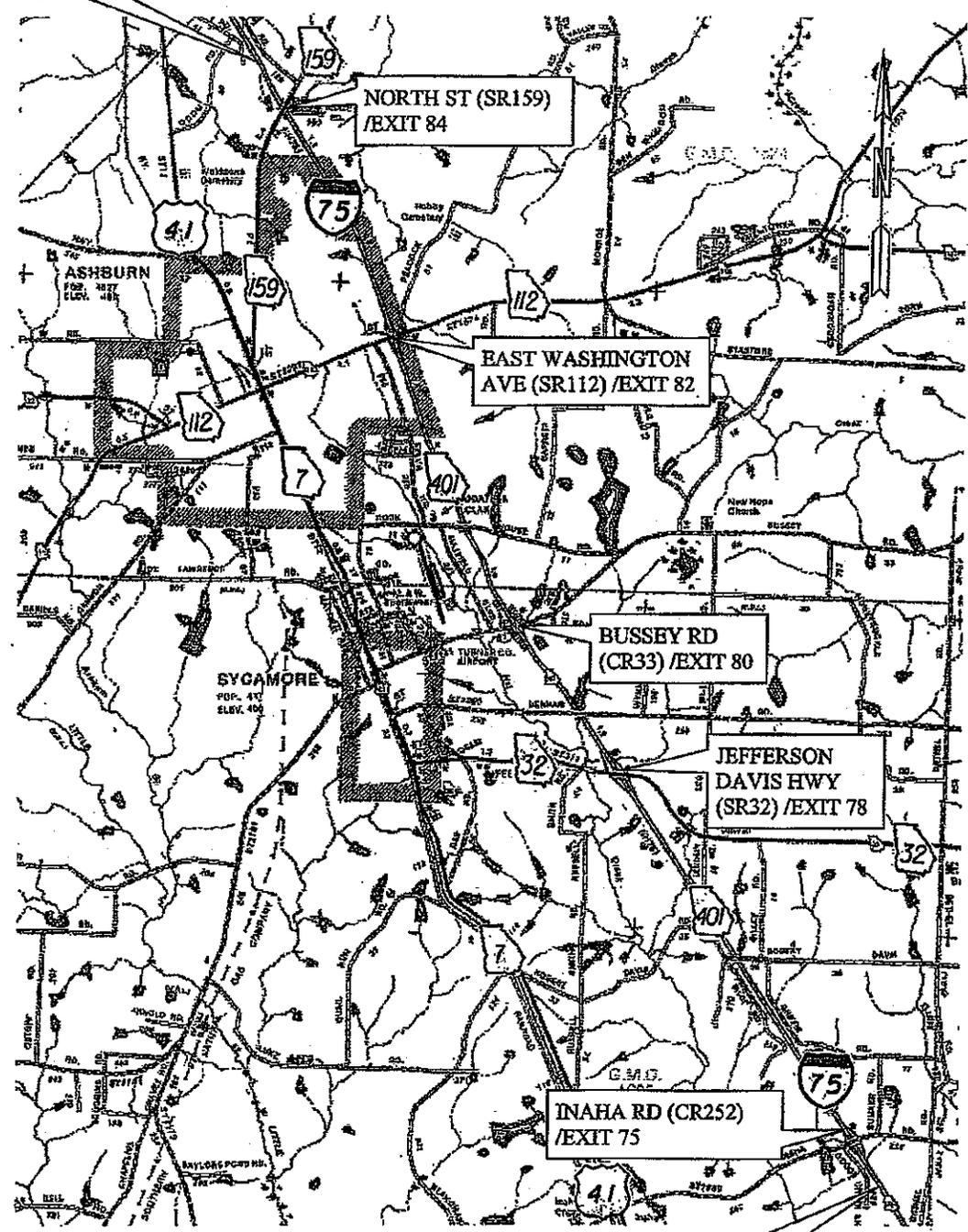
Approve: [Signature]
Chief Engineer

Submissions

RFP-484-060606 - Due June 06, 2006

Consultants	Date	Time
Greenhorne & O'Mara, Inc.	06/06/2006	11:58 AM
New South Associates, Inc.	06/06/2006	02:33 PM
TRC Garrow & Associates, Inc.	06/06/2006	12:35 PM
Terracon, Inc.	06/06/2006	02:25 PM
URS Corporation	06/06/2006	04:17 PM

END PROJECT



BEGIN PROJECT

PROJECT LOCATION MAP
I-75 FROM TIFT COUNTY LINE TO SR159 PHASE 2
NHS-0000-00(804) TURNER

NEED AND PURPOSE

Interstate 75, Crisp County

NH-IM-75-1(215)

P.I. 410245

Project NH-IM-75-1(215) is one of eight programmed projects to widen Interstate 75 to six lanes. The northern terminus is State Route 159, and the southern terminus is the Turner/Tift county line. This project is bound by two interstate widening projects, project NH-IM-75-1(157) to the north and project NH-IM-75-1(158) to the south.

The Department's objective is to increase the number of through travel lanes on Interstate 75 from four lanes to a minimum of six lanes throughout the state. Interstate 75 from State Route 133 in Lowndes County north approximately 87 miles to the Crisp - Dooly county line is the only section of Interstate 75 that has not been widened to six lanes or more in Georgia. In the Tifton area, 17 miles of the 87 miles have already been widened to six lanes.

The 1997 AADT for this section of Interstate 75 is 18,380 vehicles (each direction) with a 24 hour truck percentage of 30%. The AADT is estimated to increase 12% by the year 2002 and another 53% by the year 2022. During 1996 there were 26.05 accidents per 100 million vehicle miles traveled along this stretch of interstate compared to 50 accidents per 100 million vehicle miles statewide.

The 1997 level of service along this section of Interstate 75 is at a level "C". With a projected 71% increase in traffic by the year 2022, the level of service will decrease to a level "D" if the additional lanes are not constructed. A third lane in each direction will improve the level of service to "B", but the improvement in service will decrease to "C" by 2022.

For safety and construction staging purposes, crossroads and bridges over I-75 will be widened to four lanes with a median separation. The roadway and shoulder widening will improve sight distance for cars on the ramps exiting I-75, and the existing crossroad vertical curve will be reconstructed to meet design speed. The four lane widening will aid in the maintenance of traffic during construction.

This project will provide continuity along Interstate 75 by adding a third lane in each direction. The proposed widening will also allow increased vehicle spacing thus providing more time to maneuver and react to potentially dangerous situations.

REVISED NEED AND PURPOSE

The Georgia Department of Transportation (GDOT) has a program to provide a minimum of three through lanes in each direction on Interstate 75 (I-75) throughout the state. There are currently eight programmed projects to widen I-75. One of these projects, Project No. NH-IM-75-1(215), would widen I-75 to a total of six lanes from the Turner County/Tift County line as its southern terminus to north of State Route 159 (SR 159) as its northern terminus. Project No. NH-IM-75-1(215) is currently under construction. The proposed Phase II project, addressed in this document, Project No. NHS-0000-00(804), would improve the five existing interchanges along this segment of I-75. A possible Phase III project may eventually add a fourth lane in each direction as demand increases. The overall project length for Phase II is approximately 11.3 miles. This project is bounded by another interstate widening project to the south, Project No. NH-IM-75-1(158), as well as an interstate widening project to the north, Project No. NH-IM-75-1(157).

Project NH-IM-75-1(215) (Phase I) is being constructed to address the growing traffic demands on the I-75 mainline. The following traffic data was used as justification for Phase I, currently under construction. The 1997 Annual Average Daily Traffic (AADT) for this section of I-75 is 18,380 vehicles each direction with a 24 hour truck percentage of 30 percent. The AADT was estimated to increase 12 percent by the year 2002 and another 53 percent by the year 2022. During 1996, there were 26.05 accidents per 100 million vehicle miles traveled along this stretch of interstate compared to 50 accidents per 100 million vehicle miles statewide.

The 1997 level of service along the mainline of this section of I-75 was at a level "C", with a projected 71 percent increase in traffic by the year 2022. The level of service would decrease to a level "D" if the additional lanes are not constructed. A third lane in each direction would improve the level of service to "B", but the improvement in service would decrease to "C" by 2022.

The existing "tight diamond" interchanges do not meet the American Association of State Highway Transportation Officials (AASHTO) standards for sight distance, acceleration/deceleration distance, and diverging/merging maneuver requirements. Sight distance for motorists viewing left from the interchange ramps is restricted by the proximity of the bridge parapets, which are adjacent to the travel lanes because there are no safety shoulders. Sight distance and storage on the cross streets are also inadequate. Ramp intersections would be moved further from the I-75 mainline to increase sight distance and storage on the cross streets. The distance between ramps does not provide adequate distance for suitable full width and tapers for back to back left turn lanes. The current "tight diamond" configuration does not offer adequate

distance for diverging/merging maneuvers and deceleration/acceleration to be performed smoothly and safely. Without an interchange reconfiguration, these problems would only get worse with the addition of a third and fourth lane in each direction. Therefore, the need and purpose for Project No. NHS-0000-00(804) Phase II is to meet current and future travel demand and bring the interchanges up to current AASHTO design standards.

Traffic

Vehicular travel in and through the State of Georgia continues to grow with the interstate system seeing a significant portion of the increases. Annual Average Daily Traffic (AADT) reported by GDOT on I-75 for 2004 was 37,390 vehicles between Hat Creek and Inaha Road-CR 252. Projections supplied by GDOT forecast the AADT to grow to 67,400 vehicles by the year 2032. Annual Average Daily Traffic reported by GDOT on I-75 for 2004 was 37,430 vehicles between the Robert Davis Road-CR 35 overpass and SR 32-Jefferson Davis Highway. Projections supplied by GDOT forecast the AADT to grow to 67,300 vehicles by the year 2032. Annual Average Daily Traffic reported by GDOT on I-75 for 2004 was 38,520 vehicles between the Denham Road-CR 253 overpass and Bussey Road-CR 33. Projections supplied by GDOT forecast the AADT to grow to 68,600 vehicles by the year 2032. Annual Average Daily Traffic reported by GDOT on I-75 for 2004 was 38,300 vehicles between the Rock House Road-CR 11 overpass and SR 112-Washington Avenue. Projections supplied by GDOT forecast the AADT to grow to 68,400 vehicles by the year 2032. Annual Average Daily Traffic (AADT) reported by GDOT on I-75 for 2004 was 38,300 vehicles between the Rock House Road-CR 11 overpass and SR 159-North Street. Projections supplied by GDOT forecast the AADT to grow to 68,400 vehicles by the year 2032. Another reported statistic is that trucks in this corridor make up 30 percent of the vehicles over a 24-hour period.

Accidents

Vehicle crash data from GDOT for the three most recent years was analyzed for the approximately 11.3 mile long corridor on I-75 containing the five interchanges and two rest areas in Turner County. The analysis revealed 200 crashes with 133 injuries and 9 fatalities.

# of Crashes	# Injury Crashes	# of Injuries	# Fatal Crashes	# of Fatalities
200	79	133	7	9

Crashes associated with the ramps accounted for 9.5% of all crashes and were divided almost equally between the gore area and the top of the ramp. Several types of crashes can be logically associated with

interchanges; notably angle, sideswipe and rear end types. These three types account for 58.5% of all crashes. The following table shows crashes by type.

Number	Percentage	Type Crash
63	31.5%	Rear End
81	40.5%	Not A Collision With A Motor Vehicle
39	19.5%	Sideswipe - Same Direction
13	6.5%	Angle
2	1.0%	Head On
2	1.0%	Sideswipe - Opposite Direction

Surface and light conditions were not significant factors. The road surface was wet in 19.5% of crashes and it was dark without street lighting in 25% of crashes. There were nine crashes on the roads intersecting I-75 and seven of these were on SR 112.

The crash experience in this corridor is typical for a rural area with development concentrated around the county seat. The crash experience would likely increase as development occurs due to the undesirable aspects of the "tight diamond" interchanges.

The potential for vehicle crashes associated with these issues would be decreased by the geometric improvements proposed by this project to reconstruct the interchanges.

Estimate Report for file "0000804"

Section Roadway Items					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1010	1	LS	1000000.00	TRAFFIC CONTROL -	1000000.00
153-1300	1	EA	57024.37	FIELD ENGINEERS OFFICE TP 3	57024.37
201-1500	1	LS	1000000.00	CLEARING & GRUBBING -	1000000.00
205-0001	100000	CY	3.52	UNCLASS EXCAV	352000.00
206-0002	150000	CY	4.54	BORROW EXCAV, INCL MATL	681000.00
207-0203	500	CY	37.32	FOUND BKFILL MATL, TP II	18660.00
310-1101	180000	TN	15.45	GR AGGR BASE CRS, INCL MATL	2781000.00
318-3000	2000	TN	16.75	AGGR SURF CRS	33500.00
400-3624	400	TN	65.12	ASPH CONC 12.5 MM PEM, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME	26048.00
402-1812	1000	TN	42.98	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	42980.00
402-3121	13000	TN	42.71	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	555230.00
402-3130	6000	TN	41.97	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	251820.00
402-3192	40000	TN	50.95	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL	2038000.00
413-1000	40000	GL	1.07	BITUM TACK COAT	42800.00
432-0203	1000	SY	0.63	MILL ASPH CONC PVMT, 3/4 IN DEPTH	630.00
432-0206	500	SY	1.23	MILL ASPH CONC PVMT, 1 1/2 IN DEPTH	615.00
433-1200	4500	SY	139.74	REINF CONC APPROACH SLAB, INCL SLOPED EDGE	628830.00
439-0026	225000	SY	56.76	PLAIN PC CONC PVMT, CL 3 CONC, 12 INCH THK	12771000.00
441-0301	12	EA	1676.10	CONC SPILLWAY, TP 1	20113.20
441-0740	600	SY	26.83	CONCRETE MEDIAN, 4 IN	16098.00
441-0746	100	SY	48.77	CONCRETE MEDIAN, 5 1/2 IN	4877.00
444-1000	2000	LF	2.26	SAWED JOINTS IN EXIST PAVEMENTS - PCC	4520.00
446-1002	5000	LF	2.63	PVMT REINF FABRIC STRIPS, TP 2, INCL BITUM BINDER	13150.00
446-3500	15000	LF	2.57	HIGH STRENGTH PVMT REINF FABRIC -	38550.00
456-2012	3	GLM	925.72	INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (CONTINUOUS)	2777.16
456-2015	2	GLM	804.08	INDENTATION RUMBLE STRIPS - GROUND-IN-PLACE (SKIP)	1608.16
500-0100	4500	SY	4.46	GROOVED CONCRETE	20070.00
500-3101	700	CY	467.31	CLASS A CONCRETE	327117.00
500-3200	50	CY	405.94	CLASS B CONCRETE	20297.00

500-3800	5	CY	664.92	CLASS A CONCRETE, INCL REINF STEEL	3324.60
500-9999	50	CY	171.00	CLASS B CONC, BASE OR PVMT WIDENING	8550.00
511-1000	30000	LB	0.74	BAR REINF STEEL	22200.00
550-1150	300	LF	26.89	STORM DRAIN PIPE, 15 IN, H 1-10	8067.00
550-1180	6000	LF	32.90	STORM DRAIN PIPE, 18 IN, H 1-10	197400.00
550-1181	500	LF	33.55	STORM DRAIN PIPE, 18 IN, H 10-15	16775.00
550-1240	2000	LF	39.82	STORM DRAIN PIPE, 24 IN, H 1-10	79640.00
550-1241	400	LF	43.66	STORM DRAIN PIPE, 24 IN, H 10-15	17464.00
550-1300	1000	LF	49.83	STORM DRAIN PIPE, 30 IN, H 1-10	49830.00
550-1301	200	LF	53.36	STORM DRAIN PIPE, 30 IN, H 10-15	10672.00
550-1360	800	LF	61.05	STORM DRAIN PIPE, 36 IN, H 1-10	48840.00
550-1361	400	LF	69.81	STORM DRAIN PIPE, 36 IN, H 10-15	27924.00
550-1480	800	LF	99.01	STORM DRAIN PIPE, 48 IN, H 1-10	79208.00
550-1481	400	LF	105.06	STORM DRAIN PIPE, 48 IN, H 10-15	42024.00
550-1540	80	LF	155.05	STORM DRAIN PIPE, 54 IN, H 1-10	12404.00
550-2180	800	LF	24.68	SIDE DRAIN PIPE, 18 IN, H 1-10	19744.00
550-3518	10	EA	612.28	SAFETY END SECTION 18 IN, STORM DRAIN, 6:1 SLOPE	6122.80
550-4215	4	EA	363.49	FLARED END SECTION 15 IN, STORM DRAIN	1453.96
550-4218	50	EA	492.70	FLARED END SECTION 18 IN, STORM DRAIN	24635.00
550-4224	12	EA	546.05	FLARED END SECTION 24 IN, STORM DRAIN	6552.60
550-4230	12	EA	685.38	FLARED END SECTION 30 IN, STORM DRAIN	8224.56
550-4236	12	EA	909.10	FLARED END SECTION 36 IN, STORM DRAIN	10909.20
573-2006	5000	LF	13.38	UNDDR PIPE INCL DRAINAGE AGGR, 6 IN	66900.00
600-0001	25	CY	222.38	FLOWABLE FILL	5559.50
603-2024	300	SY	43.50	STN DUMPED RIP RAP, TP 1, 24 IN	13050.00
603-2180	900	SY	33.47	STN DUMPED RIP RAP, TP 3, 12 IN	30123.00
603-7000	1200	SY	4.03	PLASTIC FILTER FABRIC	4836.00
610-0716	1500	LF	41.05	REM CONC MEDIAN BARRIER	61575.00
610-1055	5000	LF	1.94	REM GUARDRAIL	9700.00
610-1075	40	EA	138.98	REM GUARDRAIL ANCH, ALL TYPES	5559.20
610-9099	1	LS	50000.00	REM WINGWALLS & PARAPETS, STA -	50000.00
620-0100	15000	LF	45.23	TEMPORARY BARRIER, METHOD NO. 1	678450.00
621-3125	1500	LF	252.82	CONCRETE BARRIER, TP 25S, MODIFIED	379230.00
621-4070	1000	LF	134.17	CONCRETE SIDE BARRIER, TYPE 7C	134170.00
621-6001	1500	LF	49.07	CONCRETE BARRIER, TP S-1	73605.00

632-0003	6	EA	10493.53	CHANGEABLE MESSAGE SIGN, PORTABLE, TYPE 3	62961.18
634-1200	120	EA	90.37	RIGHT OF WAY MARKERS	10844.40
635-1000	100	LF	81.16	BARRICADES	8116.00
641-1100	400	LF	31.11	GUARDRAIL, TP T	12444.00
641-1200	5000	LF	14.12	GUARDRAIL, TP W	70600.00
641-5001	25	EA	491.84	GUARDRAIL ANCHORAGE, TP 1	12296.00
641-5012	25	EA	1581.55	GUARDRAIL ANCHORAGE, TP 12	39538.75
643-2162	12000	LF	16.74	CH LK FENCE W/EXT ARMS & BARBED WIRE, ZC COAT, 8 FT, 9 GA	200880.00
643-4000	15000	LF	4.54	WOVEN WIRE FENCE	68100.00
649-0018	1500	LF	9.99	CONCRETE GLARE SCREEN, 18 INCH	14985.00
668-1100	10	EA	1820.82	CATCH BASIN, GP 1	18208.20
Section Sub Total:					\$25,484,010.84

Section Signing and Marking Items					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
500-3101	10	CY	467.31	CLASS A CONCRETE	4673.10
610-6515	5	EA	62.52	REM HIGHWAY SIGN, STD	312.60
610-6520	2	EA	652.07	REM HIGHWAY SIGN, SPCL ROADSIDE	1304.14
610-9001	20	EA	334.47	REM SIGN	6689.40
611-5360	5	EA	275.78	RESET HIGHWAY SIGN	1378.90
611-5551	20	EA	2481.01	RESET SIGN	49620.20
633-3500	2	EA	1290.45	REMOUNT UNMODIFIED HWY SIGN, SPCL ROADSIDE	2580.90
636-1020	400	SF	13.82	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	5528.00
636-1029	150	SF	21.93	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 3	3289.50
636-1031	300	SF	16.95	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING TP 6	5085.00
636-1032	400	SF	27.68	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING TP 6	11072.00
636-1072	2000	SF	18.30	HIGHWAY SIGNS, ALUM EXTRUDED PANELS, REFL SHEETING, TP 3	36600.00
636-2070	2000	LF	7.04	GALV STEEL POSTS, TP 7	14080.00
636-2080	200	LF	9.02	GALV STEEL POSTS, TP 8	1804.00
636-2090	100	LF	6.86	GALV STEEL POSTS, TP 9	686.00
636-3010	5	EA	371.94	GROUND-MOUNTED BREAKAWAY SIGN SUPPORT	1859.70
636-9094	50	LF	58.93	PILING IN PLACE, SIGNS, STEEL H, HP 12 X 53	2946.50
638-1001	1	LS	400000.00	STR SUPPORT FOR OVERHEAD SIGN, TP I, STA -	400000.00
638-1003	1	LS	300000.00	STR SUPPORT FOR OVERHEAD SIGN, TP III, STA -	300000.00
652-8151	1	GLM	3340.80	SKIP POLYUREA TRAFFIC STRIPE,	3340.80

				5 IN, WHITE	
652-8255	18000	LF	2.12	SOLID POLYUREA TRAFFIC STRIPE, 10 IN, WHITE	38160.00
653-1501	20000	LF	0.28	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	5600.00
653-1502	20000	LF	0.28	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	5600.00
653-1704	2000	LF	3.43	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	6860.00
653-6004	5000	SY	2.56	THERMOPLASTIC TRAF STRIPING, WHITE	12800.00
653-6006	5000	SY	2.72	THERMOPLASTIC TRAF STRIPING, YELLOW	13600.00
654-1001	200	EA	3.53	RAISED PVMT MARKERS TP 1	706.00
654-1003	1000	EA	3.77	RAISED PVMT MARKERS TP 3	3770.00
654-1010	50	EA	32.17	RAISED PVMT MARKERS TP 10	1608.50
655-5000	16	EA	221.37	PVMT ARROW, THERMOPLASTIC, WITH RAISED REFLECTORS	3541.92
657-4085	1	GLM	8665.75	PREFORMED PLASTIC SKIP PVMT MKG, 8 IN, CONTRAST (BLACK- WHITE), TP PB	8665.75
657-9110	14000	LF	2.07	WET REFLECTIVE PREFORMED SOLID PAVEMENT MARKINGS, 5 INCH WIDE, WHITE	28980.00
657-9111	14000	LF	2.06	WET REFLECTIVE PREFORMED SOLID PAVEMENT MARKINGS, 5 INCH WIDE, YELLOW	28840.00
Section Sub Total:					\$1,011,582.91

Section Erosion Control Items - Temporary

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	150	AC	481.40	TEMPORARY GRASSING	72210.00
163-0300	10	EA	1259.14	CONSTRUCTION EXIT	12591.40
163-0501	10	EA	833.50	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 1	8335.00
163-0503	40	EA	490.79	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	19631.60
163-0520	2000	LF	12.67	CONSTRUCT AND REMOVE TEMPORARY PIPE SLOPE DRAIN	25340.00
163-0521	100	EA	167.94	CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS	16794.00
163-0530	5000	LF	2.76	CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK	13800.00
163-0550	15	EA	244.96	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	3674.40
165-0010	10000	LF	1.06	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	10600.00
165-0030	10000	LF	1.18	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	11800.00
165-0040	100	EA	70.84	MAINTENANCE OF EROSION CONTROL CHECKDAMS/DITCH CHECKS	7084.00

165-0070	2500	LF	1.48	MAINTENANCE OF BALED STRAW EROSION CHECK	3700.00
165-0085	5	EA	332.38	MAINTENANCE OF SILT CONTROL GATE, TP 1	1661.90
165-0087	20	EA	176.18	MAINTENANCE OF SILT CONTROL GATE, TP 3	3523.60
165-0101	10	EA	422.50	MAINTENANCE OF CONSTRUCTION EXIT	4225.00
165-0105	15	EA	88.82	MAINTENANCE OF INLET SEDIMENT TRAP	1332.30
166-0650	3	EA	10000.00	RESTORATION OF LAKE, STA -	30000.00
167-1000	72	EA	1734.57	WATER QUALITY MONITORING AND SAMPLING	124889.04
167-1500	36	MO	853.64	WATER QUALITY INSPECTIONS	30731.04
170-1000	5000	LF	11.45	FLOATING SILT RETENTION BARRIER	57250.00
171-0010	20000	LF	1.87	TEMPORARY SILT FENCE, TYPE A	37400.00
171-0030	20000	LF	3.22	TEMPORARY SILT FENCE, TYPE C	64400.00
Section Sub Total:					\$560,973.28

Section Erosion Control Items - Permanent					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0240	1000	TN	196.00	MULCH	196000.00
441-0204	800	SY	28.58	PLAIN CONC DITCH PAVING, 4 IN	22864.00
700-6910	150	AC	806.16	PERMANENT GRASSING	120924.00
700-7000	450	TN	58.72	AGRICULTURAL LIME	26424.00
700-7010	375	GL	18.97	LIQUID LIME	7113.75
700-8000	135	TN	268.54	FERTILIZER MIXED GRADE	36252.90
700-8100	7500	LB	1.57	FERTILIZER NITROGEN CONTENT	11775.00
710-9000	1000	SY	4.41	PERMANENT SOIL REINFORCING MAT	4410.00
715-2200	1000	SY	2.00	BITUMINOUS TREATED ROVING, WATERWAYS	2000.00
716-2000	20000	SY	1.07	EROSION CONTROL MATS, SLOPES	21400.00
Section Sub Total:					\$449,163.65

Section Lighting Items					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
683-9999	1	LUMP	1225000.00	LIGHTING	1225000.00
Section Sub Total:					\$1,225,000.00

Section Bridge No. 1 - Inaha Road					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
540-1101	1	LS	150000.00	REMOVAL OF EXISTING BR, STA NO -	150000.00
540-9999	1	LUMP	967275.00	CONSTRUCT BRIDGE NO.1	967275.00
Section Sub Total:					\$1,117,275.00

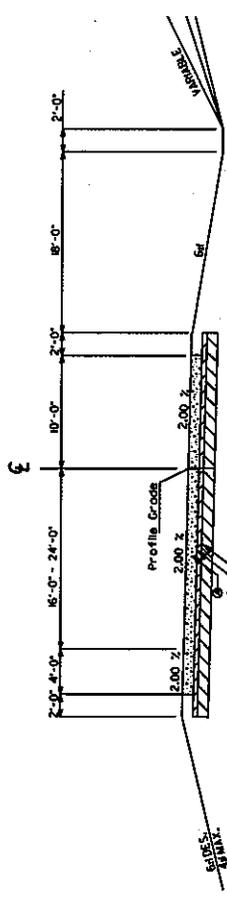
Section Bridge No.2 - SR 32					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
540-1101	1	LS	150000.00	REMOVAL OF EXISTING BR, STA NO -	150000.00
540-9999	1	LUMP	2585250.00	CONSTRUCT BRIDGE NO.2	2585250.00
Section Sub Total:					\$2,735,250.00

Section Bridge No. 3 - SR 32 at Hat Creek					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
540-1101	1	LS	80000.00	REMOVAL OF EXISTING BR, STA NO -	80000.00
540-9999	1	LUMP	735350.00	CONSTRUCT BRIDGE NO.3	735350.00
Section Sub Total:					\$815,350.00

Section Bridge No. 4 - SR 159					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
540-1101	1	LS	150000.00	REMOVAL OF EXISTING BR, STA NO -	150000.00
540-9999	1	LUMP	1367475.00	CONSTRUCT BRIDGE NO.4	1367475.00
Section Sub Total:					\$1,517,475.00

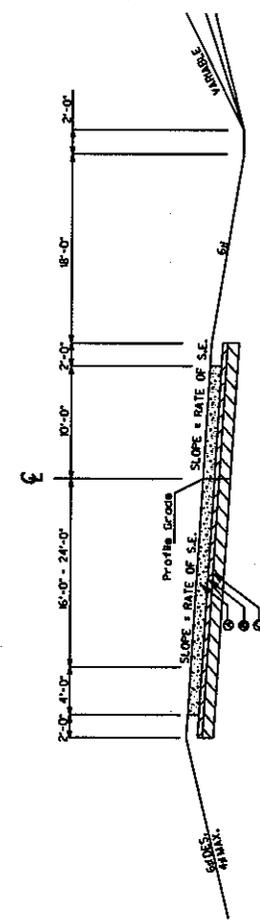
Total Estimated Cost: \$34,916,080.68

Subtotal Construction Cost	\$34,916,080.68
E&C Rate 10.0 %	\$3,491,608.07
Inflation Rate 5.0 % @ 1.0 Years	\$1,920,384.44
<hr/>	
Total Construction Cost	\$40,328,073.19
Right Of Way	\$10,823,770.00
ReImb. Utilities	\$369,010.00
<hr/>	
Grand Total Project Cost	\$51,520,853.19



TANGENT SECTION
SECTION APPLIES TO ALL RAMPS
TS-1

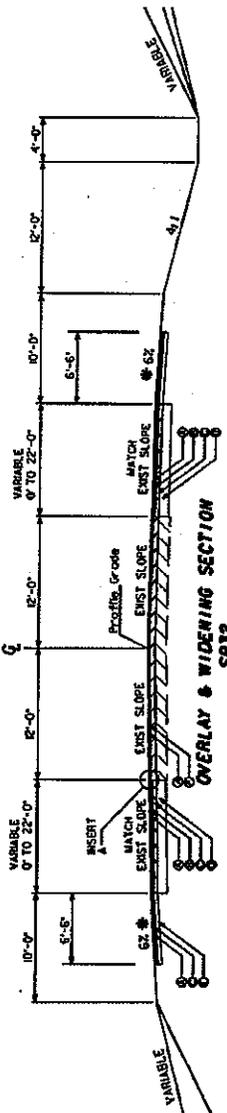
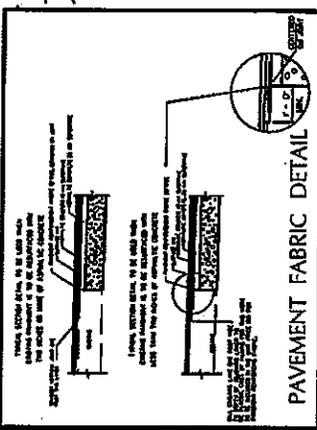
- REQUIRED PAVEMENT
- ① PLAIN PC CONC. PAVT. CL. 3 CONC. 12"
 - ② RECYCLED ASPH. CONCRETE 19 mm SUPERPAVE, CP 10B 2, INCL BITUM. MATL & H. LIME, 330 LB/YS
 - ③ GRADED AGGREGATE BASE - 12"



SUPERELEVATED SECTION
SEE CONSTRUCTION PLANS FOR LOCATION OF SUPER ELEVATED SECTIONS
TS-2

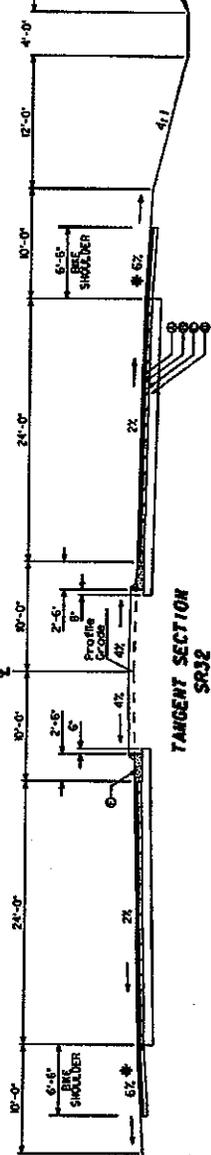
STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF CONSULTANT DESIGN	TYPICAL SECTIONS 1 & 2 1-75 FM TIFT COUNTY LINE TO SR 159, PHASE 2	DRAWING NO. 5-01
NOT TO SCALE		
URS 400 WESTPARK TOWER CENTER 600 WESTPARK BOULEVARD, SUITE 500 ATLANTA, GEORGIA 30330 TEL: 404.521.8800 FAX: 404.521.8400		

Δ SLOPE 6.0% OR RATE OF S.E. WHEREVER IS GREATER
 □ SLOPE AS FOLLOWS:
 S.E. RATE OF 2% OR LESS USE 6%
 S.E. RATE OF 3% TO 4% USE 4%
 S.E. RATE OF 5% TO 6% USE 2%
 S.E. RATE OF 7% TO 8% USE 0%
 ALGEBRAIC DIFFERENCE IN PAVING AND SHOULDER SLOPES NOT TO EXCEED 8.0%

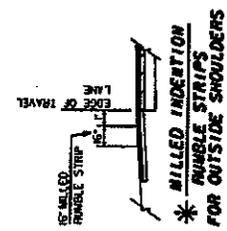
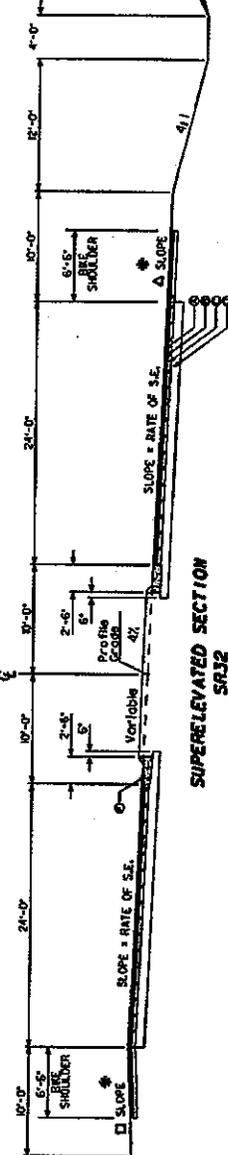


STA 2024+00 TO 2043+16
 STA 2074+00 TO 2084+00

- REQUIRED PAVEMENT
- ① RECYCLED ASPH CONC 125 mm SUPERPAVE, 0.2 ONLY, INCL. BITUM MTL & H LIME, 165 LB/ST
 - ② RECYCLED ASPH CONC 19 mm SUPERPAVE, 0.2 ONLY, INCL. BITUM MTL & H LIME, 220 LB/ST
 - ③ RECYCLED ASPH CONC 25 mm SUPERPAVE, 0.2 ONLY, INCL. BITUM MTL & H LIME, 330 LB/ST
 - ④ GRADED AGGREGATE BASE, 12"
 - ⑤ GRADED AGGREGATE BASE, 6"
 - ⑥ RECYCLED ASPH CONC LEVELING, INCL. BITUM MTL & H LIME AS DIRECTED BY ENGINEER



STA 2043+16 TO STA 2074+00



URS
 400 NORTH PARK TOWER CENTER
 2000 AVENUE A, SUITE 900
 BELLEVILLE, MISSOURI 63716-0900
 TEL: 636.331.1000 FAX: 636.331.4000

NOT TO SCALE

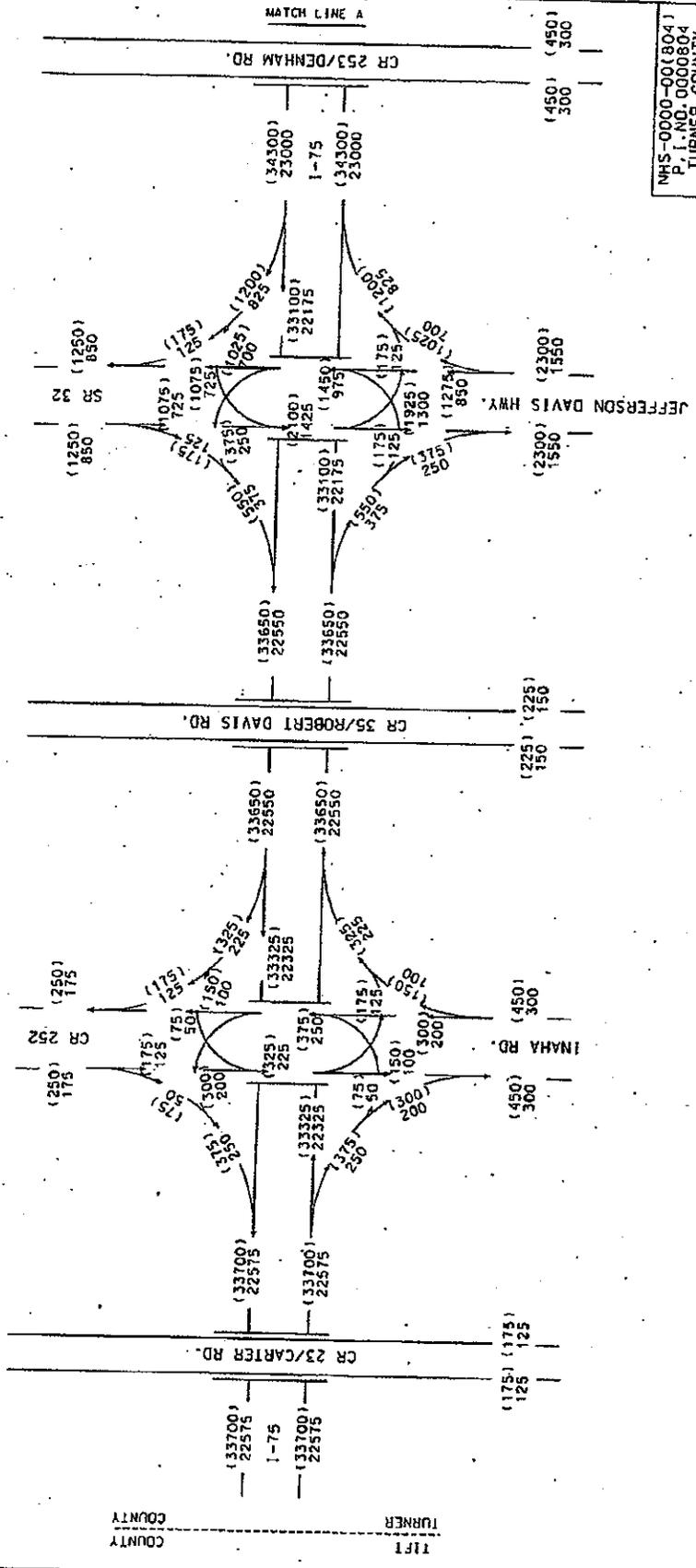
STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE OF CONSULTANT DESIGN
TYPICAL SECTIONS
 6.7 & 8
 17-25 FM WIFT COUNTY LINE
 TO SR 159 PHASE-2

REVISION DATES

PROJECT NO. 60007 SHEET 1 OF 1 TOTAL SHEETS

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION

TURNER COUNTY

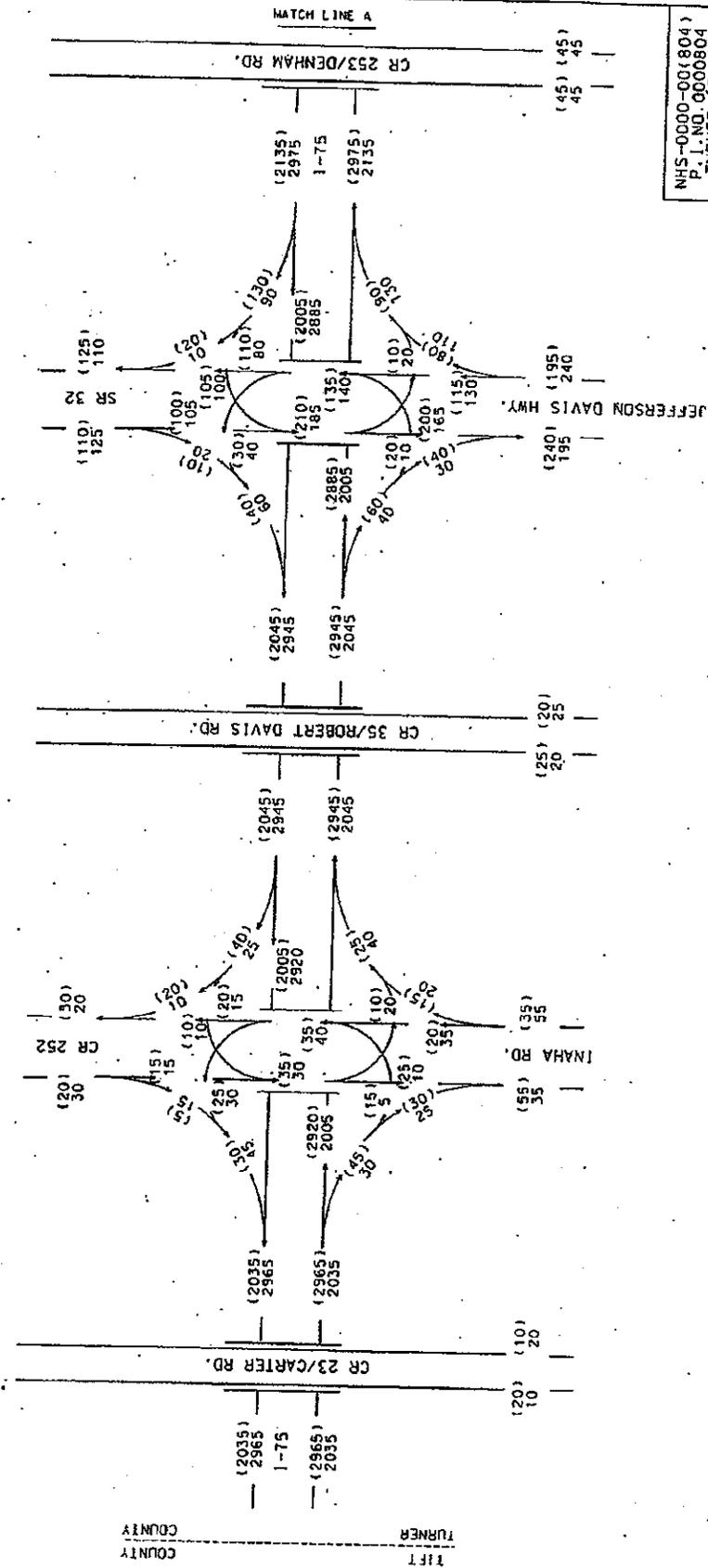


MHS-0000-00(804)
 P. I. NO. 0000804
 TURNER COUNTY
 1-75 FM TIFT CO.
 LINE TO SR 159/
 TURNER COUNTY
 2032 ADT = (000)
 2012 ADT = 000
 24 HR. T₈₅ = 30%
 U₈₅ = 5%
 COMB. = 25%

TJM
06/04

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION

TURNER COUNTY



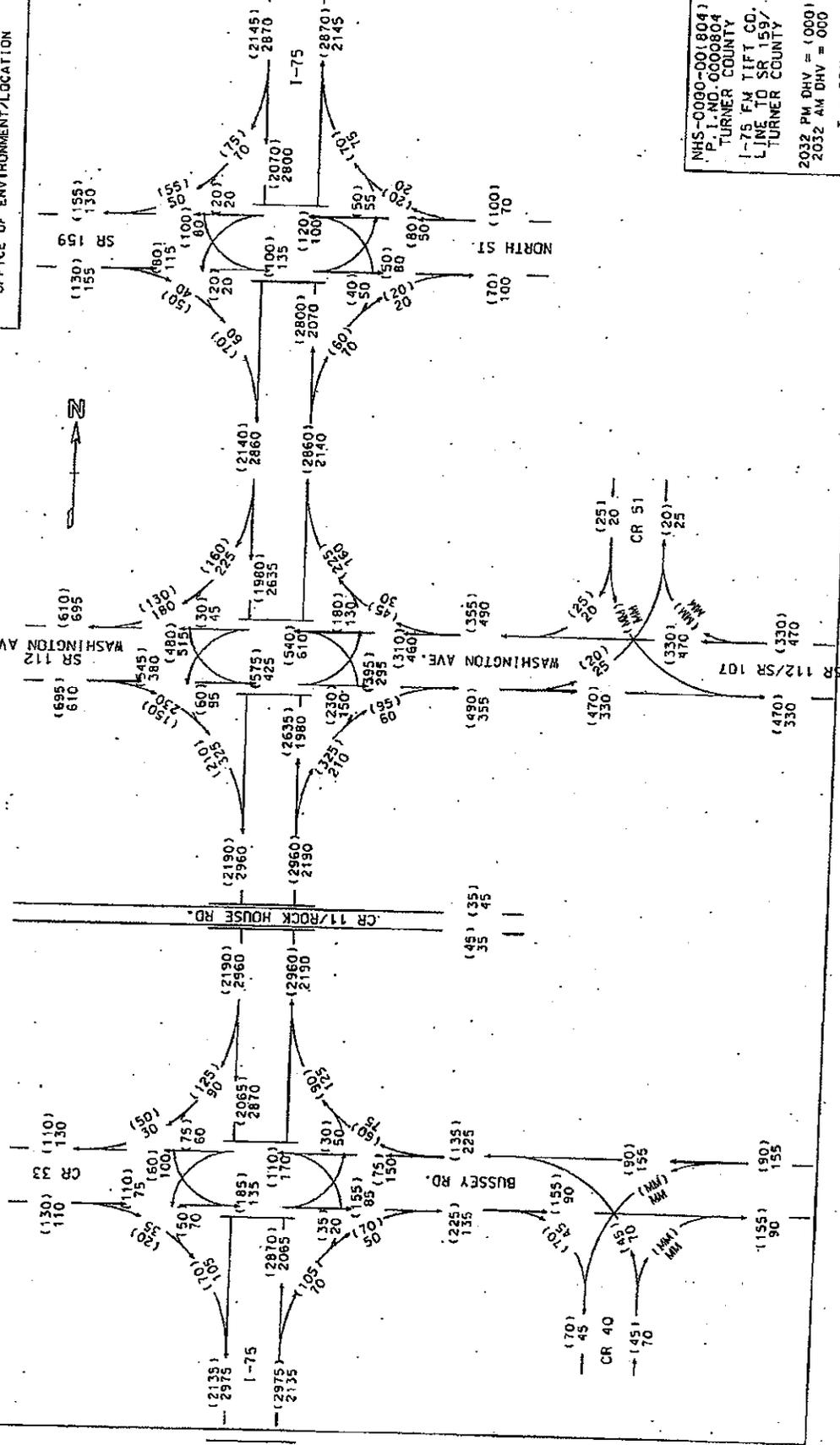
TURNER COUNTY
TURNER COUNTY

NHS-0000-00(804)
P.L. NO. 0000804
TURNER COUNTY
1-75 FM TIFT CO.
LINE TO SR 159/
TURNER COUNTY
2032 PM DHV = (000)
2032 AM DHV = 000
T = 22%

T = 22%

TURNER COUNTY

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION



MHS-0090-00(804)
 P.L. NO. 0000804
 TURNER COUNTY
 I-75 FM TIFT CO.
 LINE TO SR 159/
 TURNER COUNTY

2032 PM DHV = (000)
 2032 AM DHV = 000

T = 22%

EJW
05/04