

ORIGINAL TO GENERAL FILES

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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

**FILE** P.I. #0009411                      **OFFICE** Design Policy & Support  
QUICK PROJECT: SR 74  
Operational Improvements  
from CR 3740 to I-85  
Fulton County - District 7                      **DATE** October 15, 2010

**FROM**  Brent Story, State Design Policy Engineer

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED CONCEPT REPORT

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

Attachment

DISTRIBUTION:

Genetha Rice-Singleton, Program Control Administrator  
Ron Wishon, State Project Review Engineer  
Glenn Bowman, State Environmental Administrator  
Ken Thompson, Statewide Location Bureau Chief  
Michael Henry, Systems & Classification Branch Chief  
Kathy Zahul, State Traffic Engineer  
Angela Alexander, State Transportation Planning Administrator  
Ben Rabun, State Bridge Engineer  
Bobby Hilliard, State Program Delivery Engineer  
Angela Robinson, Financial Management Administrator  
Jeff Baker, State Utilities Engineer  
Jonathan Walker, District Utilities Engineer  
Scott Lee, District Design Engineer  
Bryant Poole, District Engineer  
Mike Lobdell, Project Manager  
BOARD MEMBER - 13th Congressional District

*01/23/2012 - updated to correct posted/design speed.  
DRP*

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

DISTRICT SEVEN

SR 74 Fm CR 3740/Oakley Industrial Blvd To I-85  
Operational Improvements

\*\*\*\*\* QRP Quick Response Project \*\*\*\*\*

PROJECT CONCEPT REPORT

FULTON COUNTY

FEDERAL ROUTE: N/A  
STATE ROUTE NO: 74  
GADOT P.I. NO: 0009411

SEE ATTACHED  
LOCATION SKETCH

Date of Report: June 21, 2010

RECOMMENDED: 9/17/2010  
DATE

\* KATHI ZAHUL  
TRAFFIC OPERATIONS ENGINEER

RECOMMENDED: 6/23/10  
DATE

Ben Hood  
DISTRICT ENGINEER

APPROVED: 10/16/2010  
DATE

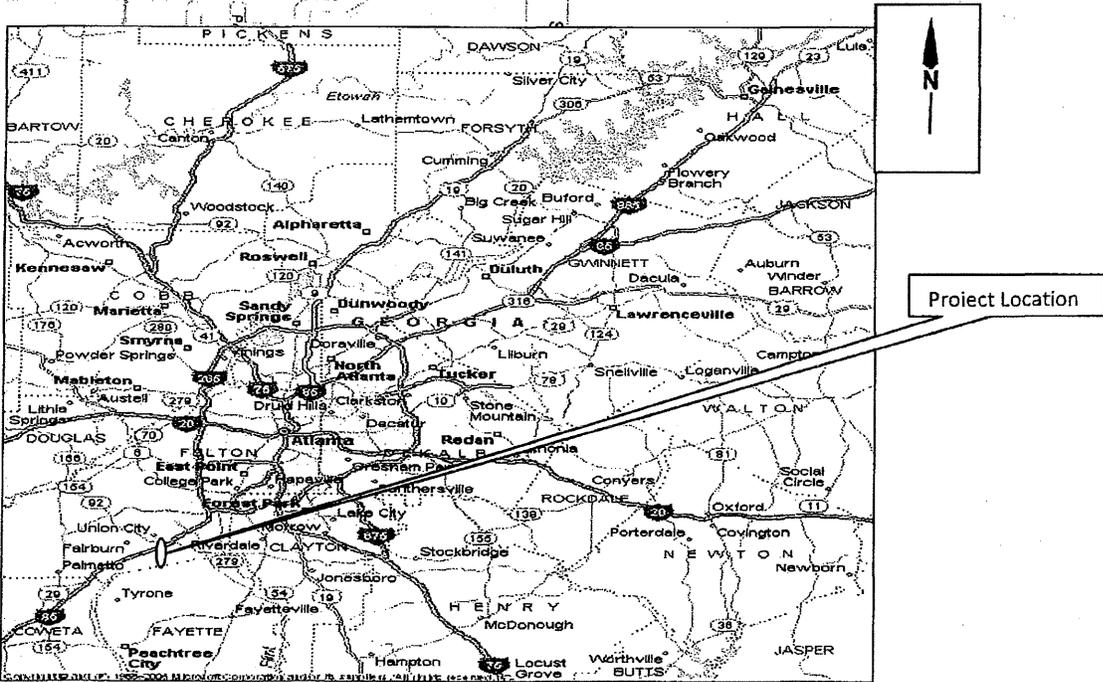
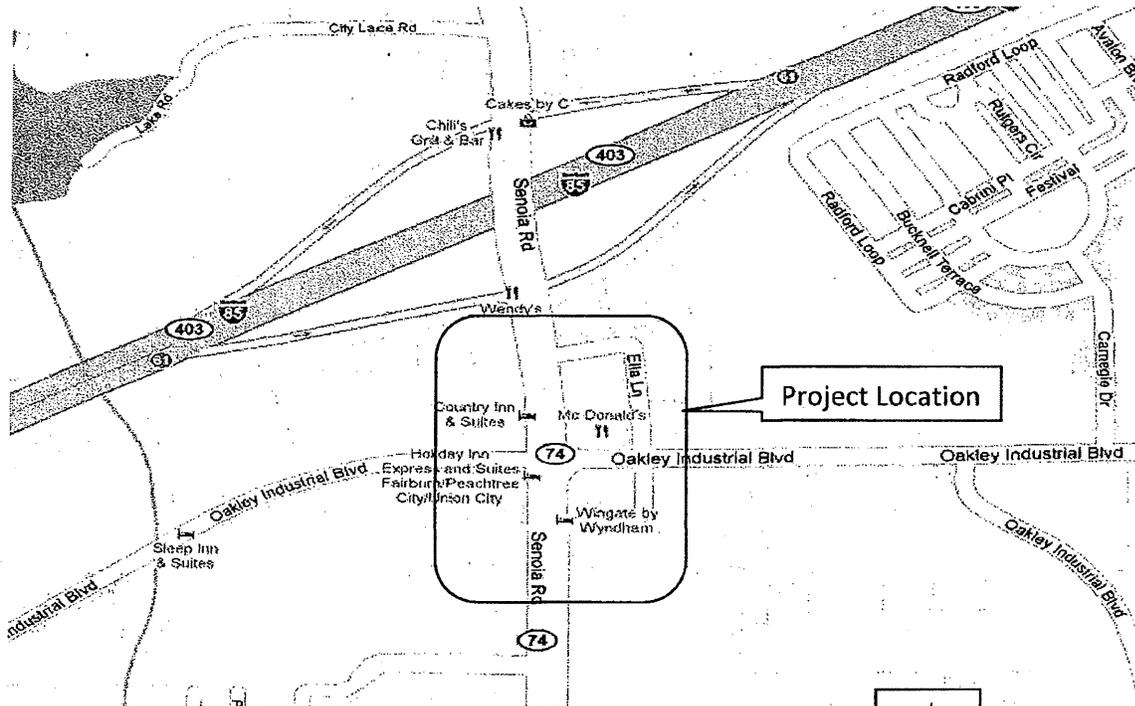
Debra M. R...  
CHIEF ENGINEER

\* RECOMMENDATION ON FILE

# Project Location Map

P. I. Number: 0009411

**Project Description:** SR 74/Senoia Rd from I-85 to Oakley Ind. Blvd Intersection, South Fulton County



**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENTAL CORRESPONDENCE**

**FILE** PI 0009411 Fulton County

**OFFICE:** Planning

**DATE:** March 17, 2010

**FROM**   
Angela T. Alexander, State Transportation Planning Administrator

**TO** Mike Lobdell, District Seven Preconstruction Engineer  
Attn: Daniel Gethi, District Seven

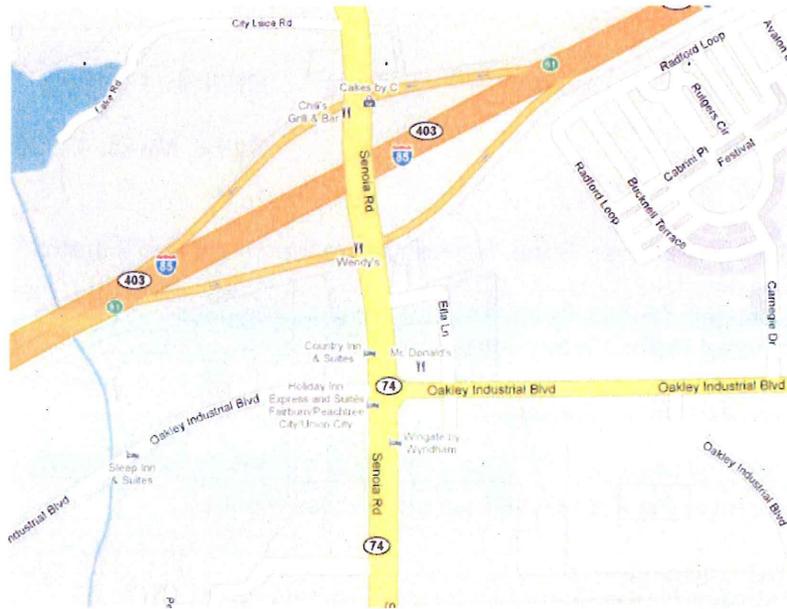
**SUBJECT** Need and Purpose Statement

The Office of Planning is providing this Need and Purpose Statement for PI 0009411 as defined in the Plan Development Process Manual.

If any changes occur to the concept, please notify this office immediately. If you have any questions, please contact Kaycee Mertz at (404) 2470245.

ATA:kem

**NEED AND PURPOSE**  
**PI 0009411**  
**Fulton County**  
**SR 74/Senoia Road from I-85 to Oakley Industrial Boulevard**  
**Intersection Improvements**



**Existing Conditions**

Located in the City of Fairburn in Fulton County, State Route 74/Senoia Road between the I-85 northbound ramps and Oakley Industrial Boulevard is a four-lane divided urban principal arterial with intermittent turning lanes and sidewalks. The speed limit in this area is 50 mph north of Ella Lane and 55 mph south of Ella Lane.\*

There are three intersections on SR 74 within this section of the route. The first intersection, SR 74 at the I-85 northbound ramps, is currently signalized. At this location, SR 74 southbound currently has two through lanes and one exclusive left turn lane; northbound has one exclusive right turn lane, one shared right/through lane, and one exclusive through lane. I-85 northbound off-ramp has one lane at this intersection, which allows left or right turns onto SR 74.

At the next intersection with Ella Lane ("Shell Gas Driveway"), SR 74 is not signalized; traffic on Ella Lane is controlled by a stop sign. At this location SR 74 southbound currently has two through lanes and one exclusive left turn; northbound has one exclusive left turn lane, two through lanes and one shared through/right turn lane. Ella Lane and the Shell Gas driveway each have one lane that allows through, left turn, or right turn movement.

The third intersection, at Oakley Industrial Boulevard, is currently signalized. At this intersection, SR 74 has two through lanes, one left turn lane, and one right turn lane each for both northbound and southbound approaches. Oakley Industrial Boulevard westbound has one exclusive right turn lane and

\* District 7 Design has confirmed that posted speed is 45 mph throughout Project Limits. - PRP 01/23/2012

one shared through/left turn lane. Oakley Industrial Boulevard eastbound has one lane which allows through, left turn, and right turn movements.

**Existing and Future Land Use**

The City of Fairburn’s Comprehensive Plan identifies this segment of SR 74 as a commercial corridor and a key access point for the City. Current development in the project area is mostly highway-oriented commercial, including restaurants, hotels, and a truck stop. Several industrial developments are located on Oakley Industrial Boulevard just east and west of SR 74. The future land use for the project area is designated as regional commercial, which includes regionally-marketed retail, commercial, employment, and office uses. Future land use for Oakley Industrial Boulevard east and west of SR 74 is designated as Industrial.

**Community Characteristics**

This area of SR 74 is located in Census Tract 15.10 in Fulton County. Census data is shown to compare the area to the county and state in terms of population, poverty, and minorities. As shown in Table 1, the percent of people living below the poverty line in this area of SR 74 is less than half of that of Fulton County. The area’s minority population is significantly greater than that of the County and State.

<b>Table 1. Project Area Population Characteristics</b>			
	Population	% Below Poverty	% Minority Population
Census Tract 105.10	6,645	5.9	80.3
Fulton County	816,006	15.7	51.9
Georgia	8,816,453	13.0	34.9
Source: US Census Bureau, 2000			

**Existing and Future Traffic Conditions on SR 74**

GDOT Traffic count station #278 is located on SR 74 between the I-85 northbound ramp and the Fulton County Line. Current year (2008) AADT for this location is 28,040 vehicles per day. A 2008 traffic study of this area conducted for the City of Fairburn assumed a 2% annual growth rate for traffic based on historic counts.

Based on the regional significance of this area noted in the City’s Comprehensive Plan, the Office of Planning projected future planning-level traffic volumes using “average” and “high” assumptions for annual traffic growth, 1.5% and 2.0% respectively. Using these average growth rates, AADT in the project area is projected to range between 30,210 and 30,960 in the build year (2013) and 40,690 and 46,000 in the design year (2033).

**Existing and Future Traffic Conditions at Intersections**

As shown in Table 2, the City’s year 2008 traffic study provided turning movement counts and level of service (LOS) analyses for the three intersections in the area. In addition to the overall intersection LOS, several turning movements in particular have unacceptable traffic conditions. Traffic turning right onto SR 74 from the I-85 northbound off-ramp operates at LOS “F” during both AM and PM peak period. The southbound traffic turning left from SR 74 onto the I-85 on-ramp operates at LOS “F” during the AM

peak period. Approaching SR 74, Oakley Industrial Boulevard eastbound operates at LOS "F" during AM and PM peak periods. Also at Oakley Industrial Boulevard, the SR 74 southbound left turn operates at LOS "F" during the AM peak period.

According to the City's traffic study, trucks account for 16.8% of vehicles turning left from SR 74 southbound onto Oakley Industrial Boulevard, compared to the overall 4.6% truck volume. The study noted that excessive queuing, backing up on the southbound SR 74 through lane, was observed during field visits. A truck stop located southeast of the SR 74/Oakley Boulevard intersection contributes to the considerable truck traffic making this left turn movement; which operates at LOS "F" during the AM peak period.

As part of this Need and Purpose, the Office of Planning conducted a Synchro analysis of no-build conditions of the three intersections for years 2013 and 2033. For this analysis, the AM peak period intersection traffic counts collected for the City's 2008 traffic study were projected using the "average" and "high" projection rates previously described. Each intersection is projected to decline to level of service "F" by the year 2033.

<b>Table 2. Overall Intersection Level of Service</b>				
<b>Intersection</b>	<b>Intersection LOS (AM Peak)</b>	<b>Intersection LOS (PM Peak)</b>	<b>Intersection LOS (2013 Projected)</b>	<b>Intersection LOS (2033 Projected)</b>
<b>SR 74 &amp; I-85 Northbound Ramps</b>	LOS "C"	LOS "C"	LOS "D"	LOS "F"
<b>SR 74 &amp; Ella Lane/Shell Gas Driveway</b>	LOS "D"	LOS "D"	LOS "D"	LOS "F"
<b>SR 74 &amp; Oakley Industrial Boulevard</b>	LOS "D"	LOS "C"	LOS "F"	LOS "F"

**Safety**

As displayed in Table 3, the Office of Planning conducted a detailed analysis of crash records, showing that the most common accident types that occurred in the project area during the years 2006 through 2008 were "rear end" and "angle" type accidents. The total crash rates and injury crash rates are substantially greater than the statewide average rates for comparable urban principal arterial roads in the state. The significant number of rear end crashes may be due to excessive queuing at intersections, especially when long queues in the left turn bays spill onto the mainline.

<b>Table 3. Vehicle Crash History SR 74 from MP 1.4 to 1.8</b>			
<b>Manner of Collision</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Angle	10	5	20
Head on	2	1	1
Not a collision with a motor vehicle	1	4	1
Rear End	33	41	34
Sideswipe	9	6	9
Total Crashes	55	57	65
Total Crash Rate (per 100 MVMT)	1786	1420	1619
Statewide Avg. Crash Rate (on Urban Principal Arterials)	494	495	473
Injury Crashes	9	13	17
Injury Rate (per 100 MVMT)	292	424	423
Statewide Avg. Injury Crash Rate (on Urban Principal Arterials)	120	119	113

### **Proposed Project**

Based on the deficiencies described, GDOT has proposed this project number 0009411 to improve the intersections along SR 74 at Oakley Industrial Boulevard and at Ella Lane/Shell Gas Station Driveway. Specifically, the project proposes to add a second southbound left turn lane on SR 74 at Oakley Industrial Boulevard and to close the median at Ella Lane/Shell Gas Station Driveway.

Together, these improvements would reduce excessive left-turn queuing by allowing more storage space for southbound traffic turning left onto Oakley Industrial Boulevard and eliminating southbound left turns onto Ella Lane. The project also proposes to modify the lane geometry to accommodate the significant amount of heavy truck turning movements. Overall, this solution would improve traffic operations and safety on SR 74, satisfying the need and purpose.

The project area lies within the planning boundaries of Atlanta's Metropolitan Planning Organization (MPO) known as the Atlanta Regional Commission. This project is programmed with operational improvement lump sum funds and is therefore categorized under the "operational improvement lump sum category" in the MPO's RTP or TIP.

### **Logical Termini**

On SR 74 the additional left turn lane is proposed to begin at the intersection with Oakley Industrial Boulevard and provide enough length for queuing without backing up onto the through lane. The northern and southern termini are logical because there are significant drops in traffic north and south of the project limits, 37% and 61% respectively, according to GDOT traffic count data.

GDOT Traffic Count Station #278 is located within the project limits and has 28,040 AADT (2008). North of the project limits, traffic decreases to 17,740 AADT (2008), according to GDOT data for Traffic Count Station #280. South of the project limits, GDOT Traffic Count Station #378 in Coweta County has 10,840 AADT (2008).

### **Other Projects in the Area**

GDOT has a newly proposed project (PI #0007841) that proposes to modify the interchange at I-85 and SR 74 in order to accommodate projected future traffic volumes and reduce queuing at this interchange. A scoping phase is currently underway and the remaining phases are currently unfunded.

### **Bicycle & Pedestrian Plans**

According to the Fulton County Comprehensive Transportation Plan, SR 74 is identified as a Class II (on-road) bicycle facility.

### **Need and Purpose**

Peak hour traffic conditions at the intersections of SR 74 at Oakley Industrial Boulevard and SR 74 at Ella Lane/Shell Gas Station Driveway currently operate at LOS "D" and are projected to operate at LOS "F" by 2033. Considerable southbound truck traffic turning left at Oakley Industrial Boulevard currently results in heavy queuing that spills onto the through lanes. Also, it has been observed that trucks turning right at this intersection do not have adequate space for their turns, resulting in damage to the sidewalks.

This project is needed to reduce intersection delays and excessive queuing on SR 74. Completion of this operational improvement should accommodate future projected growth and better accommodate significant turning movements by heavy trucks. It should also increase safety by preventing long queues from spilling onto the through lane.

**P.I. No:**  
0009411

**Route No.:**  
SR 74/Senoia Road from I-85 to Oakley Industrial Boulevard

**Location:**  
This project is Located in South Fulton County within the City of Fairburn.

**Description of Proposed Improvements**

The proposed improvements include the addition of a second southbound left turn lane providing dual left turn lanes from SR 74 onto Oakley Industrial Boulevard. The existing median opening on SR 74, which provides access from and onto Ella Lane, will be closed. Oakley Industrial Boulevard will be widened adding a left turn lane and a second eastbound through lane to accommodate the dual left turn lane from SR 74. The additional through lane will transition to a right turn lane for the adjacent truck stop. Also included in the improvements are ADA compliant sidewalks, shoulder and signal upgrade. The turn radii at this intersection will be improved to accomodate truck traffic turning movements.

**Crash Analysis**

The Office of Planning conducted a detailed analysis of crash records, showing that the most common accident types that occurred in the project area during the years 2006 through 2008 were "rear end" and "angle" type accidents as displayed in Table 3,. The total crash rates and injury crash rates are substantially greater than the statewide average rates for comparable urban principal arterial roads in the state. The significant number of rear end crashes may be due to excessive queuing at intersections, especially when long queues in the left turn bays spill onto the mainline.

<b>Manner of Collision</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
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Injury Crashes	9	13	17
Injury Rate (per 100 MVMT)	292	424	423
Statewide Avg. Injury Crash Rate (on Urban Principal Arterials)	120	119	113

**Future Conditions (2015/2035)**

The City's year 2008 traffic study provided turning movement counts and level of service (LOS) analyses for the three intersections in the area as shown in Table 2. In addition to the overall intersection LOS, several turning movements in particular have unacceptable traffic conditions. Traffic turning right onto SR 74 from the I-85 northbound off-ramp operates at LOS "F" during both AM and PM peak period. The southbound traffic turning left from SR 74 onto the I-85 on-ramp operates at LOS "F" during the AM peak period. Approaching SR 74, Oakley Industrial Boulevard eastbound operates at LOS "F" during AM and PM peak periods. Also at Oakley Industrial Boulevard, the SR 74 southbound left turn operates at LOS "F" during the AM peak period.

According to the City's traffic study, trucks account for 16.8% of vehicles turning left from SR 74 southbound onto Oakley Industrial Boulevard, compared to the overall 4.6% truck volume. The study noted that excessive queuing, backing up on the southbound SR 74 through lane, was observed during field visits. A truck stop located southeast of the SR 74/Oakley Boulevard intersection contributes to the considerable truck traffic making this left turn movement; which operates at LOS "F" during the AM peak period.

As part of this Need and Purpose, the Office of Planning conducted a Synchro analysis of no-build conditions of the three intersections for years 2013 and 2033. For this analysis, the AM peak period intersection traffic counts collected for the City's 2008 traffic study were projected using the "average" and "high" projection rates previously described. Each intersection is projected to decline to level of service "F" by the year 2033.

<b>Intersection</b>	<b>Intersection LOS (AM Peak)</b>	<b>Intersection LOS (PM Peak)</b>	<b>Intersection LOS (2013 Projected)</b>	<b>Intersection LOS (2033 Projected)</b>
<b>SR 74 &amp; I-85 Northbound Ramps</b>	LOS "C"	LOS "C"	LOS "D"	LOS "F"
<b>SR 74 &amp; Ella Lane/Shell Gas Driveway</b>	LOS "D"	LOS "D"	LOS "D"	LOS "F"
<b>SR 74 &amp; Oakley Industrial Blvd</b>	LOS "D"	LOS "C"	LOS "F"	LOS "F"

**Existing Right of Way:**

Varies from 100 to 175 feet on Oakley Ind. blvd and SR74/Senoia Rd respectively

**Existing Traffic Control:**

SR 74/Senoia Road and Oakley Industrial Blvd is a signalized intesection

**Existing Major Structures:**

None

**Need and Purpose Statement**

At peak hours, the traffic conditions at the intersections of SR 74/Senoia Rd at Oakley Industrial Boulevard and SR 74 at Ella Lane/Shell Gas Station Driveway currently operate at LOS "D" and are projected to operate at LOS "F" by 2033. Considerable southbound truck traffic turning left at Oakley Industrial Boulevard currently results in heavy queuing that spills onto the through lanes. Also, it has been observed that trucks turning right at this intersection do not have adequate space for their turns, resulting in damage to the sidewalks.

This project is needed to reduce intersection delays and excessive queuing on SR 74/Senoia Rd. Completion of this operational improvement should accommodate future projected growth and better accommodate significant turning movements by heavy trucks. It should also increase safety by preventing long queues from spilling onto the through lane.

**Bicycle & Pedestrian Considerations:**

According to the Fulton County Comprehensive Transportation Plan, SR 74/Senoia Rd is identified as a Class II (on-road) bicycle facility.

**Length:**

The project length is about 0.2 miles

**Logical Termini**

On SR 74/Senoia Rd the additional left turn lane is proposed to begin at the intersection with Oakley Industrial Boulevard and provide enough length for queuing without backing up onto the through lane. The northern and southern termini are logical because there are significant drops in traffic north and south of the project limits, 37% and 61% respectively, according to GDOT traffic count data.

GDOT Traffic Count Station #278 is located within the project limits and has 28,040 AADT (2008). North of the project limits, traffic decreases to 17,740 AADT (2008), according to GDOT data for Traffic Count Station #280. South of the project limits, GDOT Traffic Count Station #378 in Coweta County has 10,840 AADT (2008).

**PDP Class:**

Minor

**Functional Class:**

SR 74/Senoia Road – Urban Principal Arterial

**Design Speed:**

~~50 mph north of Ella Lane and 55 mph south of Ella Lane – SR 74/Senoia Road~~

45 mph to match posted speed throughout project.

-ARP 01/23/2012

**Proposed Typical Section:**

The typical section consists of 12-ft travel lanes with 12-ft urban shoulders, curb and gutter, sidewalks and turn radii improvements.

**Proposed Major Structures:**

None

**Type Access:**

SR 74/Senoia Road - by permit

**Traffic Control During Construction:**

Stage Construction – shift traffic on existing lanes

**Right-of-Way Requirements:**

Not Required

**Utilities:**

No impacts anticipated.

**Estimated Cost:**

<u>Item</u>	<u>Total Amount</u> <u>STATE</u>
PE -----	\$ 100,000
R/W-----	\$ 20,000
Utilities -----	\$ 13,000
Estimate LGPA Total-----	\$ 133,000
Construction -----	\$ 705,000
E & C 5% -----	\$ 35,250
Total Construction -----	\$ 740,250

**Permits Required:**

None

**Level of Environmental Analysis:**

Categorical Exclusion (CE)

**Level of Public Involvement:**

PIOH held in May 2010

**Time Saving Procedures Appropriate:**      Yes (X)      No ( )

**Design Variances Required:**

None anticipated

**Other alternates considered:**

No build

**Comments:**

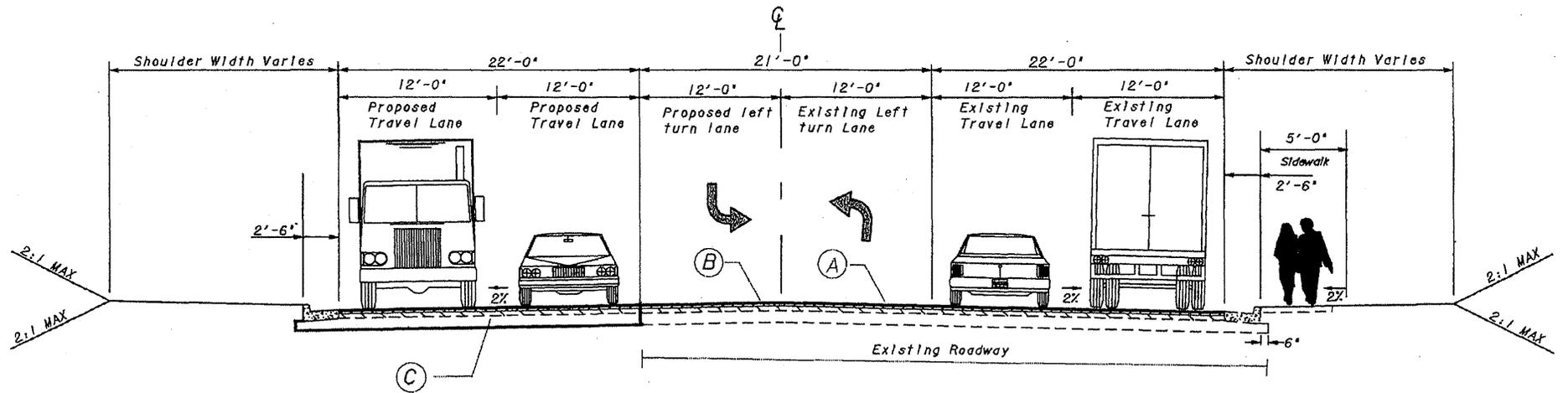
This is a Quick Response Project

**Attachments:**

1. Typical Sections
2. Proposed layout sketch

PROPOSED TYPICAL SECTION AT OAKLEY IND BLVD

NOT TO SCALE



- (A) RECYCLED ASPH CONC 12.5MM SUPERPAVE, 165LB/SY
- (B) MILL ASPH CONC PVMT, VARIABLE DEPTH
- (C) PROPOSED ADDITION - FULL DEPTH CONSTRUCTION



## Peters, Dave

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**From:** Ford, Gerald  
**Sent:** Friday, January 20, 2012 2:49 PM  
**To:** Peters, Dave  
**Subject:** RE: 0009411 - Quick Project

As you know, the concept report indicates that the SPEED LIMIT is 50 MPH North of Ella lane and 55 MPH south of Ella Lane on SR 74. However, the posted Speed Limit is 45 MPH through the limits of the project.

Thanks,

Gerald Ford  
GDOT - District 7 - Preconstruction  
(770) 986-1111 direct

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**From:** Thompson, Jerrell  
**Sent:** Friday, January 20, 2012 2:01 PM  
**To:** Ford, Gerald  
**Subject:** FW: 0009411 - Quick Project

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**From:** Peters, Dave  
**Sent:** Friday, January 20, 2012 1:36 PM  
**To:** Thompson, Jerrell  
**Subject:** RE: 0009411 - Quick Project

Just checking – Have you confirmed the posted speed yet?

Thanks!

*Dave Peters*  
*(404) 631-1738 (26th floor)*

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**From:** Peters, Dave  
**Sent:** Tuesday, January 17, 2012 2:49 PM  
**To:** Thompson, Jerrell  
**Subject:** 0009411 - Quick Project

Jerrell,

Could you send me an email explaining the incorrect posted speed in the Concept Report & what the actual posted speed is throughout your project so I've got something in writing?

*Dave Peters, PE*  
*Conceptual Design Group Manager*  
*Office of Design Policy & Support*