ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. Nos. 0006870, 0006869, and 0006861
Cobb County
CSSTP-0006-00(870), (869), and (861)
Big Shanty Connector and Widening of
Big Shanty Road

OFFICE Preconstruction

DATE September 1, 2006

FROM Genetha Rice-Singleton, Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT **APPROVED PROJECT CONCEPT REPORT**

Attached for your files is the approval for subject project.

GRS/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Paul Liles
Babs Abubakari
Bryant Poole
BOARD MEMBER
FHWA

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. Nos. 0006870, 0006869, and 0006861
Cobb County
CSSTP-0006-00(870), (869), and (861)
Big Shanty Connector and Widening of
Big Shanty Road

OFFICE Preconstruction

DATE May 11, 2006

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

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

SUBJECT PROJECT CONCEPT REPORT

These combined projects comprise the construction of the Big Shanty Road Connector from Chastain Road easterly across Town Point Drive, Barrett Lakes Boulevard, and I-75 to existing Big Shanty Road terminus at George Busbee Parkway. The proposed project will then widen existing Big Shanty Road from George Busbee Parkway to Chastain Meadows Parkway. The total project length is 1.98 miles and will consist of three phases: Phase 1 - Project CSSTP-0006-00-(869) will extend from Barrett Lakes Boulevard to George Busbee Parkway; Phase 2 - Project CSSTP-0006-00(870) will extend from Chastain Road to Barrett Lakes Boulevard; and Phase 3 - Project CSSTP-0006-00(861) will extend from George Busbee Parkway to Chastain Meadows Parkway.

Big Shanty Road was separated into two segments during the original interstate construction of I-75 over 30 years ago. Since that time, Cobb County has experienced significant growth. Cobb County is one of the fastest growing counties in the nation with a population increase of approximately 127.5% between 1970 and 1990. A capacity analysis within the project limits indicates that future travel demands through the project corridor will exceed the capacity of several key intersections in the corridor by the year 2028. Traffic volumes on Barrett Parkway and Chastain Road are constrained by the capacity of intersections at Barrett Lakes Boulevard, Busbee Drive, Georgia Busbee Parkway and Cobb Place Boulevard. This analysis assumes that traffic volumes on the extension of Big Shanty Road will also be partially constrained by the capacity of adjacent intersections, namely Barrett Lakes Boulevard and George Busbee Parkway. Much of the capacity of these intersections will be consumed by significant growth in traffic crossing Big Shanty Road at Chastain Road and Chastain Meadows Parkway, as well as intersections between these two.

The proposed project and other associated improvements will improve connectivity by reconnecting the existing segments of Big Shanty Road, providing additional east-west capacity and relieving traffic congestion on Barrett Parkway and Chastain Road. These two corridors are two of Cobb County's most heavily congested arterials. Based on historical growth trends and continued area development, future traffic growth without improvement will only continue to

Phase 1 - P.I. No. 0006869

	PROPOSED	APPROVED	FUNDING	PROG DATE
Construction (includes E&C and inflation)	$7,757,000	$6,032,000	L230	2008
Right-of-Way & Utilities*	Local	Local	Local	

*PMA sent requesting Cobb County do PE and utilities; right-of-way and construction to be done by future agreements.

Phase 2 - P.I. No. 0006870

	PROPOSED	APPROVED	FUNDING	PROG DATE
Construction (includes E&C and inflation)	$10,530,000	$1,759,000	L230	2009
Right-of-Way & Utilities*	Local	Local	Local	

*PMA requesting Cobb County do PE and utilities; right-of-way and construction to be done by future agreements.

Phase 3 - P.I. No. 0006861

	PROPOSED	APPROVED	FUNDING	PROG DATE
Construction (includes E&C and inflation)	$7,952,000	$9,800,000	Local	Local
Right-of-Way & Utilities*	Local	Local	Local	Local

*LGPA to be determined.

I recommend this project concept be approved.

Recommended for Approval

Richard Wayne Fedora

DATE 8/24/2006

MBP:JDQ/cj

Attachment

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

APPROVE _____
for Robert M. Callan, Administrator, FHWA

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

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE: CSSTP-0006-00(869) (870) & (861), Cobb County
Big Shanty Road Connector and the
Proposed Widening of Big Shanty Road
From George Busbee Parkway to
Chastain Meadows Parkway
P.I. # 0006869, 0006870 & 0006861

OFFICE: Chamblee\Metro

DATE: July 31, 2006

FROM: Bryant Poole, District Engineer mkr

TO: Johnny Quarles, Project Concept Review Engineer

SUBJECT: ***PROJECT CONCEPT REPORT***

Attached is the updated copy of the concept report for your further handling, for approval in accordance with the PDP. The changes are a result of comments sent from the Federal Highway Administration (FHWA). Attached you will also find a summary of the consultants responses to the comments received from FHWA.

If you have any questions in regards to this concept, please contact Merishia Robinson or Gerald Ford at (404) 463-4947.

BP\MAL\mkr

cc: File

U.S. Department
of Transportation
Federal Highway Administration

61 Forsyth Street, S.W.
Suite 17T100
Atlanta, Georgia 30303

In Reply Refer To:
HTM-GA

Georgia Division
July 12, 2006

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

Attention: Mr. Buddy Gratton, P.E., Director Preconstruction

Subject: Project Concept for CSSTP-0006-00(870)(869)(861), Big Shanty Road Connector and Widening, Cobb County

Dear Mr. Linnenkohl:

We have reviewed your May 11, 2006 subject Project Concept Report and offer the following comments.

- The report indicates no design exceptions anticipated; however, one curve on Big Shanty Road, east of Chastain Road, is proposed to have a 35 mph design speed rather than the 45 mph design speed for the rest of Big Shanty Road. It is not usually appropriate to pull out a small section of roadway and use a lower design speed for that section. A design exception may actually be necessary for this curve.
- The report includes accident data for Big Shanty Road. It should include statewide rates for comparison. It should also include data and statewide comparison for Chastain Road, since Chastain should benefit from the Big Shanty Road connector.
- The report should include benefit cost analysis for the project. The LOS improvements recorded are typically only one LOS letter of improvement, and the reported travel time improvement is only 2.4 minutes; therefore, the approximately $33 million estimated cost (right of way and construction) seems high for relatively little benefit. Benefit/cost analysis may help show the benefits in more detail and better help to justify this cost.
- Please maintain close coordination between this project and the I-75 northwest corridor project to minimize the disruption to the public that occurs from both projects, the potential conflicts between contractors working in the same areas, and the amount of potential "throw-away" work on the new I-75 bridges for this project when impacted by the northwest corridor reconstruction and expansion.

Celebrating 50 Years
1956 50 2006
Eisenhower Interstate System

BUCKLE UP AMERICA

- Traffic control and staging are key elements for the new bridges over I-75 and should be addressed early in design. The details provided in the concept report are not sufficient to fully convey the proposed traffic control and staging and do not reflect other alternatives discussed at the project concept meeting (such as routing some traffic on I-575, etc.). Therefore these items should be thoroughly examined during design, including being addressed during PFPR. Once again, coordination with the I-75 northwest corridor project will be of the utmost importance

Your cooperation in addressing the above comments will be highly appreciated. Please re-submit the revised Project Concept Report for our action. If you have any questions, or you would like to discuss this further, please contact Mr. Wayne Fedora, P.E. at (404) 562-3651.

Sincerely,

Thomas Shandue.

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

CROY-MSE

Engineers * Planners * Surveyors

CROY–MSE, LLC
200 North Cobb Parkway
Building 400, Suite 413
Marietta, GA 30062
770-971-5407 fax: 770-971-0620

July 20, 2006

Mr. Mike Lobdell, Project Manager
District 7, Georgia Department of Transportation
5025 New Peachtree Road, N.E.
Chamblee, Georgia 30341
Attention: Merishia Robinson

RE: GDOT Project CSSTP-0006-00(869)(870) & (861), Cobb County, P. I. Nos. 0006869, 0006870, & 0006861 – The Proposed Construction of a Big Shanty Road Connector and the Proposed Widening of Big Shanty Road from George Busbee Parkway to Chastain Meadows Parkway

Dear Mr. Lobdell:

CROY-MSE, LLC, on behalf of the Cobb County Department of Transportation, is pleased to submit nine copies of the Concept Report for the subject project. Comments received from the Federal Highway Administration (FHWA) dated July 12, 2006 have been addressed as follows:

1. The report indicates no design exceptions anticipated; however, one curve on Big Shanty Road, east of Chastain Road, is proposed to have a 35 mph design speed rather than the 45 mph design speed for the rest of Big Shanty Road. It is not usually appropriate to pull out a small section of roadway and use a lower design speed for that section. A design exception may actually be necessary for this curve.

   In order to meet a 45 mph design speed at this location, the proposed project would result in significant impacts to the parking of two office complex buildings. The impacts to parking are substantial enough that they may produce un-economic remnants and result in the displacement of the two buildings. Also, the posted speed limit on Big Shanty Road immediately north of Chastain Road and the subject curve is 35 mph. The Concept Report has been revised to indicate that a design exception is required.

2. The report includes accident data for Big Shanty Road. It should include statewide rates for comparison. It should also include data and statewide comparison for Chastain Road, since Chastain would benefit from the Big Shanty Road connector.

   The information has been added to the Concept Report as requested.

3. The report should include benefit cost analysis for the project. The LOS recorded are typically only one LOS letter of improvement, and the reported travel time improvement is only 2.4 minutes; therefore, the approximately $33 million estimated cost (right-of-way and construction) seems high for relatively little benefit. Benefit/cost analysis may help show the benefits in more detail and better help to justify this cost.

   The benefit cost analysis has been added to the appendices of the report as requested. A paragraph has been added to the need and purpose statement summarizing the analysis and referencing it in the appendices.

4. Please maintain close coordination between this project and the I-75 northwest corridor project to minimize the disruption to the public that occurs from both projects, the potential "throw-away" work on the new I-75 bridges for this project when impacted by the northwest corridor reconstruction and expansion.

   This comment has been added to the comment section of the Concept Report and the Commitment Table of the Environmental Assessment.

5. Traffic control and staging are key elements for the new bridges over [sic} I-75 and should be addressed early in design. The details provided in the Concept Report are not sufficient to fully convey the proposed traffic control and staging and do not reflect other alternatives discussed at the project concept meeting (such as routing some traffic on I-575, etc.). Therefore these items should be thoroughly examined during design, including being addressed during PFPR. Once again coordination with the I-75 northwest corridor project will be of the utmost importance.

   A brief paragraph has been added to the project description providing a conceptual description of the proposed staging and detour plans. "Alternatives Considered to Reduce Impacts to Traffic during Construction" has been added to the Other Alternatives Considered section of the Concept Report. This comment has also been added to the comment section of the Concept Report and Commitment Table of the Environmental Assessment.

overburden these existing roadways. The Big Shanty Road extension under I-75 is not a panacea for all the traffic congestion in the Town Center area, but the project will help alleviate traffic congestion on Barrett Parkway and Chastain Road and will help balance travel demand between Barrett Parkway and Chastain Road and will help balance travel demand between Barrett Parkway and Chastain Road.

The project will begin at the western intersection of Town Point Drive/Big Shanty Road and Chastain Road and will roughly follow existing Town Point Drive southward. At the approximate southernmost point of Town Point Drive, the proposed roadway will continue easterly on new location, intersect Barrett Lakes Boulevard at grade, underpass I-75, and connect with the existing Big Shanty Road at its current intersection with George Busbee Parkway, forming a four-way intersection. From George Busbee Parkway to Hidden Forest Court, Big Shanty Road will be widened and realigned approximately 100' to the north side of the existing roadway to improve an existing horizontal curve and minimize impacts to a church, the Department of Labor, and residences located on the south side of the existing roadway. From Hidden Forest Court to the eastern terminus of the proposed project, just east of Chastain Meadows Parkway, Big Shanty Road will be widened symmetrically. Where Big Shanty Road underpasses I-575, the profile of Big Shanty Road will be lowered to accommodate, if possible, the I-575 HOV project's proposed improvements at the I-575 overpass.

The proposed roadway will primarily consist of four lanes, two in each direction, separated by a 20' raised median, with curb and gutter, sidewalk and 4' bike lanes on both sides. The proposed median at the I-575 underpass will be variable between 17'6" and 18'. Approximately 150' of right-of-way will be required for the majority of the project. Additional right-of-way will be required for drainage treatment areas at logically determined locations along the proposed project.

The Georgia Department of Transportation (GDOT) and Georgia Regional Transportation Authority (GRTA) are in the process of studying HOV lanes along I-75 and I-575 in Cobb and Cherokee Counties. Projects NH-73-3(242), NHS-0002-00(39), NHS-000-001(919), and NH-575-1(28) will extend HOV lanes from the Kennedy Parkway interchange up I-75 and I-575 and will provide Bus Rapid Transit (BRT) stations at various locations along I-75. The I-575 bridge over Big shanty Road has been identified as a possible location for an HOV interchange. Also, a possible location for a Town Center BRT station has been identified just north of the proposed Big Shanty Road Extension. However, the final locations of HOV access to the surface street system and locations for the BRT stations are under study and will not be finalized for some time.

Environmental concerns include requiring a COE 404 Permit; an Environmental Assessment is anticipated; a public hearing open house will be held; time saving procedures are not appropriate.

The estimated costs for these projects are:

Need and Purpose:

The purpose of the project is to improve east-west mobility and help alleviate the congested conditions on Chastain Road and Barrett Parkway across I-75 and I-575 in Cobb County. Future traffic projections along these corridors show increased levels of traffic congestion. To help relieve this congestion and improve local area traffic circulation, it is proposed to extend Big Shanty Road west on new location under I-75 to Chastain Road and re-connect the existing segments of Big Shanty Road. In addition, the proposed project would widen existing Big Shanty Road from George Busbee Parkway to Chastain Meadows Parkway. These improvements would help to reduce traffic congestion by providing an alternate, multi-laned, east-west corridor for local traffic.

Planning Background and Project History

Big Shanty Road was separated into two segments during the original interstate construction of I-75 over 30 years ago. Since that time, Cobb County has experienced significant growth. Cobb County is one of the fastest growing counties in the nation with a population increase of approximately 127.5% between 1970 and 1990. As a comparison, the State of Georgia only experienced an approximate 41.2% increase during the same time period. In addition to local traffic congestion, Cobb County, and the area between Chastain Road and Barrett Parkway have experienced significant regional traffic growth. Significant regional attractions in the area include the Barrett Industrial Area, Town Point Center Commercial Park, McCollum Field-Cobb County Airport, Kennesaw State University and Town Center Mall.

The proposed improvements are needed to reduce traffic congestion in the area and enhance traffic mobility in this localized area. The proposed project is consistent with the needs defined in the plan.

Average Daily Traffic Volumes and Levels of Service

A capacity analysis within the project area was performed for the existing 2008 and future 2028 build/no-build traffic conditions to determine the impact of the project. This analysis included all intersections and roadway sections directly along the Big Shanty Road project corridor, as well as other roadway sections and intersections that would be impacted by project implementation. The proposed project would reduce travel times by approximately 2.4 minutes for the vehicles that are proposed to use this segment of roadway.

Future traffic volumes were estimated through an analysis of traffic counts, existing turning movement counts, and traffic projections from the ARC travel demand model. The travel demand model for this area was analyzed for two scenarios, the no build alternative assumes no extension and improvement of Big Shanty Road and the build alternative assumes the project is built. By adding the Big Shanty extension, travel patterns predicted by the model would change significantly due to the addition of an additional east-west facility. By connecting an additional east-west route between Chastain Road and Barrett Parkway, the resulting grid system of north-south and east-west roads offers drivers additional travel routes. The model assigns vehicle trips based on a large number of factors including travel time, distance, congestion and land use. Based on these factors, the travel demand model re-directed area traffic onto Big Shanty Road and lowered the amount of traffic using Chastain Road and Barrett Lakes Parkway.

All comments from the FHWA have been addressed. Consequently, the Concept Report is being forwarded to you for your approval. If you have any questions or need additional information, please do not hesitate to call Ron Cooper at (770) 971-5407.

Sincerely,

CROY-MSE, LLC.

Ron Cooper
Project Manager

BRC/mbm
Enclosures

CC: Bob Galante, Cobb DOT; Mike Wright, Cobb DOT; Joel F. Stone, Town Center CID; Jim Croy, CROY-MSE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: **P.I. No. 0006869, 0006870 & 0006861** **OFFICE:** Environment/Location

DATE: January 18, 2006

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

TO: Margaret B. Pirkle, Assistant Director of Preconstruction

SUBJECT: **PROJECT CONCEPT REPORT**
CSSTP-0006-00(869) (870) & (861) / Cobb County
Big Shanty Rd. Connector and the Proposed Widening of Big Shanty Rd. from George Busbee Pkwy to Chastain Meadows Pkwy.

The above subject concept report has been reviewed. Page 9 – Coordination should reflect that a Public Hearing Open House will be required after the draft EA is signed by FHWA.

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

HDK/lc

Attachment

cc: Brian Summers
Bryant Poole
Keith Golden
Joe Palladi
Jamie Simpson
Paul Liles

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

The Construction of a Big Shanty Connector and Widening of Big Shanty Road

GDOT Project Number: CSSTP-0006-00(870)(869) & (861), Cobb County
P.I. Numbers 0006870, 0006869 & 0006861

Federal Route Number: N/A
State Route Number: 401 & 5

See Page 2 for Location Sketch

Recommendation for approval:

DATE: 12/22/05 _____ Project Manager

DATE: 1/5/06 _____ ~~District Engineer~~

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

DATE: _____ ~~State Transportation Planning Administrator~~

DATE: 1.17.06 _____ ~~State Environmental/Location Engineer~~

DATE: _____ State Traffic Safety and Design Engineer

DATE: _____ State Financial Management Administrator

DATE: _____ Project Review Engineer

DATE: _____ State Bridge and Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

The Construction of a Big Shanty Connector and Widening of Big Shanty Road

GDOT Project Number: CSSTP-0006-00(870)(869) & (861), Cobb County
P.I. Numbers 0006870, 0006869 & 0006861

Federal Route Number: N/A
State Route Number: 401 & 5

See Page 2 for Location Sketch

Recommendation for approval:

DATE: 12/22/05 _____ Project Manager

DATE: 1/5/06 _____ ~~District Engineer~~

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

DATE: _____ State Transportation Planning Administrator

DATE: _____ State Environmental/Location Engineer

DATE: 1-11-06 _____ State Traffic Safety and Design Engineer

DATE: _____ State Financial Management Administrator

DATE: _____ Project Review Engineer

DATE: _____ State Bridge and Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

The Construction of a Big Shanty Connector and Widening of Big Shanty Road

GDOT Project Number: CSSTP-0006-00(870)(869) & (861), Cobb County
P.I. Numbers 0006870, 0006869 & 0006861

Federal Route Number: N/A
State Route Number: 401 & 5

See Page 2 for Location Sketch

Recommendation for approval:

DATE: 12/22/05 _____ Project Manager

DATE: 1/5/06 _____ ~~District Engineer~~

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

DATE: _____ State Transportation Planning Administrator

DATE: _____ State Environmental/Location Engineer

DATE: _____ State Traffic Safety and Design Engineer

DATE: 1-9-06 _____ State Financial Management Administrator

DATE: _____ Project Review Engineer

DATE: _____ State Bridge and Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

The Construction of a Big Shanty Connector and Widening of Big Shanty Road

GDOT Project Number: CSSTP-0006-00(870)(869) & (861), Cobb County
P.I. Numbers 0006870, 0006869 & 0006861

Federal Route Number: N/A
State Route Number: 401 & 417

See Page 2 for Location Sketch

Recommendation for approval:

DATE: 4/18/06 _____ Project Manager

DATE: 4/19/06 _____ District Engineer

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

DATE: 4/20/06 _____ State Transportation Planning Administrator

DATE: _____ _____ State Environmental/Location Engineer

DATE: _____ _____ State Traffic Safety and Design Engineer

DATE: _____ _____ State Transportation Financial Management Administrator

DATE: _____ _____ Project Review Engineer

DATE: _____ _____ State Bridge and Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

The Construction of a Big Shanty Connector and Widening of Big Shanty Road

GDOT Project Number: CSSTP-0006-00(870)(869) & (861), Cobb County
P.I. Numbers 0006870, 0006869 & 0006861

Federal Route Number: N/A
State Route Number: 401 & 417

See Page 2 for Location Sketch

Recommendation for approval:

DATE: 4/18/06 _____ Project Manager

DATE: 4/19/06 _____ District Engineer

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

DATE: _____ State Transportation Planning Administrator

DATE: _____ State Environmental/Location Engineer

DATE: _____ State Traffic Safety and Design Engineer

DATE: _____ State Transportation Financial Management Administrator

DATE: _____ Project Review Engineer

DATE: 6/25/06 _____ State Bridge and Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: **P.I. No. 0006870, 0006869 & 0006861** **OFFICE:** Environment/Location

DATE: August 8, 2006

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

TO: Margaret B. Pirkle, Assistant Director of Preconstruction

SUBJECT: **PROJECT CONCEPT REPORT**
CSSTP-0006-00(870) (869) & (861) / Cobb County
The Construction of a Big Shanty Connector and Widening of Big Shanty Rd.

The above subject concept report has been reviewed. Several known Archaeological sites in vicinity of project, which may need to be considered in project development.

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

HDK/lc

Attachment

cc: Brian Summers
Bryant Poole
Keith Golden
Joe Palladi
Jamie Simpson
Paul Liles

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

The Construction of a Big Shanty Connector and Widening of Big Shanty Road

GDOT Project Number: CSSTP-0006-00(870)(869) & (861), Cobb County
P.I. Numbers 0006870, 0006869 & 0006861

Federal Route Number: N/A
State Route Number: 401 & 417

See Page 2 for Location Sketch

Recommendation for approval:

DATE: 4/14/06 _____ Project Manager

DATE: 4/19/06 _____ District Engineer

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

DATE: _____ State Transportation Planning Administrator

DATE: 8/8/06 _____ State Environmental/Location Engineer

DATE: _____ State Traffic Safety and Design Engineer

DATE: _____ State Transportation Financial Management Administrator

DATE: _____ Project Review Engineer

DATE: _____ State Bridge and Structural Design Engineer

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
DISTRICT SEVEN PRECONSTRUCTION

PROJECT CONCEPT REPORT

The Construction of a Big Shanty Connector and Widening of Big Shanty Road

GDOT Project Number: CSSTP-0006-00(870)(869) & (861), Cobb County
P.I. Numbers 0006870, 0006869 & 0006861

Federal Route Number: N/A
State Route Number: 401 & 417

See Page 2 for Location Sketch

Recommendation for approval:

DATE: 4/18/06 _____ Project Manager

DATE: 4/19/06 _____ District Engineer

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

DATE: _____ State Transportation Planning Administrator

DATE: _____ State Environmental/Location Engineer

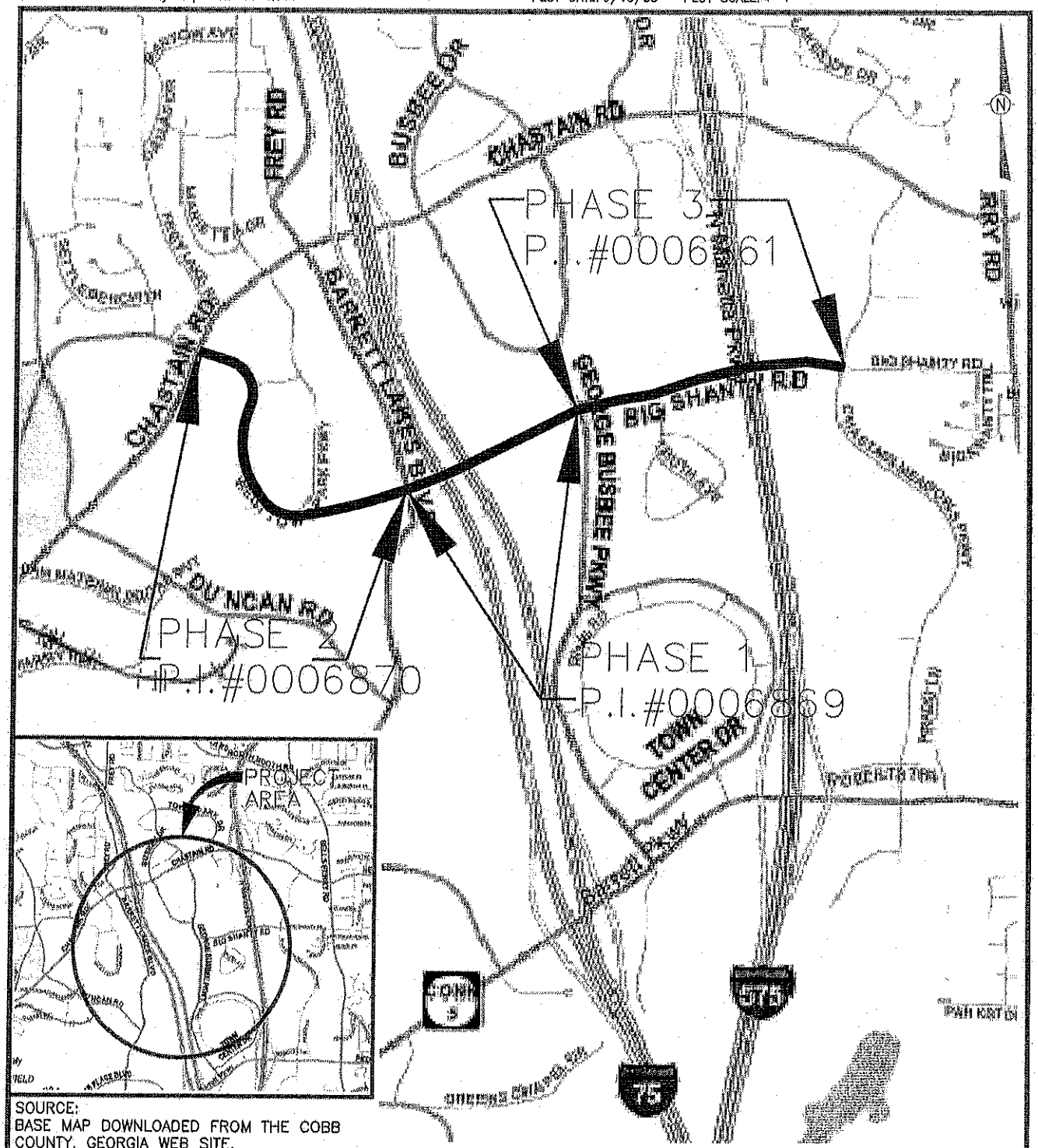
DATE: _____ State Traffic Safety and Design Engineer

DATE: 4/25/06 _____ State Transportation Financial Management Administrator

DATE: _____ Project Review Engineer

DATE: _____ State Bridge and Structural Design Engineer

CAD FILE: 0313 Vicinity Map1 12-13-2005 PLOT DATE: 9/15/05 PLOT SCALE: 1=1



SOURCE:
BASE MAP DOWNLOADED FROM THE COBB COUNTY, GEORGIA WEB SITE.

CROY-MSE, LLC
200 NORTH COBB PARKWAY, BUILDING 400, SUITE 413
MARIETTA, GEORGIA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

BIG SHANTY CONNECTOR
COBB COUNTY, GEORGIA

VICINITY MAP

SCALE: N.T.S.	DATE: DEC. 13, 2005
JOB NO.: 04-000313	DRAWN BY: DCF

FIGURE 1

The model indicates that future travel demands through the project corridor exceed the capacity of several key intersections in the corridor by the year 2028. Traffic volumes on Barrett Parkway and Chastain Road are constrained by the capacity of intersections at Barrett Lakes Boulevard, Busbee Drive, George Busbee Parkway and Cobb Place Boulevard. This analysis assumes that traffic volumes on the extension of Big Shanty Road will also be partially constrained by the capacity of adjacent intersections, namely Barrett Lakes Boulevard and George Busbee Parkway. Much of the capacity of these intersections will be consumed by significant growth in traffic crossing Big Shanty Road at Chastain Road and Chastain Meadows Parkway, as well as intersections between these two. The future projected 2028 ADT for the Build and No-build condition and the corresponding projected LOS are shown in Attachment 4, Table 2.

The Benefit Cost Ratio is 1.54 using combined construction and right-of-way costs. The travel time benefit is $43,847,000 using a 20 year period and a $13.45/per hour vehicle cost. The commercial time benefit is $6,948,690 using a 20 year period and a $71.05/per hour truck cost. The total congestion benefit for the project is $48,479,460. The Benefit Cost Analysis worksheet is provided in Appendix 9.

In summary, the proposed project and other associated improvements would improve connectivity by reconnecting the existing segments of Big Shanty Road, providing additional east-west capacity and relieving traffic congestion on Barrett Parkway and Chastain Road. These two corridors are two of Cobb County's most heavily congested arterials. Based on historical growth trends and continued area development, future traffic growth without improvement will only continue to overburden these existing roadways. The Big Shanty Road extension under I-75 is not a panacea for all the traffic congestion in the Town Center area, but the project would help alleviate traffic congestion on Barrett Parkway and Chastain Road and would help balance travel demand between Barrett Parkway and Chastain Road.

The proposed project would also improve safety on existing Big Shanty Road from George Busbee Parkway to Chastain Meadows Parkway. Since the proposed project is expected to draw traffic from Chastain Road, it would also improve safety on that roadway. For more information regarding accident data on this section of Big Shanty Road, as well as Chastain Road, refer to Attachment 3.

The GDOT and the Georgia Regional Transportation Authority is in the process of studying HOV lanes along I-75 and I-575 in Cobb and Cherokee Counties. Projects NH-73-3(242), NHS-0002-00(39), NHS-000-001(919), and NH-575-1(28) will extend HOV lanes from the Kennedy Parkway interchange up I-75 and I-575 and would provide Bus Rapid Transit (BRT) stations at various locations along I-75. The I-575 bridge over Big Shanty Road has been identified as a possible location for an HOV interchange. Also, a possible location for a Town Center BRT station has been identified just north of the proposed Big Shanty Road extension. However, the final locations of HOV access to the surface street system and locations for the BRT stations are under study and will not be finalized for some time. An Environmental Impact Statement (EIS) is currently underway for this HOV/BRT project and the results of that study will determine

HOV interchange and BRT station locations. With the I-75/I-575 HOV and BRT system still under study, this project does not assume an I-575/Big Shanty Road interchange or a Town Center BRT station; however, this project will be designed so as not to preclude an HOV interchange or BRT station at these locations.

Description of the proposed project:
The proposed project would consist of the construction of a Big Shanty Road connector from Chastain Road westerly, across Town Point Drive, Barrett Lakes Boulevard and Interstate 75, to the existing Big Shanty Road terminus at George Busbee Parkway. The proposed project would widen existing Big Shanty Road from George Busbee Parkway to Chastain Meadows Parkway. The total project length would be approximately 1.98 miles. Approximately 3,600 feet of the project would be constructed on new location.

The Preferred Alternative would begin at the western intersection of Town Point Drive/Big Shanty Road and Chastain Road and would roughly follow existing Town Point Drive southward. At the approximate southernmost point of Town Point Drive, the proposed roadway would continue easterly on new location, intersect Barrett Lakes Blvd. at grade, underpass I-75, and connect with the existing Big Shanty Road at its current intersection with George Busbee Parkway forming a four-way intersection.

From George Busbee Parkway to Hidden Forest Court, Big Shanty Road would be widened and realigned approximately 100 feet to the north side of the existing roadway to improve an existing horizontal curve and minimize impacts to a church, the Department of Labor and residences located on the south side of the existing roadway. From Hidden Forest Court to the eastern terminus of the proposed project, just east of Chastain Meadows Parkway, Big Shanty Road would be widened symmetrically. Where Big Shanty Road underpasses I-575, the profile of Big Shanty Road would be lowered to accommodate, if possible, the I-575 HOV project's proposed improvements at the I-575 overpass.

The proposed roadway would primarily consist of 4 lanes, 2 in each direction, separated by a 20-foot raised median, with curb, gutter, sidewalks and 4 foot bike lanes on both sides. The proposed median at the I-575 underpass would be variable between 17 feet, 6 inches, and 18 feet.

Approximately 150 feet of right-of-way would be required for the majority of the project. Additional right of way will be required for drainage treatment areas at logically determined locations along the proposed project.

Traffic on the existing roadways would be maintained during construction. Appropriate signage for traffic control and detours will be provided per GDOT and FHWA standards. Traffic on I-75 would be detoured to the median during construction of the proposed underpass bridges at I-75. The median detour will be coordinated with the I-75 HOV improvements so that, if possible, traffic on I-75 would only need to be detoured once for both projects.

Logical Termini:
The logical western terminus of the proposed project would occur at Chastain Road at the western-most intersection of Town Point Drive/Big Shanty Road and Chastain Road. The eastern terminus of ARC project CO-297 will be modified during the next round of revisions to the TIP. The logical eastern terminus of the Preferred Alternative is just east of Chastain Meadows Parkway.

Non-attainment area: Yes (X) No ( )
The proposed project is identified in a conforming plan, the FY 2005-2010 Transportation Improvement Program (TIP), as projects CO-332B, CO-332A and CO-297. Project CO-332B would construct 4 lanes from Chastain Road to Barrett Lakes Boulevard and would open to traffic in 2010. Project CO-332A would construct 4 lanes from Barrett Lakes Boulevard to George Busbee Parkway and would open to traffic in 2010. Project CO-297 would widen existing Big Shanty Road from 2 lanes to 4 lanes from George Busbee Parkway to Bells Ferry Road and is scheduled long range 2011-2020. For purposes of logical termini, the eastern terminus of ARC project CO-297 will be reduced to Chastain Meadows Parkway during the next round of revisions to the TIP.

PDP Classification: Major (X) Minor ( )

Federal Oversight: Full Oversight ( ), Exempt (X), State Funded ( ), or Other ( )
Phase 1 = Full Oversight RWJ 8/9/2006
Functional Classification: Urban Minor Arterial

U.S. Route Number(s): N/A **State Route Number(s):** SR 401 and SR 417

Traffic (AADT):
Current Year: 2008 (5150) Design Year: 2028 (8050)

Existing design features:

- **Typical Section:** 2 twelve-foot lanes with 4-foot, unpaved shoulders. Twelve-foot left and right turn lanes are present at the intersections of Big Shanty Road with Chastain Meadows Parkway and George Busbee Parkway and at the intersection of Town Point Drive with Chastain Road. Auxiliary right turn lanes are present at some businesses.
- **Posted speed:** 35 mph
- **Minimum radius for curve:** Town Point – 300 ft., Big Shanty – 550 ft.
- **Maximum super-elevation rate for curve:** 4.2%
- **Maximum grade:** Mainline - 5%, Cross roads - 3.5% (Barrett Lakes), Driveways – 7%
- **Width of right-of-way**: Towne Point - 50 ft., Big Shanty – varies 50-100 ft.
- **Major structures:** Existing 47 ft by 157 ft parallel bridges where I-575 overpasses existing Big Shanty Road.
- **Major interchanges or intersections along the project:** Chastain Road, Barrett Lakes Parkway, George Busbee Parkway and Chastain Meadows Parkway.

- **Existing length of roadway segment and the beginning mile logs for each county segment:** 1.372 miles. Mile logs not applicable.

Proposed Design Features:

- **Proposed typical section(s):** (SEE ATTACHMENT 2, TYPICAL SECTION DIAGRAMS) Four 12-foot travel lanes, two in each direction, separated by a 20-foot raised median with curb, gutter, sidewalks, and 4-foot bike lanes on both sides. Where needed at intersections or for median breaks, a left turn lane will be added within the width of the raised median and dedicated right turn lanes will be added where merited.

- **Proposed Design Speed Mainline:** 45 mph (35 at the curve immediately east of Chastain Road) NOTE: The following proposed design information will be shown for the typical 45 mph design speed, with the 35 mph design critera shown in brackets, i.e. 45 mph (35 mph). The 35mph design criteria applies only to the curve stated above.
- **Proposed Maximum grade Mainline:** 5% **Maximum grade allowable:** 8%
- **Proposed Maximum grade Side Street:** 6% **Maximum grade allowable:** 8%
- **Proposed Maximum grade Driveway:** 15%
- **Proposed Minimum radius for curve:** 700 ft (350 ft)
  Minimum radius allowable: 700 ft (350 ft)
- **Proposed Super-elevation rate for curve:** 6% (8%)
- **Proposed Max. degree of curve:** 8° 11' 06" (16° 22' 13")
  Maximum degree allowable: 8° 11' 06" (16° 22' 13")
- **Right of way**
  - **Width:** Variable 104-300 feet, 150 typical
  - **Easements:** Temporary (X), Permanent (X), Utility ( ), Other ( ).
  - **Type of access control:** Full ( ), Partial ( ), By Permit (X), Other ( ).
  - **Number of parcels**: 31 **Number of displacements:**
    - **Business:** 1
    - **Residences:** 0
    - **Mobile homes:** 0
    - **Other:** 0

- **Structures:**

  Bridges: (SEE ATTACHMENT 6, BRIDGE PLAN & TYPICAL SECTION) I-75 BRIDGES: 2 bridges will be constructed to underpass I-75, one northbound and one southbound, that will accommodate the existing section of I-75. Each proposed bridge will be composed of 3 twelve-foot lanes (one direction), with twelve-foot shoulders and bridge side barrier. The bridges will be a three-span structure approximately with vertical end bents. The northbound and southbound bridges will be approximately 203 and 238 feet in length, respectively.

An approximate 565-foot by 122-foot, five span bridge will be constructed just west of Barrett Lakes Parkway to avoid impacts to the wetland, streams and floodplains located at that location.

- **Major intersections and interchanges:** Chastain Road, Barrett Lakes Boulevard, George Busbee Parkway and Chastain Meadows Parkway.
- **Corridor Management Plan:** Access to Big Shanty Road will be limited in accordance with the Georgia Department of Transportation's Regulations for Driveway and Encroachment Control pursuant to Georgia Code Sections 32-6-51 and 32-6-133.
- **Traffic Control During Construction:** Traffic to be maintained on-site during construction. Construction on existing Big Shanty Road will incorporate construction staging to allow continuous movement. I-75 northbound and southbound will be temporarily detoured to allow for construction of the proposed bridges with no long-term closures expected. Based on the comments in the final Concept Team Meeting, we will closely coordinate with the I-75 HOV/BRT project to minimize impacts to traffic (see Comments section of Concept Report below).
- **Design Exceptions to controlling criteria anticipated:** A 35 mph curve is proposed just south of the proposed Chastain Road/Big Shanty Road intersection. The provision of a 45 mph curve, to avoid the design exception, would result in significant impacts to the parking of two office complex buildings. Impacts to the parking are significant enough that they may result in an uneconomic remnant and result in the displacement of the buildings. Also, the posted speed on Big Shanty Road immediately north of Chastain Road and the subject curve is 35 mph.

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

- **Design Variances:** None anticipated.
- **Environmental Concerns:** A Nationwide 14 Section 404 USACE permit is anticipated due to impacts of wetlands and streams in the project area.
- **Are Time Saving Procedures appropriate?** Yes ( ), No (**X**),

- **Level of environmental analysis:**
  - Categorical exclusion ( ),
  - Environmental Assessment/Finding of No Significant Impact (FONSI) (**X**), or
  - Environmental Impact Statement (EIS) ( ).
- **Utility involvements:** Atlanta Gas and Light Marietta, BellSouth, Cobb County Water, Cobb County Sewer, Cobb County Department of Transportation Telecommunications (west of George Busbee Parkway only), Cobb EMC, Comcast Communications, Georgia Power, City of Marietta Electric, and American Fiber Systems (west of George Busbee Parkway only).

Project responsibilities:

- Design: Cobb County
- Right of way Acquisition: Cobb County
- Relocation of Utilities: Cobb County
- Letting to contract: GDOT
- Supervision of construction: GDOT
- Providing material pits: Contractor
- Providing detours: Contractor

Coordination:

- An Initial Concept Meeting was held on July 6, 2005. See Attachment 7 for Meeting Minutes.
- Concept meeting was held on September 12, 2005. See Attachment 7 for Meeting Minutes.
- P. A. R. meetings, dates and results: N/A
- FEMA, USCG, and/or TVA: N/A
- Public involvement: A Public Information Open House (PIOH) was held on May 5, 2004. For more information regarding the PIOH, see the attached Comment Summary. A community meeting was held on June 7, 2004. For more information regarding the meeting, see the attached Public Involvement Summary.
- Local government comments: None
- Other coordination to date: Cobb County, City of Marietta, Atlanta Regional Commission, Cobb County Historic Preservation Commission, Federal Highway Administration.

Scheduling – Responsible Parties' Estimate:

- Time to complete the environmental process: 18 Months.
- Time to complete preliminary construction plans: 6 Months.
- Time to complete right of way plans: 3 Months.
- Time to complete Section 404 Permit: 6 Months.
- Time to complete final construction plans: 3 Months.
- Time to complete purchase of right of way: 3 Phases, 12 months each, consecutively.
- List other major items that will affect the project schedule: N/A

Other alternatives considered:

Alternative 1 - Town Point Drive is a circular drive that connects with Chastain Road. The northern alternative would begin at the western intersection of Town Point Drive and Chastain Road and would roughly follow existing Town Point Drive until reaching Gutenberg Drive. The proposed alignment would roughly follow Gutenberg Drive, cross the eastern portion of Town Point drive and continue easterly, on new location. The proposed roadway would continue easterly, crossing Barrett Lakes Parkway at-grade then under-passing I-75. The proposed alignment would then veer southeasterly until reaching a point just west of existing Big Shanty Road. The proposed alignment would then veer easterly and to form a four-way intersection with George Busbee Parkway and existing Big Shanty Road. A variation of this alternative would provide an overpass at I-75. This alternative is not preferred because it would affect the interchange of I-75 and Chastain Road, which is currently under reconstruction. Also, this alternative would result in the displacement of an office complex located on Town Point Drive.

Alternative 2 - Alternative 2 is a minor variation of the Preferred Alternative. Alternative 2 is similar to the Preferred Alternative with the exception that the proposed alignment would veer easterly at Town Point Drive approximately 100 feet south of the Preferred Alternative. This alternative is not preferred because it would result in significant impacts to the wetland identified in this area, which is associated with the floodplain of Noonday Creek. In order to avoid or minimize significant impacts to the wetland, Alternative 2 would require extensive bridging at this location.

Alternative 3 – Originally the Preferred Alternative, as well as Alternatives 1 and 2, would have widened existing Big Shanty Road from George Busbee Parkway to Bells Ferry Road. However, existing Bells Ferry Road consists only of two travel lanes, one in each direction. Consequently, it was determined that this alternative did not have a logical eastern terminus. Alternative 3 would have resulted in an additional 45 feet of stream impacts, one additional residential displacement, and noise impacts to residents in the BellStone Courts subdivision.

Alternative 4 – An alternative was considered to construct the proposed new location roadway on fill, just west of Barrett Lakes Boulevard. This alternative would have resulted in approximately 0.85 acre of additional wetland impact, 240 linear feet of additional stream impacts, increased impacts to the floodplain associated with Noonday Creek, approximately $342,000 in additional project costs including mitigation, and would have extended the project schedule at least one year to obtain the individual U.S. Army Corps of Engineers permit.

The No-build Alternative - Under this alternative, no action would be taken to reconnect the two existing Big Shanty Road segments and no action would be taken to widen existing Big Shanty Road from George Busbee Parkway to Chastain Meadows Parkway. Under this alternative, east-west mobility in the Town Center area would not be improved and efforts would not be made to alleviate congestion across I-75 and I-575 on Chastain Road and Barrett Parkway in Cobb County. Based on the results of for the 2028 No-Build condition, one section of Barrett Parkway (US 41 to I-75) and four sections of Chastain Road (Duncan Road to I-575) are projected to carry over 50,000 vpd and would exceed their capacity. Other adjacent roadways, including Barrett Lakes Boulevard and a section of George Busbee Parkway would also exceed their

respective capacities. Under the 2028 Build condition, it is projected that project implementation would remove up to 19,100 vpd from Barrett Parkway between US 41 and I-75, and would remove up to 13,300 vpd from Chastain Road between Duncan Road and I-75. The proposed extension of Big Shanty Road is expected to reduce traffic levels on Chastain Road and Barrett Parkway to existing 2002 levels. All sections of these two roadways would experience significant percentage reductions in traffic under the Build condition as compared to the No-Build condition, with two sections experiencing a reduction below existing volumes. Big Shanty Road will carry significantly more traffic under the Build scenario since this project will add two lanes as well as provide better connectivity to major area roads.

Widening Barrett Parkway and Chastain Road - Further widening of Barrett Parkway and Chastain Road is not a reasonable solution to relieve existing congestion. Two sections of Chastain Road could be widened to six lanes to match the other six-lane sections; however, widening beyond six lanes for any non-limited access facility in an urban area is not recommended. The additional capacity gained through widening would be negated by the introduction of additional safety concerns associated with weaving maneuvers and access demands for roadside development. Based on the above traffic volumes and Georgia Department of Transportation (GDOT) policy, all new multilane facilities with three or more lanes in each direction would require positive separation of opposing traffic by way of a raised median. Subsequently, appropriately spaced median openings would severely limit roadside access. Based on these factors, a new east-west corridor would be more effective than the widening of an existing corridor.

Alternatives Considered to Reduce Impacts to Traffic during Construction – Alternatives were considered to reduce impacts to traffic on I-75 during construction. Originally, the proposed project would have detoured traffic to the median on I-75 without coordination with the I-75 traffic and the detour to the median would have been constructed twice. However, these two projects will now be closely coordinated to help minimize potential "throw-away" work where possible. An alternative to re-direct traffic to I-575 was considered; however, this would result in more disruptive travel patterns than the proposed detour.

Comments: Close coordination should be maintained between this project and the I-75 northwest corridor project to minimize the disruption to the public that occurs from both projects, the potential conflicts between contractors working in the same areas, and the amount of potential "throw-away" work on the new I-75 bridges for this project when impacted by the northwest corridor reconstruction and expansion. Details of the staging and detour plans in this area should be thoroughly examined during design, including being addressed during the PFPR (comments from FHWA).

Attachments:

1. Cost Estimates
2. Proposed Alignment, Profiles & Typical Sections
3. Accident Summary
4. Traffic Data
5. Bridge Plan & Typical Sections

6. Minutes of Initial Concept & Concept Meetings
7. LGPA's or PMA's
8. Public Involvement Summary
9. Cost/Benefit Analysis

Big Shanty Connector

ESTIMATE SUMMARY

	Phase 1	Phase 2	Phase 3
A. Right-of-Way	3,200,000	2,200,000	1,400,000
B. Reimbursable Utilities	50,000	70,000	70,000
C. Construction			
1. Construction Cost	5,614,352.31	7,867,836.69	4,883,592.11
2. E&C (10%)	561,435.23	786,783.67	488,359.21
3. Inflation (4% per year)			
5 years for Phases I & I	1,338,002.30	1,875,048.62	
10 years for Phase III			2,579,848.92
Total Construction Cost	7,513,789.84	10,529,668.98	7,951,800.24
Grand Total Project Cost	**10,763,789.84**	**12,799,668.98**	**9,421,800.24**

Estimate Report for file "Big Shanty Connector Phase 1"

Section BRIDGES

Item Number	Quantity	Units	Unit Price	Item Description	Cost
521-1000	27894	SF	68.00	BRIDGE, COMPLETE	1896792.00
				Section Sub Total:	**$1,896,792.00**

Section CONCRETE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
441-0016	700	SY	28.00	DRIVEWAY CONCRETE, 6 IN TK	19600.00
441-0104	5500	SY	22.78	CONC SIDEWALK, 4 IN	125290.00
441-0740	5400	SY	25.00	CONCRETE MEDIAN, 4 IN	135000.00
441-6222	4900	LF	10.00	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	49000.00
441-6740	4800	LF	9.50	CONC CURB & GUTTER, 8 IN X 30 IN, TP 7	45600.00
441-7003	6	EA	700.00	CURB CUT WHEELCHAIR RAMPS, TP 3	4200.00
				Section Sub Total:	**$378,690.00**

Section DEMOLITION

Item Number	Quantity	Units	Unit Price	Item Description	Cost
610-0355	1000	LF	7.00	REM CONC CURB & GUTTER ALL SIZES	7000.00
610-2815	10700	SY	20.00	REMOVE PVMT, SIDEWALK AND DRIVEWAYS	214000.00
610-6015	5	EA	600.00	REM DROP INLET	3000.00
				Section Sub Total:	**$224,000.00**

Section DRAINAGE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
550-1180	3100	LF	26.00	STORM DRAIN PIPE, 18 IN, H 1-10	80600.00
550-1300	2100	LF	42.00	STORM DRAIN PIPE, 30 IN, H 1-10	88200.00
550-1360	170	LF	48.00	STORM DRAIN PIPE, 36 IN, H 1-10	8160.00
550-4236	7	EA	700.00	FLARED END SECTION 36 IN, STORM DRAIN	4900.00
668-1200	17	EA	2350.00	CURB INLETS	39950.00
				Section Sub Total:	**$221,810.00**

Section EARTHWORK

Item Number	Quantity	Units	Unit Price	Item Description	Cost
201-1500	1	LS	620000.00	CLEARING & GRUBBING -	620000.00
205-0001	130000	CY	2.50	UNCLASS EXCAV	325000.00
				Section Sub Total:	**$945,000.00**

Section EROSION CONTROL

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	6	AC	500.00	TEMPORARY GRASSING	3000.00
163-0300	4	EA	1100.00	CONSTRUCTION EXIT	4400.00
163-0503	6	EA	350.00	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	2100.00
163-0550	17	EA	175.00	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	2975.00
165-0010	1500	LF	0.90	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	1350.00
165-0030	1500	LF	1.50	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	2250.00
165-0087	6	EA	120.00	MAINTENANCE OF SILT CONTROL GATE, TP 3	720.00
165-0101	4	EA	350.00	MAINTENANCE OF CONSTRUCTION EXIT	1400.00
165-0105	17	EA	80.00	MAINTENANCE OF INLET SEDIMENT TRAP	1360.00
167-0100	24	MO	1500.00	WATER QUALITY MONITORING	36000.00
167-0200	20	EA	100.00	WATER QUALITY SAMPLING	2000.00
171-0010	3000	LF	1.82	TEMPORARY SILT FENCE, TYPE A	5460.00
171-0030	3000	LF	3.50	TEMPORARY SILT FENCE, TYPE C	10500.00
214-0100	1	LS	20000.00	WETLANDS MITIGATION	20000.00
				Section Sub Total:	**$93,515.00**

Section LANDSCAPING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
700-6910	6	AC	1000.00	PERMANENT GRASSING	6000.00
702-7401	70	EA	450.00	PLANT 3 INCH DIAMETER TREES	31500.00
				Section Sub Total:	**$37,500.00**

Section MISCELLANEOUS

Item Number	Quantity	Units	Unit Price	Item Description	Cost
521-1000	30000	SF	13.50	TEMPORARY SHEET PILING	405000.00
641-1200	1000	LF	9.00	GUARDRAIL, TP W	9000.00
				Section Sub Total:	**$414,000.00**

Section MOBILIZATION

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	120000.00	TRAFFIC CONTROL -	120000.00
151-1000	1	LS	274737.78	MOBILIZATION -	274737.78
				Section Sub Total:	**$394,737.78**

Section PAVING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-5140	28000	SY	11.00	GR AGGR BASE CRS, 14 IN, INCL MATL	308000.00
400-3101	2300	TN	45.00	ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL,	103500.00
400-3605	3060	TN	46.00	ASPH CONC 19MM SUPERPAVE, GP 1 OR 2, INCL POLYMER MODIFIED	140760.00
402-3121	4580	TN	35.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	160300.00
413-1000	1400	GL	1.00	BITUM TACK COAT	1400.00
432-0216	2800	SY	2.00	MILL ASPH CONC PVMT, 4 IN DEPTH	5600.00
				Section Sub Total:	**$719,560.00**

Section SIGNAGE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
615-1200	350	LF	7.45	DIRECTIONAL BORE -	2607.50
634-1200	20	EA	80.00	RIGHT OF WAY MARKERS	1600.00
636-1032	125	SF	26.99	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING TP 6	3373.75
639-3014	8	EA	7337.07	STEEL STRAIN POLE, TP IV, INCL LUMINAIRE ARM	58696.56
647-1000	2	LS	40226.55	TRAFFIC SIGNAL INSTALLATION NO - 1&2	80453.10
647-2140	8	EA	1018.51	PULL BOX, PB-4	8148.08
647-2150	4	EA	1319.95	PULL BOX, PB-5	5279.80
653-0120	48	EA	56.33	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	2703.84
653-1501	5000	LF	0.25	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	1250.00
653-1502	5000	LF	0.24	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	1200.00
653-1704	200	LF	3.23	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	646.00
653-1804	500	LF	1.56	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	780.00
653-3501	6200	GLF	0.14	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	868.00
653-6004	400	SY	2.42	THERMOPLASTIC TRAF STRIPING, WHITE	968.00
654-1003	170	EA	3.24	RAISED PVMT MARKERS TP 3	550.80
682-6120	300	LF	6.45	CONDUIT, RIGID, 2 IN	1935.00
682-6233	8000	LF	3.13	CONDUIT, NONMETL, TP 3, 2 IN	25040.00
935-1113	7000	LF	1.69	OUTSIDE PLANT FIBER OPTIC CABLE, LOOSE TUBE, SINGLE MODE, 24 FIBER	11830.00
935-1511	250	LF	2.30	OUTSIDE PLANT FIBER OPTIC CABLE, DROP, SINGLE MODE, 6 FIBER	575.00
935-3103	8	EA	669.11	FIBER OPTIC CLOSURE, UNDERGROUND, 24	5352.88

				FIBER	
935-4010	2	EA	29.58	FIBER OPTIC SPLICE, FUSION	59.16
935-6562	2	EA	1508.22	EXTERNAL TRANSCEIVER, DROP AND REPEAT, 1310 SINGLE MODE, (SIGNAL JOBS)	3016.44
935-8000	2	LS	3234.46	TESTING	6468.92
938-1100	12	EA	5056.77	INTERSECTION VIDEO DETECTION SYSTEM ASSEMBLY, TYPE A	60681.24
938-8000	2	LS	2331.73	TESTING	4663.46
				Section Sub Total:	**$288,747.53**

Total Estimated Cost: $5,614,352.31

Subtotal Construction Cost	**$5,614,352.31**
E&C Rate 10.0 %	$561,435.23
Inflation Rate 4.0 % @ 5.0 Years	$1,338,002.30
Total Construction Cost	**$7,513,789.84**
Right Of Way	$3,200,000.00
ReImb. Utilities	$50,000.00
Grand Total Project Cost	**$10,763,789.84**

Estimate Report for file "Big Shanty Connector Phase 2"

Section MOBILIZATION

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	120000.00	TRAFFIC CONTROL -	120000.00
151-1000	1	LS	274737.78	MOBILIZATION -	274737.78
				Section Sub Total:	**$394,737.78**

Section CONCRETE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
441-0016	4120	SY	28.00	DRIVEWAY CONCRETE, 6 IN TK	115360.00
441-0104	4500	SY	22.78	CONC SIDEWALK, 4 IN	102510.00
441-0740	3740	SY	25.00	CONCRETE MEDIAN, 4 IN	93500.00
441-6222	8200	LF	10.00	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	82000.00
441-6740	8200	LF	9.50	CONC CURB & GUTTER, 8 IN X 30 IN, TP 7	77900.00
441-7003	26	EA	700.00	CURB CUT WHEELCHAIR RAMPS, TP 3	18200.00
				Section Sub Total:	**$489,470.00**

Section LANDSCAPING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
700-6910	14	AC	1000.00	PERMANENT GRASSING	14000.00
702-7401	120	EA	450.00	PLANT 3 INCH DIAMETER TREES	54000.00
				Section Sub Total:	**$68,000.00**

Section DEMOLITION

Item Number	Quantity	Units	Unit Price	Item Description	Cost
610-0355	4000	LF	7.00	REM CONC CURB & GUTTER ALL SIZES	28000.00
610-2815	10930	SY	20.00	REMOVE PVMT, SIDEWALK AND DRIVEWAYS	218600.00
610-6015	5	EA	600.00	REM DROP INLET	3000.00
				Section Sub Total:	**$249,600.00**

Section DRAINAGE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
550-1180	3000	LF	26.00	STORM DRAIN PIPE, 18 IN, H 1-10	78000.00
550-1300	2000	LF	42.00	STORM DRAIN PIPE, 30 IN, H 1-10	84000.00
550-1360	150	LF	48.00	STORM DRAIN PIPE, 36 IN, H 1-10	7200.00
550-4236	7	EA	700.00	FLARED END SECTION 36 IN, STORM DRAIN	4900.00
668-1200	21	EA	2350.00	CURB INLETS	49350.00
				Section Sub Total:	**$223,450.00**

Section EROSION CONTROL

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	7	AC	500.00	TEMPORARY GRASSING	3500.00
163-0300	4	EA	1100.00	CONSTRUCTION EXIT	4400.00
163-0503	21	EA	350.00	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	7350.00
163-0550	5	EA	175.00	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	875.00
165-0010	4000	LF	0.90	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	3600.00
165-0087	21	EA	120.00	MAINTENANCE OF SILT CONTROL GATE, TP 3	2520.00
165-0101	4	EA	350.00	MAINTENANCE OF CONSTRUCTION EXIT	1400.00
165-0105	5	EA	80.00	MAINTENANCE OF INLET SEDIMENT TRAP	400.00
167-0100	24	MO	1500.00	WATER QUALITY MONITORING	36000.00
167-0200	15	EA	100.00	WATER QUALITY SAMPLING	1500.00
171-0010	8000	LF	1.82	TEMPORARY SILT FENCE, TYPE A	14560.00
				Section Sub Total:	**$76,105.00**

Section EARTHWORK

Item Number	Quantity	Units	Unit Price	Item Description	Cost

201-1500	1	LS	620000.00	CLEARING & GRUBBING -	620000.00
205-0001	22000	CY	2.50	UNCLASS EXCAV	55000.00
205-0001	72000	CY	3.20	UNCLASS EXCAV	230400.00
				Section Sub Total:	**$905,400.00**

Section PAVING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-5140	21870	SY	11.00	GR AGGR BASE CRS, 14 IN, INCL MATL	240570.00
400-3101	1804	TN	45.00	ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL,	81180.00
400-3605	2400	TN	46.00	ASPH CONC 19MM SUPERPAVE, GP 1 OR 2, INCL POLYMER MODIFIED	110400.00
402-3121	4000	TN	35.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	140000.00
413-1000	1100	GL	1.00	BITUM TACK COAT	1100.00
432-0216	4750	SY	2.00	MILL ASPH CONC PVMT, 4 IN DEPTH	9500.00
				Section Sub Total:	**$582,750.00**

Section MISCELLANEOUS

Item Number	Quantity	Units	Unit Price	Item Description	Cost
641-1200	3000	LF	9.00	GUARDRAIL, TP W	27000.00
				Section Sub Total:	**$27,000.00**

Section SIGNAGE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
615-1200	175	LF	7.45	DIRECTIONAL BORE -	1303.75
634-1200	41	EA	80.00	RIGHT OF WAY MARKERS	3280.00
636-1032	62	SF	26.99	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING TP 6	1673.38
639-3014	4	EA	7337.07	STEEL STRAIN POLE, TP IV, INCL LUMINAIRE ARM	29348.28
647-1000	1	LS	40226.55	TRAFFIC SIGNAL INSTALLATION NO - 3	40226.55
647-2140	4	EA	1018.51	PULL BOX, PB-4	4074.04
653-0120	30	EA	56.33	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	1689.90
653-0130	4	EA	72.99	THERMOPLASTIC PVMT MARKING, ARROW, TP 3	291.96
653-1501	4000	LF	0.25	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	1000.00
653-1502	4000	LF	0.24	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	960.00
653-1704	100	LF	3.23	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	323.00
653-1804	500	LF	1.56	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	780.00
653-3501	5500	GLF	0.14	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	770.00
653-6004	200	SY	2.42	THERMOPLASTIC TRAF STRIPING, WHITE	484.00
654-1003	150	EA	3.24	RAISED PVMT MARKERS TP 3	486.00
682-6120	150	LF	6.45	CONDUIT, RIGID, 2 IN	967.50
682-6233	3500	LF	3.13	CONDUIT, NONMETL, TP 3, 2 IN	10955.00
935-1113	3000	LF	1.69	OUTSIDE PLANT FIBER OPTIC CABLE, LOOSE TUBE, SINGLE MODE, 24 FIBER	5070.00
935-1511	125	LF	2.30	OUTSIDE PLANT FIBER OPTIC CABLE, DROP, SINGLE MODE, 6 FIBER	287.50
935-3103	4	EA	669.11	FIBER OPTIC CLOSURE, UNDERGROUND, 24 FIBER	2676.44
935-4010	1	EA	29.58	FIBER OPTIC SPLICE, FUSION	29.58
935-6562	1	EA	1508.22	EXTERNAL TRANSCEIVER, DROP AND REPEAT, 1310 SINGLE MODE, (SIGNAL JOBS)	1508.22
935-8000	1	LS	3234.46	TESTING	3234.46
938-1100	6	EA	5056.77	INTERSECTION VIDEO DETECTION SYSTEM ASSEMBLY, TYPE A	30340.62
938-8000	1	LS	2331.73	TESTING	2331.73
				Section Sub Total:	**$144,091.91**

Section BRIDGES					
Item Number	**Quantity**	**Units**	**Unit Price**	**Item Description**	**Cost**
521-1000	69224	SF	68.00	BRIDGE, COMPLETE	4707232.00
				Section Sub Total:	**$4,707,232.00**

Total Estimated Cost: $7,867,836.69

Subtotal Construction Cost	**$7,867,836.69**
E&C Rate 10.0 %	$786,783.67
Inflation Rate 4.0 % @ 5.0 Years	$1,875,048.62
Total Construction Cost	**$10,529,668.98**
Right Of Way	$2,200,000.00
ReImb. Utilities	$70,000.00
Grand Total Project Cost	**$12,799,668.98**

Estimate Report for file "Big Shanty Connector Phase 3"

Section MOBILIZATION

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	1	LS	120000.00	TRAFFIC CONTROL -	120000.00
151-1000	1	LS	274737.78	MOBILIZATION -	274737.78
				Section Sub Total:	**$394,737.78**

Section CONCRETE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
441-0016	790	SY	28.00	DRIVEWAY CONCRETE, 6 IN TK	22120.00
441-0104	4300	SY	22.78	CONC SIDEWALK, 4 IN	97954.00
441-0740	8550	SY	25.00	CONCRETE MEDIAN, 4 IN	213750.00
441-6222	7700	LF	10.00	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	77000.00
441-6740	7700	LF	9.50	CONC CURB & GUTTER, 8 IN X 30 IN, TP 7	73150.00
441-7003	14	EA	700.00	CURB CUT WHEELCHAIR RAMPS, TP 3	9800.00
				Section Sub Total:	**$493,774.00**

Section LANDSCAPING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
700-6910	12	AC	1000.00	PERMANENT GRASSING	12000.00
702-7401	80	EA	450.00	PLANT 3 INCH DIAMETER TREES	36000.00
				Section Sub Total:	**$48,000.00**

Section DEMOLITION

Item Number	Quantity	Units	Unit Price	Item Description	Cost
610-0355	3900	LF	7.00	REM CONC CURB & GUTTER ALL SIZES	27300.00
610-2815	3000	SY	20.00	REMOVE PVMT, SIDEWALK AND DRIVEWAYS	60000.00
610-6015	5	EA	600.00	REM DROP INLET	3000.00
				Section Sub Total:	**$90,300.00**

Section DRAINAGE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
550-1180	3100	LF	26.00	STORM DRAIN PIPE, 18 IN, H 1-10	80600.00
550-1300	2100	LF	42.00	STORM DRAIN PIPE, 30 IN, H 1-10	88200.00
550-1360	170	LF	48.00	STORM DRAIN PIPE, 36 IN, H 1-10	8160.00
550-4236	7	EA	700.00	FLARED END SECTION 36 IN, STORM DRAIN	4900.00
668-1200	26	EA	2350.00	CURB INLETS	61100.00
				Section Sub Total:	**$242,960.00**

Section EROSION CONTROL

Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	6	AC	500.00	TEMPORARY GRASSING	3000.00
163-0300	4	EA	1100.00	CONSTRUCTION EXIT	4400.00
163-0503	20	EA	350.00	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3	7000.00
163-0550	20	EA	175.00	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	3500.00
165-0010	3850	LF	0.90	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	3465.00
165-0087	20	EA	120.00	MAINTENANCE OF SILT CONTROL GATE, TP 3	2400.00
165-0101	4	EA	350.00	MAINTENANCE OF CONSTRUCTION EXIT	1400.00
165-0105	20	EA	80.00	MAINTENANCE OF INLET SEDIMENT TRAP	1600.00
167-0100	24	MO	1500.00	WATER QUALITY MONITORING	36000.00
167-0200	10	EA	100.00	WATER QUALITY SAMPLING	1000.00
171-0010	7700	LF	1.82	TEMPORARY SILT FENCE, TYPE A	14014.00
				Section Sub Total:	**$77,779.00**

Section EARTHWORK

Item Number	Quantity	Units	Unit Price	Item Description	Cost

201-1500	1	LS	620000.00	CLEARING & GRUBBING -	620000.00
205-0001	17100	CY	2.50	UNCLASS EXCAV	42750.00
				Section Sub Total:	**$662,750.00**

Section PAVING

Item Number	Quantity	Units	Unit Price	Item Description	Cost
310-5140	91000	SY	11.00	GR AGGR BASE CRS, 14 IN, INCL MATL	1001000.00
400-3101	6000	TN	45.00	ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL,	270000.00
400-3605	16000	TN	46.00	ASPH CONC 19MM SUPERPAVE, GP 1 OR 2, INCL POLYMER MODIFIED	736000.00
402-3121	20000	TN	35.00	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	700000.00
413-1000	3350	GL	1.00	BITUM TACK COAT	3350.00
432-0216	4750	SY	2.00	MILL ASPH CONC PVMT, 4 IN DEPTH	9500.00
				Section Sub Total:	**$2,719,850.00**

Section MISCELLANEOUS

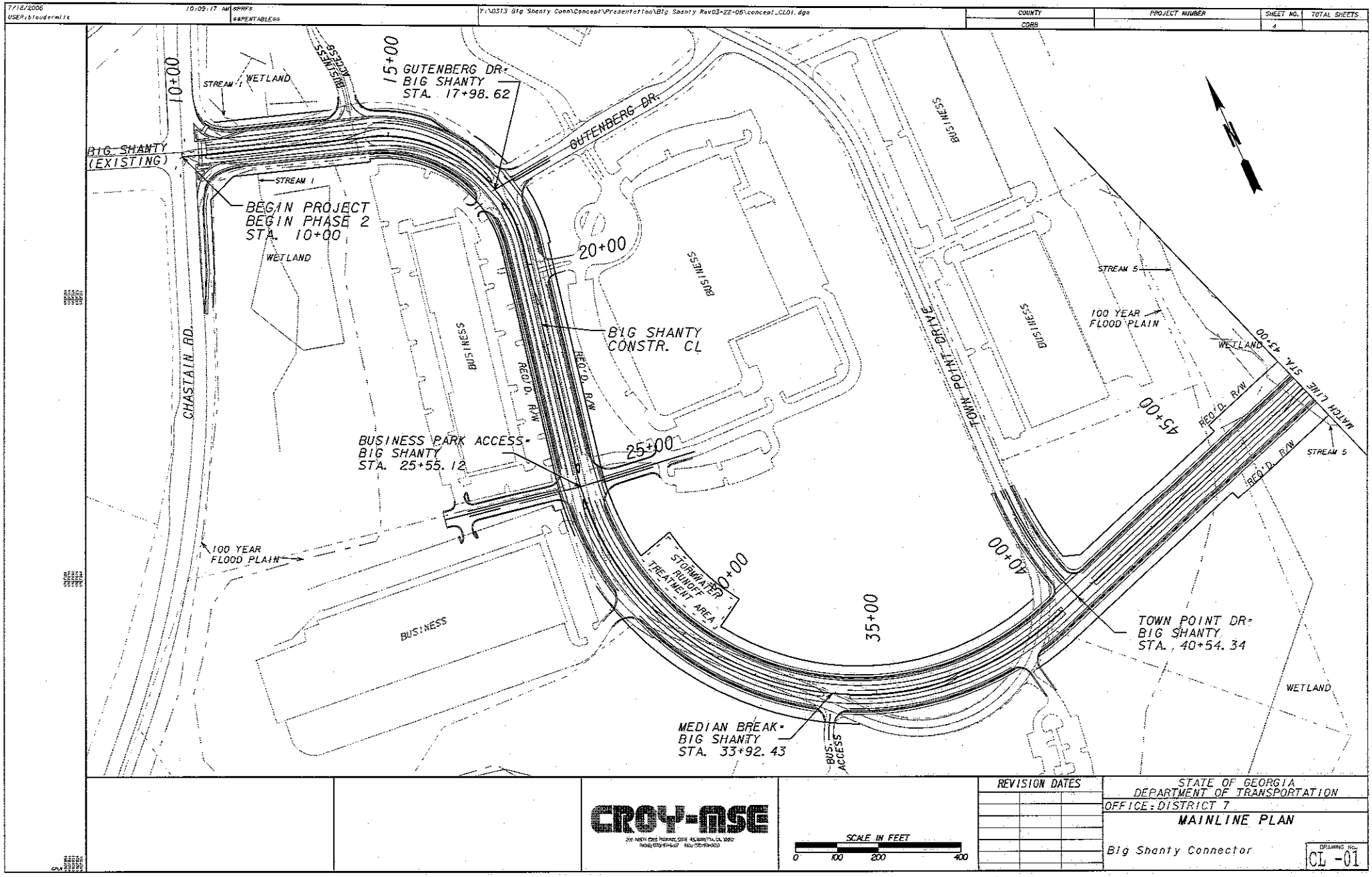
Item Number	Quantity	Units	Unit Price	Item Description	Cost
641-1200	1000	LF	9.00	GUARDRAIL, TP W	9000.00
				Section Sub Total:	**$9,000.00**

Section SIGNAGE

Item Number	Quantity	Units	Unit Price	Item Description	Cost
615-1200	175	LF	7.45	DIRECTIONAL BORE -	1303.75
634-1200	60	EA	80.00	RIGHT OF WAY MARKERS	4800.00
636-1032	63	SF	26.99	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING TP 6	1700.37
639-3014	4	EA	7337.07	STEEL STRAIN POLE, TP IV, INCL LUMINAIRE ARM	29348.28
647-1000	1	LS	40226.55	TRAFFIC SIGNAL INSTALLATION NO - 4	40226.55
647-2140	3	EA	1018.51	PULL BOX, PB-4	3055.53
653-0120	20	EA	56.33	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	1126.60
653-1501	3700	LF	0.25	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	925.00
653-1502	3700	LF	0.24	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	888.00
653-1704	100	LF	3.23	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	323.00
653-1804	500	LF	1.56	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	780.00
653-3501	5500	GLF	0.14	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	770.00
653-6004	500	SY	2.42	THERMOPLASTIC TRAF STRIPING, WHITE	1210.00
654-1003	180	EA	3.24	RAISED PVMT MARKERS TP 3	583.20
682-6120	150	LF	6.45	CONDUIT, RIGID, 2 IN	967.50
682-6233	3500	LF	3.13	CONDUIT, NONMETL, TP 3, 2 IN	10955.00
935-1113	3000	LF	1.69	OUTSIDE PLANT FIBER OPTIC CABLE, LOOSE TUBE, SINGLE MODE, 24 FIBER	5070.00
935-1511	125	LF	2.30	OUTSIDE PLANT FIBER OPTIC CABLE, DROP, SINGLE MODE, 6 FIBER	287.50
935-3103	4	EA	669.11	FIBER OPTIC CLOSURE, UNDERGROUND, 24 FIBER	2676.44
935-4010	1	EA	29.58	FIBER OPTIC SPLICE, FUSION	29.58
935-6562	1	EA	1508.22	EXTERNAL TRANSCEIVER, DROP AND REPEAT, 1310 SINGLE MODE, (SIGNAL JOBS)	1508.22
935-8000	1	LS	3234.46	TESTING	3234.46
938-1100	6	EA	5056.77	INTERSECTION VIDEO DETECTION SYSTEM ASSEMBLY, TYPE A	30340.62
938-8000	1	LS	2331.73	TESTING	2331.73
				Section Sub Total:	**$144,441.33**

Total Estimated Cost: $4,883,592.11

Subtotal Construction Cost	**$4,883,592.11**
E&C Rate 10.0 %	$488,359.21
Inflation Rate 4.0 % @ 10.0 Years	$2,579,848.92
Total Construction Cost	**$7,951,800.24**
Right Of Way	$1,400,000.00
ReImb. Utilities	$70,000.00
Grand Total Project Cost	**$9,421,800.24**



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CROY-ASE

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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE - DISTRICT 7

MAINLINE PLAN

Big Shanty Connector

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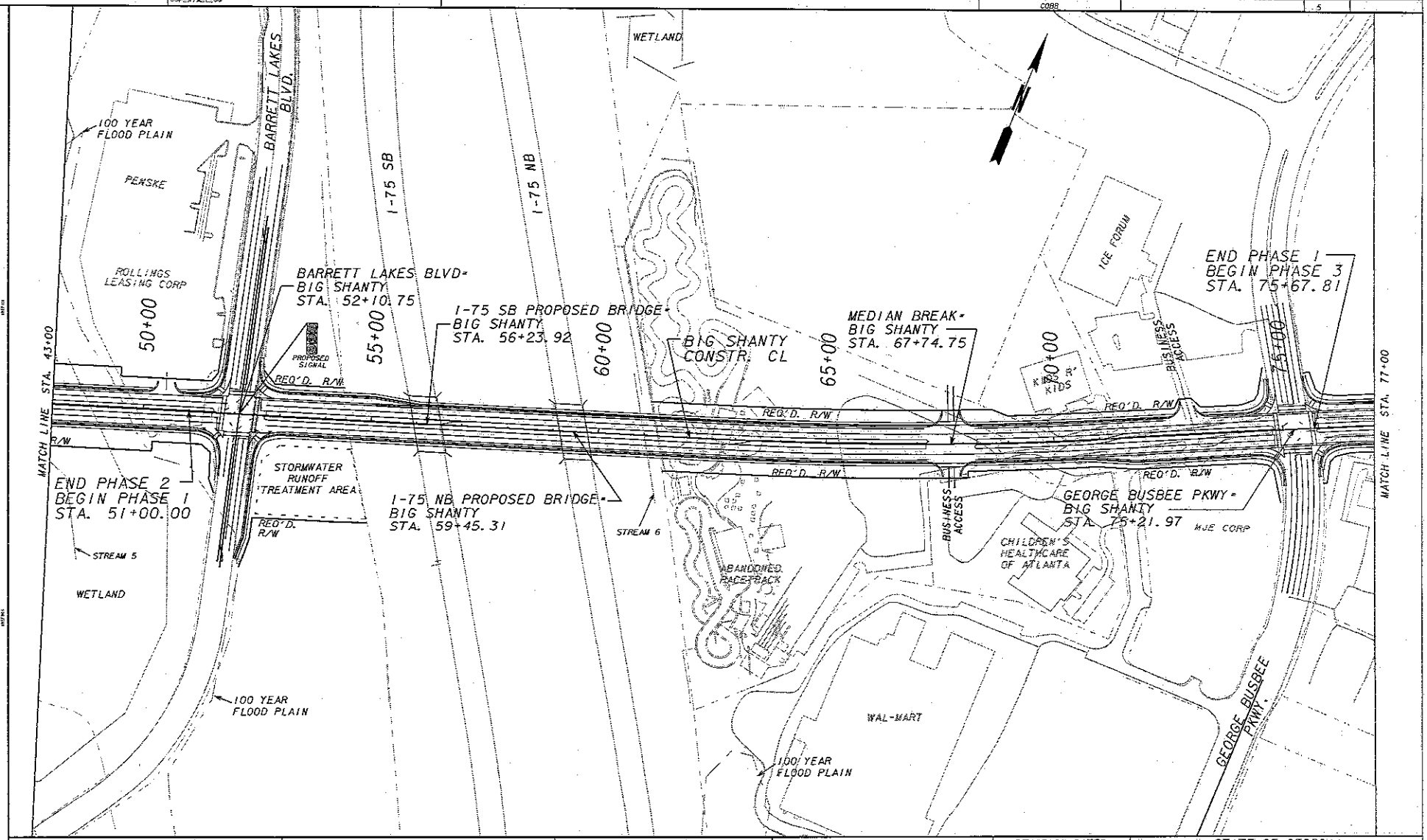

CROY-ASE

SCALE IN FEET
0 100 200 400

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 7

MAINLINE PLAN

Big Shanty Connector

DRAWING NO.: CL -02

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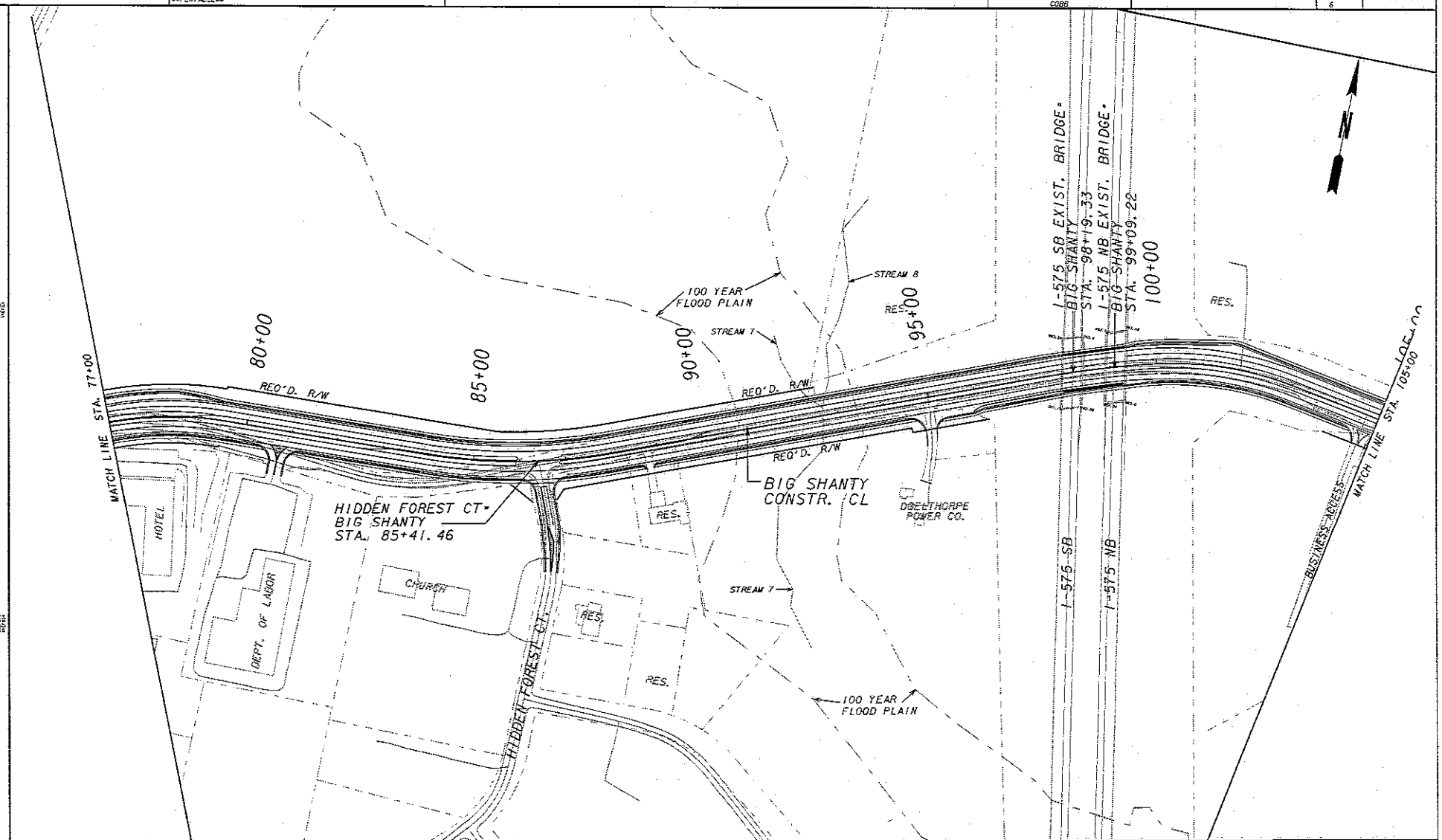

CROY-MSE

SCALE IN FEET
0 100 200 400

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 7
MAINLINE PLAN
Big Shanty Connector

DRAWING No.
CL -03

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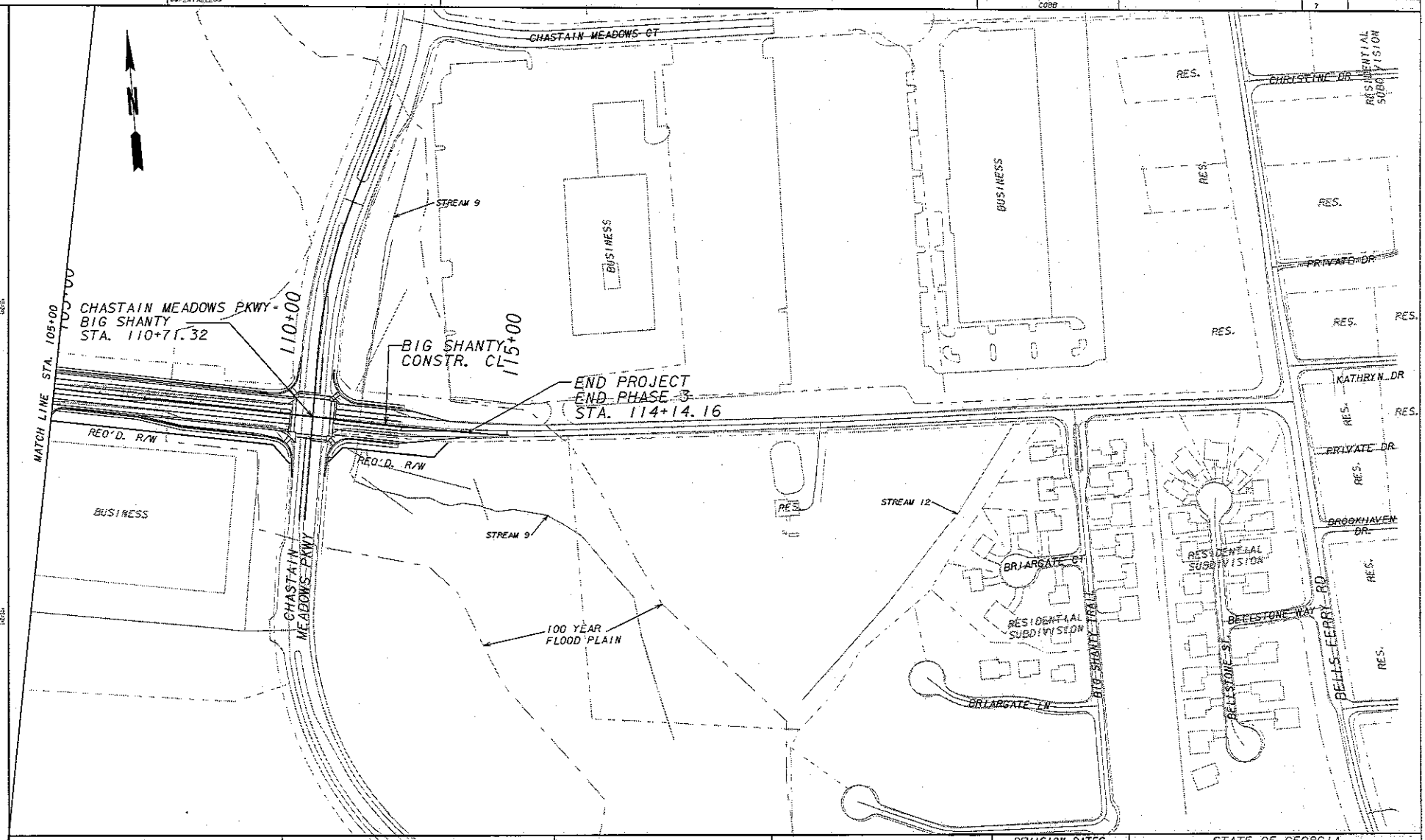

CROY-ASE

SCALE IN FEET
0 100 200 400

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 7

MAINLINE PLAN

Big Shanty Connector

DRAWING No.
CL -04

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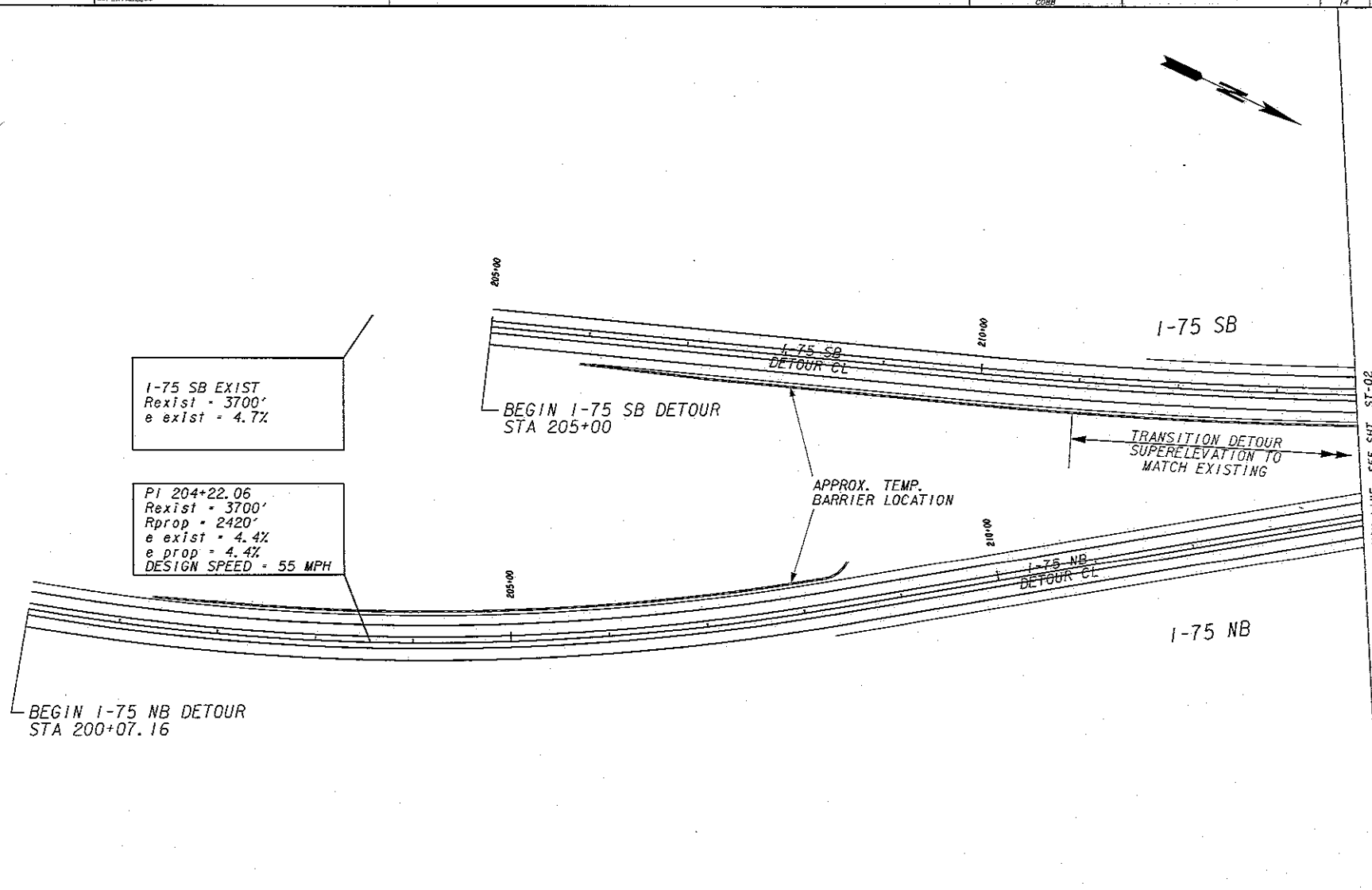

CROY-MSE

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 7

CONSTRUCTION STAGING DETOUR PLAN

I-75 BRIDGE OVER
BIG SHANTY CONNECTOR

DRAWING No. ST-01

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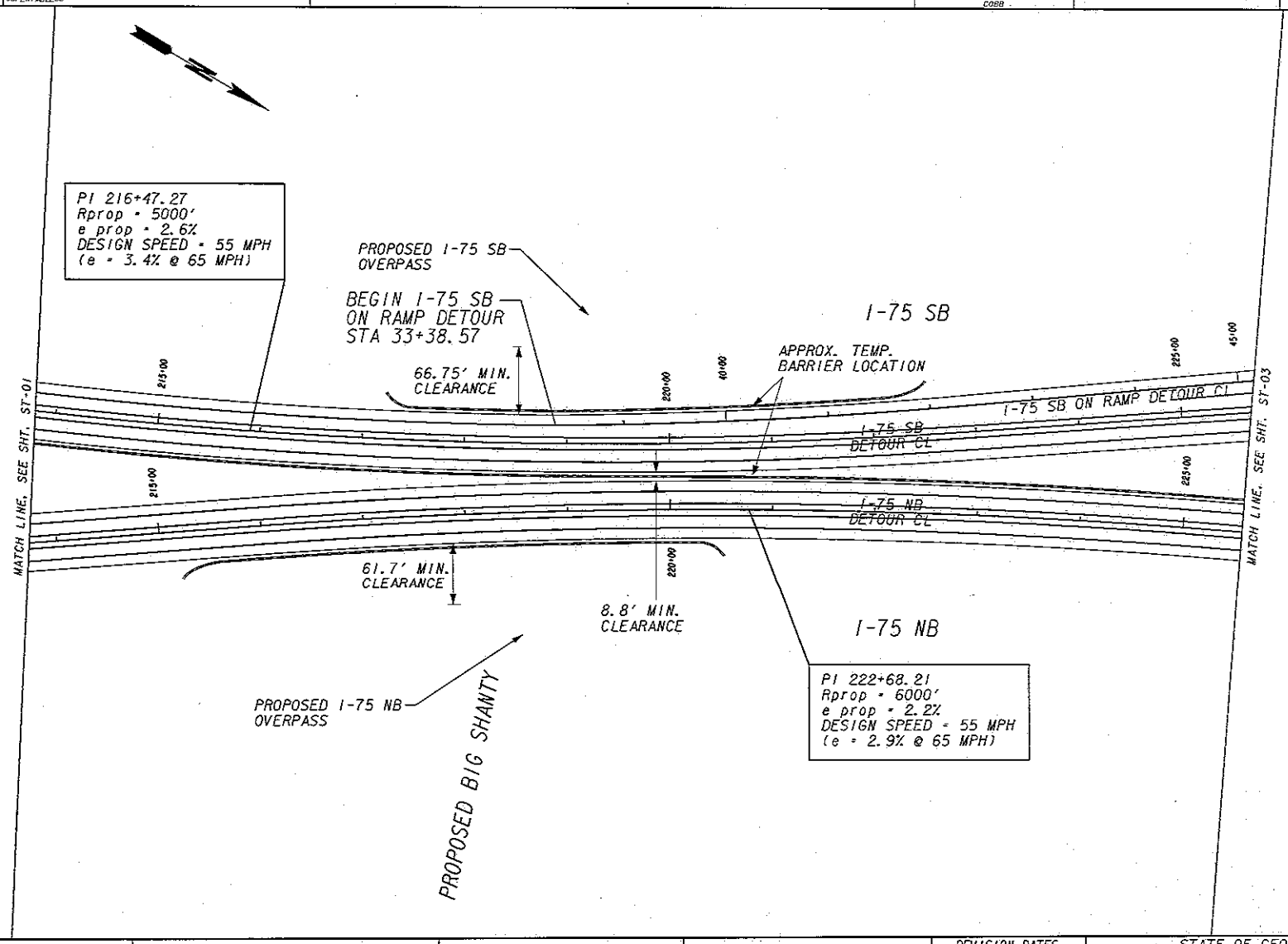

CROY-MSE

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 7

CONSTRUCTION STAGING DETOUR PLAN

I-75 BRIDGE OVER
BIG SHANTY CONNECTOR

DRAWING No. ST-02

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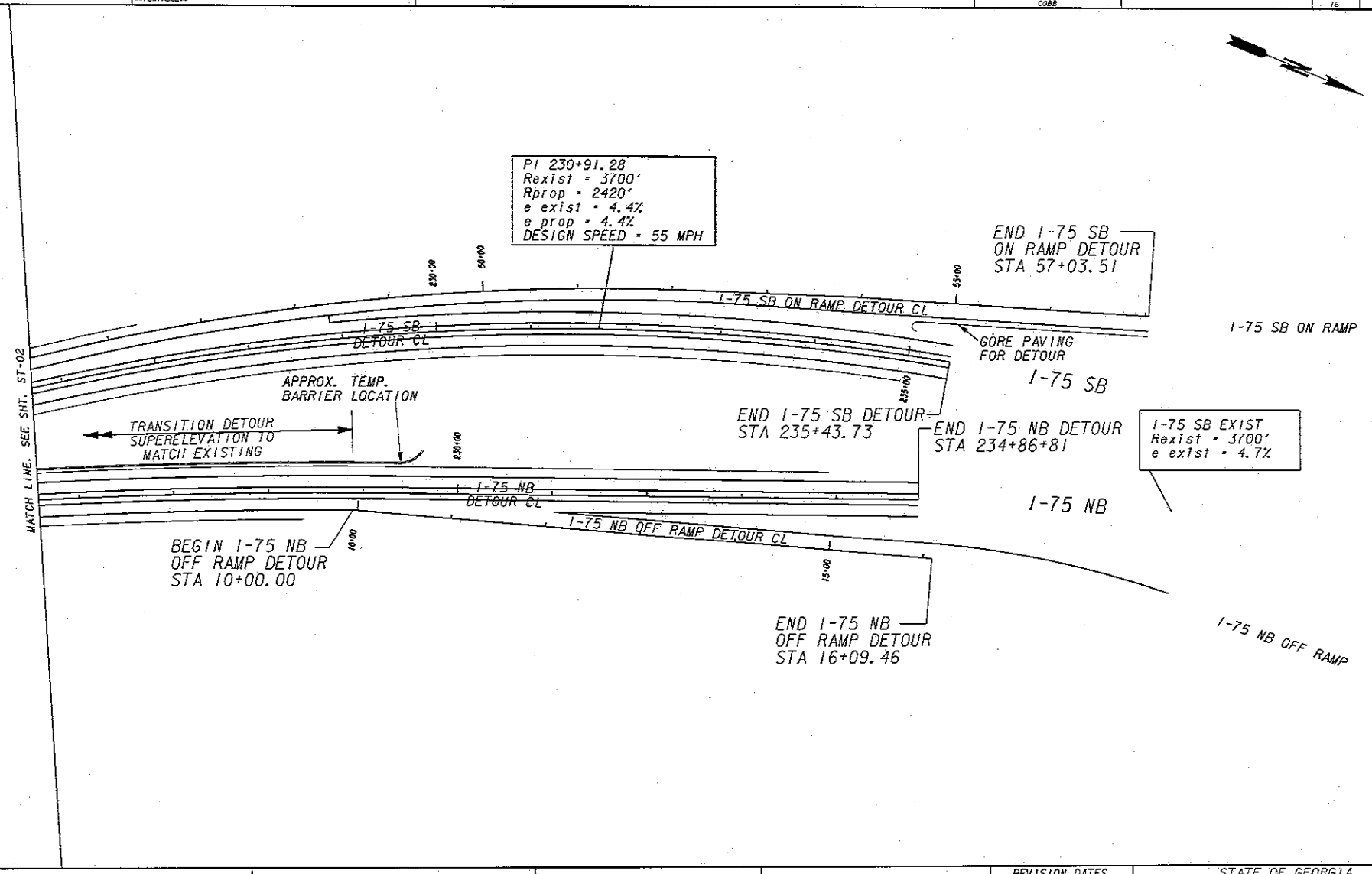

CROY-MSE

SCALE IN FEET
0 50 100 200

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: DISTRICT 7

CONSTRUCTION STAGING DETOUR PLAN

I-75 BRIDGE OVER
BIG SHANTY CONNECTOR

DRAWING No. ST-03

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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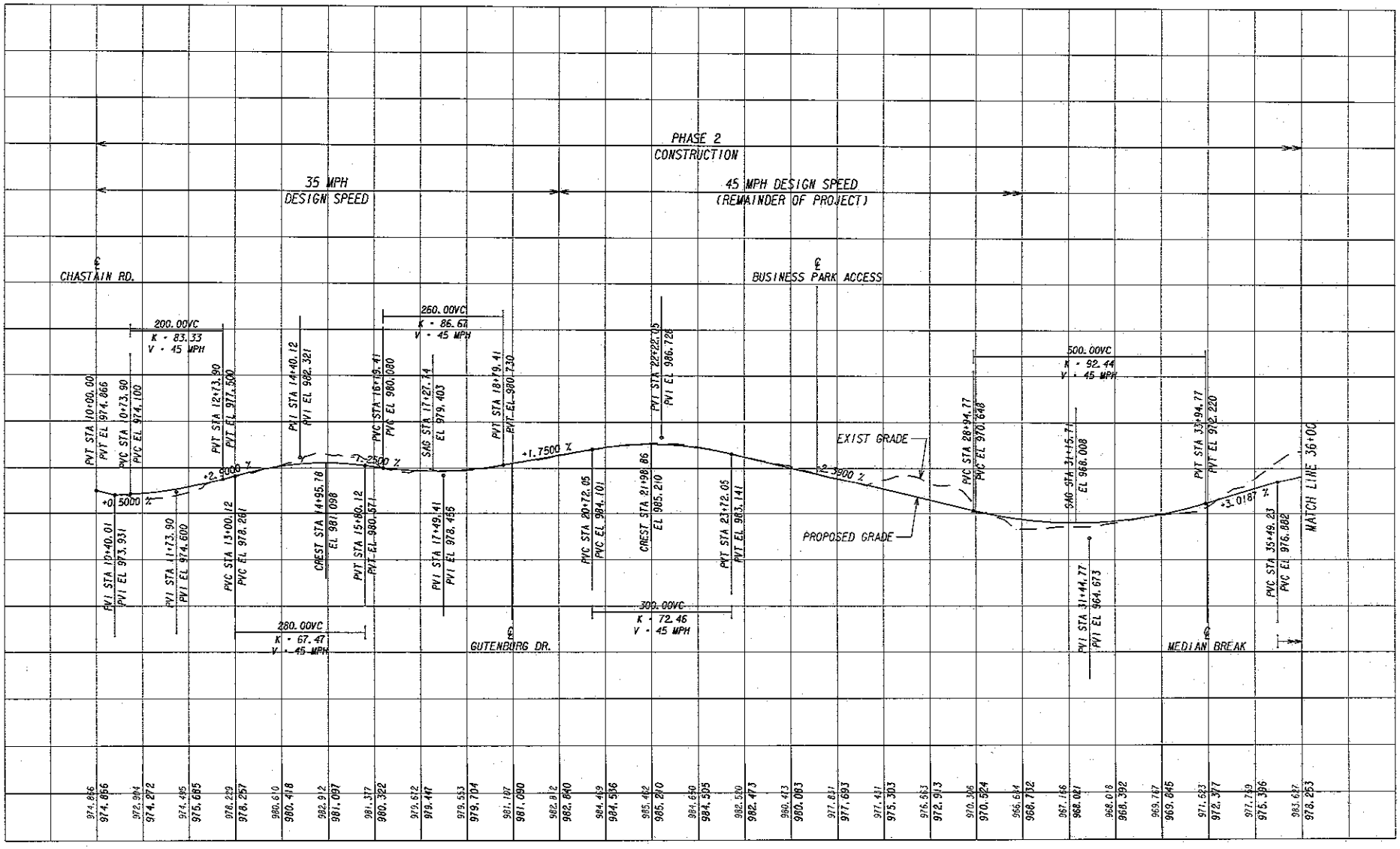
REVISION DATES



CROY-MSG	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR	SCALE 1 Inch = 20 feet Vert. SCALE 1 Inch = 200 feet Horiz.	MAINLINE PROFILE STA 10+00 TO 36+00	DRAWING No. PR-01

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		6	
		REVISION	DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
DISTRICT 7

BIG SHANTY CONNECTOR

SCALE 1 inch = 20 feet Vert.
SCALE 1 inch = 200 feet Horiz.

MAINLINE PROFILE
STA 36+00 TO 65+00

DRAWING NO. PR-02

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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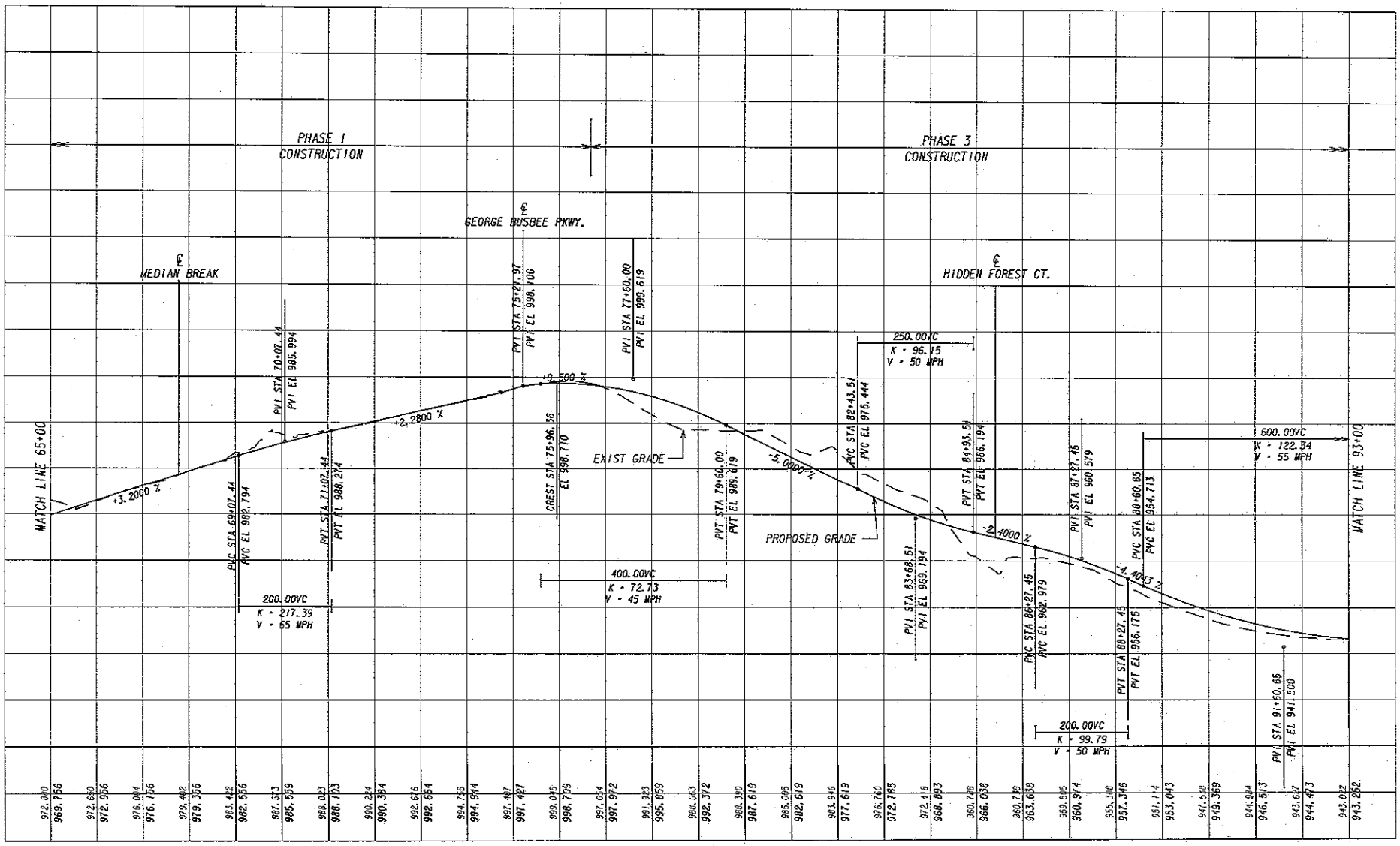
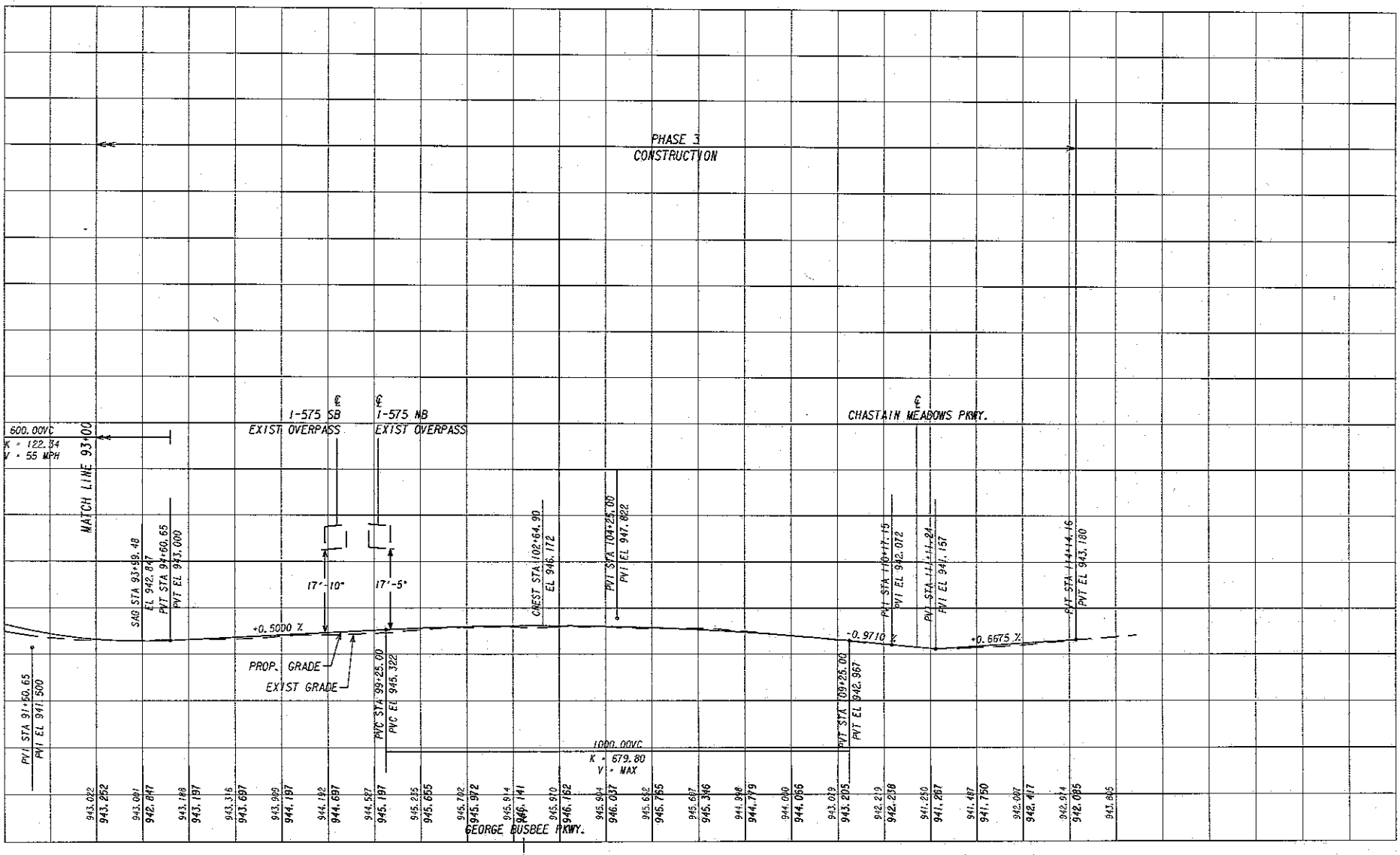
REVISION DATES



CROY-RISE	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR	SCALE 1 inch = 20 feet Vert. SCALE 1 inch = 200 feet Horiz.	MAINLINE PROFILE STA 65+00 TO 93+00	DRAWING No. PR-03

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		11	

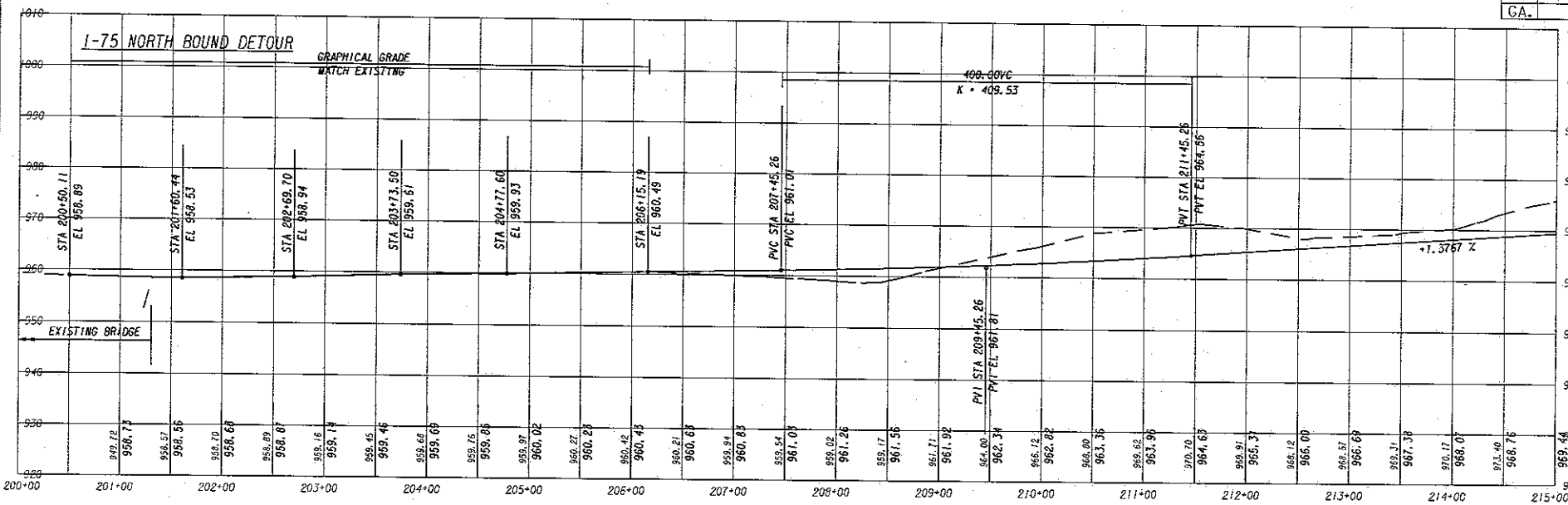
REVISION DATES

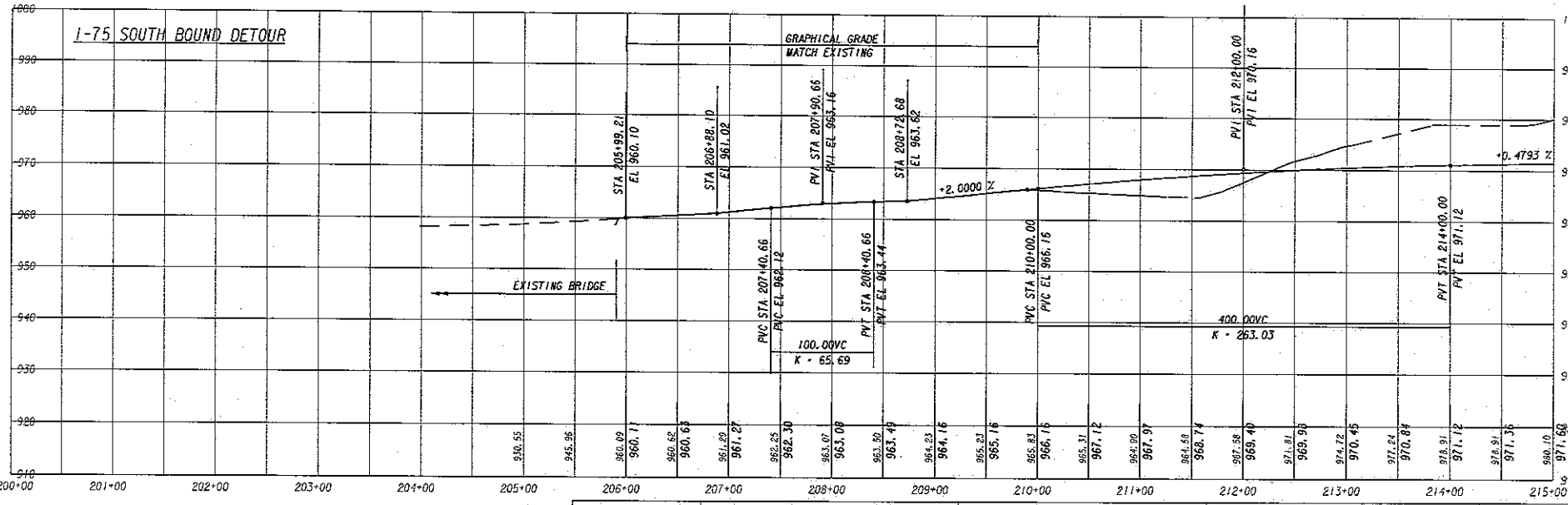


CROY-MSE	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR	SCALE 1 inch = 20 feet Vert. SCALE 1 inch = 200 feet Horiz.	MAINLINE PROFILE STA 93+00 TO 114+14.16	DRAWING NO. PR-04

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		17	

REVISION DATES

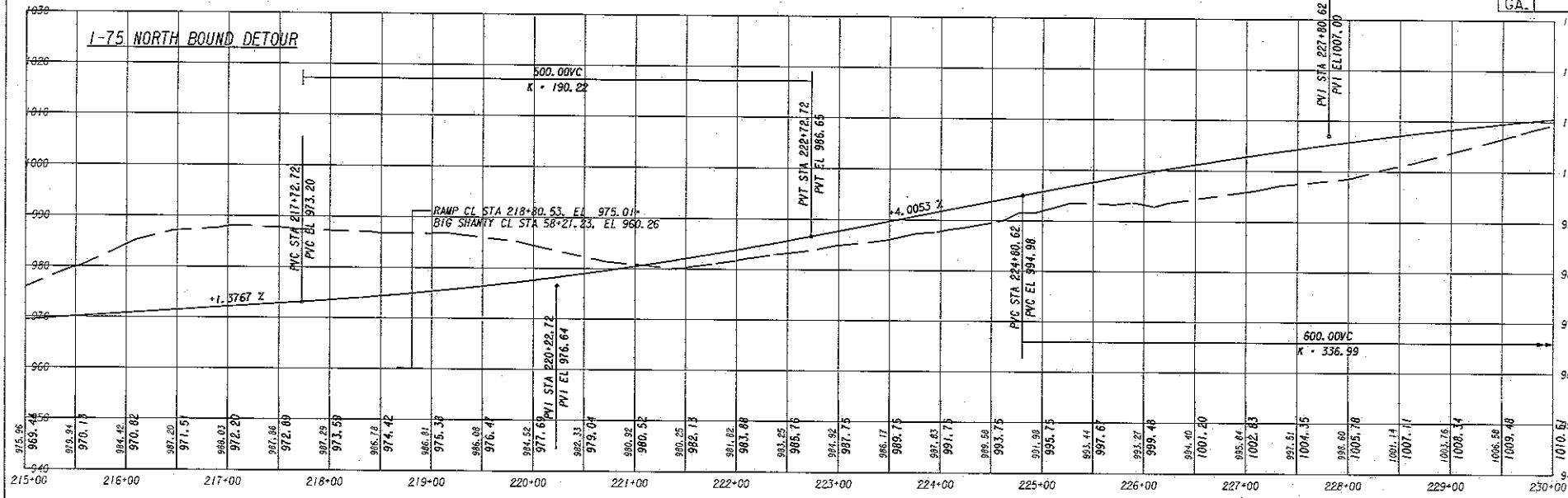


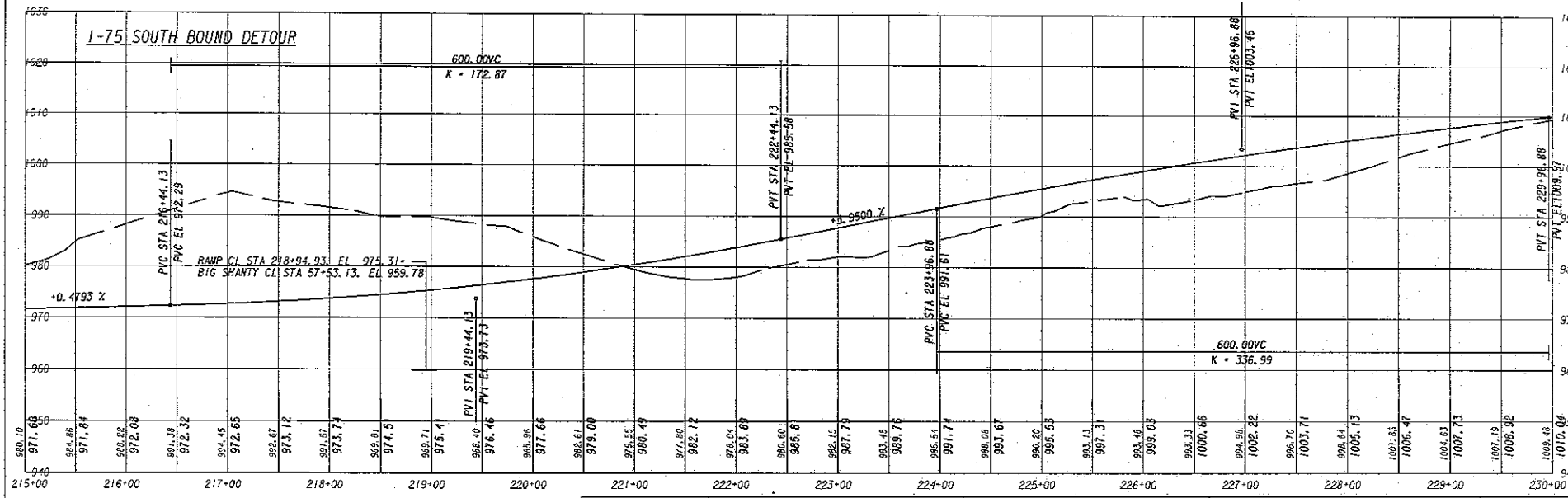


CROY-MSE	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR I-75 DETOURS	SCALE 1 inch = 20 feet Vert. SCALE 1 inch = 100 feet Horiz.	DETOUR PROFILE STA 200+00 TO 215+00	DRAWING No. PR-05

STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
GA.		18	

REVISION DATES

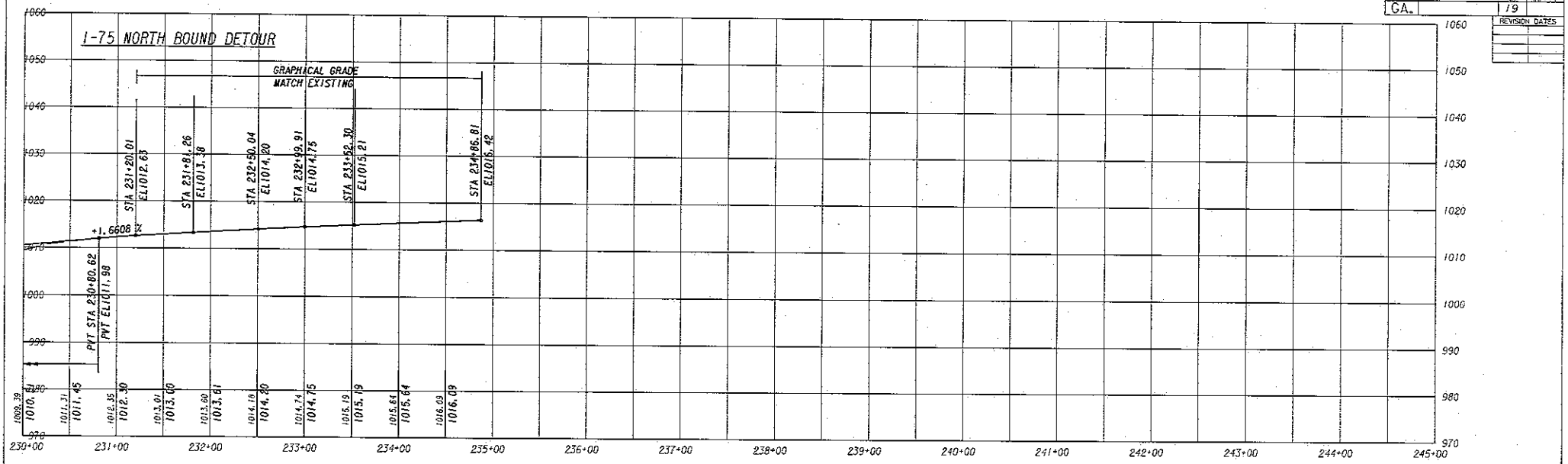


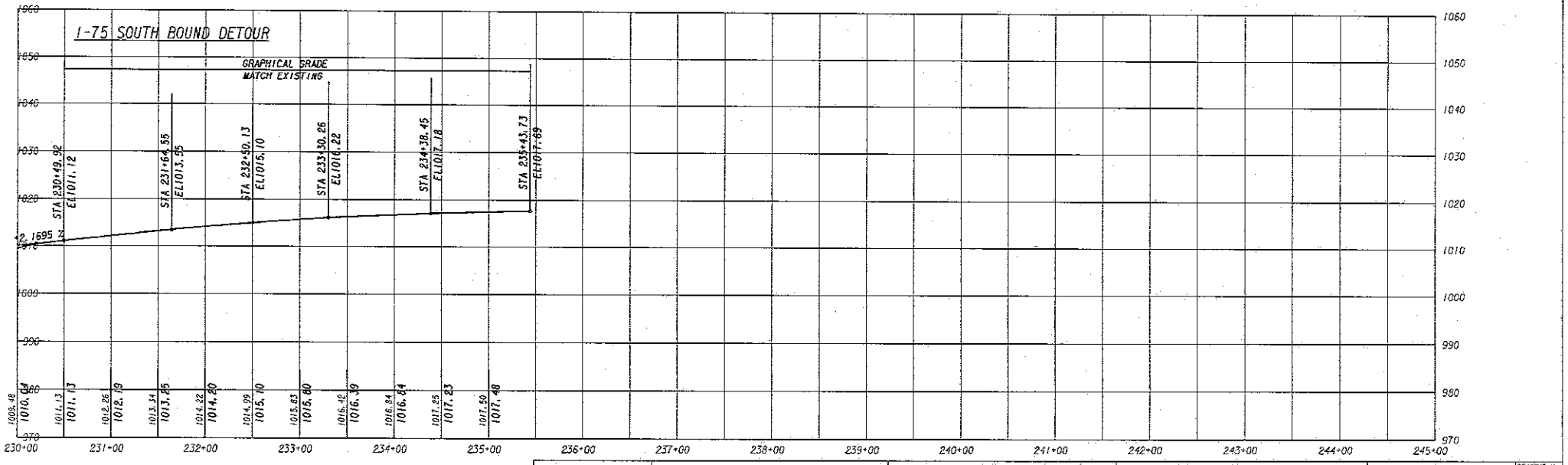


GDOT-ASE	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR I-75 DETOURS	SCALE 1 Inch = 20 feet Vert. SCALE 1 Inch = 100 feet Horiz.	DETOUR PROFILE STA 215+00 TO 230+000	DRAWING No. PR-06

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		19	

REVISION DATES

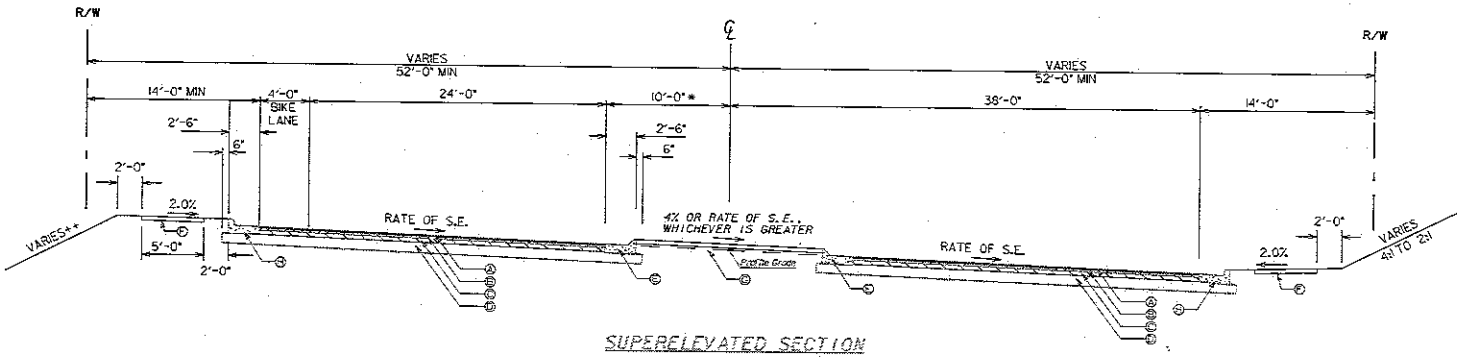




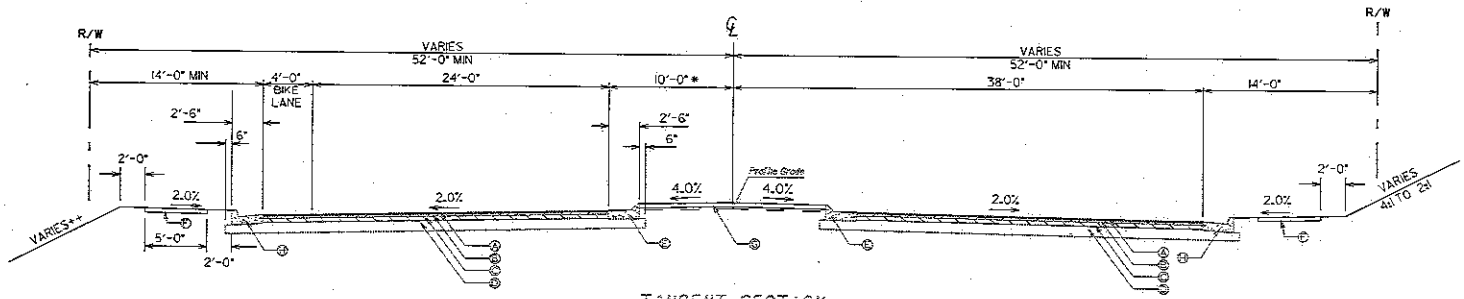
CROY-MSE	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR I-75 DETOURS	SCALE 1 inch = 20 feet Vert. SCALE 1 inch = 100 feet Horiz.	DETOUR PROFILE STA 230+00 TO END	DRAWING No. PR-07

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		1	

REVISION DATES



SUPERELEVATED SECTION



TANGENT SECTION

REQUIRED PAVEMENT

- (A) ASPHALTIC CONCRETE 12.5mm SUPERPAVE, 1½"
- (B) ASPHALTIC CONCRETE 19mm SUPERPAVE, 2"
- (C) ASPHALTIC CONCRETE 25mm SUPERPAVE, 4"
- (D) GRADED AGGREGATE BASE, 10"
- (E) 6"x30" CONC. CURB & GUTTER, GA. STD. 9032 B. TYPE 7
- (F) 4"x5' CONC. SIDEWALK, GA. CONSTR. DET. A-3
- (G) 4' MEDIAN PAVING
- (H) 6"x30" CONC. CURB & GUTTER, GA. STD. 9032 B. TYPE 2

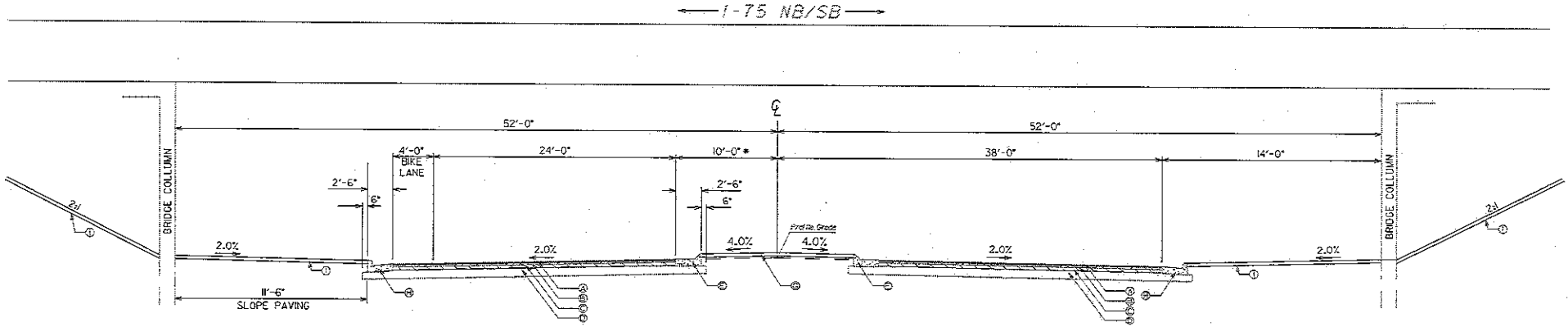
++ FILL SLOPE TABLE	
FILL HT.	SLOPE RATIO
0-2'	5:1
2-4'	4:1
< 4'	2:1

X NOTE: WIDTH VARIES FROM 10'-0 TO 0' WHERE TURN LANE REQUIRED

CROY-ENGINEERING	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR	SCALE: 1" = 10'	TYPICAL SECTIONS MAINLINE DATE:	DRAWING NO. T-01

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		2	

REVISION DATES



BIG SHANTY CONNECTOR AT I-75

STA. 55+95.92 TO 56+51.92 AND STA. 59+17.31 TO 59+73.31
* 17'-4" MINIMUM CLEARACE

REQUIRED PAVEMENT

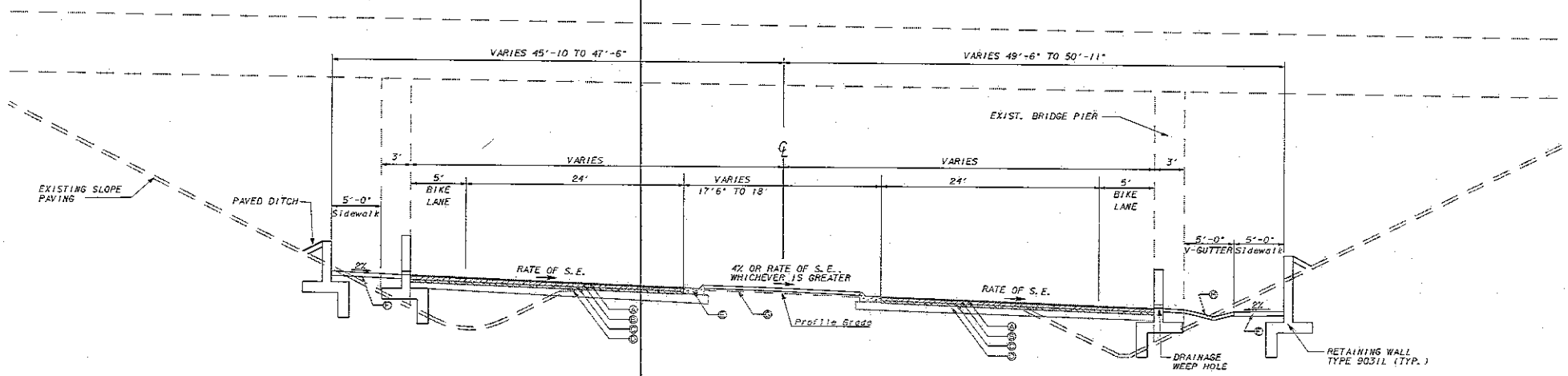
- (A) ASPHALTIC CONCRETE 12.5mm SUPERPAVE, 1½"
- (B) ASPHALTIC CONCRETE 19mm SUPERPAVE, 2"
- (C) ASPHALTIC CONCRETE 25mm SUPERPAVE, 4"
- (D) GRADED AGGREGATE BASE, 10"
- (E) 6"x30" CONC. CURB & GUTTER, GA. STD. 9032 B, TYPE 7
- (F) 4'x5' CONC. SIDEWALK, GA. CONSTR. DET. A-3
- (G) 4" MEDIAN PAVING
- (H) 6"x30" CONC. CURB & GUTTER, GA. STD. 9032 B, TYPE 2
- (I) 4" CONCRETE SLOPE PAVING

* NOTE: WIDTH VARIES FROM 10'-0 TO 0' WHERE TURN LANE REQUIRED

CROY-RSE	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR	SCALE: 1" = 10'	TYPICAL SECTIONS MAINLINE DATE:	DRAWING NO. T-02

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		3	

REVISION DATES



BIG SHANTY CONNECTOR AT I-575

STA. 97+93.56 TO 98+39.90 AND STA. 98+88.24 TO 99+34.73

* 17'-5" MINIMUM CLEARANCE

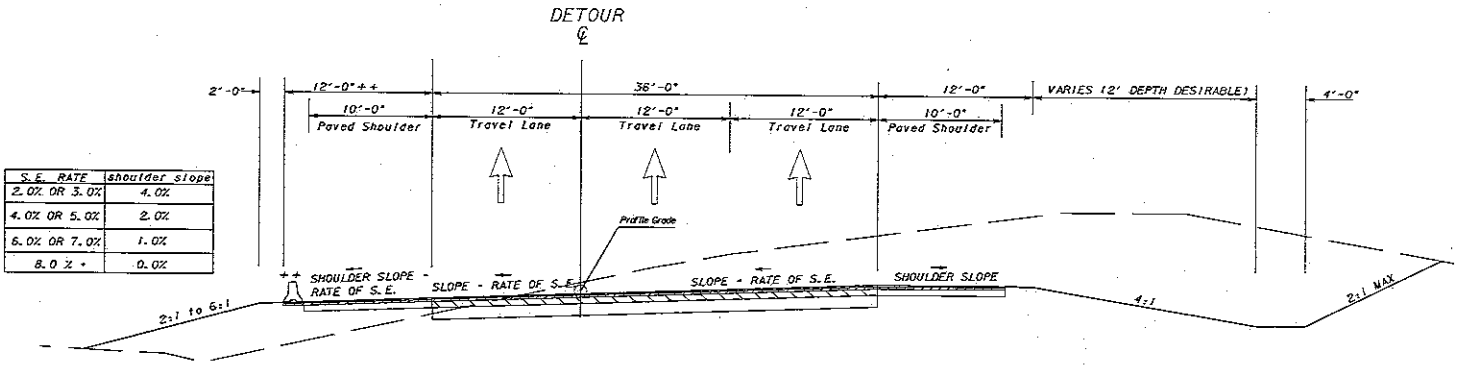
REQUIRED PAVEMENT

- Ⓐ ASPHALTIC CONCRETE 12.5mm SUPERPAVE, 1½"
- Ⓑ ASPHALTIC CONCRETE 19mm SUPERPAVE, 2"
- Ⓒ ASPHALTIC CONCRETE 25mm SUPERPAVE, 4"
- Ⓓ GRADED AGGREGATE BASE, 10"
- Ⓔ 6"x30" CONC. CURB & GUTTER, GA. STD. 9032 B, TYPE 7
- Ⓕ 4'x5' CONC. SIDEWALK, GA. CONSTR. DET. A-3
- Ⓖ 4" MEDIAN PAVING
- Ⓗ 5' "V" GUTTER, GA. CONSTR. DET. D-33

CROY-PSC	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR	SCALE: 1" = 10'	TYPICAL SECTIONS MAINLINE DATE:	DRAWING No. T-03

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.		13	

REVISION DATES

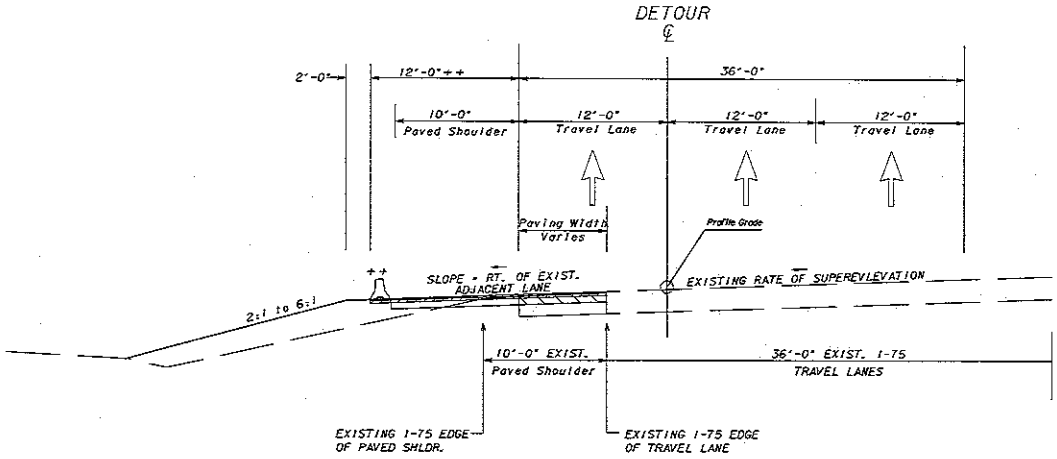


S.E. RATE	shoulder slope
2.0% OR 3.0%	4.0%
4.0% OR 5.0%	2.0%
6.0% OR 7.0%	1.0%
8.0 % +	0.0%

I-75 NB AND SB DETOUR

SUPERELEVATED SECTION

+ TANGENT SECTION EMPLOYS 2% NORMAL CROWN AT ℄



I-75 NB AND SB DETOUR

WIDENING SECTION

REQUIRED PAVEMENT

PAVING DEPTHS TO BE DETERMINED

++ 12' PAVED SHOULDER W/ TEMPORARY BARRIER AND SHOULDER WIDENING WHERE CONDITIONS MERIT

CROY-MSE	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION DISTRICT 7	BIG SHANTY CONNECTOR	SCALE: 1" = 10'	TYPICAL SECTIONS I-75 DETOUR DATE:	DRAWING NO. T-04

Big Shanty Road Accident Rates

Note: Rates are per 100 million vehicle miles traveled. Data from Mile Log 0 to Mile Log 1.07.

Cal-endar Year	Total length in miles	AADT	Total Daily Vehicle Miles	Total Accidents	Accident Rate/ Statewide Rate	Total Injuries	Injury Rate/ Statewide Injury Rate	Total Fatalities	Fatality Rate/ Statewide Fatality Rate
2000	1.07	1560	1669	18	2954/660	9	1477/258	0	0.00/1.44
2001	1.07	1560	1669	12	1970/564	6	985/218	0	0.00/1.35
2002	1.07	1560	1669	14	2298/568	8	1313/218	0	0.00/1.22

Chastain Road Accident Rates

Note: Rates are per 100 million vehicle miles traveled. Data from Big Shanty Road to Bells Ferry Road.

Fiscal Year	Total length in miles	AADT	Total Daily Vehicle Miles	Total Accidents	Accident Rate/ Statewide Rate	Total Injuries	Injury Rate/ Statewide Injury Rate	Total Fatalities	Fatality Rate/ Statewide Fatality Rate
2002	2.17	40880	88710	314	970/568	95	294/218	0	0.00/1.22
2003	2.17	40880	88710	333	1029/572	145	448/218	0	0.00/1.48
2004	2.17	40880	88710	312	964/490	79	244/187	0	0.00/1.41

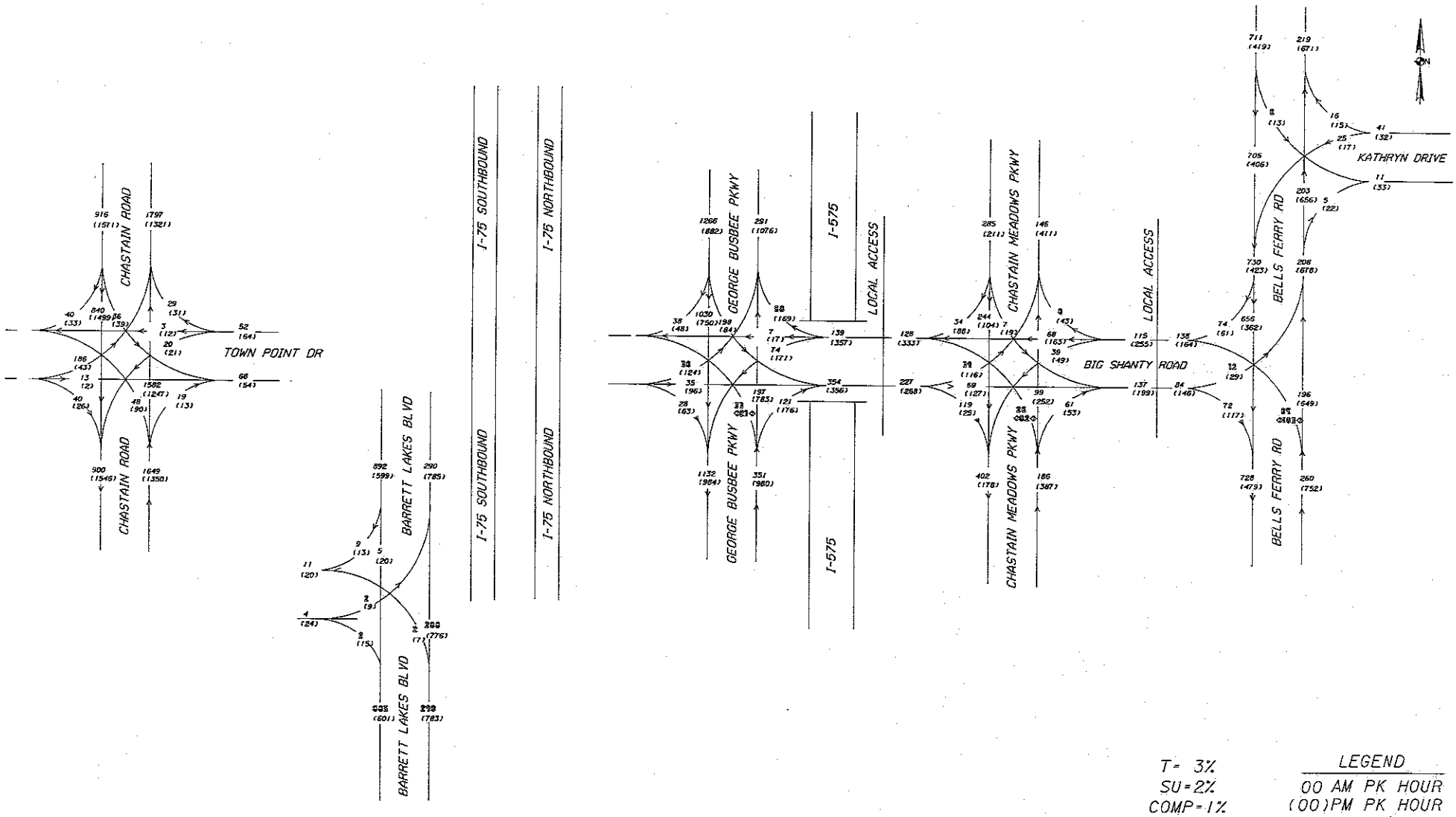
Table 1: 2002 Existing Roadway LOS Results

Roadway Section	Functional Classification	Existing Typical Section	2002 Base Network Existing Conditions	
			ADT	LOS
Big Shanty Road	Local Road	2 lanes	7,725	C
Barrett Lakes Blvd.	Collector	4 lanes	16,900	D
Barrett Pkwy. - US 41 to I-75	Principal Arterial	6 lanes	45,700	E
Barrett Pkwy. - I-75 to I-575	Principal Arterial	6 lanes	28,000	D
Barrett Pkwy. - I-575 to Bells Ferry Rd.	Minor Arterial	6 lanes	30,200	D
Busbee Dr.	Local Road	4 lanes	12,425	D
Busbee Pkwy. south of Noonday Creek	Minor Collector	4 lanes	16,000	C
Busbee Pkwy. north of Noonday Creek	Minor Collector	4 lanes	21,750	D
Chastain Rd. west of I-75	Minor Arterial	4 lanes	44,100	E
Chastain Rd. - I-75 to Busbee Pkwy.	Minor Arterial	6 lanes	41,150	D
Chastain Rd. - Busbee Pkwy. to I-575	Minor Arterial	6 lanes	43,450	E
Chastain Rd. - I-575 to Bells Ferry Rd.	Minor Arterial	4 lanes	28,250	D
Chastain Meadows Pkwy	Local Road	4 lanes	8,875	C

Table 2: 2028 Build/No Build Roadway LOS Results

Roadway Section	Existing (Proposed) Section	2028 No-Build Network		2028 Build Network	
		ADT	LOS	ADT	LOS
Big Shanty Rd – Chastain Rd to Busbee Pkwy	0 (4) lanes	-----	---	16,500	D
Big Shanty Rd – George Busbee Pkwy to Chastain Meadows Pkwy	2 (4) lanes	8,500	B	16,100	D
Barrett Lakes Blvd	4 lanes	31,100	F	37,300	F
Barrett Pkwy - US 41 to I-75	6 lanes	61,700	F	42,600	E
Barrett Pkwy - I-75 to I-575	6 lanes	39,800	D	31,800	C
Barrett Pkwy - I-575 to Bells Ferry Rd.	6 lanes	44,400	E	37,700	D
Busbee Drive	4 lanes	20,700	E	22,800	E
George Busbee Pkwy south of Noonday Creek	4 lanes	29,100	D	30,800	E
George Busbee Pkwy north of Noonday Creek	4 lanes	45,700	F	48,900	F
Chastain Rd.- Duncan Rd to Big Shanty Rd	4 lanes	55,600	F	51,000	F
Chastain Rd – Big Shanty Road to I-75	4 lanes	55,600	F	42,300	E
Chastain Rd – I-75 to George Busbee Pkwy	6 lanes	51,000	F	42,800	E
Chastain Rd - Busbee Pkwy to I-575	6 lanes	50,800	F	42,700	E
Chastain Rd - I-575 to Bells Ferry Rd	4 lanes	39,000	D	29,600	D
Chastain Meadows Pkwy	4 lanes	14,200	D	18,900	D

STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS



T= 3%
SU=2%
COMP=1%

LEGEND
00 AM PK HOUR
(00)PM PK HOUR

REVISIONS

△	DATE	BY	DESCRIPTION	△	DATE	BY	DESCRIPTION

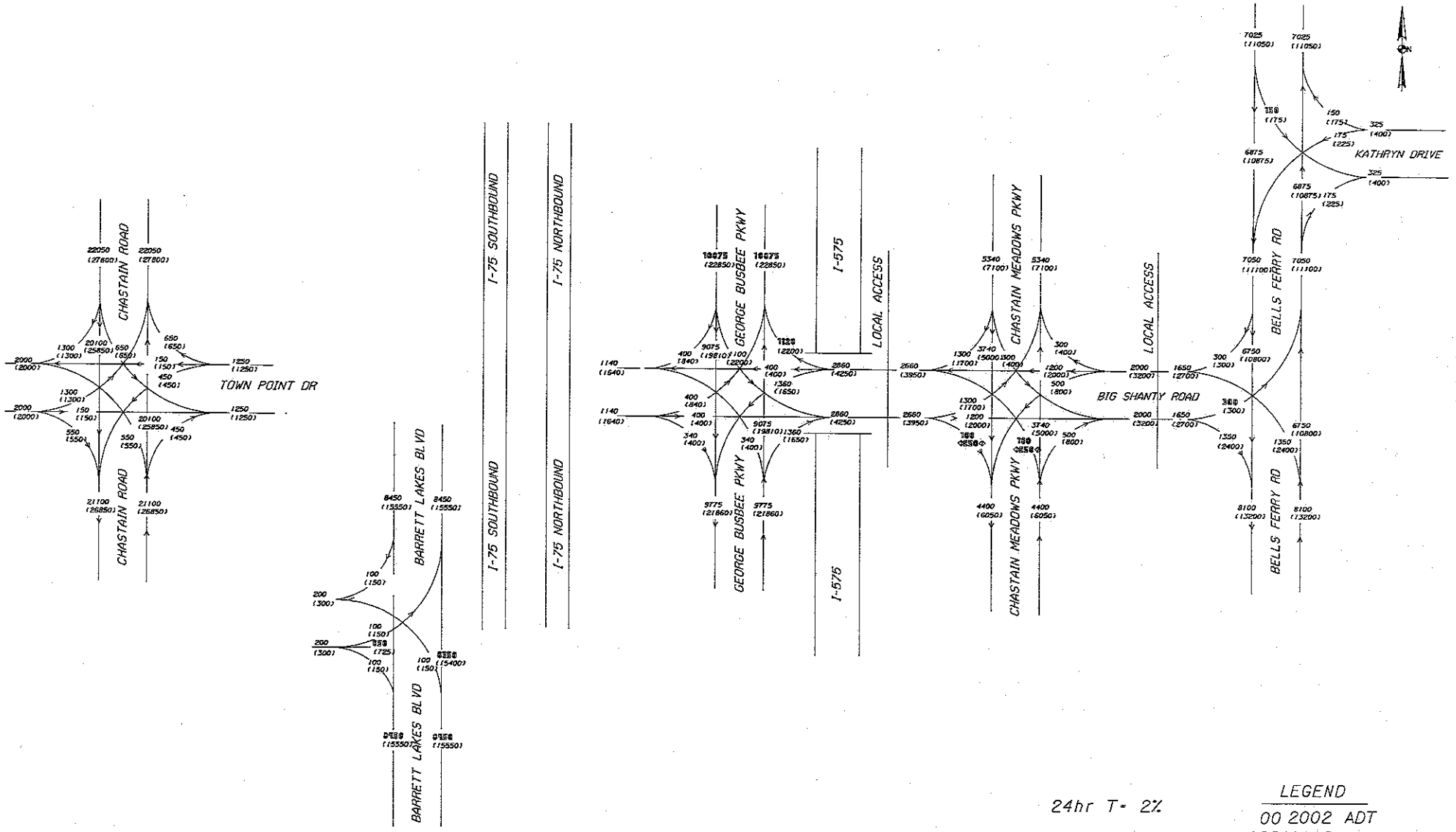
Moreland Altobelli Associates, Inc.
2211 Beaver Ruin Road
Suite 190
Norcross, Georgia 30071
Telephone (770) 263-5545

	NAME	DATE		NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY			QUANTITIES BY		
CHECKED BY			CHECKED BY			CHECKED BY		
SUPERVISED BY								

Department of Transportation
State of Georgia

BIG SHANTY ROAD
EXISTING PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NUMBER 1



24hr T= 2%

LEGEND

00 2002 ADT

(00)2025 ADT

STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS

REVISIONS

△	DATE	BY	DESCRIPTION	△	DATE	BY	DESCRIPTION

Moreland Altobelli Associates, Inc.
2211 Beaver Ruin Road
Suite 190
Norcross, Georgia 30071
Telephone (770) 263-5945

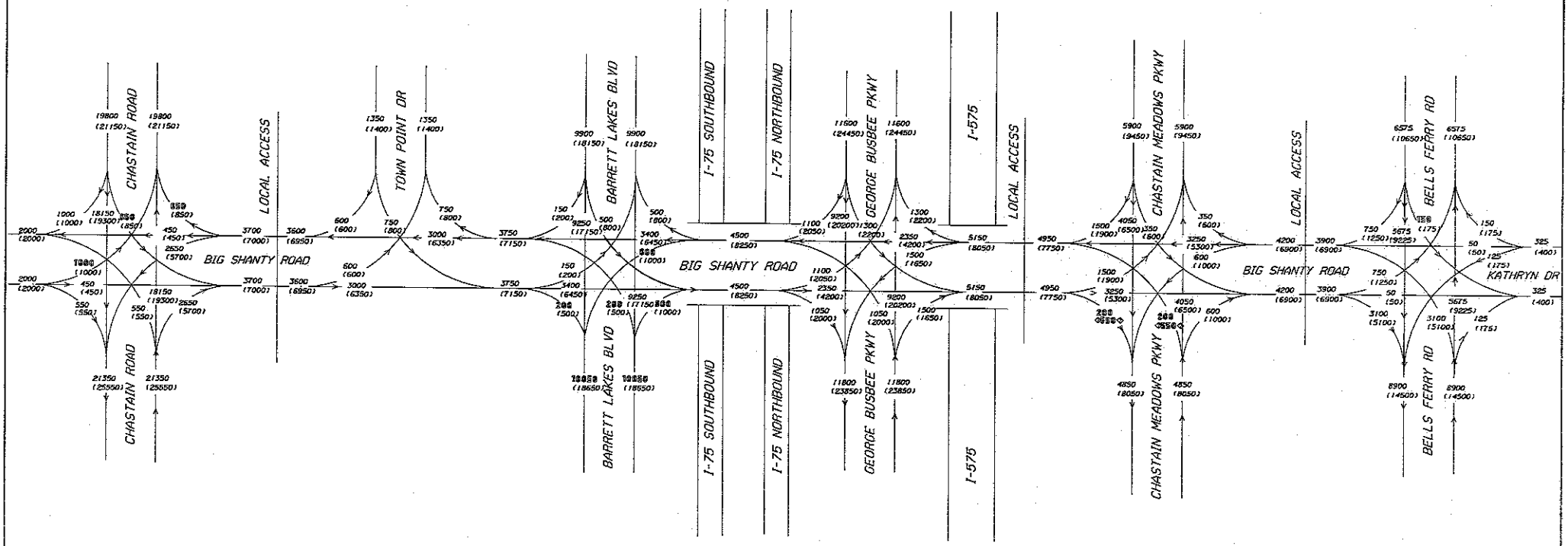
	NAME	DATE		NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY			QUANTITIES BY		
CHECKED BY			CHECKED BY			CHECKED BY		
SUPERVISED BY								

Department of Transportation
State of Georgia

BIG SHANTY ROAD
YEAR 2002/2025 (NO BUILD) ADT
TRAFFIC FLOW DIAGRAM

DRAWING NUMBER: 2

STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS



24hr T= 2%

LEGEND

00 2005 ADT

(00)2025 ADT

△	DATE	BY	DESCRIPTION	△	DATE	BY	DESCRIPTION

Associates, Inc.
2211 Beaver Ruin Road
Suite 190
Norcross, Georgia 30071
Telephone (770) 263-9945

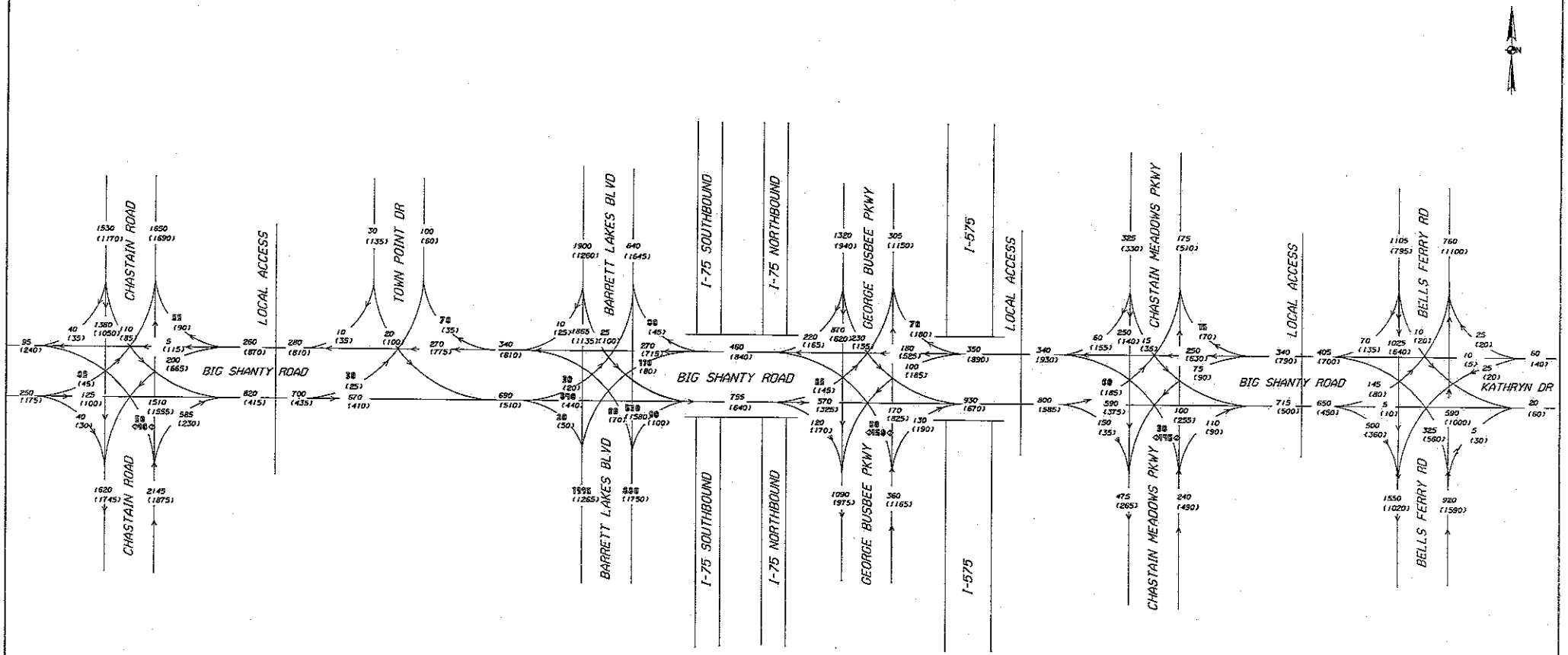
DESIGNED BY		DRAWN BY		QUANTITIES BY	
CHECKED BY		CHECKED BY		CHECKED BY	
SUPERVISED BY					

Department of Transportation
State of Georgia

BIG SHANTY ROAD
YEAR 2005/2025 BUILD AVERAGE DAILY TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NUMBER 3

STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS



T= 3%
SU= 2%
COMP= 1%

LEGEND

00 AM PK HOUR
(00)PM PK HOUR

REVISIONS							
Δ	DATE	BY	DESCRIPTION	Δ	DATE	BY	DESCRIPTION

Moreland Altobelli Associates, Inc.
2211 Beaver Ruin Road
Suite 190
Norcross, Georgia 30071
Telephone (770) 263-9445

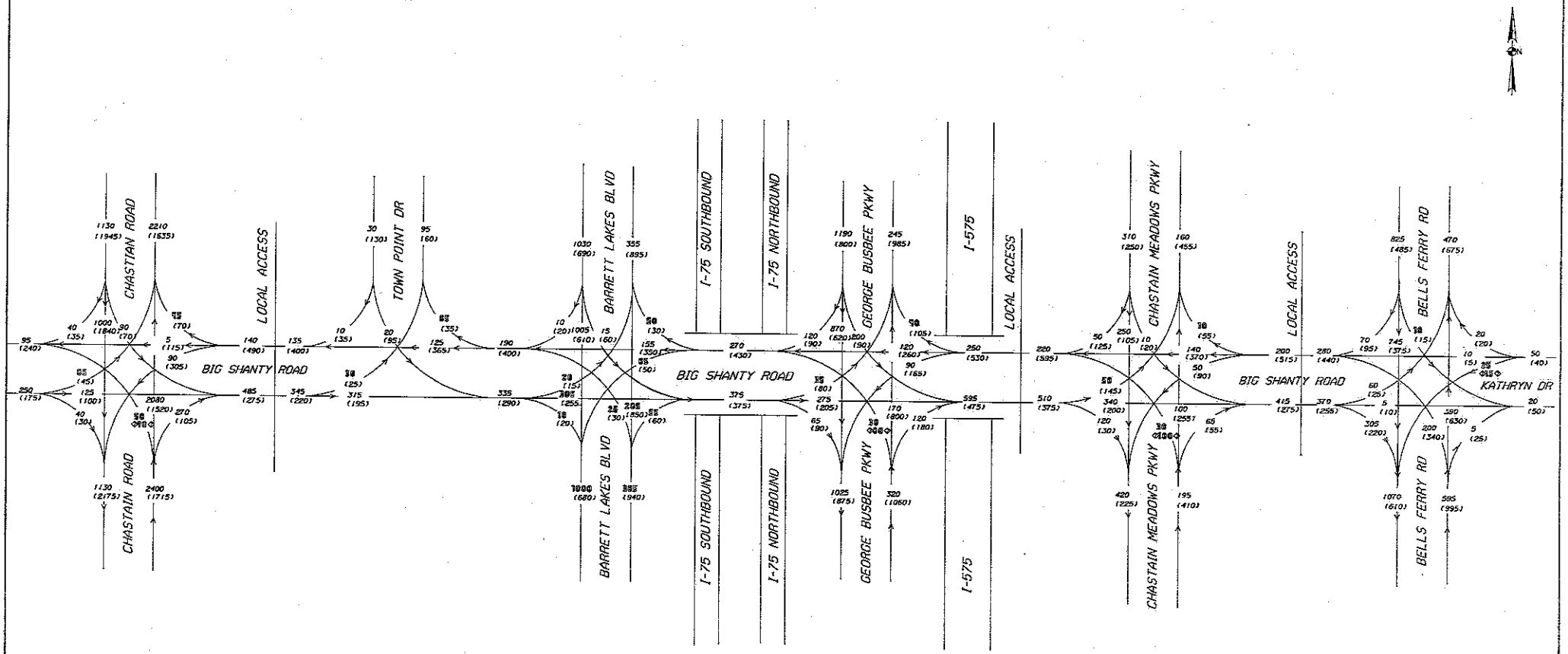
	NAME	DATE		NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY			QUANTITIES BY		
CHECKED BY			CHECKED BY			CHECKED BY		
SUPERVISED BY								

Department of Transportation
State of Georgia

BIG SHANTY ROAD
YEAR 2025 (BUILD) PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

DRAWING NUMBER 4

STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS



T= 3%
SU= 2%
COMP= 1%

LEGEND

00 AM PK HOUR
(00)PM PK HOUR

REVISIONS							
△	DATE	BY	DESCRIPTION	△	DATE	BY	DESCRIPTION

Moreland Altobelli Associates, Inc.
2211 Sawyer Mill Road
Suite 190
Norcross, Georgia 30071
Telephone (770) 263-5946

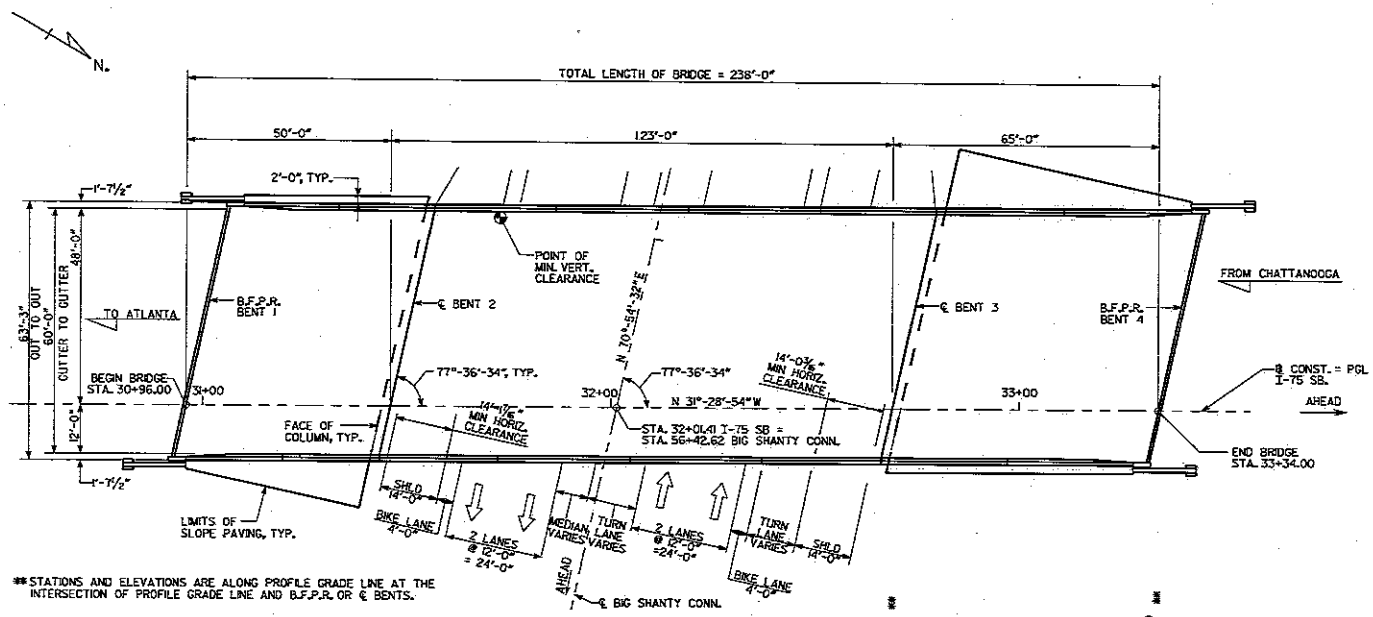
	NAME	DATE		NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY			QUANTITIES BY		
CHECKED BY			CHECKED BY			CHECKED BY		
SUPERVISED BY								

Department of Transportation
State of Georgia

BIG SHANTY ROAD
YEAR 2005 (BUILD) PEAK HOUR TRAFFIC
TRAFFIC FLOW DIAGRAM

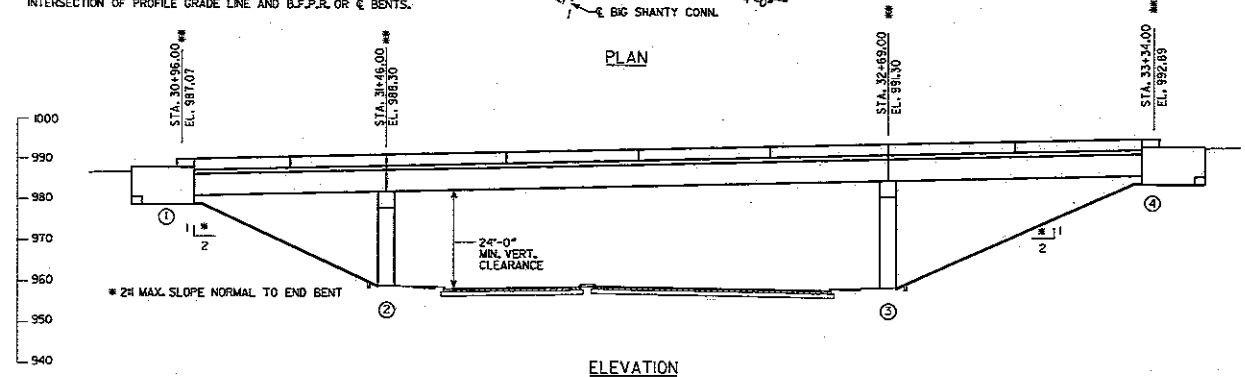
DRAWING NUMBER 5

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

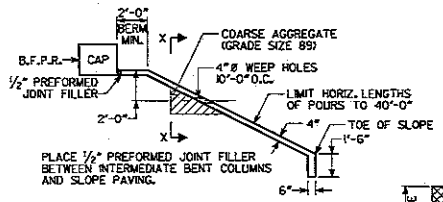


PLAN

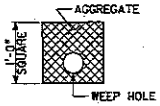
**STATIONS AND ELEVATIONS ARE ALONG PROFILE GRADE LINE AT THE INTERSECTION OF PROFILE GRADE LINE AND B.F.P.R. OR ℄ BENTS.



ELEVATION



SLOPE PAVING DETAIL



SECTION X-X

	BERM ELEVATIONS	
	LT	RT
END BENT 1	978.22	978.80
END BENT 4	983.96	984.54

NOTES:

- ALL BENTS ARE PARALLEL.
- PILES AT BENTS & WINGWALLS NOT SHOWN.
- PROPOSED BRIDGE TO BE BUILT ON A REVERSE CROWN WITH A CROSS SLOPE OF ⅜"/FT, SLOPING DOWN TO THE LEFT.

BRIDGE CONSISTS OF

1- 50'-0" TYPE I MOD PSC BEAM SPAN WITH BULB TEE, 63 IN, PSC FASCIA BEAMS — SPECIAL DESIGN
1- 65'-0" TYPE II PSC BEAM SPAN WITH BULB TEE, 63 IN, PSC FASCIA BEAMS — SPECIAL DESIGN
1- 123'-0" BULB TEE, 63 IN, PSC BEAM SPAN — SPECIAL DESIGN
2 - PILE END BENTS — SPECIAL DESIGN
2 - CONCRETE INTERMEDIATE BENTS — SPECIAL DESIGN

DESIGN DATA

SPECIFICATIONS — AASHTO 2002
(DESIGNED FOR SEISMIC PERFORMANCE CATEGORY A)
TYPICAL HS20-44 AND/OR MILITARY LOADING — IMPACT ALLOWED
FUTURE PAVING ALLOWANCE — 30 PSF

TRAFFIC DATA (I-75 SB)

TRAFFIC — ADT = XXXX (2008)
ADT = XXXX (2028)
DESIGN SPEED — XX MPH
24-HR TRUCKS — XX%
DIRECTIONAL — XX/XX

TRAFFIC DATA (BIG SHANTY CONNECTOR)

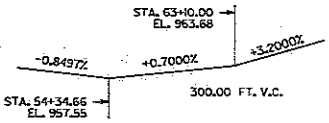
TRAFFIC — ADT = 10,700 (2008)
ADT = 18,500 (2028)
DESIGN SPEED — 45 MPH
24-HR TRUCKS — 2%
DIRECTIONAL — 57/43

UTILITIES

NONE

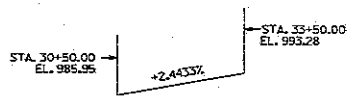
BENCH MARK

NAIL SET INTO GROUND AT FOLLOWING LOCATION:
I-75 STA. 33+66.85 OFF. 48.70' LT.
BIG SHANTY STA. 55+59.71 OFF. 151.12' LT.
N 1464722.3800
E 2173074.2200
EL. 993.88



200.00 FT. V.C.

VERTICAL CURVE DATA
BIG SHANTY CONNECTOR



VERTICAL CURVE DATA
I-75 SOUTH BOUND

PROJECT P.I. NO. 006869
BRIDGE NO. 1

Moreland Altobelli Associates, Inc.
229 Peachtree Park Road Suite 310
Norcross, Georgia 30071
Tel: (770) 263-5945

GEORGIA REGISTERED PROFESSIONAL ENGINEER WILLIAM H. DEEB

COBB
DEPARTMENT OF TRANSPORTATION

PRELIMINARY PLAN AND ELEVATION
I-75 SB OVER BIG SHANTY CONNECTOR
COBB COUNTY

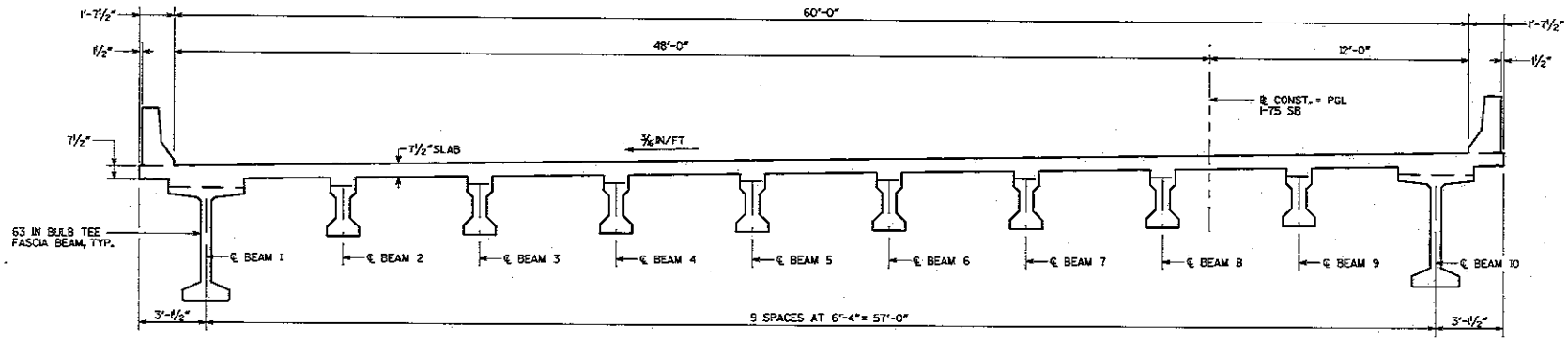
NO SCALE — APRIL 2006

BY	REVISIONS	DATE

SUPERVISED BY: RISHAM H. DEEB, PE
DESIGN GROUP
APPROVED
BRIDGE SHEET 1 OF 2

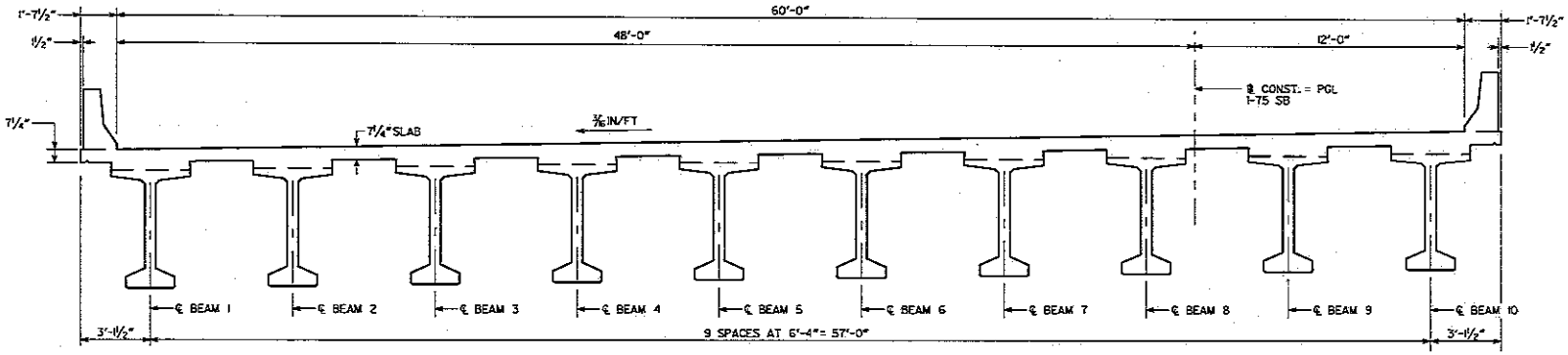
DESIGNED BY	DRAWN BY	QUANTITIES BY
GSJ	DAW	
CHECKED BY: MHD	CHECKED BY: GSJ	CHECKED BY

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



TYPICAL SECTION SPANS 1&3

SPAN 1 SHOWN, SPAN 3 SIMILAR



TYPICAL SECTION SPAN 2

BRIDGE NO. 1

Moreland Altobelli Associates, Inc.
2243 Beaver Ruin Road Suite 90
Norcross, Georgia 30071
TEL: (770) 263-9945

GEORGIA REGISTERED PROFESSIONAL ENGINEER HISHAM H. DEEB

SUPERVISED BY HISHAM H. DEEB, PE

DESIGN GROUP

APPROVED

BRIDGE SHEET 2 OF 2

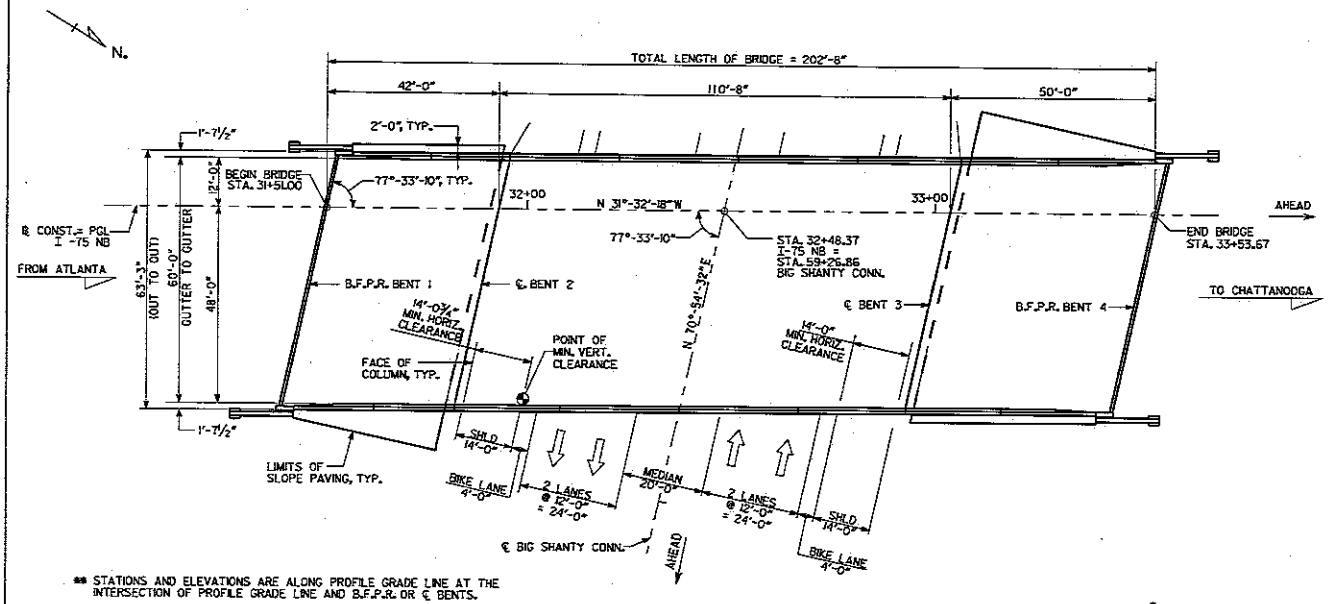
REVISIONS | BY | DATE

COBB
DEPARTMENT OF TRANSPORTATION

PRELIMINARY TYPICAL SECTIONS
I-75 SB OVER BIG SHANTY CONNECTOR
COBB COUNTY

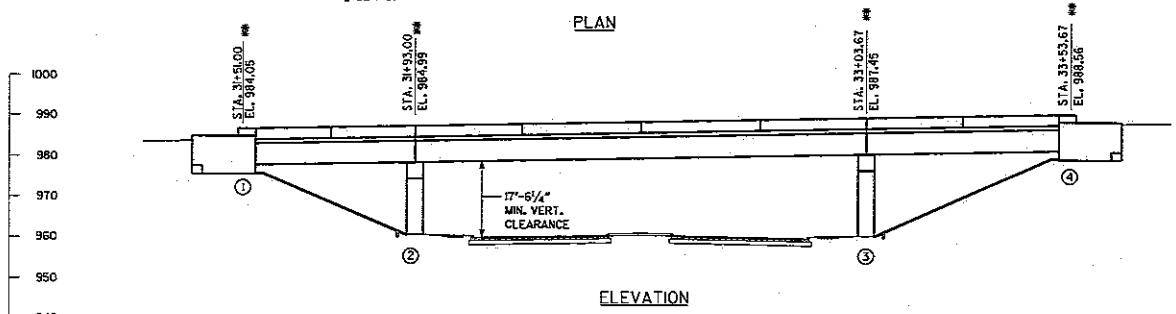
NO SCALE — APRIL 2006

DESIGNED BY	DRAWN BY	QUANTITIES BY
GSJ	DAW	
CHECKED BY: HHD	CHECKED BY: GSJ	CHECKED BY

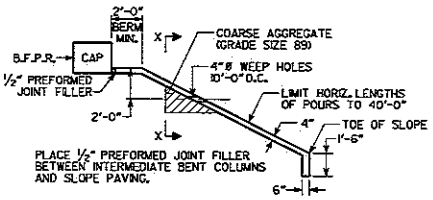


PLAN

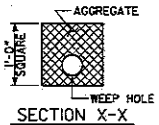
** STATIONS AND ELEVATIONS ARE ALONG PROFILE GRADE LINE AT THE INTERSECTION OF PROFILE GRADE LINE AND B.F.P.R. OR ℄ BENTS.



ELEVATION



SLOPE PAVING DETAIL



SECTION X-X

	BERM ELEVATIONS	
	LT	RT
END BENT 1	975.89	974.72
END BENT 4	980.32	979.15

NOTES:

- ALL BENTS ARE PARALLEL.
- PILES AT BENTS & WINGWALLS NOT SHOWN.
- PROPOSED BRIDGE TO BE BUILT ON A REVERSE CROWN WITH A CROSS SLOPE OF ⅜ IN/FT, SLOPING DOWN TO THE RIGHT.

BRIDGE CONSISTS OF

1- 42'-0" TYPE I MOD PSC BEAM SPAN W/ BULB TEE, 63 IN, PSC FASCIA BEAMS — SPECIAL DESIGN
1- 50'-0" TYPE I MOD PSC BEAM SPAN W/ BULB TEE, 63 IN, PSC FASCIA BEAMS — SPECIAL DESIGN
1- 110'-8" BULB TEE, 63 IN, PSC BEAM SPAN — SPECIAL DESIGN
2 - PILE END BENTS — SPECIAL DESIGN
2 - CONCRETE INTERMEDIATE BENTS — SPECIAL DESIGN

DESIGN DATA

SPECIFICATIONS — AASHTO 2002 (DESIGNED FOR SEISMIC PERFORMANCE CATEGORY A)
TYPICAL HS20-44 AND/OR MILITARY LOADING — IMPACT ALLOWED
FUTURE PAVING ALLOWANCE — 30 PSF

TRAFFIC DATA (I-75 NB)

TRAFFIC — ADT = XXXX (2008) ADT = XXXX (2028)
DESIGN SPEED — XX MPH
24-HR TRUCKS — XX
DIRECTIONAL — XX/XX

TRAFFIC DATA (BIG SHANTY CONNECTOR)

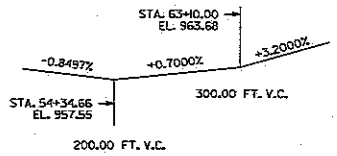
TRAFFIC — ADT = 10,700 (2008) ADT = 18,300 (2028)
DESIGN SPEED — 45 MPH
24-HR TRUCKS — 2%
DIRECTIONAL — 57/43

UTILITIES

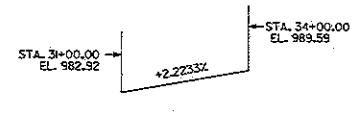
NONE

BENCH MARK

NAIL SET INTO GROUND AT FOLLOWING LOCATION=
I-75 STA. 33+18.99 OFF. 43.68' RT.
BIG SHANTY STA. 59+54.30 OFF. 78.38' LT.
N 1464782.6889
E 2173470.9797
EL. 986.79



VERTICAL CURVE DATA
BIG SHANTY CONNECTOR



VERTICAL CURVE DATA
I-75 NORTH BOUND

PROJECT P.I. NO. 006869
BRIDGE NO. 2

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

Moreland Altobelli Associates, Inc.
2296 Beaver Ruin Road, Suite 190
Norcross, Georgia 30071
Tele (770) 263-5565

GEORGIA REGISTERED CIVIL PROFESSIONAL ENGINEER HISHAM M. DEEB

COBB
DEPARTMENT OF TRANSPORTATION

PRELIMINARY PLAN AND ELEVATION
I-75 NB OVER BIG SHANTY CONNECTOR
COBB COUNTY

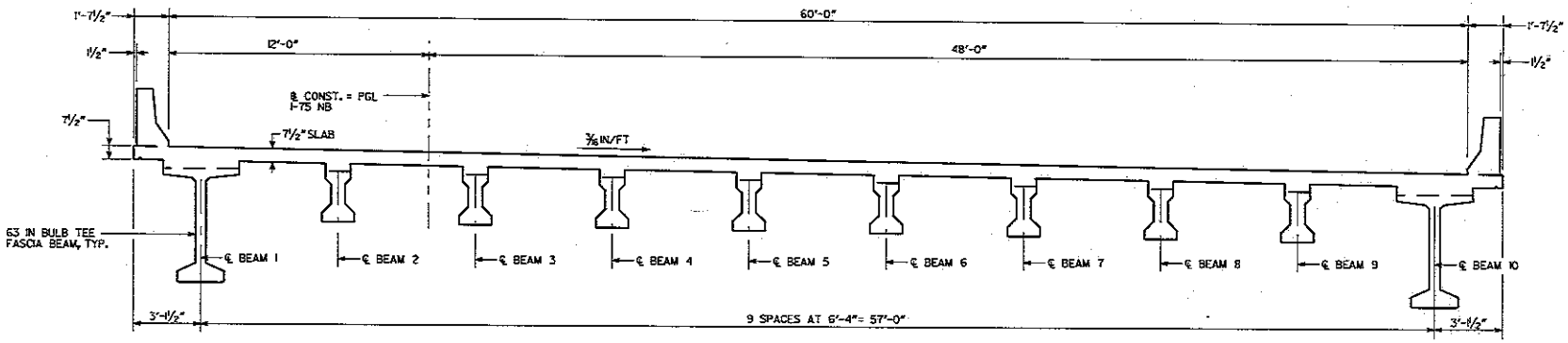
NO SCALE — APRIL 2006

DESIGNED BY	GSJ	DRAWN BY	DAW	QUANTITIES BY	
CHECKED BY	MHD	CHECKED BY	GSJ	CHECKED BY	

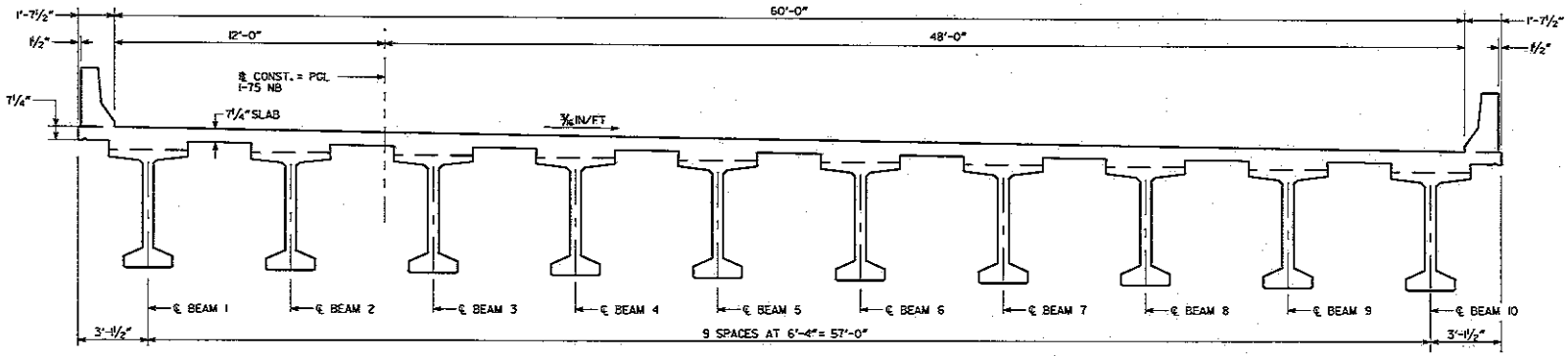
DATE	REVISIONS	BY

SUPERVISED BY: HISHAM M. DEEB, PE
DESIGN GROUP:
APPROVED:
BRIDGE SHEET 1 OF 2

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			



TYPICAL SECTION SPANS 1&3



TYPICAL SECTION SPAN 2

BRIDGE NO. 2

Moreland Altobelli Associates, Inc.
228 Beaver Ruin Road Suite 150
Norcross, Georgia 30071
Tel: (770) 263-5945

GEORGIA REGISTERED PROFESSIONAL ENGINEER HISHAM H. DEEB

SUPERVISED BY HISHAM H. DEEB, P.E.

DESIGN GROUP

APPROVED

BRIDGE SHEET 2 OF 2

BY	REVISIONS	DATE

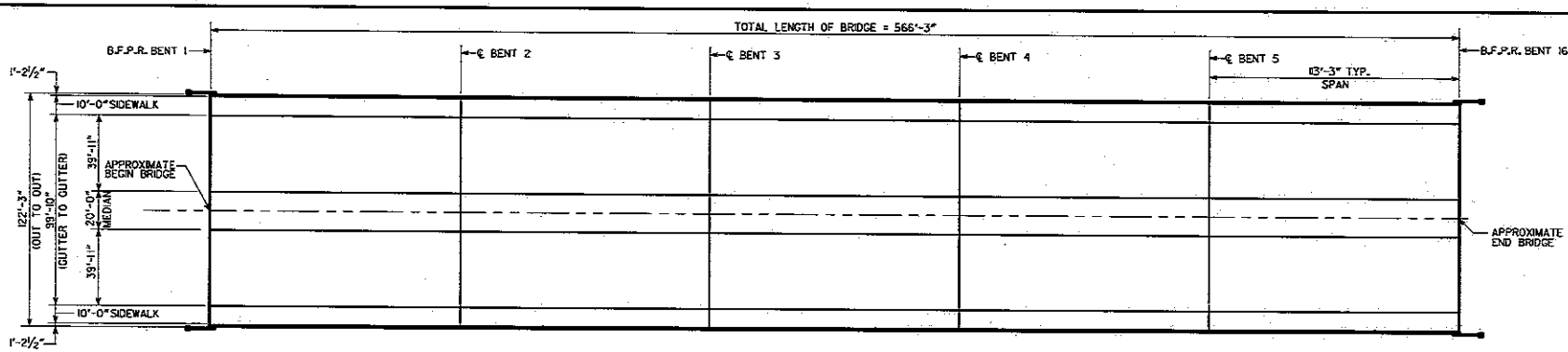
COBB
DEPARTMENT OF TRANSPORTATION

PRELIMINARY TYPICAL SECTIONS
I-75 NB OVER BIG SHANTY CONNECTOR
COBB COUNTY

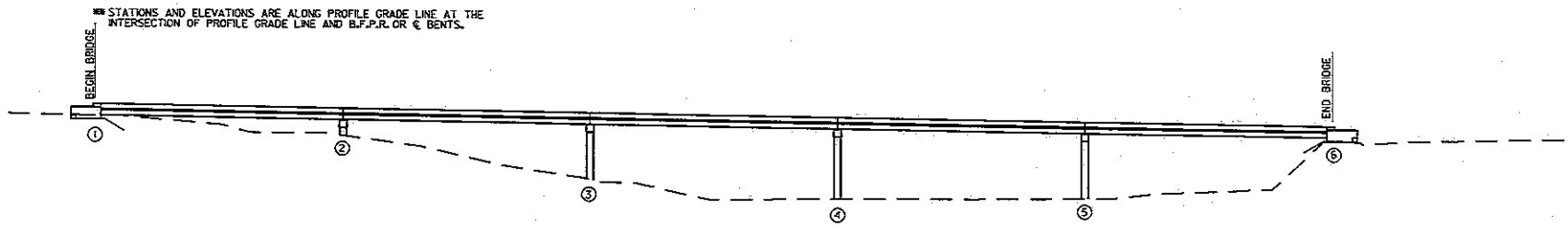
NO SCALE — APRIL 2006

DESIGNED BY	QSJ	DRAWN BY	DAW	QUANTITIES BY	
CHECKED BY	HHD	CHECKED BY	QSJ	CHECKED BY	

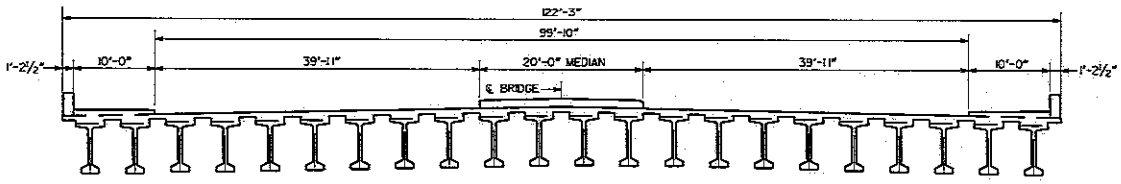
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	X		



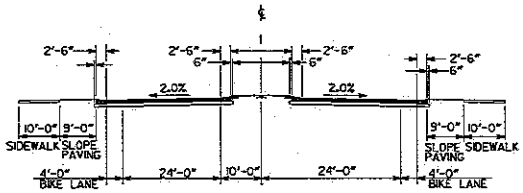
BRIDGE ALTERNATE



ELEVATION



TYPICAL SECTION



TYPICAL SECTION

CONCEPT PRELIMINARY LAYOUT

BRIDGE NO - 3

Moreland Altobelli Associates, Inc.
2231 Beaver Ruin Road Suite 210
Norcross, Georgia 30071
Tele. (770) 263-0945

GEORGIA
DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION DIVISION-OFFICE OF BRIDGE DESIGN

BIG SHANTY CONECTOR

CONCEPT BRIDGE 3 AT BARRETT LAKES

COBB COUNTY

NO SCALE — APRIL 2004

GEORGIA REGISTERED PROFESSIONAL ENGINEER HISHAM H. DEEB

SUPERVISED BY: HISHAM H. DEEB, PE
DESIGN GROUP
APPROVED
BRIDGE SHEET 1 OF 1

REVISIONS | DATE | BY

DESIGNED BY HHD — DRAWN BY SSD — QUANTITIES BY
CHECKED BY GJM — CHECKED BY GJM — CHECKED BY

CROY-MSE, LLC.

Meeting Minutes

To: Files

From: Michelle McIntosh MM

CC: Bob Galante, Cobb DOT; Mike Wright, Cobb DOT; Joel F. Stone, Town Center Community Improvement District; Wayne Fedora, FHWA; Mike Lobdell, GDOT/District 7; Gerald Ford, GDOT/District 7; Marshall Troup, GDOT/District 7; Jeff Woodward, GDOT/Area 2 Engineer; Darryl VanMeter, GDOT/UD; Lisa Favors, GDOT/OEL; Clyde Cunningham, GDOT/District 7; Merishia Robinson, GDOT/District 7; Patrick Allen, GDOT/District 7; Scott Lee, GDOT/District 7; Lowell James, GDOT/District 7; Terry McCollister, GDOT/ROW; Dona Lee Welch, GDOT/Construction; Katie Mullins, District 7/Traffic Operations; Stephanie Shealey, GDOT/District 7 Traffic Operations; Jim Croy, CROY-MSE; Ron Cooper, CROY-MSE; Brian Loudermilk, CROY-MSE; Lavada Cook, CROY-MSE; Shaidu Kiven, CROY-MSE; Roger Palmer, Parsons Brinckerhauff

Date: 09/21/05

Re: GDOT Project Number CSSTP-0006-00(869)(870) & (861), Cobb County, P.I. Nos. 0006869, 0006870, & 0006861 – Initial Concept Meeting for the Construction of a Big Shanty Connector and the Widening of Big Shanty Road

---

A Concept Meeting for the subject project was held at the Georgia Department of Transportation (GDOT), District 7, on September 12, 2005. Representatives from the GDOT, FHWA, the City of Marietta, Cobb County, Parsons Brinckerhauff and CROY-MSE were in attendance. See Attachment 1 for a complete list of attendees. The primary purpose of the meeting was to discuss the Concept Report provided to GDOT on July 29, 2005.

<u>The discussion resulted in the following action items for CROY-MSE:</u>

1. Refer to the 13 page memo provided by the Office of Urban Design and Parsons Brinckerhauf regarding recommendations for the design of Big Shanty Road under I-575. It is recommended to reduce the profile so that it will fit beneath the existing I-575 overpass. It is also recommended to bring the Big Shanty Road profile down in this area.

2. A range of options needs to be considered to coordinate the I-75 detour for this project and the HOV/BRT project to minimize disruption to the traveling public.

3. Prepare a detailed schedule that supports the programmed fiscal year. Be sure to include a right-of-way management date. Submit to GDOT for approval within the next week or two.

4. Cover Page - Delete the second signature line for the District Engineer. Add a signature line for the Office of Financial Management. Change Regional Transportation Improvement Program (RTIP) to Regional Transportation Plan (RTP). Provide more space between the signature lines. Correct Federal/State Route numbers.

5. Project Location Map – Provide an inset showing more details. Show phases of construction. Add page header to be consistent with rest of report.

6. Need and Purpose Statement – Need to show additional measures of effectiveness to justify expenditures of funds, such as improved travel times. The benefit/cost ratio commonly prepared by GDOT generally includes this type of information.

7. Page 8, PDP Classification – Major should be checked.

8. Page 11, Design Variances – Eleven foot lane widths are no longer proposed under I-575. Verify whether a variance is needed under I-575 for the reduced median.

9. Page 11, Environmental Concerns – A Nationwide 14, rather than an Individual, Section 404 USACE permit is anticipated.

10. Cost Estimates – For the bridges under I-75, verify with bridge design the current cost estimates for non-hydraulic bridges.

11. Accident Rates and Congestion Management on I-75 – Make sure your traffic control measures are adequate enough so that the accidents do not go up on I-75. Consider alternatives such as re-routing traffic to I-575 to reduce congestion in the project area.

<u>The discussion resulted in the following action items for the Cobb DOT:</u>

1. Cobb County DOT should schedule a meeting so that the coordination of the two projects can be discussed in depth.

If you have any questions or comments concerning these minutes, please do not hesitate to call Michelle McIntosh at (770) 971-5407, extension 230.

Georgia Department of Transportation

DISTRICT SEVEN PRECONSTRUCTION

MEETING/CONFERENCE RECORD OF ATTENDEES

Purpose: CTM/CSSTP-0006-00(870),(869), & (861)/Cobb Co./P.I. Numbers 0006870, 0006879, & 0006861/The Big Shanty Connector and Widening.

AND

CSSTP-0006-00(867)/Cobb Co./P.I. 0006867/S.R. 5 @ Tower Rd.

Location: 330 Capitol Ave. Atlanta, Ga. 2nd Floor Conference Room

Date: Sept. 12, 2005 **Hour:** 1:30 PM **Moderator:** Gerald Ford

	Name	Organization	Telephone	Email Address
1.	Gerald Ford	GDOT	404-463-4947	Gerald.Ford@dot.state.ga.us
2.	Scott Lee	GDOT	"	Scott.Lee@dot.state.ga.us
3.	Clyde Cunningham	GDOT	4)463-4953	clyde.cunninghan@dot.state.ga.us
4.	Merishia Robinson	GDOT-D7	4)463-4947	merishia.robinson@dot.state.ga.us
5.	Patrick Allen	GDOT-D7		patrick.allen@dot.state.ga.us
6.	Marshall Troup	GDOT-D7	4)463-4947	marshall.troup@dot.state.ga.us
7.	Lowell James	GDOT-D7	" " "	lowell.james@dot." "
8.	Wayne Fedora	FHWA	(404)562-3651	c.wayne.fedora@fhwa.dot.gov
9.	Lisa Favors	GDOT-OEL	(4)699-6883	lisa.favors@dot.state.ga.us
10.	Terry McCollister	GDOT-R/W	770-986-1541	% jerry.milligan@dot.state.ga.us
11.	Michelle McIntosh	Cray-MSE	(770)971-5407	mmcintosh@craymse.com
12.	Lavada Cook	Cray-MSE	770 971-5407	Lcook@craymse.com
13.	Brian Loudermilk	Cray-MSE	770-971-5407	bloudermilk@craymse.com
14.	Ron Cooper	Cray-MSE	770-971-5407	rcooper@craymse.com
15.	Mike Wright	Cobb Co. DOT	7)5284375	michael.wright@cobbcounty.org
16.	Dona Lee Welch	GDOT-Cnst	4044634939	donawelch@dot.state.ga.us
17.	Katie Mullins	GDOT-D7 Traffic Ops	404-463-4966	Katie.Mullins@dot.state.ga.us

Stephanie Mealey	Dist. 7 - Traffic Ops		Stephanie.Mealey@dot.ga.us
Jeff Woodward	Dist. 7 - GDOT - Area 2	7)528.3238	Jeff.Woodward@dot.state.ga.us
DAN CONN	CITY OF MARIETTA	770.794-5659	DCONN@MARIETTAGA.GOV
Darryl VanMeter	GDOT - URBAN DESIGN	404-656-5436	darryl.vanmeter@dot.st...
ROGER PALMER	PARSONS BRINCKERHOFF	404-364-2658	Palmer@pbworld.com

CROY-MSE, LLC.

Meeting Minutes

To: Files

From: Michelle McIntosh

CC: Bob Galante, Cobb DOT; Mike Wright, Cobb DOT; Joel F. Stone, Town Center Community Improvement District; Mike Lobdell, GDOT/District 7; Gerald Ford, GDOT/District 7; Marshall Troup, GDOT/District 7; Clyde Cunningham, GDOT/District 7; Johnathan Thomas, GDOT/District 7; Zanda Montgomery, GDOT/District 7; Scott Lee, GDOT/District 7; James F. Gordon, GDOT/District 7; Jim Croy, CROY-MSE; Ron Cooper, CROY-MSE; Brian Loudermilk, CROY-MSE; Shaidu Kiven, CROY-MSE

Date: 07/13/05

Re: GDOT Project Number CSSTP-006-00(869)(870) & (861), Cobb County, P.I. Nos. 0006869, 0006870, & 0006861 – Initial Concept Meeting for the Construction of a Big Shanty Connector and the Widening of Big Shanty Road

---

An Initial Concept Meeting for the subject meeting was held at the Georgia Department of Transportation (GDOT), District 7, on July 6, 2005. Representatives from the GDOT, the Cobb County Department of Transportation (Cobb DOT) and CROY-MSE were in attendance. See Attachment 1 for a complete list of attendees. The primary purpose of the meeting was to discuss the Concept Report provided to GDOT on May 23, 2005 in preparation for the official Concept Team Meeting.

<u>The discussion resulted in the following action items for CROY-MSE:</u>

1. Revise the proposed typical section under I-575 so that 12-foot travel lanes and a minimum of 5-foot bike lanes are provided and reduce the proposed median as needed to fit beneath the existing I-575 underpass. The median should be rounded down to the nearest foot.

2. Provide a Alternative Analysis for the comparison of alternatives crossing the wetland and floodplain area just west of Barrett Lakes Boulevard. The two alternatives to be compared would include bridging and utilization of fill/culverts. The comparison should include costs, timing, constructability and any other factors that should be considered in determining the preferred alternative in this area. Bridge costs should be estimated at $60-65 per square foot. The proposed

median on the bridge should be wide enough to accommodate turn lanes and should prohibit left turns from the Penske parcel onto Big Shanty Road.

The comparison analysis will be provided to GDOT, District 7, within the next few business days so that a decision can be made and the preferred alternative can be presented in the revised Concept Report prior to the official Concept Team Meeting.

3. Look into the existing I-75 resurfacing project and verify whether or not its limits are in the area of the proposed Big Shanty Road crossing of I-75. This may affect the staging and detour plans for the construction of the I-75 underpass.

4. Add the new signals proposed at Barrett Lakes Blvd. to the proposed design features in the Concept Report. Review the traffic analysis and verify that Barrett Lakes Blvd. is the only new location for signals. Verify that a Traffic Warrant Study has not yet been completed.

5. Summarize the Public Involvement Plan and reduce the typical sections, plan and profile sheets to 8 & ½ by 11's. The entire Concept Report will need to be submitted to GDOT electronically in PDF format.

6. Provide an Access Management Plan. This is a new GDOT requirement for projects with Q-23 funding. The email providing this new directive will be forwarded to Ron Cooper by Mike Lobdell or Gerald Ford.

7. Provide an electronic copy of the existing project layouts, in MicroStation, to Clyde Cunningham so that the existing utilities can be plotted.

8. Conduct soils testing as soon as possible.

<u>The discussion resulted in the following action items for the GDOT, District 7:</u>

1. Invite FHWA, utilities, ARC etc. to the next Concept Meeting.

2. Gerald Ford will coordinate the staging and detours at I-75 with construction before the next Concept Meeting.

3. Mike Lobdell or Gerald Ford will forward the email containing the new Access Management Plan directive to Ron Cooper.

4. Verify the location of the existing and proposed location of the IT systems in the project area. Verify no conflicting issues.

The discussion resulted in the following action item for the Cobb DOT:

1. Consider using the proposed project corridor to run additional IT between I-75 and I-575.

The following project schedule was proposed at the meeting:

1. The Alternative Analysis will be provided to GDOT, District 7, within the next few business days.
2. The Environmental Analysis (EA) will be presented to the Cobb DOT within the next two weeks and will be submitted to GDOT for review as soon as all Cobb DOT comments and concerns are addressed. Note that the only outstanding item needed to complete the EA is a decision as to which alternative is preferred in the area of the wetland/floodplain just west of Barrett Lakes Blvd.
3. The Concept Report will be revised based on today's meeting and will be submitted to GDOT, District 7, by the end of July, 2005.
4. The official Concept Team Meeting will be scheduled sometime mid to late August, 2005.
5. FHWA approval of the EA is anticipated in time to hold the Public Hearing by the end of 2005.

If you have any questions or comments concerning these minutes, please do not hesitate to call Michelle McIntosh at (770) 971-5407, extension 230.

Georgia Department of Transportation

DISTRICT SEVEN PRECONSTRUCTION

MEETING/CONFERENCE RECORD OF ATTENDEES

Purpose: I.C.T.M. Big Shanty Connector and Widening of Big Shanty Rd.
CSSTP-0006-00(870) (869) (861) / P.I. #'s 0006870, 0006879, 0006861 / Cobb County
AND
I.C.T.M. S.R. 5 @ Tower Rd./ CSSTP-0006-00(867) / P.I. 0006867 / Cobb County

Location: 330 Capitol Ave. Atlanta, Ga. 2nd Floor Conference Room

Date: June 6, 2005 **Hour:** 10:00 AM **Moderator:** Gerald Ford

	Name	Organization	Telephone	Email Address
1.	Gerald Ford	GDOT	404-463-4947	Gerald.Ford@dot.state.ga.us
2.	Marshall Troup	GDOT	"	marshall.troup@
3.	Clyde Cunningham	GDOT	404-463-4953	clyde.cunningham@
4.	JOHNATHAN THOMAS	GDOT	"	JOHNATHAN.THOMAS@
5.	Zanda Montgomery	GDOT/D7 Environmental	404.463.4947	Zanda.Montgomery@dot.
6.	Michelle McIntosh	CROY-MSE	770 971-5407	mmcintosh@mse.ws
7.	Shaidu Kiver	CROY-MSE	770-971-5407	skiver@mse.ws
8.	Brian Loudermilk	Croy-MSE	770-971-5409	bloudermilk@mse.ws
9.	MIKE WRIGHT	COBB County DOT	770 5284375	Michael.wright@cobbcounty.org
✓ 10.	Ron Cooper	Croy-MSE	770.971.5407	rcooper@mse.ws
11.	Scott LEE	GDOT	404-463-4947	Scott.Lee@DOT.STATE-
12.	Mike Lobdell	GDOT	"	mike.lobdell@
13.	James F. Gordon	GDOT	404-635-8061	james.gordon@dot.state.ga.us
14.				
15.	*			
16.				
17.				
18				

A LGPA or PMA has not yet been executed.

Big Shanty Connector Public Involvement Summary

Public Information Open House

A Public Information Open House was held for the subject project on May 5, 2004 at the Department of Labor located at 465 Big Shanty Road in the area of the Preferred Alternative. A total of 63 people attended the Public Information Open House held for the subject project. No elected government officials attended the open house.

From those attending, twenty (20) comment forms, zero (0) letters and nine (9) verbal statements were received. Five (5) letters were received during the ten (10) day comment period following the Public Information Open House. A total of forty-four comments were received; however, several of the commentors submitted both verbal and written statements and several of the comments were signed by multiple commentors. Comments were received by a total of thirty-three (33) individuals. Of the thirty-three (33) commentors, eleven (11) were in support of the project, eight (8) were opposed to the project, five (5) showed conditional support of the project and nine (9) were uncommitted.

Sixteen (16) commentors provided comments regarding access to Hidden Forest Court and the Grace Church. Nine (9) commentors requested a traffic signal and seven (7) commentors requested a median break in this area. Three (3) of the sixteen (16) commentors specifically requested the addition of turn lanes or acceleration/deceleration lanes as well. A median break is proposed at Hidden Forest Court. The additional of acceleration/deceleration lanes or signals would be determined based on the traffic analysis later in the design process.

At the time of the Public Information Open House, a symmetrical widening was proposed on Big Shanty Road in the area of Hidden Forest Court. At the open house, twelve (12) commentors requested a shift to widen Big Shanty Road completely to the north of the existing roadway in the area of Hidden Forest

Court to improve a curve in the existing road. Other issues cited for this shift request include a minimization of impacts to the Grace Church and the residential properties located on the south side of the roadway. As a result, the proposed alignment was shifted north at this location.

The Public Information Open House was conducted early during project development before the eastern terminus was revised for purposes of logical termini. Consequently, many of the comments received and major concerns that were raised were in reference to the section of Big Shanty Road just west of Bells Ferry Road. The widening of this portion of Big Shanty Road is no longer included as part of the proposed project. Therefore, the comments in the Public Information Open House Comment Summary pertaining to this area are no longer applicable.

Community Meeting

As a result of the concerns raised at the Public Information Open House in the area adjacent to Bells Ferry Road, a Community Meeting was held by Cobb County Commissioner Tim Lee, in coordination with the Cobb County Department of Transportation and the Town Center Community Improvement District. Approximately fifteen (15) individuals, who live in the general area of Big Shanty Road and Bells Ferry Road, attended the meeting. The majority of the people attending were from the BelleStone Courts sub-division. The major concerns raised at the meeting primarily involved the need for and purpose of the project. Some individuals were concerned that the project would not alleviate congestion on Bells Ferry Road and others were concerned that the Preferred Alternative might exacerbate congestion on Bells Ferry Road. A concern was raised regarding the proposed realignment of Big Shanty Road to the north at Bells Ferry Road to form a four-way intersection with Kathryn Drive. Since the widening of this portion of Big Shanty Road is no longer included as part of the proposed project, the comments in the Public Information Open House Comment Summary pertaining to this area are no longer applicable.

Town Center Community Improvement District (TCCID)

Close coordination with the Town Center Community Improvement District and the Cobb County government has occurred throughout project development. The proposed project is consistent with Cobb County's Future Land Use Plan and with the TCCID's Livable Centers Initiative.

Children's Healthcare of Atlanta

Close coordination with the Children's Healthcare of Atlanta has occurred throughout project development. The proposed project has been developed to avoid impacts to the Children's Healthcare of Atlanta's existing facilities located just west of George Busbee Parkway. Also, the Children's Healthcare of Atlanta has plans for expansion of its facilities. The Preferred Alternative has been closely coordinated with the Children's Healthcare of Atlanta to minimize impacts to the proposed facilities. The original alignment would have significantly impacted the Children's Healthcare of Atlanta's proposed expansion area. However, the proposed alignment was shifted north to help minimize impacts to the proposed expansion area. Also, two mechanically stablized earth walls, approximately 1,630 feet long each and a maximum of 25 feet high, would be utilized for the I-75 underpass bridge to minimize the use of land from the Children's Healthcare of Atlanta's planned, future expansion area. Vehicular and pedestrian access to the Children's Healthcare of Atlanta facility would be improved as a result of project implementation.

GDOT/GRTA High Occupancy Vehicle(HOV)/Bus Rapid Transit (BRT) Project

The Georgia Department of Transportation and the Georgia Regional Transportation Authority is in the process of studying HOV lanes along I-75 and I-575 in Cobb and Cherokee Counties. Projects NH-73-3(242), NHS-0002-00(39), NHS-000-001(919), and NH-575-1(28) will extend HOV lanes from the Kennedy Parkway interchange up I-75 and I-575 and would provide Bus Rapid Transit

(BRT) stations at various locations along I-75. The I-575 bridge over Big Shanty Road has been identified as a possible location for an HOV interchange. Also, a possible location for a Town Center BRT station has been identified just north of the proposed Big Shanty Road extension. However, the final locations of HOV access to the surface street system and locations for the BRT stations are under study and will not be finalized for some time. An Environmental Impact Statement (EIS) is currently underway for this HOV/BRT project and the results of that study will determine HOV interchange and BRT station locations. With the I-75/I-575 HOV and BRT system still under study, this project does not assume an I-575/Big Shanty Road interchange or a Town Center BRT station; however, this project will be designed so as not to preclude an HOV interchange or BRT station at these locations. All Station Area Development Planning Public Meetings were attended so as to closely monitor the development of the BRT station at Town Center, to verify compatibility with the proposed Big Shanty Road improvements, and to obtain public input regarding development in the project area. No issues or concerns were identified.

Benefit Cost Analysis Work Sheet
CONGESTION Investment Strategy Projects

Project Number: CSSTP-0006-00(870)(869) & (861)

P.I. No. 0006870, 0006869 & 0006861

Cobb County

Big Shanty Connector and Widening of Big Shanty Road

Congestion Benefit = Tb + CMb + Ab

Time Benefit (Tb)

Db (hrs)	0.04
ADT	32,600.00
Tb ($s)	$43,847,000.00

Commercial Benefit (CMb)

Db (hrs)	0.04
% Truck Traffic	0.03
ADT	32,600.00
CMb	$6,948,690.00

Total Congestion Benefit	**$50,795,690.00**
Construction Cost	**$32,985,259.06**
B/C Ratio	**1.54**

NO-BUILD DATA (2028) @ 35MPH		*BUILD DATA (2028) @ 45MPH*	
Corridor (one intersection to another)	**MILES**	**Corridor** (one intersection to another)	**MILES**
Big Shanty/Chastain Road		Big Shanty/Chastain Road	
	0.980		**0.797**
Chastain/George Busbee		Big Shanty/Barrett Lakes	
	0.622		**0.438**
George Busbee/Big Shanty		Big Shanty/George Busbee	
	1.198		**0.677**
Big Shanty/Chastain Meadows		Big Shanty/Chastain Meadows	
Trip Duration = 2.80M/35MPH = 0.08 H		**Trip Duration = 1.91M/45MPH = 0.04 H**	

Travel Time Difference: 0.08 - 0.04 = 0.04 hrs.

2028 NO-BUILT ADT (vehicles per day)	2028 BUILD ADT (vehicles per day)
Intersection of Big Shanty and Chastain Road:	Intersection of Big Shanty and Chastain Road:
ADT ON chastain Road = 27,800	ADT ON chastain Road = 21,150
These vehicles will have an impact on the Level of Service at the intersection of I-75 and Chastain Road.	With the Big Shanty Connector is in place, the number of vehicles on Chastain Road per day in 2028 will be reduced by 2,450.
7 traffic signals from Big Shanty and Chastain to Big Shanty and George Busbee (exisitng)	3 Traffic Signals from Big Shanty and Chastain to Big Shanty and George Busbee (proposed)

The reduction on the Average Daily Traffic of 2,450 vehicles per day for a 2028 build condition implies improvements on the Level of Service at the intersection of Chastain Road and I-75. This reduction in traffic is an added benefit to the intersection.

Definitions:

Db: The difference in travel time (in hours) through the corridor with and without the improvements using 20 years projected traffic.

ADT: The 20-year average daily traffic for the project.

Tb: The dollar value of the travel time benefit from reduced delay.

CMb: The dollar value of the commercial time savings benefit.