

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 132660-
STP00-0014-01(069)
Clarke & Oglethorpe Counties
GDOT District 1 - Gainesville
GDOT District 2 - Tennille
SR 10 from CR 166/Whit Davis /Clarke to CR
26/Smokey/Oglethorpe

OFFICE Design Policy & Support

DATE April 16, 2013

FROM  Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED CONCEPT REPORT

Attached is the approved Revised Concept Report for the above subject project.

Attachment

DISTRIBUTION:

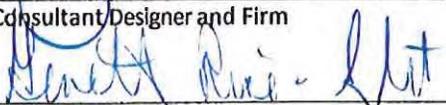
Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Ken Thompson, Statewide Location Bureau Chief
Tamaya Huff, State Pedestrian and Bicycle Coordinator
Bayne Smith, District 1 Engineer
Jimmy Smith, District 2 Engineer
Brent Cook, District 1 Preconstruction Engineer
Neal O'Brien, District 2 Preconstruction Engineer
Neil Kantner, District 1 Utilities Engineer
Lynn Bean, District 2 Utilities Engineer
Peter Emmanuel, Project Manager
BOARD MEMBER - 10th Congressional District
FHWA – attn: Rodney Barry, Georgia Division Administrator

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
REVISED PROJECT CONCEPT REPORT**

Project Type:	<u>Widening & Reconstruction</u>	P.I. Number:	<u>132660-</u>
GDOT District:	<u>1 & 2</u>	County:	<u>Clarke/Oglethorpe</u>
Federal Route Number:	<u>US78</u>	State Route Number:	<u>SR10</u>
Project Number:	<u>STP00-0014-01(069)</u>		

Revised concept for Widening and Reconstruction of SR10/US78 from Whit Davis Rd in Clarke County to Smokey Rd in Oglethorpe County to incorporate revised eastern termini.

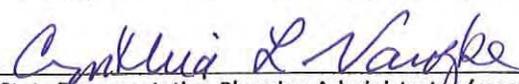
Submitted for approval:

 Jerry L. Brooks, P.E. Kimley-Horn and Associates, Inc. Consultant Designer and Firm	<u>02/21/2013</u> DATE
 Office Head (GDOT Project Manager's Office)	<u>3/5/2013</u> DATE
 GDOT Project Manager	<u>2/27/2013</u> DATE

** Recommendation on file*
Recommendation for approval:

<i>* Glenn Bowman / KLP</i> State Environmental Administrator (recommendation required)	<u>3-22-2013</u> DATE
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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).

 State Transportation Planning Administrator (recommendation required)	<u>3-14-13</u> DATE
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Coordination with the Athens MPO is underway concerning inclusion in their LRTP, which currently it is not, and the project's termini.

- Tim Kassa

PLANNING, APPROVED CONCEPT, & BACKGROUND DATA: See attached Logical Termini Justification dated December 18, 2012

Project Justification Statement: See attached Project Justification Statement dated May 31, 2012

Description of Approved Concept Dated August 10, 2000: This project is the widening and reconstruction of SR10/US78 from Whit Davis Road/CR 166 in Clarke County to Smokey Road/CR 26 in Oglethorpe County. The existing roadway consists of two, 12' lanes with variable width rural shoulders on 60'- 100' of existing right-of-way. The project corridor is primarily rural residential with commercial areas at the project termini. The eastern terminus of this project ties into project STP00-0014-01(067) Oglethorpe, the proposed Crawford/Lexington Bypass. The base year traffic (2006) along this section of SR10/US78 is 14,850 VPD. The 20 year (2026) or design year projected volume is 26,850 VPD. The posted speed and the design speed are 55 MPH. Without the proposed improvements, this corridor will operate at Level of Service (LOS) "F". Widening SR 20/US 78 will improve operating conditions to LOS "B".

The proposed construction will provide two, 12' lanes in each direction separated by a 44' depressed grassed median with rural shoulders (10' outside with 6' paved and 6' inside with 2' paved) on 200' minimum proposed right-of-way. This project will construct a parallel bridge over Moss Creek and extend concrete box culverts at Shoal Creek, Big Creek, and Big Creek Tributary. The existing bridge over Moss Creek will be widened under project BHF-014-1(67) Oglethorpe County. Traffic will be maintained during construction.

Environmental concerns include requiring a COE 404 Permit; and Environmental Assessment will be prepared; six (6) possible UST sites impacted; fourteen (14) possible hazardous waste sites impacted; a public hearing will be held; time saving procedures are not appropriate.

Description of Approved Revised Concept Dated May 10, 2010: From the beginning of the project to approximately 0.5 miles west of Robert Hardeman Road, an urban section will be used. This will consist of a 14-foot center turn lanes, two 12-foot travel lanes in each direction, and a 16-foot urban shoulder with curb and gutter and a 5-foot sidewalk. The design speed will change from 55 mph, as described in the 2000 Concept Report, to 45 mph to be consistent with the posted speed on the existing road, which is inside of and adjacent to the city limits of Athens. The rural section of proposed SR10/US78 will remain at a 55 mph design speed.

The minimum right of way width will be 100 feet in the urban 5-lane section and 160 feet in the 4-lane divided rural section in lieu of the 200 feet as described in the 2000 Concept Report.

The 10-foot rural outside shoulder width will remain unchanged, but the 6-foot wide paved shoulder, as described in the 2000 Concept Report, will be changed to a 6.5-foot wide paved shoulder.

The alignment will be revised from the original location as detailed in the 2000 Concept Report, which followed the same corridor as the existing SR10/US78 alignment. The proposed alignment will be on new location for a portion of the project. The alignment will be routed north of the existing roadway from Walter Sams Road to Arnoldsville Road. New signalized at-grade crossings will occur at SR10/US78 intersections with Lexington Road, Yancy Road, and Arnoldsville Road. Lexington Road and Arnoldsville Road will need to be realigned at these crossings. The project termini will remain the same. This revision was implemented to avoid impacting environmentally sensitive areas adjacent to the existing SR10/US78 right-of-way. The project length is 7.9 miles.

Due to the proposed realignment of SR10/US78, the existing bridge at SR10/US78 over Moss Creek will be outside the limits of this project and therefore, will not require a parallel bridge as

detailed in the 2000 Concept Report. Based on the drainage basin size at the proposed crossing, a culvert would be the appropriate structure for this location.

Description of Approved Revised Concept Dated February 6, 2012: Implementation of the Value Engineering Study approved April 7, 2010 is being incorporated. The rural section of SR10/US78 will consist of one 12-foot outside travel lane and one 11-foot inside travel lane in each direction with a 32-foot depressed grassed median in lieu of the 44-foot median and a 4-foot paved outside shoulder in lieu of the 6.5-foot paved shoulder.

PDP Classification: Major Minor
Federal Oversight: Full Oversight Exempt State Funded Other

Projected Traffic as shown in the approved Concept Report: ADT

Open Year (2014): 17260 Design Year (2034): 23210

Updated Traffic: ADT

Open Year (2020): 11570 Design Year (2040): 19000

Functional Classification (Mainline): Urban Principal Arterial (Clarke County)
 Rural Principal Arterial (Oglethorpe County)

VE Study anticipated: No Yes Completed – Date: March 1-4, 2010

PROPOSED REVISIONS

Approved Features:	Proposed Features:
The Projects eastern termini in the approved Concept Report is project STP00-0014-01(067), PI No. 231910, Crawford/Lexington Bypass from East of CR26/Smokey Road to SR22 in Oglethorpe County	The Projects proposed eastern termini is a tie in to US78 just east of CR26/Smokey Road in Oglethorpe County as addressed in the Logical Termini Report dated December 18, 2012 (attached)
Reason(s) for change: Crawford/Lexington Bypass, Project STP00-0014-01(069) P.I.No. 231910 is not warranted as a four lane bypass based on traffic at this time.	

ENVIRONMENTAL

Air Quality:
 Is the project located in a PM 2.5 Non-attainment area? No Yes
 Is the project located in an Ozone Non-attainment area? No Yes
 Is a Carbon Monoxide hotspot analysis required? No Yes

Potential environmental impacts of proposed revision: Impacts are reduced as a result of the environmental document no longer including the US78 Bypass Project P.I. No. 231910

Have proposed revisions been reviewed by environmental staff?

No Yes (via the Logical Termini Justification Report)

Environmental responsibilities (Studies/Documents/Permits): Kimley-Horn and Associates

Environmental impacts by section:

NEPA: EA/FONSI will be required

Ecology: Approved 6/7/11, Revision required

Archeology: AOE and MOA Submitted 11/10/11, Revision required

History: Approved 12/9/09, Revision required

Air: Approved 1/05/09, Revision required

Noise: Approved 2/20/09, Revision required

Public Involvement: PIOH held July 27, 2010, PHOH is required

PROJECT COST & ADDITIONAL INFORMATION

Updated Cost Estimate		Date of Estimate
Base Construction Cost:	\$20,554,251	1/17/2013
Engineering and Inspection (5%):	\$1,027,713	1/17/2013
Liquid AC Adjustment:	\$3,363,622	1/17/2013
<u>Total Construction Cost:</u>	\$24,945,586	
Right-of-Way:	\$7,469,000	2/12/2013
Utilities (reimbursable costs):	\$1,545,669	2/20/2013
Environmental Mitigation:	\$242,830	6/11/2012
TOTAL PROJECT COST:	\$34,203,085	

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

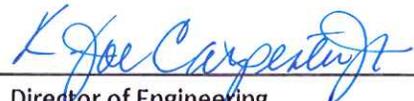
Comments: None

Attachments:

1. Sketch map
2. Logical Termini Justification
3. Project Justification Statement
4. Cost Estimates
 - a. Construction Cost
 - b. Fuel and AC Adjustment Cost
 - c. Mitigation Cost
 - d. Right of Way Cost
 - e. Utility Cost

APPROVALS

Full Oversight Projects

Concur:  3/28/2013
Director of Engineering

Approve: 
for Division Administrator, FHWA

4/9/13
Date

Approve: 
Chief Engineer

4/15/13
Date

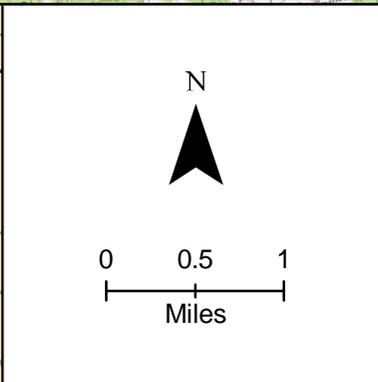
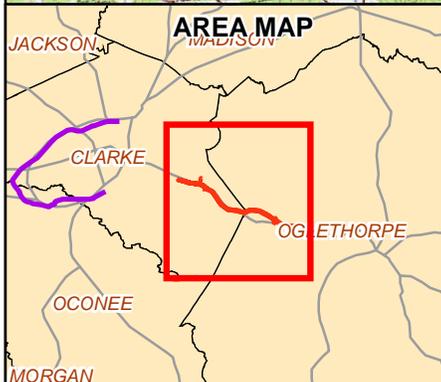
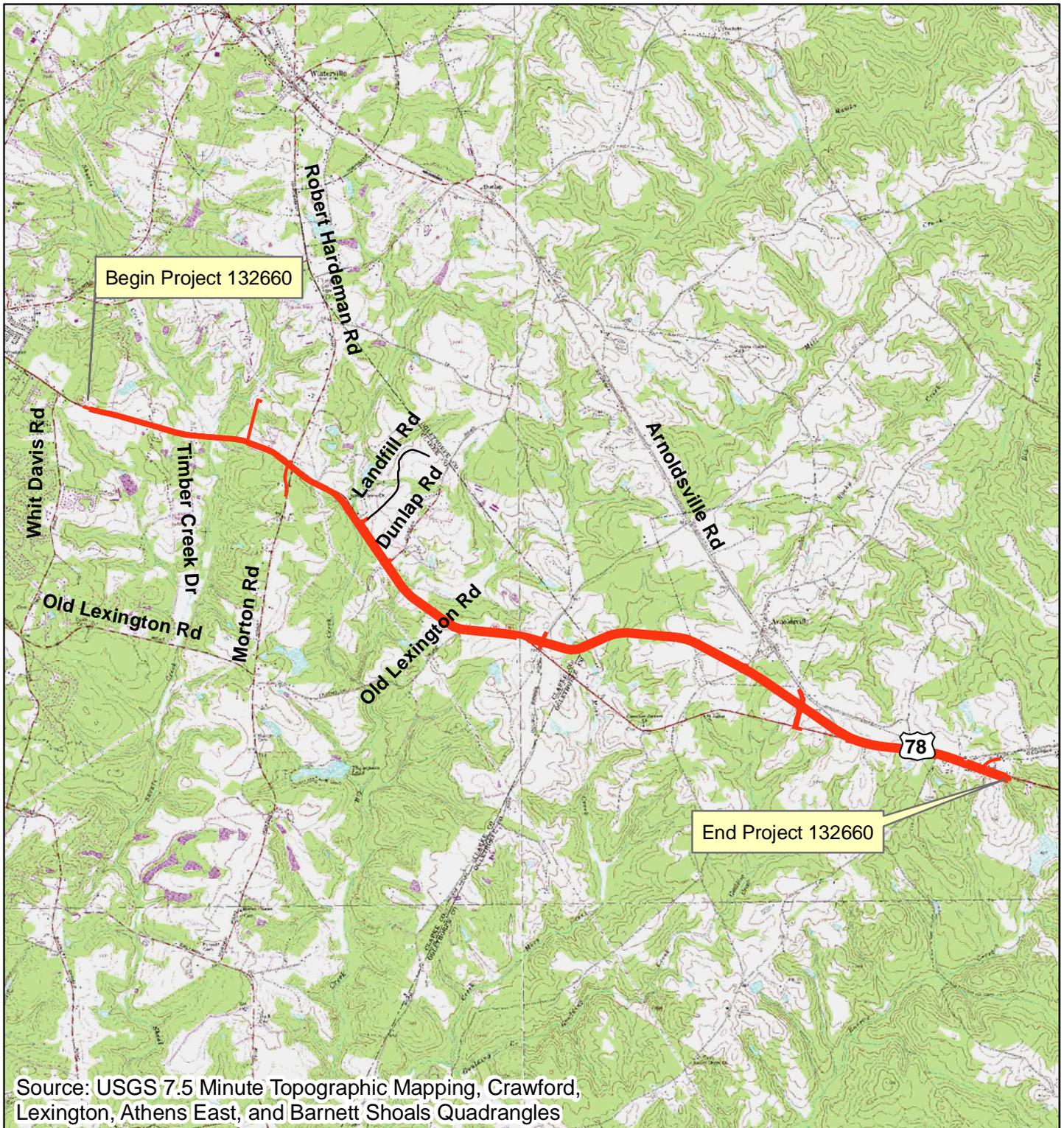
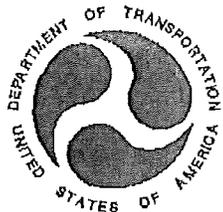
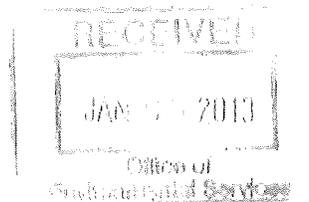


Figure 1: Location Map

Project Number STP00-0014-01(069)
 P.I. No. 132660
 Clarke and Oglethorpe Counties, Georgia
 SR 10/US 78 Widening



Federal Highway Administration
Georgia Division



Route to GDOT OES, 16th Floor

Date: 12/18/12

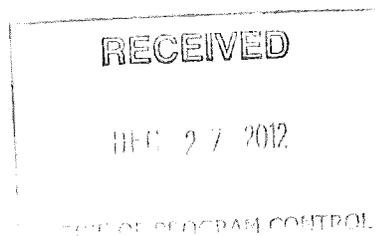
TO: Jonathan Cox

RE: Clarke / Ogilthorpe 2T

<input type="checkbox"/> Per Your Request	<input type="checkbox"/> For Your Review
<input checked="" type="checkbox"/> Approved Document	<input type="checkbox"/> Comment
<input type="checkbox"/> Per Our Conversation	<input type="checkbox"/> Take Appropriate Action
<input type="checkbox"/> Note and Return	<input type="checkbox"/> Prepare Reply for Signature of
<input type="checkbox"/> Discuss With Me	<input type="checkbox"/> For Your Information
<input type="checkbox"/> For your Approval	<input type="checkbox"/> For Your Files

Remarks:

From: Kelly Wade
FHWA, GA Division
Telephone: 404 562-3584



Keith Golden, P.E., Commissioner



GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000

November 26, 2012

Mr. Rodney N. Barry, P.E.
Division Administrator
Federal Highway Administration
Atlanta Federal Center
61 Forsyth Street, S.W.
Suite 17 T100
Atlanta, Georgia 30303-3104

ATTN: Kelly Wade

RE: Project STP00-0014-01(069), Clarke and Oglethorpe Counties, P.I. No. 132660 – SR 10/US 78 Widening and Reconstruction from CR 166/Whit Davis Road to CR 26/Smokey Road

Dear Mr. Barry:

Enclosed are two copies of the revised Logical Termini Justification report for the above project. The report was revised per your comments dated October 11, 2012. Please find the following attached to this transmittal:

1. Copy of your 10.11.12 comments
2. Disposition letter dated 11.14.12 from KHA
3. Logical Termini Justification Report with attachments

As noted in your comments, the ROW phase for this project is not currently in the STIP. However, it is proposed for FY 2016 ROW funding so it is in the STIP +2. In addition, the new STIP should be approved shortly and ROW would then be in the STIP. At this time, we ask that you review and approve this report.

In addition, we understand the termini shown in the MACORTS LRTP are in conflict with what we are presenting in the Logical Termini Report. If FHWA concurs with the termini as presented in this report, GDOT will work to modify the MACORTS LRTP to be consistent. We've not updated to date since FHWA has not agreed to the termini.

Your concurrence in this determination is requested. Please provide approval or comments no later than December 21, 2012 so that the project can proceed as scheduled. If you need further information, please contact Jonathan Cox at 404-631-1197.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn Bowman".

Glenn Bowman, P.E.
State Environmental Administrator

GB/jlc
Enclosures

cc: Peter Emmanuel, GDOT Project Manager



U.S. Department
of Transportation
**Federal Highway
Administration**

Georgia Division

October 11, 2012

61 Forsyth Street SW
Suite 17T100
Atlanta, Georgia 30303
Phone 404-562-3630
Fax 404-562-3703
Georgia.fhwa.@fhwa.dot.gov

In Reply Refer To:
HPD-GA

Mr. Keith Golden, P.E., Commissioner
Georgia Department of Transportation
One Georgia Center
600 West Peachtree St, NW
Atlanta, GA 30308

Dear Commissioner Golden:

We are in receipt of your September 21, 2012 request for our review of the Logical Termini Justification Report for STP00-0014-01(069), Clarke and Oglethorpe, PI 132660 - Proposed Improvements to SR 10/US 78 from Whit Davis Road to Smokey Road.

The project is not programmed in the region's TIP or in the STIP. In addition, the project is currently shown as unfunded in the Madison Athens-Clarke Oconee Regional Transportation Study (MACORTS) Long Range Transportation Plan (LRTP), and the proposed termini in the LRTP conflicts with the logical termini report.

Due to the programming issues, we cannot be certain the data provided reflects the appropriate open/design year. Therefore, we did not perform a complete review. It was noted the document did not contain AADT in Table format; Table 3 fails to show level of service for both northbound and southbound; and some spaces within Tables 4 and 5 are marked "NA" but explanations for the "NA" were not given. We suggest you coordinate with our office to discuss the appropriate documentation once the programming issues are resolved.

If you have any questions or require additional information or assistance, please feel free to contact Kelly Wade at (404) 562-3584.

Sincerely,

for Rodney N. Barry, P.E.
Division Administrator



Kimley-Horn
and Associates, Inc

November 14, 2012

2 Sun Court
Suite 220
Peachtree Corners, GA
30092-2865

Mr. Peter B. Emmanuel
Office of Program Delivery
GA. Department of Transportation
One Georgia Center, 25th Floor
600 West Peachtree St NW
Atlanta, GA 30308

Re: U.S. 78 Widening, STP00-0014-01(069), P.I. No. 132660, Clarke and
Oglethorpe Counties

Dear Peter,

In response to the FHWA letter to Commissioner Golden dated October 11,
2012, Kimley-Horn revised the Logical Termini Justification report as follows:

- Added Table 6 containing AADT in a table format for "Traffic
Conditions Within Corridor Roadway Segments"
- Revised Tables 4 and 5 to explain items previously marked as "NA"

We did not change Table 3 to show level of service for both northbound and
southbound. This is typically only done for unsignalized intersections and we
have included those for both NB and SB in the table. The signalized
intersections show the level of service for the intersection as a whole for either
AM or PM Peak.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

Jerry L. Brooks, P.E.
Project Manager

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

Logical Termini Justification

I. General Information

Project No.: STP00-0014-01(069)

Project P.I.: 132660-

Counties: Clarke and Oglethorpe

Project Name: SR10/US78 Widening and Reconstruction from CR166/Whit Davis Road to CR26/Smokey Road

Project Length: 8.1 miles

Summary of Need and Purpose:

The purpose of the project is to improve capacity and safety along the SR10/US78 corridor between Whit Davis Road (CR166) in Clarke County and Smokey Road (CR26) in Oglethorpe County. The improvements would address the needs of reducing projected levels of congestion and reducing potential for accidents.

II. Background and Proposed Logical Termini

Project STP00-0014-01(069) was initially added to the Department Construction Work Program in 1995. It is currently identified in GDOT's draft FY 2013-2016 STIP with the right-of-way phase funded in FY 2016 and construction currently outside the STIP timeframe. The Purpose and Need Statement for the proposed project was first approved on July 25, 2000 as part of the Original Concept Report and was revised and approved on May 10, 2010 as part of the Revised Concept Report. The proposed project is contained in the Unfunded Section of the Madison Athens-Clarke-Oconee Regional Transportation Study (MACORTS) 2010-2035 Long Range Transportation Plan.

The project corridor serves as a primary east-west connector between Clarke and Oglethorpe Counties. Project STP00-0014-01(069) extends from Whit Davis Road in Athens to just west of the Crawford city limits along SR10/US78. The project area is shown on **Figure 1**. Growth in the area has continued to stress the capacity and safety of the existing facility. The annual average daily traffic (ADT) volumes on SR10/US78 west of Whit Davis Road are expected to increase from 18,695 vehicles per day (VPD) in 2012 to 30,695 VPD by Design Year 2040. These volumes represent Levels of Service (LOS) "E" and "F," respectively. Both LOS E and LOS F are considered unacceptable with regards to statewide LOS performance measures as referenced in the year 2005-2035 Statewide Transportation Plan (SWTP). Additionally, the existing corridor experiences a high level of truck traffic (12%), creating safety hazards, especially for turning vehicles.

Logical termini for the project are:

- A. Western: Whit Davis Road in Clarke County.** The project would tie to the existing four-lane roadway section east of Whit Davis Road (**Figure A-1**) where SR10/US78/Lexington Road is a 45 MPH four-lane divided roadway with a raised median.

- B. Eastern: Smokey Road in Oglethorpe County, just west of Crawford city limits.** SR10/US78 is a three-lane roadway at Smokey Road (**Figure A-5**). The project would tie into the existing three-lane section 0.6 miles east of Smokey Road with two travel lanes eastbound and one lane westbound.

III. Project Description

The existing conditions along SR10/US78 are as follows:

- SR10/US78/Lexington Road is a four-lane divided roadway with a raised median at Whit Davis Road (**Figure A-1**), transitioning to a two-lane roadway at Loy's Farm Road. East of Timber Creek Drive, SR10/US78 transitions into a three-lane road with a two way left turn lane in a flush median. This section continues to Robert Hardeman Road (**Figure A-2**) where the three-lane section is comprised of two through lanes and an additional passing lane. At Landfill Road, SR10/US78 becomes a two lane roadway that continues to just west of the intersection of Arnoldsville Road (**Figure A-4**) where a three lane section begins with two lanes westbound and one lane eastbound. The three-lane section continues to the eastern terminus of the project where it becomes two lanes eastbound and one lane westbound.
- The intersection of SR10/US78 at Whit Davis Road (**Figure A-1**) is currently signalized. Pedestrian facilities and crosswalks are located in the westbound and northbound approaches of the intersection.
- The intersection of SR10/US78 at Robert Hardeman Road/Morton Road (**Figure A-2**) is currently signalized. Pedestrian facilities and crosswalks are located at all approaches of the intersection.
- The existing posted speed limits along SR10/US78 and the side roads are as follows: 45 miles per hour (MPH) along SR10/US78 at Whit Davis Road and along existing 4-lane divided section of SR10/US78; 55 MPH on the remaining 2-lane and 3-lane SR10/US78 all the way to the City limits of Crawford where it becomes 45 MPH; 50 MPH along Morton Road and Old Lexington Road; 45 MPH along Robert Hardeman Road, Dunlap Road, Walter Sams Road, Double Bridges Road, Arnoldsville Road, Wolfskin Road, Smokey Road, and Yancey Road; 25 MPH along Weatherly Woods Drive, and Timber Creek Drive. The speed limits along Big Oak Circle, Wildflower Drive, Loy's Farm Road and Landfill Road are not posted.

SR10/US78 is functionally classified as an Urban Principal Arterial in Clarke County and a Rural Principal Arterial in Oglethorpe County. The project corridor is primarily rural residential along the existing SR10/US78 roadway with undeveloped pasture and wooded areas throughout the proposed new location corridor. Commercial areas exist at the beginning and end of the project.

The proposed widening and relocation project has a total length of 8.1 miles. The first 0.91 miles of the proposed project would widen the existing two-lane or four-lane roadway to four 12-foot through lanes with a 14-foot two-way center left turn lane and 16-foot urban shoulders with curb and gutter. A five-foot sidewalk is proposed on each side of the roadway. This section ends approximately 0.5 mile west of Robert Hardeman Road. From this point to the end of the project, the proposed widening/relocation would consist of four through lanes (11-foot inside lane and 12-foot outside lane) with a 32-foot depressed grass median and a 10-foot rural outside shoulder (four-foot paved) on each side. The segment of the project between Walter Sams Road (**Figure A-3**) and Arnoldsville Road (**Figure A-4**) will be constructed on a new alignment.

IV. Proposed Traffic Conditions

Available data along the corridor were compiled and compared with existing (2012), and projected future (2020 and 2040) Build and No Build scenarios. As shown in **Tables 1 through 6**, included in the Appendix, five intersections would degrade to having movements with LOS E or F in the AM and PM peak hours by the Design Year 2040 in the No Build condition. These intersections are SR10/US78 and

Timber Creek Drive, Walter Sams Road/Double Bridges Road, Arnoldsville Road, Wolfskin Road, Hutchins Road. The intersection of SR10/US78 and Smokey Road would experience LOS E in the PM peak by the Design Year 2040 in the No Build condition. With the proposed improvements, conditions at all of these intersections would be improved to LOS C or better. By widening SR10/US78 to four lanes with a median, capacity would be increased to serve the projected 25-year traffic more efficiently. Several intersections that are currently unsignalized (SR10/US78 and Walter Sams Road/Double Bridges Road, Arnoldsville Road, and Hutchins Road) would be signalized in the design year 2040 in the Build scenario.

Table 1 summarizes the LOS and delay in seconds per vehicle for all intersections in the study area. The Base Year 2020 traffic conditions were developed by increasing the Existing Year 2012 peak hour traffic volumes by two percent per year for five years. **Table 2** shows the Base Year (2020) No Build traffic conditions in the AM and PM peak periods. For the Build condition scenarios, it was assumed that on the segment between Walter Sams Road and Arnoldsville Road, approximately seven percent of the traffic would remain on existing SR10/US78, with the remaining 93 percent using the segment around Cherokee corners that will be constructed on new alignment. **Table 3** summarizes the Base Year (2020) Build traffic conditions.

LOS determinations were made also for the Design Year 2040 peak hour traffic conditions in the study intersections (summarized in **Tables 4 and 5**). Under the No Build condition, the two signalized intersections (SR10/US78 at Whit Davis Road and Robert Hardeman Road) are projected to operate at LOS D or better during the AM and PM peak hours. Six of the eleven unsignalized intersections are projected to operate at LOS E or F during the AM and/or PM peak hours under No Build Design Year (2040) conditions. With the proposed improvements, all signalized and unsignalized intersections are projected to operate at LOS D or better during both the AM and PM peak hours except for Hutchins Road, which is the next intersection east of Smokey Road. **Table 5** also shows that if this intersection becomes signalized, it will operate at a LOS D or better in the Design Year (2040) condition. **Table 6** shows the traffic AADT within the corridor by roadway segments in a table format.

Crash Data

Accident data for SR10/US78 from Whit Davis Road (Clarke County) to Wolfskin Road (Oglethorpe County) were obtained from the Georgia Department of Transportation for the years 2006, 2007, and 2008. **Table 7A** summarizes the number of accidents, injuries, and fatalities for the Clarke County segment and **Table 7B** summarizes the number of accidents, injuries, and fatalities for the Oglethorpe County segment in each year, respectively. The rates determined for accidents, injuries, and fatalities were based on 100 million vehicle miles traveled. This accident data was used to assess the safety of each of the roadway segments.

- **SR10/US78 from Whit Davis Road to Clarke County/Oglethorpe County line, Urban Principal Arterial:** The three-year accident data for this segment indicates 104 total accidents with 50 total injuries and two fatalities. In 2008, the accident rate for this segment of SR10/US78 was computed to be about 0.36 times the statewide average accident rate on comparable roads. The two fatalities occurred in 2008 at mile points 15.25 and 15.64 along SR10/US78 and both were due to a collision with a tree. Further analysis of the accident data reveals that during this three-year period, 55 percent of accidents were not a collision with a motor vehicle, 27 percent of accidents were rear-end, 13 percent of accidents were angle, 5 percent of accidents were sideswipe, and 1 percent of accidents were head-on. Accidents classified as 'not a collision with a motor vehicle' often occur due to vehicles running off the road and overturning or hitting guardrail, ditches, poles, signs, trees, etc., or due to collisions with deer or other animals or pedestrians.
- **SR10/US78 from Clarke County/Oglethorpe County line to Smokey Road, Rural Principal Arterial:** The three-year accident data for this segment indicates 62 total accidents with 36 total injuries and 0 fatalities. In 2008, the accident rate for this segment of SR10/US78 was computed to be about 1.23 times the statewide average accident rate on comparable roads. Further analysis of the accident data reveals that during this three-year period, 47 percent of accidents were not a collision with a motor vehicle, 35 percent of accidents were rear-end, 11 percent of

accidents were angle, 3 percent of accidents were sideswipe, and 3 percent of accidents were head-on. Accidents classified as 'not a collision with a motor vehicle' often occur due to vehicles running off the road and overturning or hitting guardrail, ditches, poles, signs, trees, etc., or due to collisions with deer or other animals or pedestrians.

V. Adjacent Project

One proposed project is adjacent to the proposed improvements.

- PI 231910, STP00-0014-01(067): Proposed Crawford/Lexington Bypass from east of CR26/Smokey Road to east of SR22. This project is currently not justified based on traffic projections per GDOT Management and is included in Long Range (LR) planning.

VI. Justification of Logical Termini

The proposed termini address the need and purpose, have independent utility, and enable consideration of other reasonably foreseeable improvements, as described below:

Logical Connections and Adequate Length

The proposed widening of SR10/US78 would address traffic capacity needs by providing improved levels of service through the Design Year (2040). The western project limit is logical where the project would tie into an existing four-lane typical section just west of Whit Davis Road in Clarke County. The eastern limit is just east of Smokey Road in Oglethorpe County where traffic would tie into the existing three-lane section with two lanes eastbound and one lane westbound. The project is of sufficient length to consider potential environmental impacts.

Independent Utility

The levels of service at intersections within the project termini would be improved to LOS D or better independently of any other project. The location of the eastern project terminus will not adversely affect traffic operations at the next adjacent intersection. An analysis of the SR10/US78 and Broad Street/Hutchins Road intersection was completed to determine the projected level of service in the No Build and Build scenarios. It was found that this intersection would operate at a LOS D or better as a signalized intersection in the Design Year (2040) Build scenario. Without the proposed improvements under Project STP00-0014-01(069), the intersection of SR10/US 78 and Broad Street/Hutchins Road is projected to operate at LOS E and F in the Design Year (2040) AM and PM peak hours (No Build scenario). The proposed widening of SR10/US78 is not dependent on any other projects and could be constructed independently of other nearby improvements.

Consideration of Other Reasonably Foreseeable Improvements

The proposed project does not prevent evaluation or implementation of future improvements within or near the logical termini. The project would address growing congestion over an eight mile distance between Athens and just west of Crawford. The project would not preclude smaller projects (such as a bridge replacement) or maintenance along SR10/US78.

Prepared By:

Sharon J. Wilson
(Project Planner)

10/22/12
Date

Concurred By:

Glenn Bowman
Glenn Bowman, P.E.
State Environmental /Location Engineer

11/26/2012
Date

Approved By:

Kelly M. Wade
FOR: Rodney N. Barry, P.E.
Federal Highway Administration

12/18/12
Date

Figures:

Figure 1 – Project Location
Figures A-1 to A-5 – Intersection Sketches
Figures B-1 to B-16 – Traffic Diagrams

APPENDIX

TABLE 1 Level of Service Summary Existing Year 2012			
Intersection	Signal Control	Overall LOS for Signalized Intersections and Side street LOS for Unsignalized Intersections (Delay in Seconds)	
		AM Peak	PM Peak
SR10/US78/Whit Davis Road	<i>Signalized</i>	C (27.3)	C (30.2)
SR10/US78/Timber Creek Drive	<i>Unsignalized</i>	NB: C (17.1)	NB: C (18.8)
SR10/US78/Morton Road (Robert Hardeman Rd)	<i>Signalized</i>	B (14.8)	B (11.5)
SR10/US78/Landfill Road	<i>Unsignalized</i>	SB: B (14.5)	SB: B (12.8)
SR10/US78/Dunlap Road	<i>Unsignalized</i>	SB: B (13.1)	SB: B (11.2)
SR10/US78/Old Lexington Road	<i>Unsignalized</i>	NB: B (12.7)	NB: B (11.4)
SR10/US78/Walter Sams Rd (Double Bridges Rd)	<i>Unsignalized</i>	NB: C (16.3)	NB: C (19.4)
		SB: B (12.3)	SB: B (13.0)
SR10/US78/Old Edwards Road	<i>Unsignalized</i>	NB: B (13.0)	NB: B (14.2)
SR10/US78/Yancy Road	<i>Unsignalized</i>	SB: B (12.0)	SB: B (10.9)
SR10/US78/Arnoldsville Road	<i>Unsignalized</i>	SB: D (26.6)	SB: D (27.3)
SR10/US78/Wolfskin Road	<i>Unsignalized</i>	NB: C (16.5)	NB: C (16.6)
SR10/US78/Smokey Road	<i>Unsignalized</i>	SB: B (12.7)	SB: B (14.8)
SR10/US78/Broad Street (Hutchins Road)	<i>Unsignalized</i>	NB: F (54.6)	NB: C (21.9)
		SB: C (21.4)	SB: C (16.9)

TABLE 2
Level of Service Summary
Base Year 2020, No-Build

Intersection	Signal Control	Overall LOS for Signalized Intersections and Side street LOS for Unsignalized Intersections (Delay in Seconds)	
		AM Peak	PM Peak
SR10/US78/Whit Davis Road	<i>Signalized</i>	C (31.9)	C (31.5)
SR10/US78/Timber Creek Drive	<i>Unsignalized</i>	NB:C (21.2)	NB: C (23.5)
SR10/US78/Morton Road (Robert Hardeman Road)	<i>Signalized</i>	B (15.9)	B (12.4)
SR10/US78/Landfill Road	<i>Unsignalized</i>	SB: C (17.7)	SB: C (16.4)
SR10/US78/Dunlap Road	<i>Unsignalized</i>	SB: C (15.9)	SB: B (12.9)
SR10/US78/Old Lexington Road	<i>Unsignalized</i>	NB: C (16.0)	NB: B (13.5)
SR10/US78/Walter Sams Rd (Double Bridges Rd)	<i>Unsignalized</i>	NB: C (24.8)	NB: D (27.0)
		SB: C (15.8)	SB: C (18.6)
SR10/US78/Old Edwards Road	<i>Unsignalized</i>	NB: B (15.1)	NB: C (16.9)
SR10/US78/Yancy Road	<i>Unsignalized</i>	SB: B (13.9)	SB: B (12.4)
SR10/US78/Arnoldsville Road	<i>Unsignalized</i>	SB: F (50.4)	SB: F (53.7)
SR10/US78/Wolfskin Road	<i>Unsignalized</i>	NB:C (22.0)	NB: C (21.4)
SR10/US78/Smokey Road	<i>Unsignalized</i>	SB: C (17.0)	SB: C (19.1)
SR10/US78/Broad Street (Hutchins Road)	<i>Unsignalized</i>	NB: F (228.7)	NB: E (37.0)
		SB: D (33.3)	SB: C (22.6)

TABLE 3
Level of Service Summary
Design Year 2020, Build

Intersection	Signal Control	Overall LOS for Signalized Intersections and Side street LOS for Unsignalized Intersections (Delay in Seconds)	
		AM Peak	PM Peak
SR10/US78/Whit Davis Road	<i>Signalized</i>	C (26.9)	C (33.3)
SR10/US78/Timber Creek Drive	<i>Unsignalized</i>	NB:B (12.1)	NB: C (15.0)
SR10/US78/Morton Road (Robert Hardeman Road)	<i>Signalized</i>	B (18.4)	B (16.1)
SR10/US78/Landfill Road	<i>Unsignalized</i>	SB: B (14.1)	SB: B (12.1)
SR10/US78/Dunlap Road	<i>Unsignalized</i>	SB: B (12.7)	SB: B (10.8)
SR10/US78/Old Lexington Road	<i>Unsignalized</i>	NB:B (11.6)	NB: B (12.5)
SR10/US78/Walter Sams Rd (Double Bridges Rd)	<i>Signalized</i>	B (16.4)	B (12.8)
SR10/US78/ Yancy Rd (Old Edwards Rd)	<i>Unsignalized</i>	NB: B (14.7)	NB: C (16.6)
		SB: B (13.4)	SB: B (13.0)
SR10/US78/Arnoldsville Road	<i>Signalized</i>	C (21.8)	B (18.9)
SR10/US78/Wolfskin Road	<i>Unsignalized</i>	NB: C (15.6)	NB: B (14.7)
SR10/US78/Smokey Road	<i>Unsignalized</i>	SB: B (13.7)	SB: B (12.6)
SR10/US78/Broad Street (Hutchins Road)	<i>Unsignalized</i>	NB: F (500.8)	NB: F (57.4)
		SB: E (44.4)	SB: D (26.9)
SR10/US78/Broad Street (Hutchins Road)*	<i>Signalized</i>	C (22.8)	B (15.4)

* Note: The intersection of SR10/US78 with Broad Street (Hutchins Road) is shown for two scenarios: 1) of remaining unsignalized and 2) with a signal in place to demonstrate the difference in LOS.

**TABLE 4
Level of Service Summary
Design Year 2040, No-Build**

Intersection	Signal Control	Overall LOS for Signalized Intersections and Side street LOS for Unsignalized Intersections (Delay in Seconds)	
		AM Peak	PM Peak
SR10/US78/Whit Davis Road	<i>Signalized</i>	D (37.9)	D (43.6)
SR10/US78/Timber Creek Drive	<i>Unsignalized</i>	NB: F (58.1)	NB: F (58.1)
SR10/US78/Morton Road (Robert Hardeman Road)	<i>Signalized</i>	B (19.4)	B (14.8)
SR10/US78/Landfill Road	<i>Unsignalized</i>	SB: D (27.5)	SB: C (25.0)
SR10/US78/Dunlap Road	<i>Unsignalized</i>	SB: D (25.2)	SB: C (16.6)
SR10/US78/Old Lexington Road	<i>Unsignalized</i>	NB: D (28.1)	NB: C (18.6)
SR10/US78/Walter Sams Rd (Double Bridges Rd)	<i>Unsignalized</i>	NB: F (75.3)	NB: F (75.1)
		SB: C (24.0)	SB: D (31.0)
SR10/US78/Old Edwards Road	<i>Unsignalized</i>	NB: C (22.9)	NB: D (28.9)
SR10/US78/Yancy Road	<i>Unsignalized</i>	SB: C (18.1)	SB: C (15.3)
SR10/US78/Arnoldsville Road	<i>Unsignalized</i>	SB: F (468.4)	SB: F (489.0)
SR10/US78/Wolfskin Road	<i>Unsignalized</i>	NB: F (108.0)	NB: F (53.4)
SR10/US78/Smokey Road	<i>Unsignalized</i>	SB: D (32.3)	SB: E (47.4)
SR10/US78/Broad Street (Hutchins Road)	<i>Unsignalized</i>	NB: F*	NB: F (232.7)
		SB: F (109.7)	SB: E (45.1)

* Delay too great to calculate.

**TABLE 5
Level of Service Summary
Design Year 2040, Build**

Intersection	Signal Control	Overall LOS for Signalized Intersections and Side street LOS for Unsignalized Intersections (Delay in Seconds)	
		AM Peak	PM Peak
SR10/US78/Whit Davis Road	<i>Signalized</i>	D (50.8)	D (52.1)
SR10/US78/Timber Creek Drive	<i>Unsignalized</i>	NB:B (15.0)	NB: C (22.1)
SR10/US78/Morton Road (Robert Hardeman Road)	<i>Signalized</i>	B (18.1)	B (12.0)
SR10/US78/Landfill Road	<i>Unsignalized</i>	SB: C (18.2)	SB: B (13.9)
SR10/US78/Dunlap Road	<i>Unsignalized</i>	SB: C (16.1)	SB: B (11.8)
SR10/US78/Old Lexington Road	<i>Unsignalized</i>	NB:B (14.1)	NB: C (15.8)
SR10/US78/Walter Sams Rd (Double Bridges Rd)	<i>Signalized</i>	B (14.7)	B (10.9)
SR10/US78/ Yancy Rd (Old Edwards Rd)	<i>Unsignalized</i>	NB: C (19.6)	NB: D (29.2)
		SB: C (15.6)	SB: C (15.6)
SR10/US78/Arnoldsville Road	<i>Signalized</i>	C (25.7)	C (24.0)
SR10/US78/Wolfskin Road	<i>Unsignalized</i>	NB: D (29.5)	NB: C (22.6)
SR10/US78/Smokey Road	<i>Unsignalized</i>	SB: C (18.4)	SB: C (17.0)
SR10/US78/Broad Street (Hutchins Road)	<i>Unsignalized</i>	NB: F*	NB: F (486.4)
		SB: F (227.7)	SB: F (67.2)
SR10/US78/Broad Street (Hutchins Road)	<i>Signalized</i>	D (39.4)	C (22.9)

* Delay too great to calculate.

TABLE 6
Traffic Conditions Within Corridor
Roadway Segments

	Existing Year (2012)			Design Year No-Build (2040)			Design Year Proposed Project Build (2040)		
	AADT	Lanes	V/C ¹ (LOS) ²	AADT	Lanes	V/C ¹ (LOS) ²	AADT	Lanes	V/C ¹ (LOS) ²
	Segment of SR 10/ US 78 (from West to East)								
West of Whit David Rd/ Walmart Dr	18,695	4	0.42 (B)	30,695	4	0.68 (C)	30,695	4	0.68 (C)
Whit Davis Rd to Timber Creek Dr	11,570	2	0.72 (D)	19,000	2	1.19 (F)	19,000	5	0.42 (B)
Timber Creek Dr to Morton/Robert Hardeman Rd	11,460	2	0.72 (D)	18,820	2	1.18 (F)	18,820	4	0.42 (B)
Morton/Robert Hardeman Rd to Landfill Rd	9,550	2	0.60 (C)	15,690	2	0.98 (E)	15,690	4	0.35 (B)
Landfill Rd to Dunlap Rd	9,440	2	0.59 (C)	15,510	2	0.97 (E)	15,510	4	0.34 (B)
Dunlap Rd to Old Lexington Rd	8,760	2	0.55 (C)	14,390	2	0.90 (E)	14,390	4	0.32 (B)
Old Lexington Rd to Double Bridges/ Walter Sams Rd	8,870	3	0.44 (B)	14,580	3	0.73 (D)	14,580	4	0.32 (B)
Double Bridges/Walter Sams Rds to Old Edwards/Yancey Rd*	8,100	2	0.51 (C)	13,290	2	0.83 (D)	12,310	4	0.27 (B)
Old Edwards/Yancey Rd to Arnoldsville Rd*	7,700	2	0.48 (B)	12,640	2	0.79 (D)	11,690	4	0.26 (B)
Arnoldsville Rd to Wolfskin Rd	9,220	3	0.46 (B)	15,150	3	0.76 (D)	15,150	4	0.34 (B)
Wolfskin Rd to Smokey Rd	9,840	3	0.49 (B)	16,160	3	0.81 (D)	16,160	4	0.36 (B)
Smokey Rd to Hutchins Rd/Broad St	9,300	2	0.58 (C)	15,290	2	0.96 (E)	15,290	2	0.96 (E)
East of Hutchins Rd/Broad St	8,360	2	0.52 (C)	13,740	2	0.86 (E)	13,740	2	0.86 (E)

Notes:

1. Volume/Capacity Ratios (V/C) are based on roadway capacities approved for the regional model network for various road classifications. Approximate ADT values: 16,000 for two-lane; 20,000 for three lane; 45,000 for four-lane divided or for five-lane.
 2. Level of Service (LOS) for V/C based on the Highway Capacity Manual.
- * Segments modified by proposed project new alignment.

Table 7A: Accident History (2006-2008) Clarke County

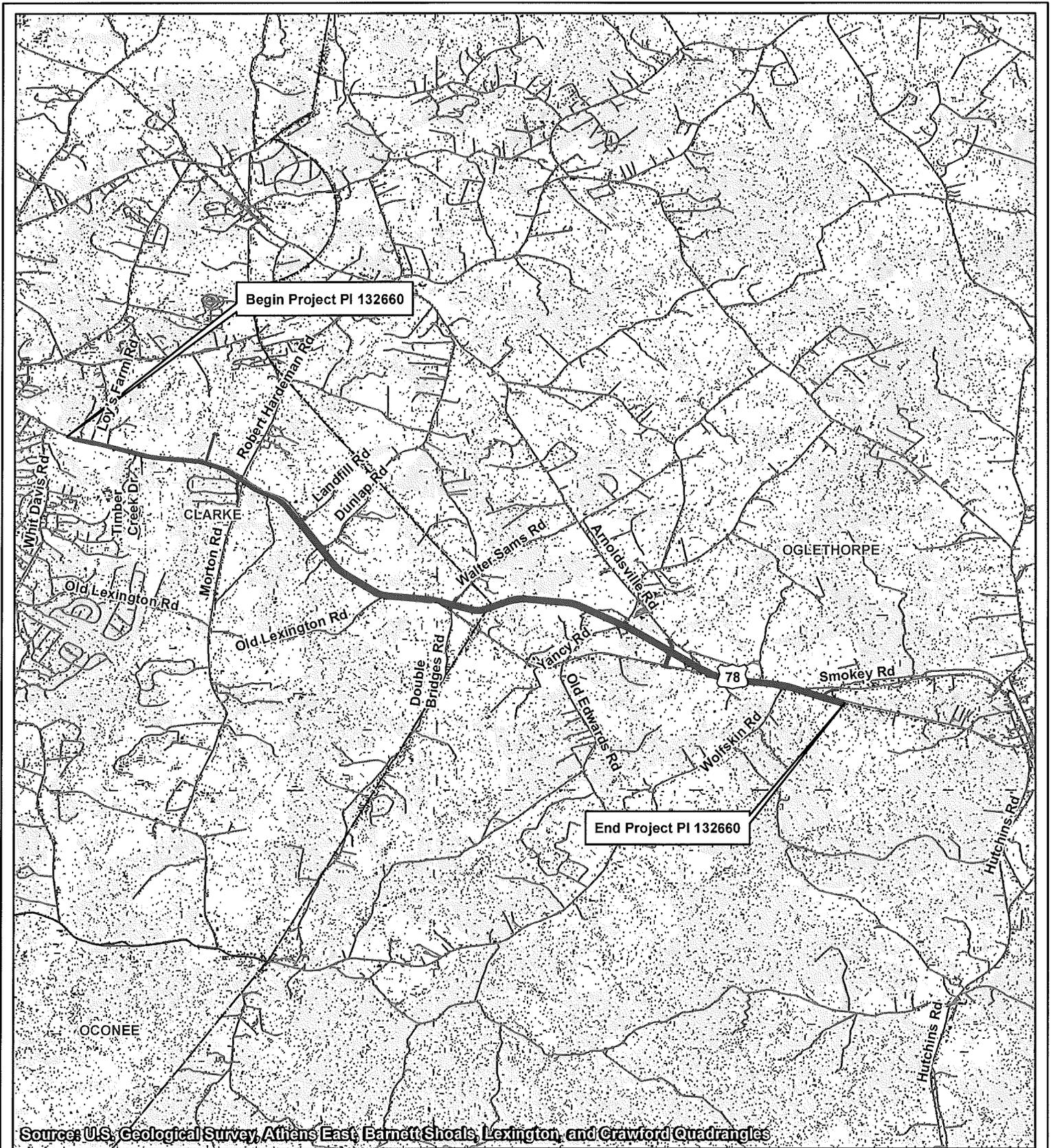
Year	Number of Accidents	Number of Injuries	Number of Fatalities	Accident Rate ⁽¹⁾	Injury Rate ⁽¹⁾	Fatality Rate ⁽¹⁾	Statewide Average Accident Rate ⁽¹⁾	Statewide Average Injury Rate ⁽¹⁾	Statewide Average Fatality Rate ⁽¹⁾
SR10/US78 from Whit Davis Road to Clarke County/Oglethorpe County line: Urban Principal Arterial									
2006	33	17	0	236	106	0	298	120	1.33
2007	41	15	0	207	76	0	445	174	1.49
2008	30	18	2	154	92	10.26	430	167	1.33
Total	104	50	2	---	---	---	---	---	---

(1) Rates are per 100 million vehicle miles.

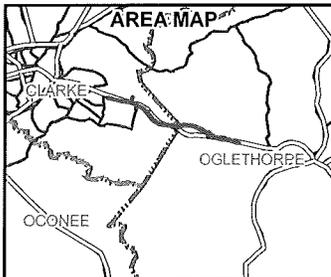
Table 7B: Accident History (2006-2008) Oglethorpe County

Year	Number of Accidents	Number of Injuries	Number of Fatalities	Accident Rate ⁽¹⁾	Injury Rate ⁽¹⁾	Fatality Rate ⁽¹⁾	Statewide Average Accident Rate ⁽¹⁾	Statewide Average Injury Rate ⁽¹⁾	Statewide Average Fatality Rate ⁽¹⁾
SR10/US78 from Clarke County/Oglethorpe County line to Wolfskin Road: Rural Principal Arterial									
2006	19	16	0	158	133	0.00	73	42	1.13
2007	26	13	0	198	99	0.00	114	63	1.99
2008	17	7	0	146	60	0.00	116	64	1.47
Total	62	36	0	---	---	---	---	---	---

(1) Rates are per 100 million vehicle miles.



Source: US Geological Survey, Athens East, Barnett Shoals, Lexington, and Crawford Quadrangles



LEGEND

-  Roadways
-  County Boundary
-  Project Area

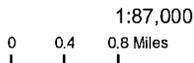
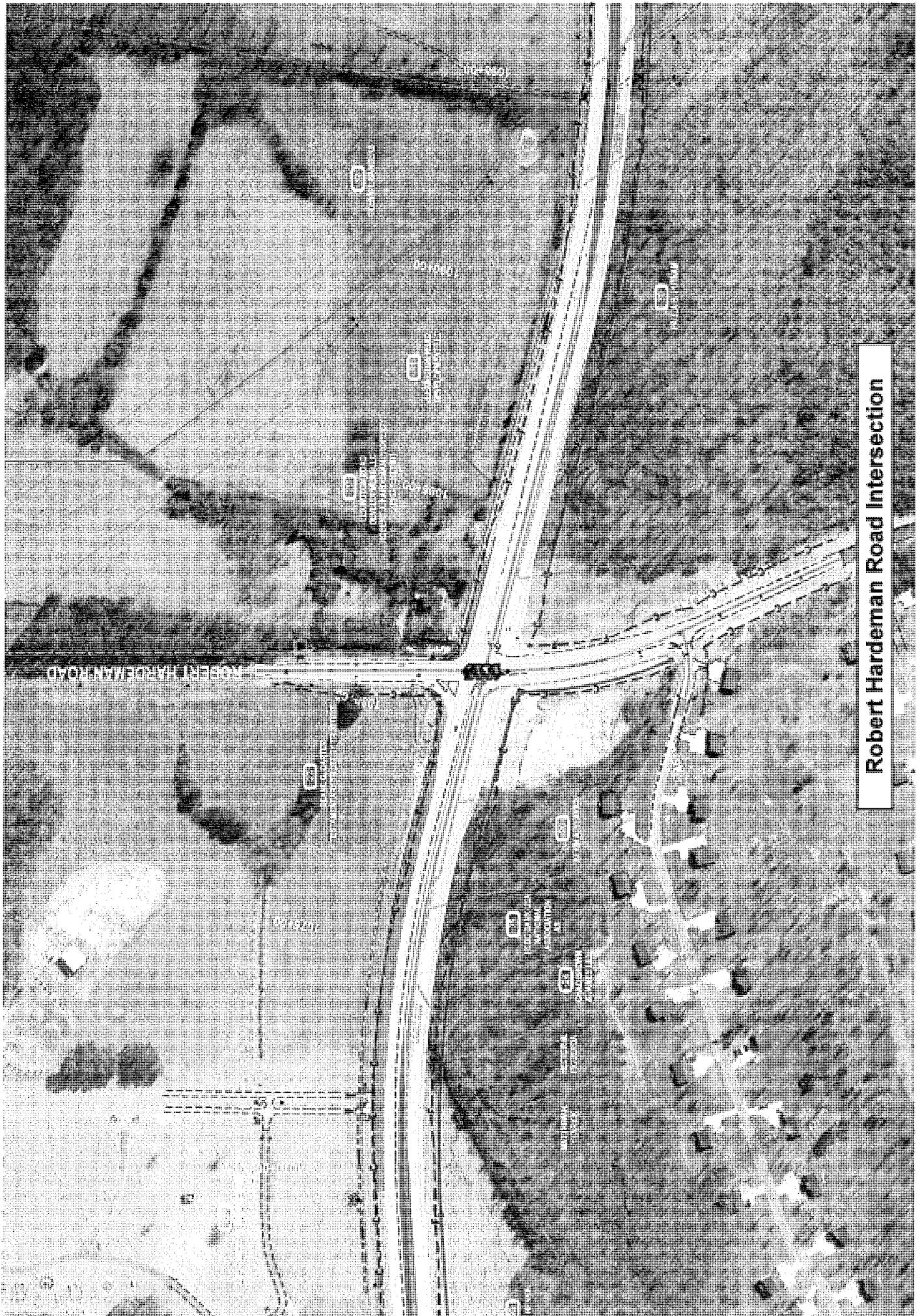


Figure 1: Location Map

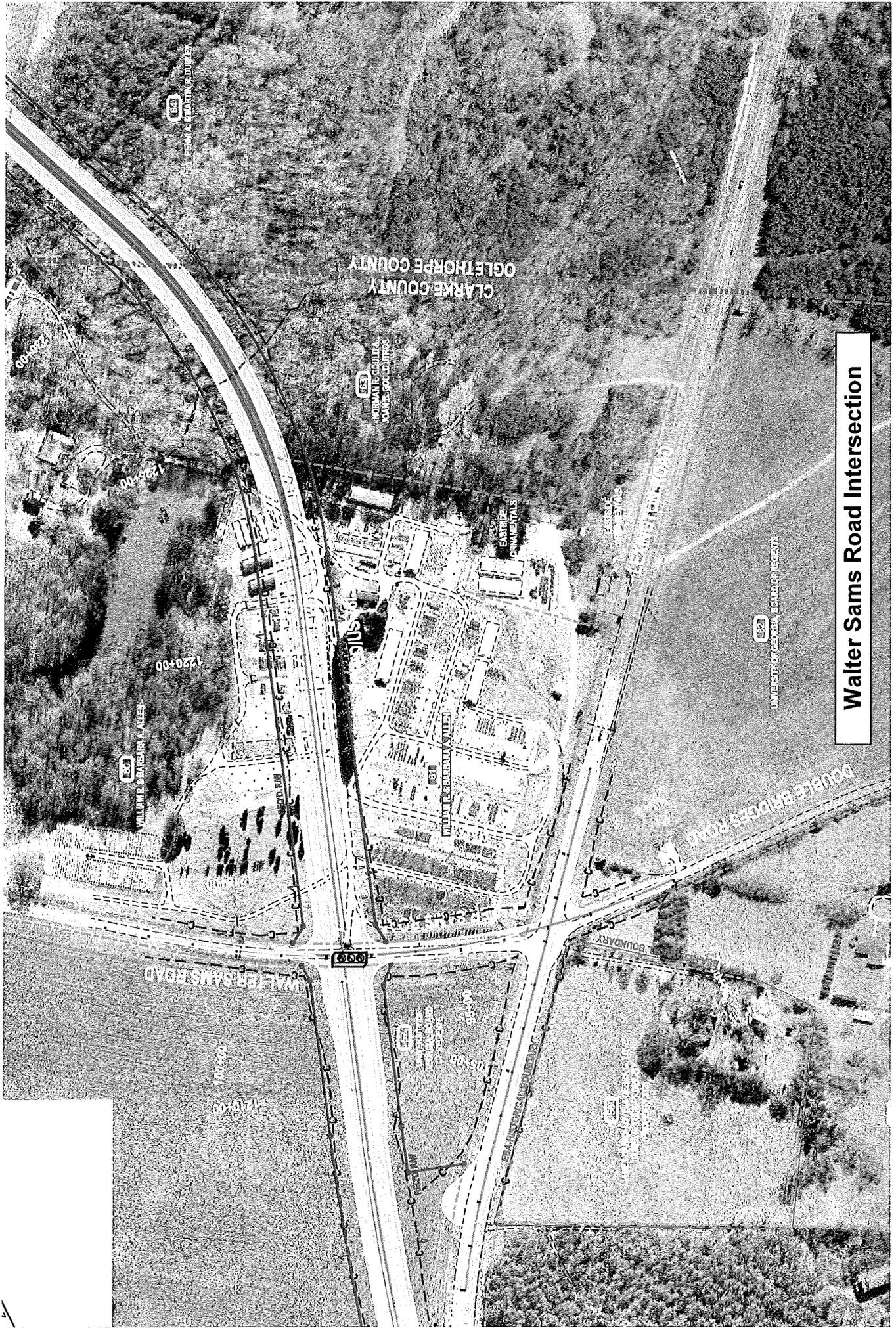
Project Number STP00-0014-01(069)
 P.I. No. 132660
 Clarke and Oglethorpe Counties, Georgia
 SR 10/US 78 Widening





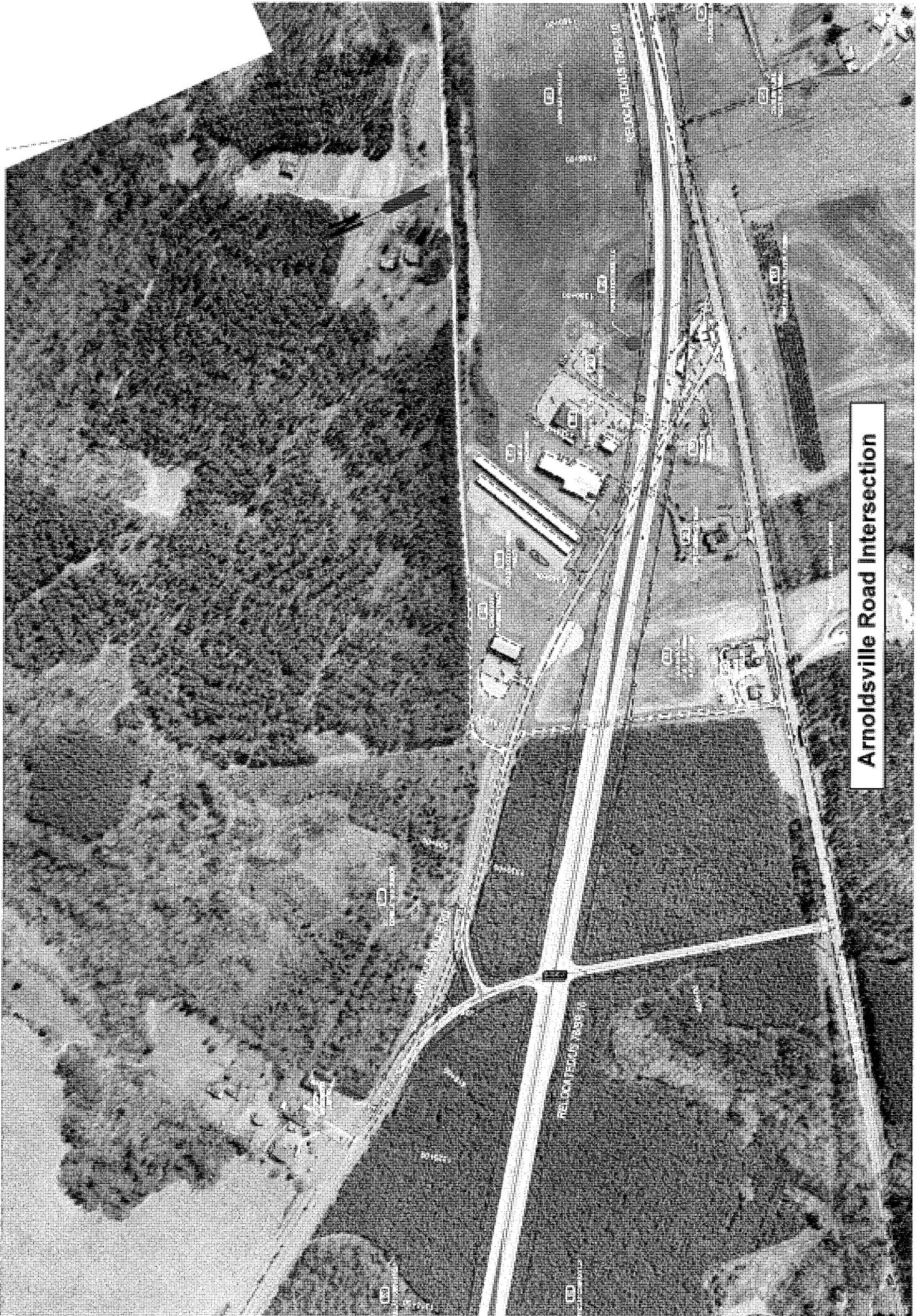
Robert Hardeman Road Intersection

Figure A-2



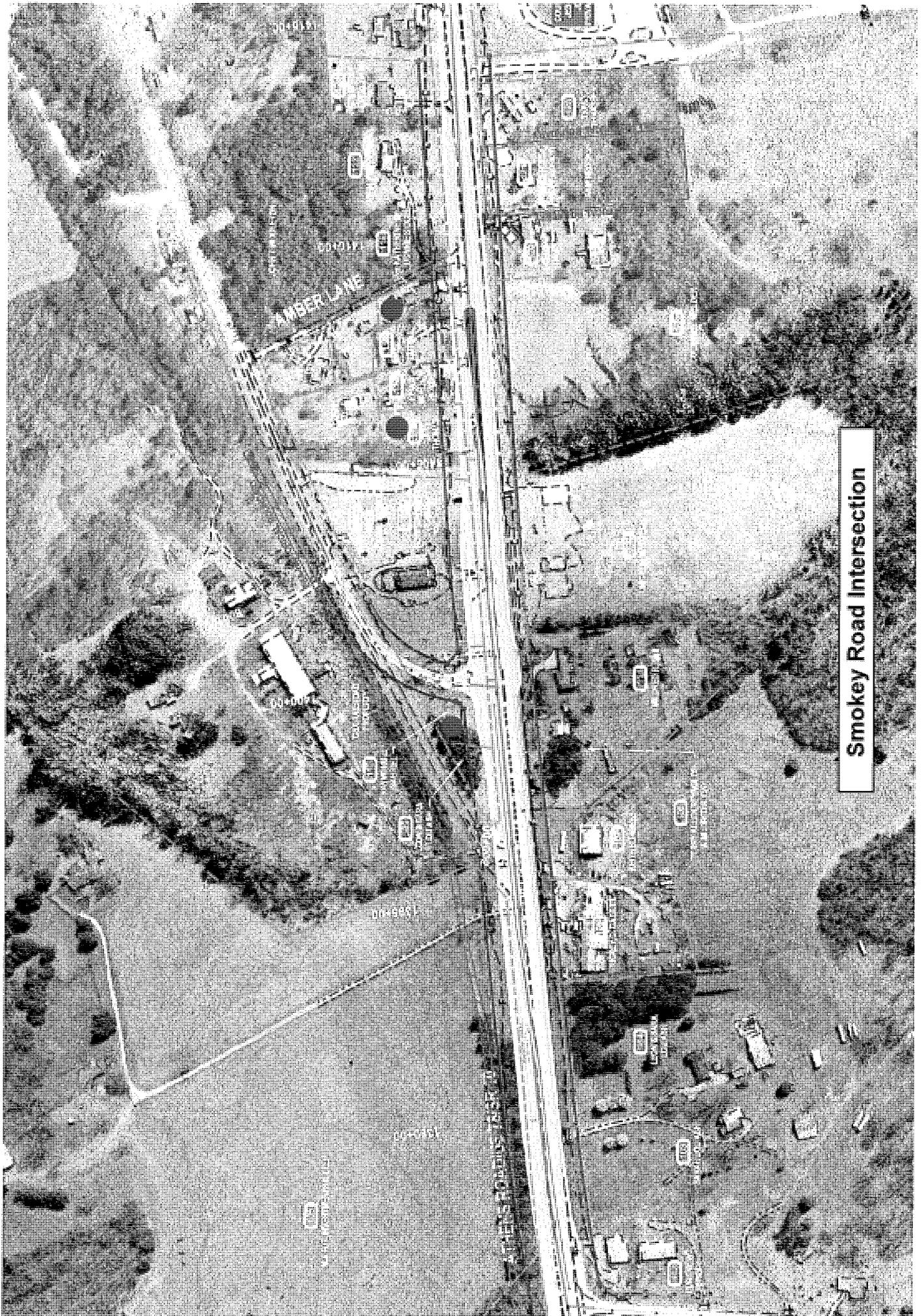
Walter Sams Road Intersection

Figure A-3



Arnoldsville Road Intersection

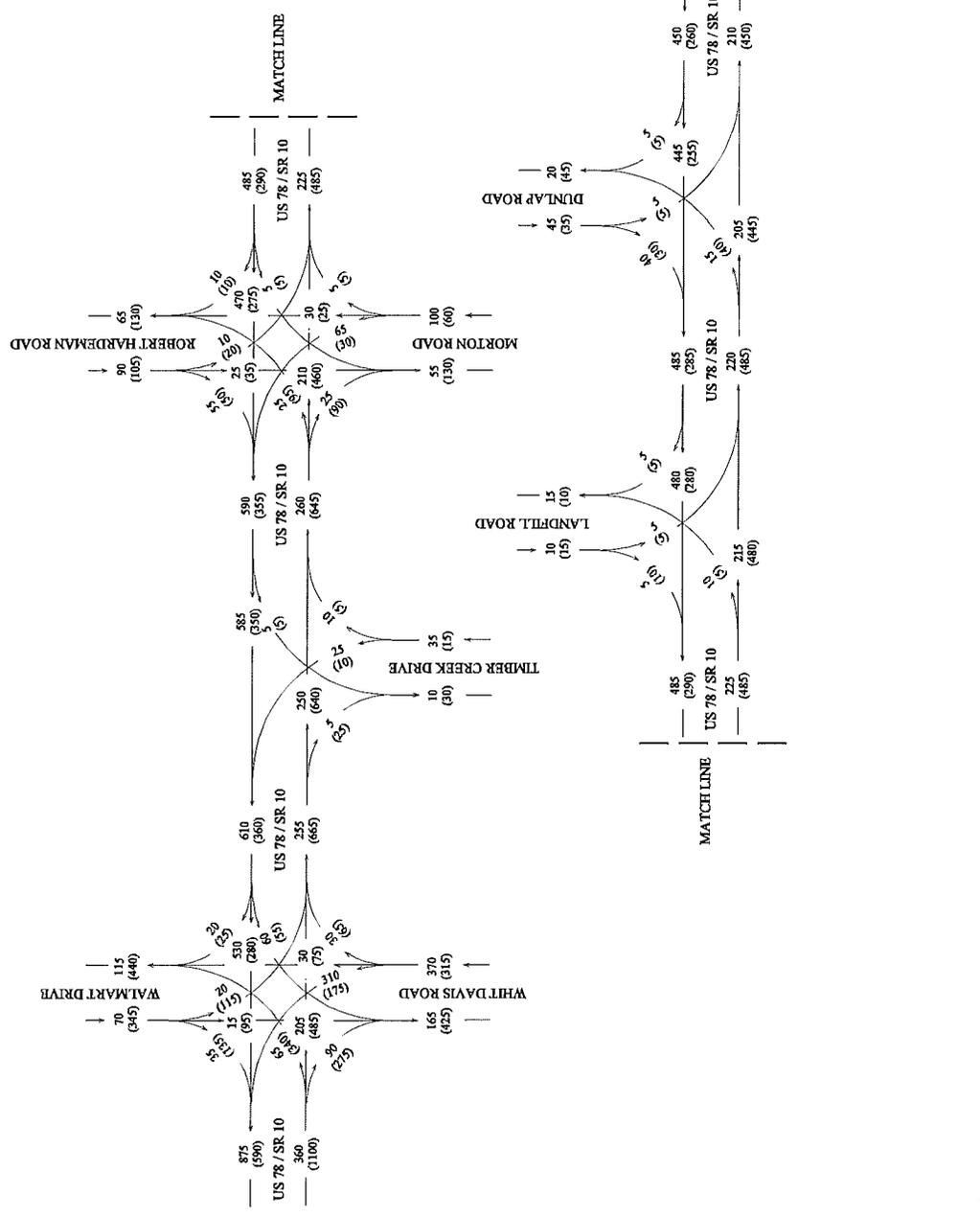
Figure A-4



Smokey Road Intersection

Figure A-5

DIV. TRAFFIC VOLUMES
 EXISTING YEAR 2012
 AM PEAK HOUR = 4%
 PM PEAK HOUR = 10%
 PEAK HOUR T = 7%
 S. L. = 4%
 COMB. = 3%



SEE NEXT FIGURE

CLARKE COUNTY &
 OGLETHORPE COUNTY
 US 78
 STP00-0014-01(069)
 P# 132660 082012

STATE OF GEORGIA	
DEPARTMENT OF TRANSPORTATION	
OFFICE: PROGRAM DELIVERY	
U.S. 78 / SR 10 WIDENING AND RECONSTRUCTION	
FROM CR 166 / WHIT DAVIS ROAD CLARKE COUNTY	
TO CR 28 / SMOKEY ROAD OGLETHORPE COUNTY	
REVISION DATES	10-001



FIGURE B-1

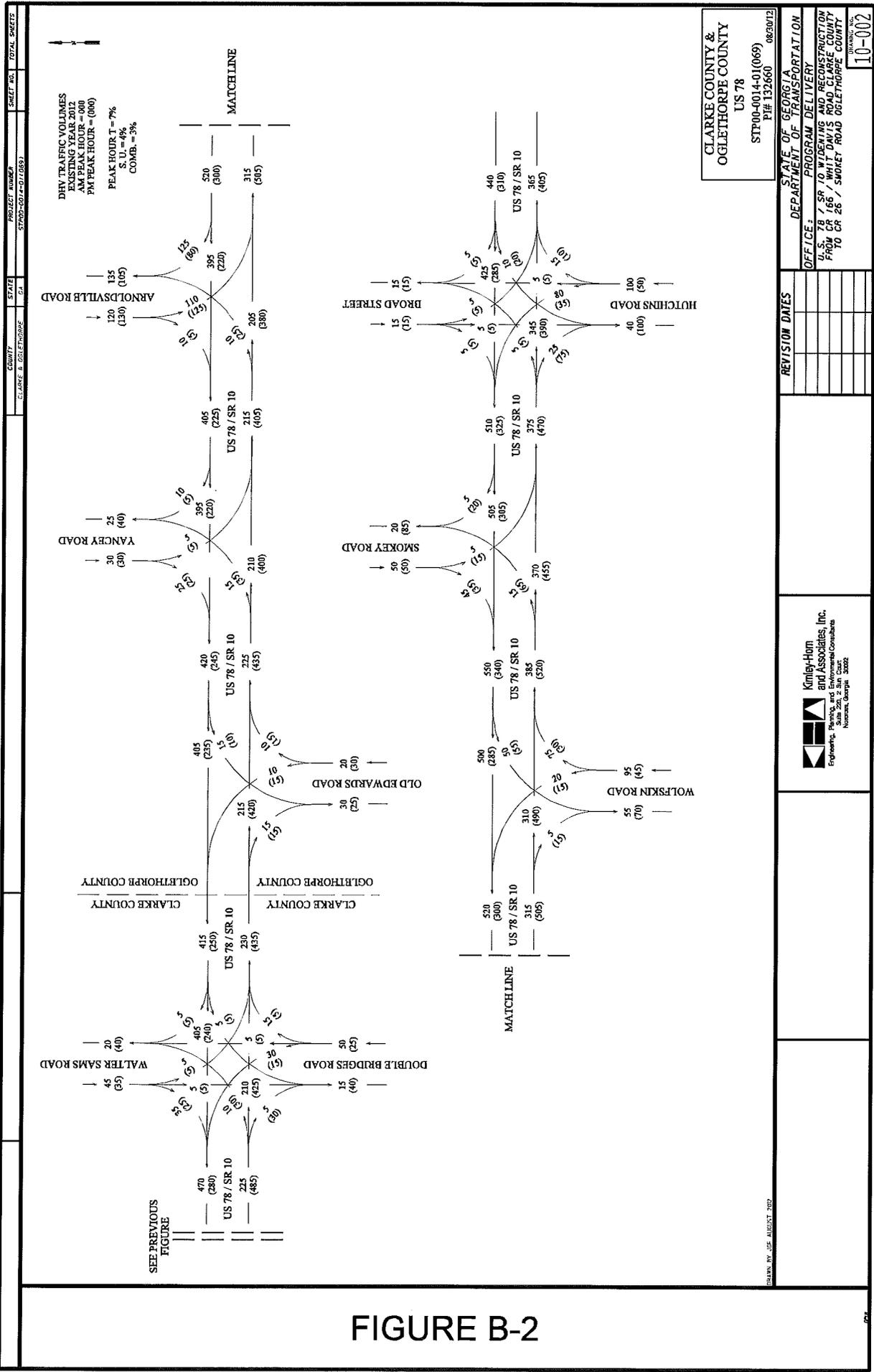
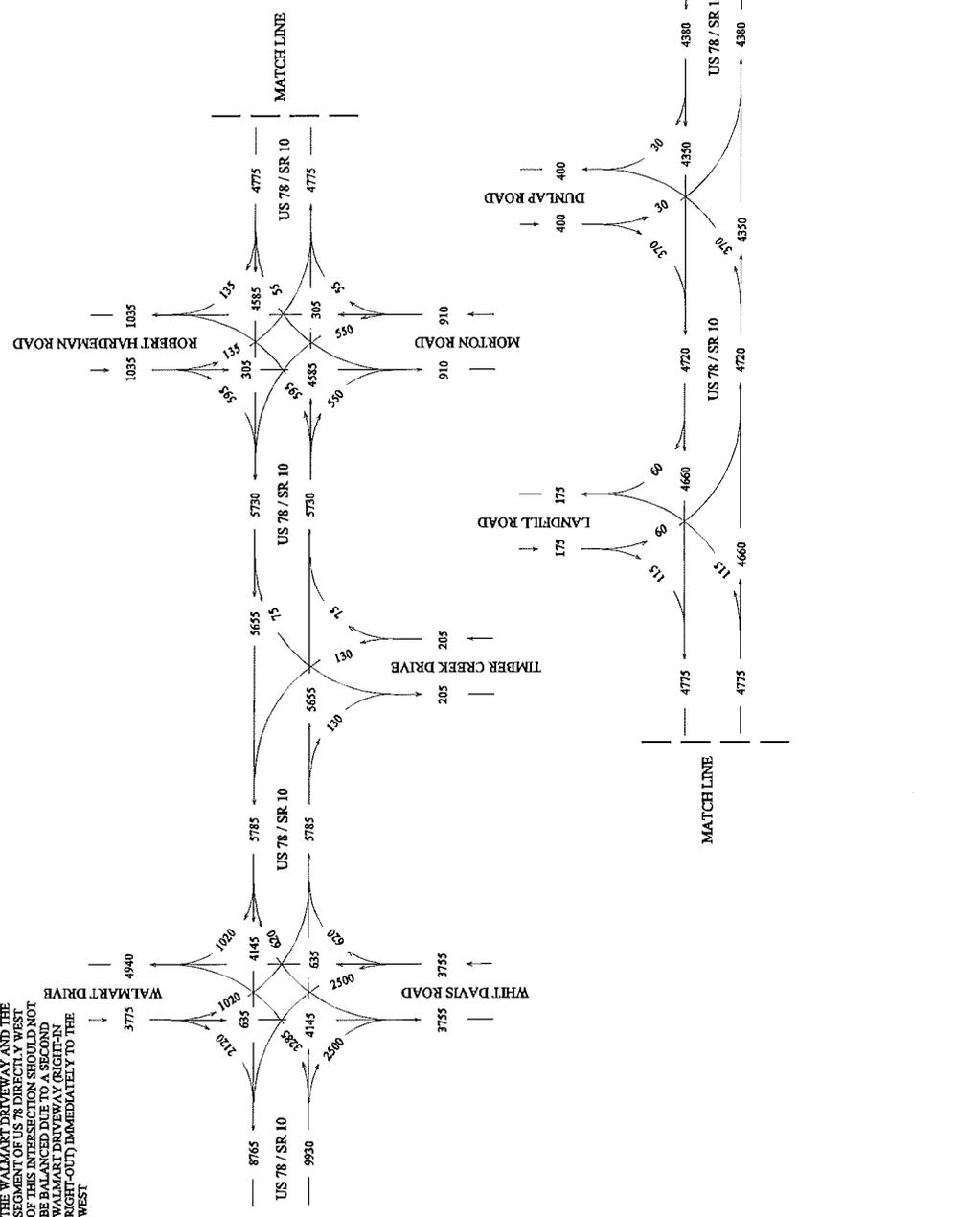


FIGURE B-2

ADJ. TRAFFIC VOLUMES
 EXISTING YEAR 2012 = 000
 24 HR. T = 12%
 S. U. = 7%
 COMB. = 5%

THE WALMART DRIVEWAY AND THE
 SEGMENT OF US 78 / SR 10 WEST
 OF THIS INTERSECTION SHOULD NOT
 BE BALANCED DUE TO A SECOND
 WALMART DRIVEWAY (RIGHT-IN
 RIGHT-OUT) IMMEDIATELY TO THE
 WEST



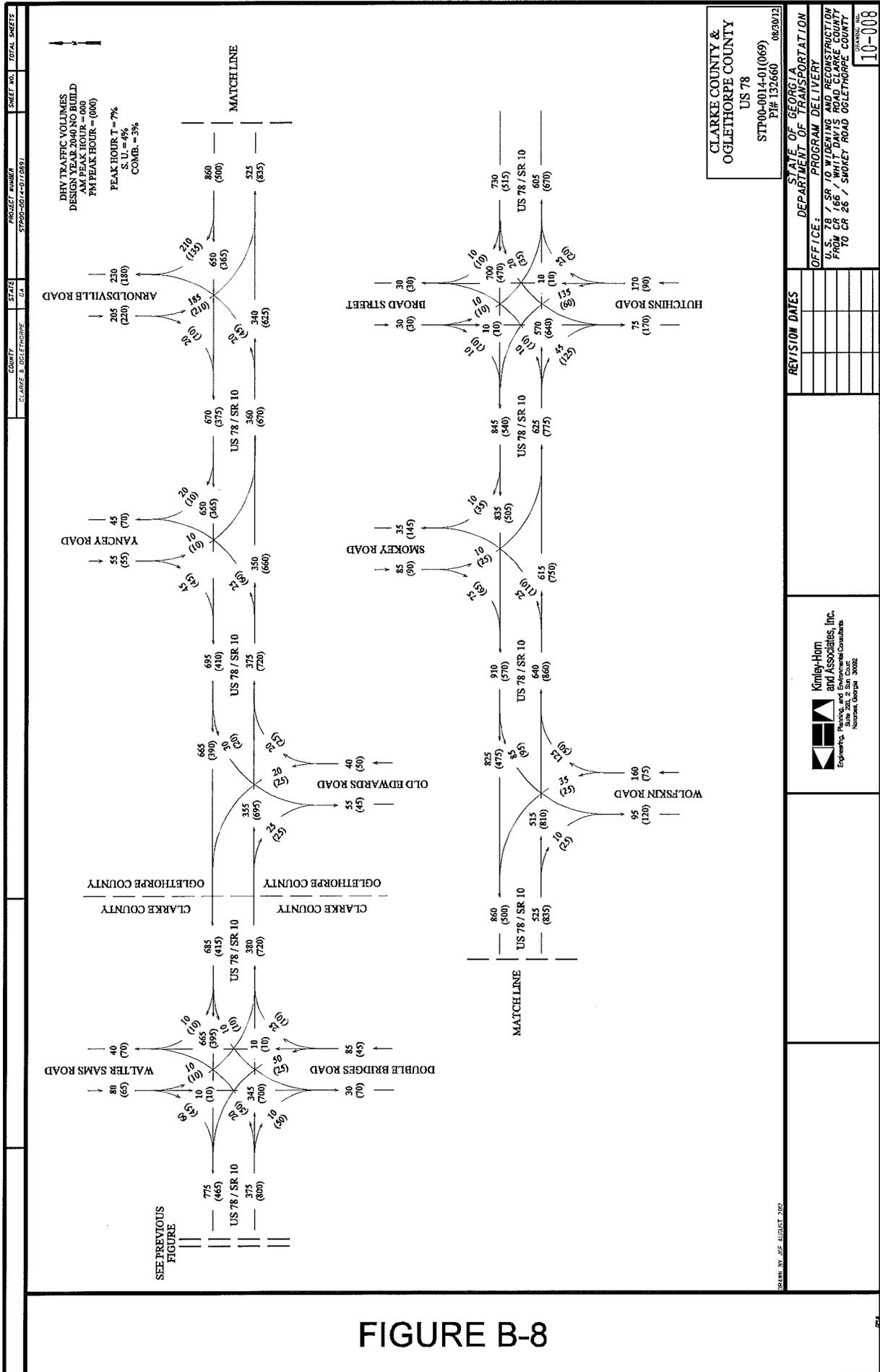
CLARKE COUNTY &
 OGLETHORPE COUNTY
 US 78
 STP00-0014-01(069)
 PI# 132660 062012

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

REVISION DATES	PROGRAM DELIVERY
	U.S. 78 / SR 10 WIDENING AND RECONSTRUCTION FROM CR 166 / WHIT DAVIS ROAD CLARKE COUNTY TO CR 26 / SMOKEY ROAD OGLETHORPE COUNTY



FIGURE B-3



DIV TRAFFIC VOLUMES
 BASE YEAR 2020 BUILD
 AM PEAK HOUR = (800)
 PM PEAK HOUR = (800)
 PEAK HOUR T = 7%
 S. L. = 4%
 COMB. = 3%

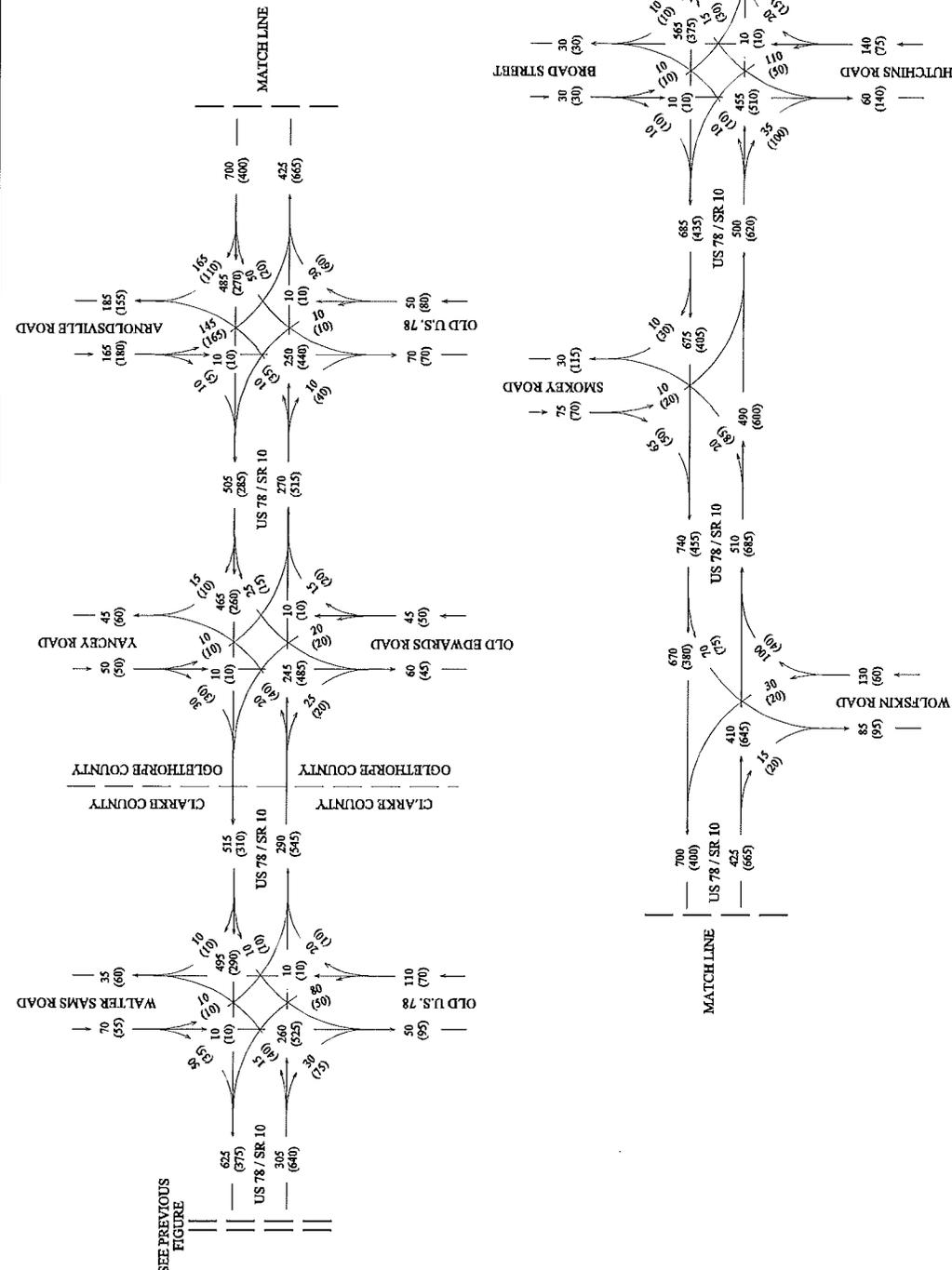


FIGURE B-10

CLARKE COUNTY &
 OGLETHORPE COUNTY
 US 78
 STP00-0014-01(069)
 PIF 132660 06/30/12

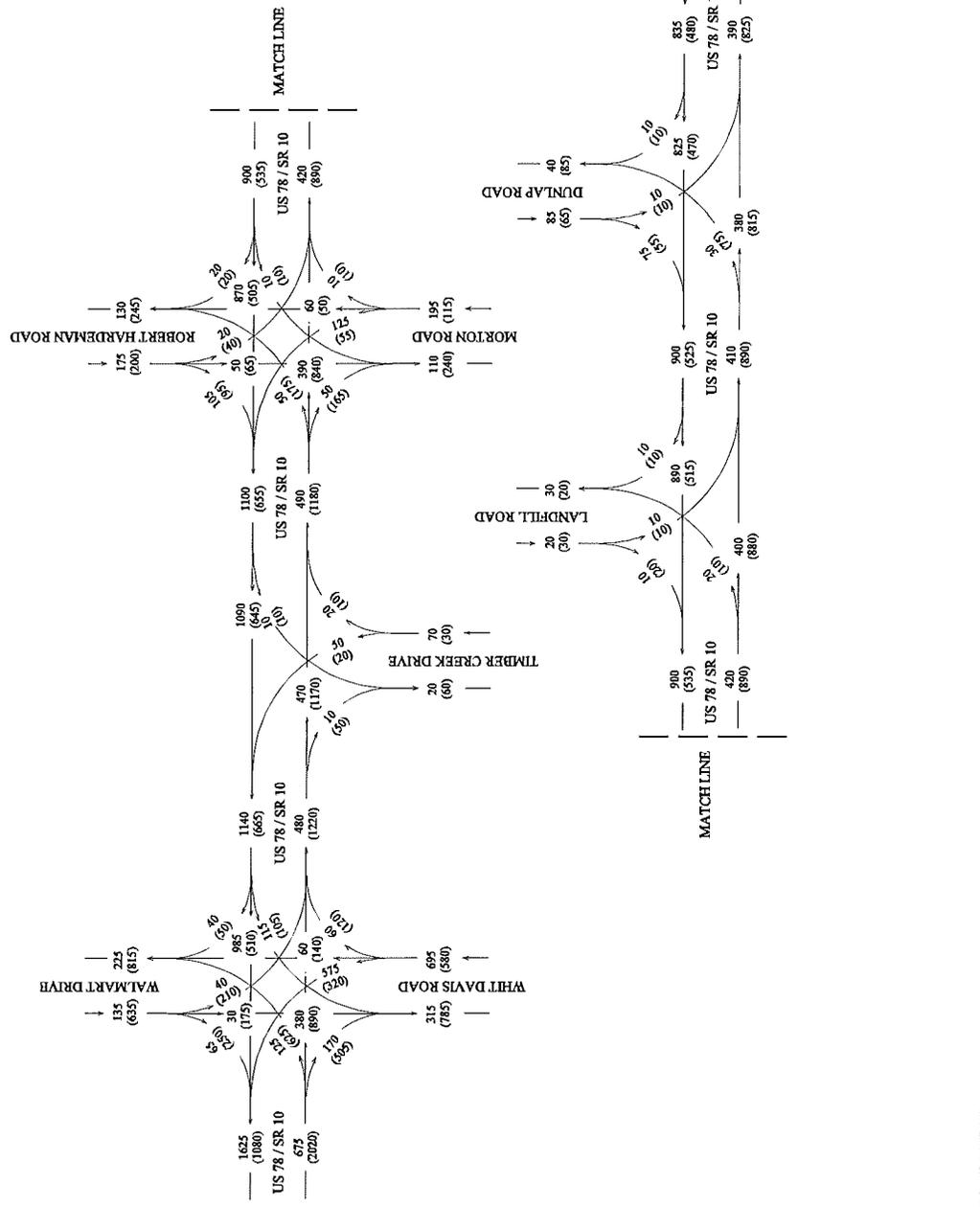
REVISION DATES

Kimley-Horn
 and Associates, Inc.
 Engineers, Planners, and Environmental Consultants
 Suite 202, S. San Court
 Norcross, Georgia 30092

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
 U.S. 78 / SR 10 WIDENING AND RECONSTRUCTION
 FROM CR 166 / WHIT DAVIS ROAD CLARKE COUNTY
 TO CR 26 / SMOKEY ROAD OGLETHORPE COUNTY

DRAWING NO.
 10-010

DRY TRAFFIC VOLUMES
 DESIGN YEAR 2040 BUILD
 10% GROWTH RATE
 PM PEAK HOUR = (800)
 PEAK HOUR T = 7%
 S.U. = 4%
 COMB. = 3%



CLARKE COUNTY &
 OGLETHORPE COUNTY
 US 78
 STP00-0014-01(069)
 PI# 132660 08.30.12

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
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OFFICE:
 U.S. 78 / SR 10 WIDENING AND RECONSTRUCTION
 FROM CR 166 / WHIT DAVIS ROAD CLARKE COUNTY
 TO CR 28 / SMOKEY ROAD OGLETHORPE COUNTY

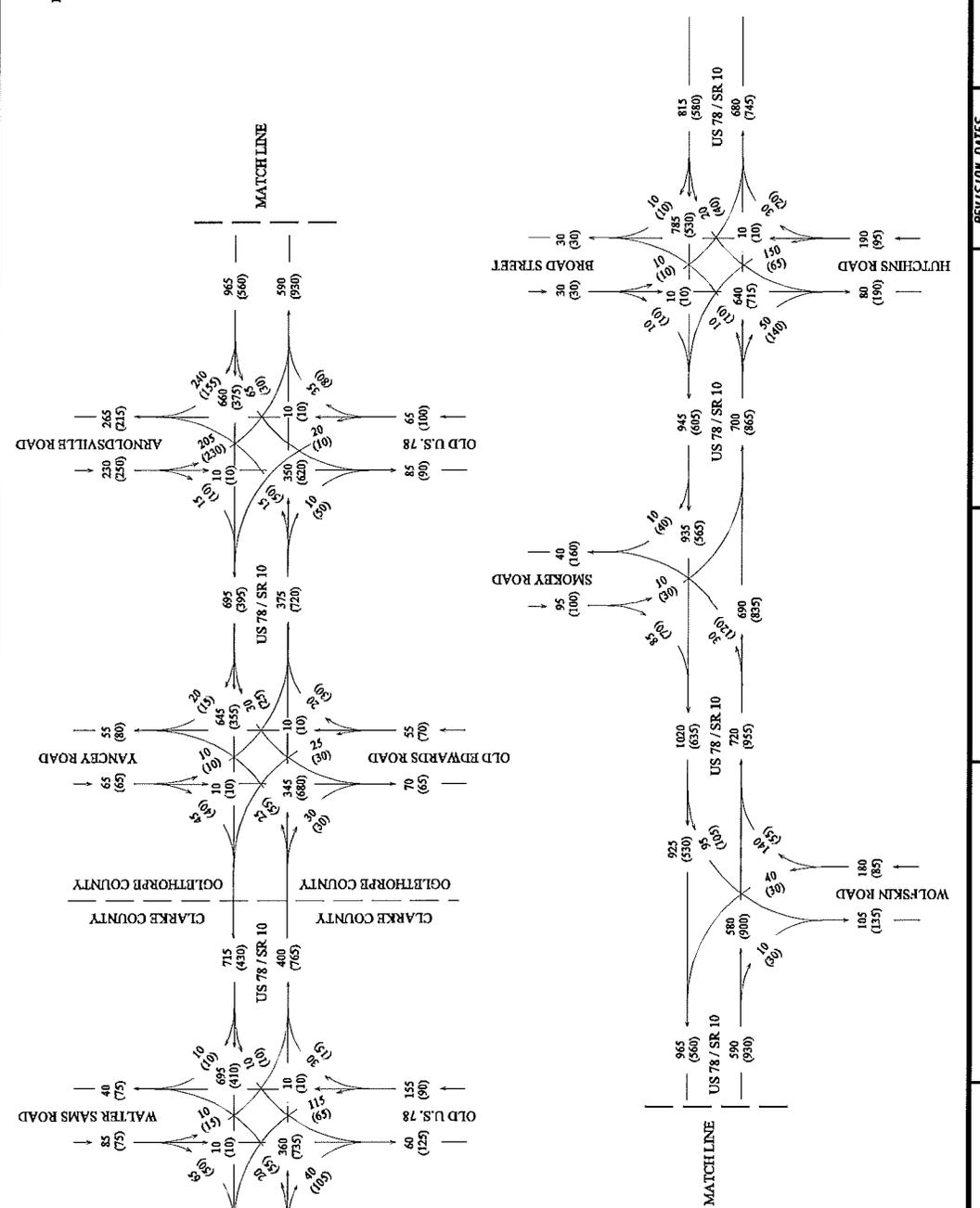
REVISION DATES

NO.	DATE	DESCRIPTION



FIGURE B-11

DRY TRAFFIC VOLUMES
 DESIGN YEAR 2010 BUILD
 AM PEAK HOUR = 600
 PM PEAK HOUR = (800)
 PEAK HOUR T = 7%
 S. U. = 4%
 COMB. = 3%



CLARKE COUNTY &
 OGLETHORPE COUNTY
 US 78
 STP00-0014-01(069)
 P# 132660 08/20/12

STATE OF GEORGIA
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 FROM CR 166 / WHIT DAVIS ROAD, CLARKE COUNTY
 TO CR 26 / SMOKEY ROAD, OGLETHORPE COUNTY

REVISION DATES

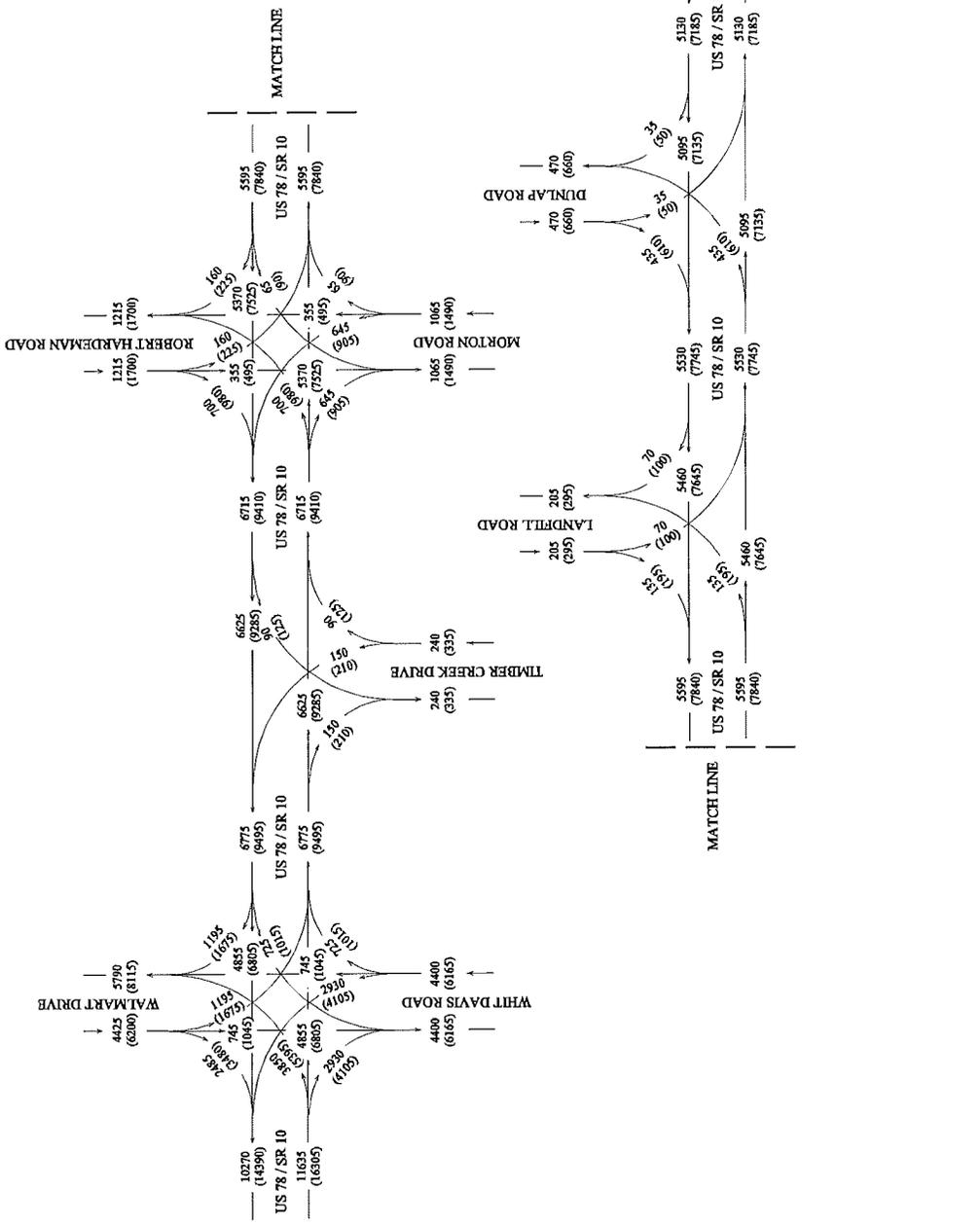
Kimley-Horn
 and Associates, Inc.
 Engineering, Planning, and Environmental Consultants
 Suite 202, 2 Sun Court
 Norcross, Georgia 30071

10-012

FIGURE B-12

ADT TRAFFIC VOLUMES
 NO BUILD BASE YEAR 2020 = 000
 NO BUILD DESIGN YEAR 2040 = 000

24 HR. T = 12%
 S. U. = 7%
 COMB. = 5%



CLARKE COUNTY &
 OGLETHORPE COUNTY
 US 78
 STP00-0014-01(069)
 PI# 132660 08/20/12

STATE OF GEORGIA
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 OFFICE:
 U.S. 78 / SR 10 WIDENING AND RECONSTRUCTION
 FROM CR 166 / WHIT DAVIS ROAD, CLARKE COUNTY
 TO CR 28 / SMOORET ROAD, OGLETHORPE COUNTY

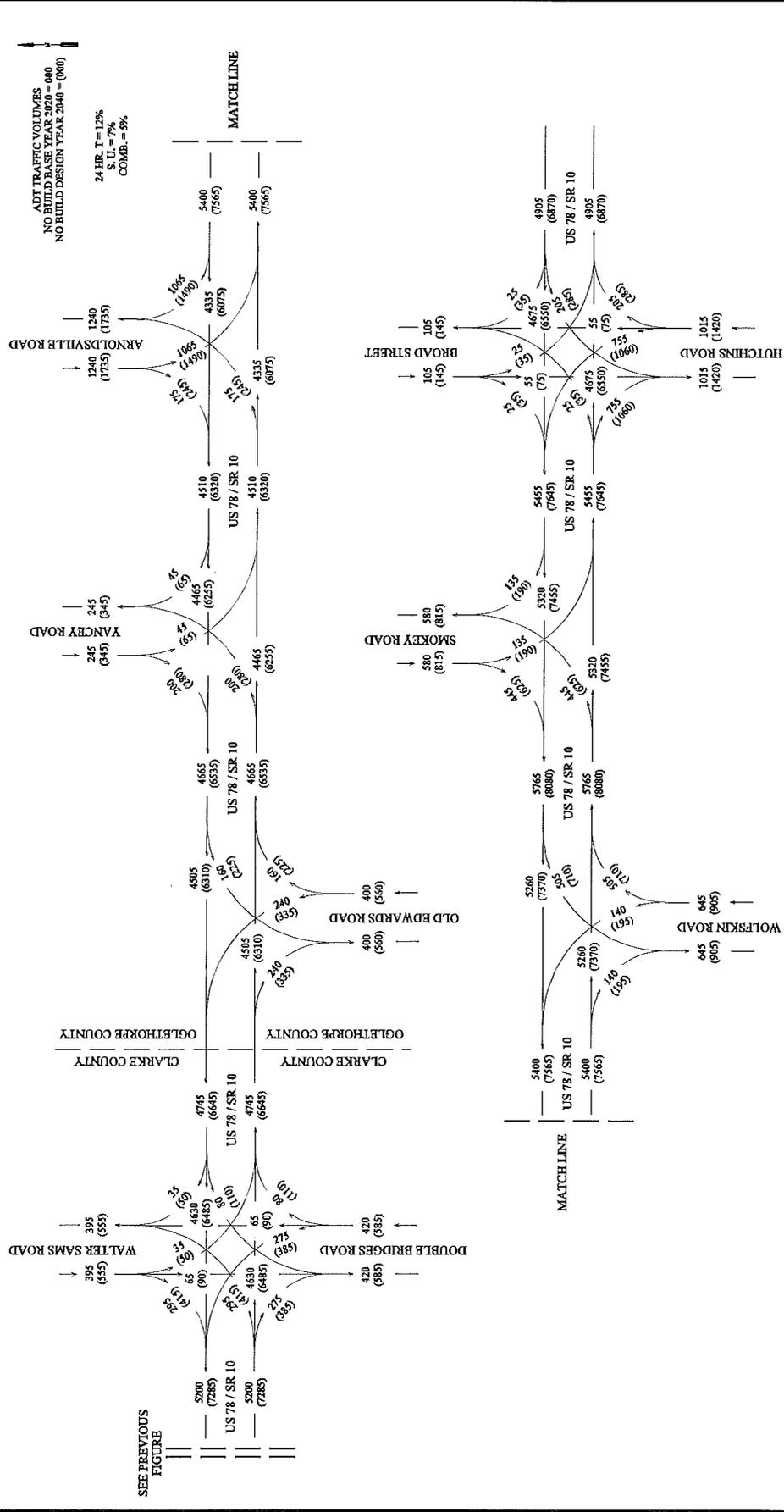
REVISION DATES

NO.	DATE	DESCRIPTION

Kimley-Horn
 and Associates, Inc.
 Engineering, Planning, and Environmental Consultants
 Suite 201, 2 Star Court
 Norcross, Georgia 30092

DRAWN BY: JCF AUGUST 2012

FIGURE B-13



CLARKE COUNTY &
 OGLETHORPE COUNTY
 US 78
 STP00-0014-01(069)
 P# 132660 062012

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 PROGRAM DELIVERY
 OFFICE: U.S. 78 / SR 10 WIDENING AND RECONSTRUCTION FROM CR 166 / WHIT DAVIS ROAD CLARKE COUNTY TO CR 26 / SMOKEY ROAD OGLETHORPE COUNTY

REVISION DATES

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 Suite 201, 2 Sun Court
 Norcross, Georgia 30092

DATE: 05/05/2012

10-014

FIGURE B-14

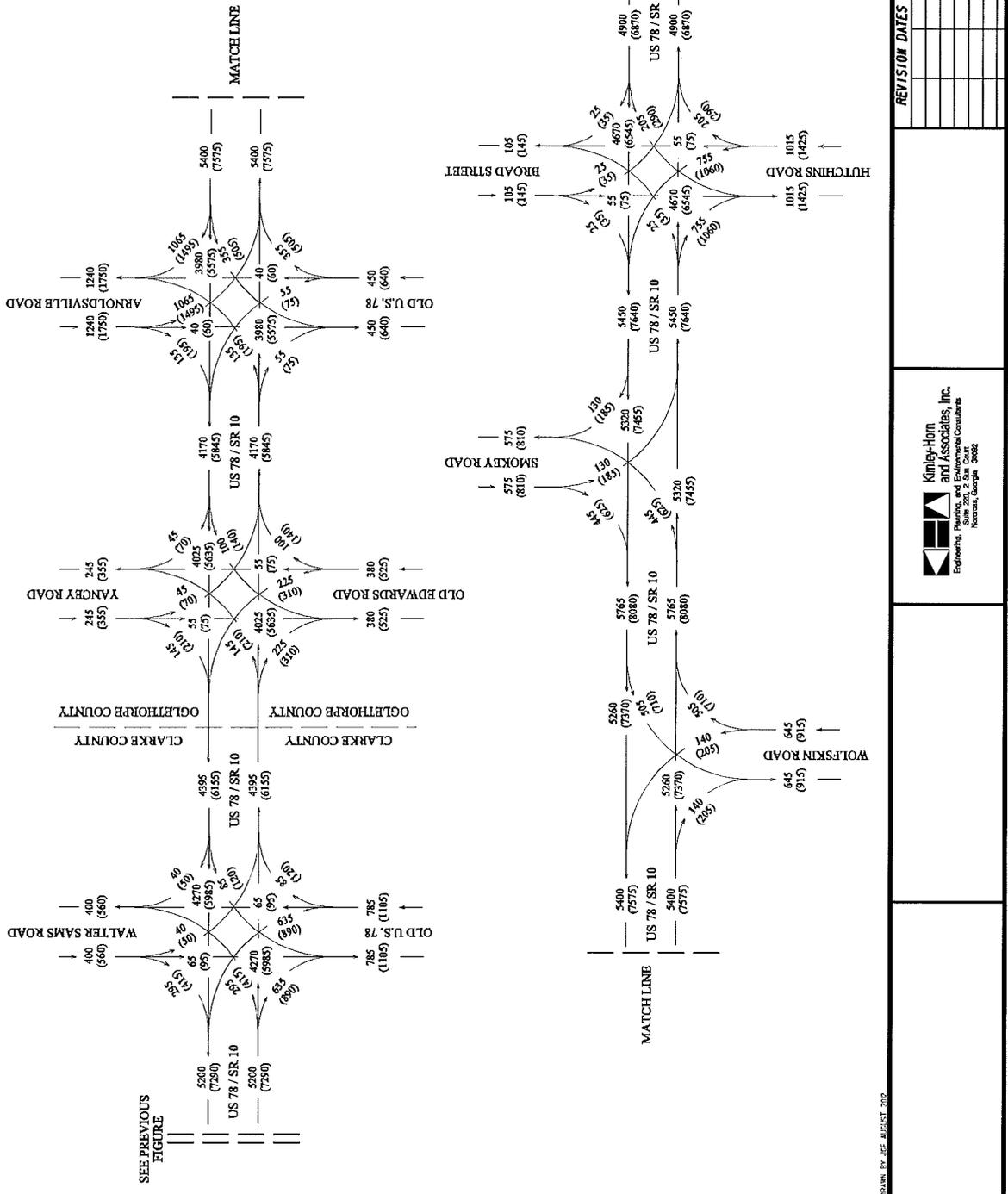
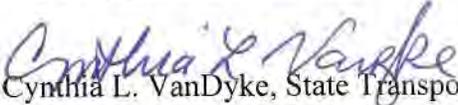


FIGURE B-16

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE PI 132660 **OFFICE** Planning
Clarke/Oglethorpe Counties
DATE May 31, 2012

FROM 
Cynthia L. VanDyke, State Transportation Planning Administrator

TO Bobby K. Hilliard P.E., State Program Delivery Engineer
Attn.: Peter Emmanuel

SUBJECT Project Justification Statement – Clarke/Oglethorpe Counties, P.I. 132660

As requested, please find attached the project justification statement for the proposed SR 10/US 78 widening, from CR 166/Whit Davis Road/Clarke County to CR 26/Smokey Road/ Oglethorpe County.

If you have any questions, please contact Anietie Bassey at (404)631-1795.

CLV: aeb

Attachment

Project Justification Statement
Clarke/Oglethorpe Counties PI # 132660
SR 10 FM CR 166/Whit Davis Road/Clarke to CR 26/Smokey Road/Oglethorpe

SR 10/US 78, from just east of CR 166/Whit Davis Road in Clarke County to CR 26/Smokey Road in Oglethorpe County, is currently a two lane east-west roadway functionally classified as an Urban Principal Arterial in Clarke County and a Rural Principal Arterial in Oglethorpe County. The posted speed limit on this section of roadway ranges between 45 MPH and 55 MPH. This portion of SR 10 /US 78 is not included as a designated bike route in the State Bicycle Plan or regional bike/pedestrian plan.

The proposed project was initially added to the Department Construction Work Program in 1995 and is currently identified in GDOT's draft FY2013-2016 STIP with the right-of-way phase funded in FY 2016 and construction currently outside the STIP timeframe. This project is not currently included within the Draft 2013-2016 Athens MPO Transportation Improvement Program (TIP) or 2035 Long Range Transportation Plan due to lack of financial constraint, however the Office of Planning is working with the MPO to remedy this.

Based upon detailed traffic data information developed as part of the project design process, the year 2012 Average Daily Traffic (ADT) on SR 10 ranging up to 18,695 ADT which represents level of service "E". Projected traffic volumes show an increasing traffic volume ranging up to 30,680 ADT by the design year 2037 which represents a LOS "F". Both LOS "E" and LOS "F" are considered unacceptable with regards to statewide LOS performance measures as referenced in the year 2005-2035 Statewide Transportation Plan (SWTP). Analysis of the last three years of available crash data along this section of SR 10/ US 78 revealed crash rates below the corresponding statewide average for similar facilities.

To the west, the project limits are logical where they would tie into an existing four-lane typical section just west of CR 166/Whit Davis Road in Clarke County. The eastern limit is proposed just east of CR 26/Smokey Road in Oglethorpe County, where traffic volume drops by approximately 10 %. East of this limit, year 2037 traffic volumes are projected to be 15,280 ADT corresponding to a LOS "D". Although slightly deficient, the Office of Planning recommends an eastern terminus just east of CR 26/Smokey Road in order to fix the deficient geometry and improve safety of that intersection, and to avoid history impacts towards downtown Crawford.

Based on this information, the proposed limits accommodate the primary purpose of this project, which is to address current and future deficiencies along this corridor between CR 166/Whit Davis Road and CR 26/Smokey Road in Clarke and Oglethorpe Counties.

JOB ESTIMATE REPORT

JOB NUMBER : 132660-
DESCRIPTION: US78/SR10 WIDENING
STP00-0014-01(069) CLARKE / OGLETHORPE

SPEC YEAR: 01

COST GROUPS FOR JOB 132660-

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
ASPH	ASPHALT (TN)				Y
ACTIVE COST GROUP TOTAL					
				0.00	
INFLATED COST GROUP TOTAL					
				0.00	

ITEMS FOR JOB 132660-

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
0005	150-1000		LS	TRAFFIC CONTROL - 132660	1.000	500000.00	500000.00	
0010	153-1300		EA	FIELD ENGINEERS OFFICE TP 3	1.000	75000.00	75000.00	
0020	201-1500		LS	CLEARING & GRUBBING - 132660	1.000	2500000.00	2500000.00	
0025	205-0001		CY	UNCLASS EXCAV	350000.000	3.00	1050000.00	
0030	310-1101		TN	GR AGGR BASE CRS, INCL MATL	155000.000	12.70	1970046.90	
0035	318-3000		TN	AGGR SURF CRS	1000.000	19.71	19715.32	
0040	402-1812		TN	RECYL AC LEVELING, INC BM&HL	5300.000	68.04	360640.14	
0045	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	130000.000	52.16	6781398.00	
0050	402-3130		TN	RECYL AC 12.5MM SP, GP2, BM&HL	25500.000	59.63	1520668.53	
0055	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	33250.000	56.33	1873065.27	
0060	413-1000		GL	BITUM TACK COAT	43000.000	2.47	106398.34	
0064	432-5010		SY	MILL ASPH CONC PVMT, VARB DEPTH	2500.000	3.56	8907.55	
0065	436-1000		LF	ASPH CONC CURB - 6"	3000.000	6.34	19044.57	
0070	441-0104		SY	CONC SIDEWALK, 4 IN	6880.000	22.67	156000.01	
0075	441-0204		SY	PLAIN CONC DITCH PAVING, 4 IN	3000.000	26.68	80053.92	
0080	441-4020		SY	CONC VALLEY GUTTER, 6 IN	1000.000	28.37	28374.17	
0085	441-6222		LF	CONC CURB & GUTTER/ 8"X30"TP2	10000.000	12.41	124190.70	
0090	446-1100		LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	10000.000	2.82	28289.70	
0094	456-2015		GLM	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	12.000	587.67	7052.05	
0095	500-9999		CY	CL B CONC, BASE OR PVMT WIDEN	50.000	175.47	8773.65	
0100	634-1200		EA	RIGHT OF WAY MARKERS	300.000	101.48	30445.87	
0105	641-1200		LF	GUARDRAIL, TP W	3000.000	16.65	49963.86	
0110	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	10.000	632.71	6327.14	
0115	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	10.000	1868.17	18681.71	
0119	643-0010		LF	FIELD FENCE WOVEN WIRE	2500.000	4.88	12209.55	
0120	648-1350		EA	IMPACT ATT UNIT, TP-P- 132660	2.000	15938.66	31877.32	
0125	550-1180		LF	STM DR PIPE 18",H 1-10	6500.000	27.26	177244.60	
0129	550-1240		LF	STM DR PIPE 24",H 1-10	1500.000	36.06	54102.27	
0130	550-1360		LF	STM DR PIPE 36",H 1-10	200.000	58.25	11650.29	
0135	550-1360		LF	STM DR PIPE 36",H 1-10	2500.000	58.25	145628.58	
0140	550-2180		LF	SIDE DR PIPE 18",H 1-10	1000.000	24.88	24881.65	

JOB ESTIMATE REPORT

0144	550-2240	LF	SIDE DR PIPE 24",H 1-10	200.000	30.03	6006.76
0145	550-2300	LF	SIDE DR PIPE 30",H 1-10	200.000	36.69	7339.86
0149	550-3424	EA	SAFETY END SECTION 24",SD,4:1	6.000	627.83	3766.99
0150	550-4124	EA	FLARED END SECT 24 IN, SIDE DR	30.000	398.63	11958.96
0155	550-3418	EA	SAFETY END SECTION 18",SD,4:1	60.000	376.33	22580.35
0160	550-4218	EA	FLARED END SECT 18 IN, ST DR	85.000	446.73	37972.84
0164	550-4230	EA	FLARED END SECT 30 IN, ST DR	10.000	658.24	6582.46
0165	550-4236	EA	FLARED END SECT 36 IN, ST DR	32.000	950.30	30409.61
0170	577-1100	EA	METAL DR INLET - CMLPT ASSEMBLY	4.000	1147.17	4588.68
0175	603-2018	SY	STN DUMPED RIP RAP, TP 1, 18"	2300.000	50.99	117277.00
0180	603-7000	SY	PLASTIC FILTER FABRIC	2300.000	3.41	7846.80
0185	668-1100	EA	CATCH BASIN, GP 1	30.000	1953.40	58602.01
0190	668-2100	EA	DROP INLET, GP 1	90.000	1377.57	123981.40
0195	207-0203	CY	FOUND BK FILL MATL, TP II	230.000	40.20	9246.71
0200	500-3101	CY	CLASS A CONCRETE	1025.000	350.99	359770.24
0205	511-1000	LB	BAR REINF STEEL	120000.000	0.71	86319.60
0210	603-1024	SY	STN PLAIN RIP RAP, 24 IN	800.000	63.26	50608.00
0215	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	3000.000	12.45	37362.63
0220	636-2070	LF	GALV STEEL POSTS, TP 7	3600.000	6.04	21759.01
0224	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	120.000	70.67	8481.49
0225	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	100000.000	0.37	37738.00
0230	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	100000.000	0.24	24149.00
0235	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	100000.000	0.39	39569.00
0240	654-1003	EA	RAISED PVMT MARKERS TP 3	1200.000	3.31	3978.92
0245	647-1000	IS	TRAF SIGNAL INSTALLATION NO - US 78 @	1.000	100000.00	100000.00
			WHIT DAVIS ROAD			
0250	647-1000	LS	TRAF SIGNAL INSTALLATION NO - US 78 @	1.000	100000.00	100000.00
			MORTON ROAD			
0255	647-1000	LS	TRAF SIGNAL INSTALLATION NO - US 78 @	1.000	100000.00	100000.00
			WALTER SAMS ROAD			
0260	647-1000	LS	TRAF SIGNAL INSTALLATION NO - US 78 @	1.000	100000.00	100000.00
			ARNOLDSVILLE ROAD			
0265	163-0232	AC	TEMPORARY GRASSING	100.000	31.17	3117.81
0270	163-0240	TN	MULCH	2400.000	152.12	365099.88
0275	163-0300	EA	CONSTRUCTION EXIT	30.000	1201.38	36041.57
0280	163-0503	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP	2.000	256.61	513.22
			3			
0284	163-0529	LF	CNST/REM TEMP SED BAR OR BLD STRW CK DM	25000.000	4.07	101954.75
0285	163-0531	EA	CONSTR & REM SEDIMENT BASIN,TP 1,STA	25.000	8759.08	218977.24
			NO- XX+XX			
0290	163-0541	EA	CONSTR & REM ROCK FILTER DAMS	30.000	247.57	7427.38
0295	163-0542	EA	CONSTR & REM STONE FILTER RING	40.000	220.69	8827.72
0300	165-0010	LF	MAINT OF TEMP SILT FENCE, TP A	19500.000	0.66	12978.42
0305	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	10000.000	0.70	7012.10
0310	165-0060	EA	MAINT OF TEMP SEDIMENT BASIN,STA NO -	25.000	994.63	24865.78
0315	165-0101	EA	MAINT OF CONST EXIT	30.000	452.93	13588.18
0320	165-0110	EA	MAINT OF ROCK FILTER DAM	30.000	60.38	1811.42
0325	165-0111	EA	MAINT OF STONE FILTER RING	40.000	58.87	2354.98
0330	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	4.000	228.40	913.62
0335	167-1500	MO	WATER QUALITY INSPECTIONS	24.000	314.07	7537.86
0340	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	39000.000	1.42	55441.23

JOB ESTIMATE REPORT

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
0345	171-0030	LF			
0350	700-6910	AC			
0355	700-7000	TN			
0360	700-8000	TN			
0365	700-8100	LB			
0369	710-9000	SY			
0375	716-2000	SY			
	TEMPORARY SILT FENCE, TYPE C		2000.000	2.79	55803.40
	PERMANENT GRASSING		200.000	464.79	92959.98
	AGRICULTURAL LIME		400.000	28.50	11403.22
	FERTILIZER MIXED GRADE		140.000	430.45	60264.17
	FERTILIZER NITROGEN CONTENT		10000.000	1.81	18135.90
	PERM SOIL REINFORCING MAT		18000.000	3.15	56753.82
	EROSION CONTROL MATS, SLOPES		135000.000	0.68	91939.05
	ITEM TOTAL				20554250.67
	INFLATED ITEM TOTAL				20554250.67

TOTALS FOR JOB 132660-

ESTIMATED COST: 20554250.68
 CONTINGENCY PERCENT (0.0): 0.00
 ESTIMATED TOTAL: 20554250.68

PROJ. NO. STP00-0014-01(069)
P.I. NO. 132660-
DATE 1/17/2013

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Jan-13	\$ 3.278
DIESEL		\$ 3.938
LIQUID AC		\$ 567.00

Link to Fuel and AC Index:
<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				3300790.5	\$	3,300,790.50
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	907.20		
Monthly Asphalt Cement Price month project let (APL)			\$	567.00		
Total Monthly Tonnage of asphalt cement (TMT)				9702.5		

ASPHALT	Tons	%AC	AC ton
Leveling	5300	5.0%	265
12.5 OGFC		5.0%	0
12.5 mm	25500	5.0%	1275
9.5 mm SP		5.0%	0
25 mm SP	130000	5.0%	6500
19 mm SP	33250	5.0%	1662.5
	194050		9702.5

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$ 62,831.31	\$	62,831.31
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	907.20		
Monthly Asphalt Cement Price month project let (APL)			\$	567.00		
Total Monthly Tonnage of asphalt cement (TMT)				184.6893396		

Bitum Tack

Gals	gals/ton	tons
43000	232.8234	184.68934

PROJ. NO.

STP00-0014-01(069)

CALL NO.

P.I. NO.

132660-

DATE

1/17/2013

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)

0

\$

-

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$

907.20

Monthly Asphalt Cement Price month project let (APL)

\$

567.00

Total Monthly Tonnage of asphalt cement (TMT)

0

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT

\$

3,363,621.81

PI #132660 US 78 Widening, Clarke and Oglethorpe Counties –
Mitigation Cost Estimate

HUC	Wetland Impacts (acres)	Wetland Mitigation Credits Required	Wetland Mitigation Cost Estimate	Stream Impacts (feet)	Stream Mitigation Credits Required	Stream Mitigation Cost Estimate
03070101	0.06	0.52	\$3,900.00	693	3,469	\$242,830.00

- Prepared 6/11/12 by Eric Martin, KHA

Assumes the following credit cost estimates:

- Upper Oconee Watershed (HUC 03070101)– Stream Credit = \$70; Wetland Credit = \$7,500
- Broad River Watershed (HUC 03060104)- Stream Credit = \$45; Wetland Credit = \$7,500

Department of Transportation

State of Georgia

Interdepartmental Correspondence

FILE R/W Cost Estimate **OFFICE** Atlanta
DATE February 12, 2013
FROM Phil Copeland, Right of Way Administrator
TO Peter Emmanuel, Assistant Project Manager
SUBJECT **Preliminary Right of Way Cost Estimate**

Project: STP00 -0014-01(069)

County: Clarke & Oglethorpe County

P.I. No.: 132660

Description: Widening and Reconstruction of SR 10/US 78

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

If you have any questions, please contact LaShone Alexander at One Georgia Center 600 West Parkway Street, NW Atlanta, GA 30308, Right of Way Office at (478) 553-1569 or (478) 232-4045.

~

PC:LA
Attachments
c:

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 9/17/2012 Project: STP00-0014-01(069)
 Revised: County: Clarke/Oglethorpe
 PI: 132660-

Description: US78 Widening and Relocation
 Project Termini:

Existing ROW:
 Required ROW:
 Parcels: 105

Land and Improvements _____ \$4,338,525.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$0.00
Improvements	\$0.00

Valuation Services _____ \$204,375.00

Legal Services _____ \$670,875.00

Relocation _____ \$895,000.00

Demolition _____ \$440,000.00

Administrative _____ \$920,000.00

TOTAL ESTIMATED COSTS _____ \$7,468,775.00

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$7,469,000.00

Preparation Credits	Hours	Signature

Prepared By: Dathone Alexander CG#: 286999 02/12/2013 (DATE)
 Approved By: Dathone Alexander CG#: 286999 02/12/2013 (DATE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE STP00-0014-01(069) Clarke-Oglethorpe County
P.I. No. 132660
SR 10/US 78 From Whit Davis Rd to Smokey Rd.

OFFICE Gainesville

DATE February 20, 2013

FROM William L. Edwards
Metro Utilities Engineer

TO Peter Emmanuel
Project Manager, Office of Program Delivery

SUBJECT UPDATED PRELIMINARY UTILITY COST ESTIMATE

As requested by your office, we are furnishing you with a Preliminary Utility Cost Estimate for the subject project.

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
AT&T	\$426,117.00	\$96,247.00
Charter Communications	\$57,780.00	\$0.00
City of Arnoldsville	\$51,360.00	\$0.00
City of Crawford	\$572,022.00	\$2,996.00
Georgia Power-Distribution	\$150,442.00	\$620,600.00
Georgia Power-Transmission	\$0.00	\$107,000.00
Rayle EMC	\$118,342.00	\$558,540.00
Tri County Natural Gas	\$494,394.00	\$89,987.00
Unified Gov. of Athens-Clarke Co.	\$2,218,645.00	\$0.00
Windstream	\$134,125.00	\$70,299.00

Total Public and Private Utility Cost	\$4,223,226.00	\$1,545,669.00
--	-----------------------	-----------------------

****Note: If the City of Arnoldsville, City of Crawford, Tri County Natural Gas and/or Unified Gov. of Athens-Clarke Co., and is granted Utility Aid then \$ 3,336,421.00 needs to be moved to the Reimbursable amount.**

If you have any questions, please contact William L. Edwards at 770-532-5510.

WLE

**C: Mike Bolden, State Utilities Engineer
Neil A. Kantner, District Utilities Engineer
Dana Garrison, Area Engineer
File**