

D.O.T. 66

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** P. I. Nos. 0007695 / 0007696, Barrow County **OFFICE** Preconstruction  
CSST-0007-00(695 / (696)  
Intersection Improvements on SR 211 at  
McNeal Road and Horton Street **DATE** August 15, 2006

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

**TO**  SEE DISTRIBUTION

**SUBJECT** APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

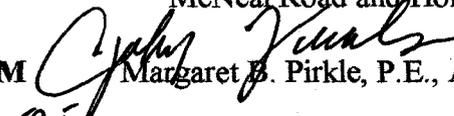
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BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** P. I. Nos. 0007695 / 0007696, Barrow County **OFFICE** Preconstruction  
CSST-0007-00(695) / (696)  
Intersection Improvements on SR 211 at  
McNeal Road and Horton Street **DATE** July 25, 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 are the intersection improvements on SR 211 at McNeal Road and Horton Street in the city of Winder. State Route 211 is currently a two lane facility with narrow shoulders and roadside ditches on 50' of existing right-of-way. The limits of the projects extend from 431' west of Horton Street to 320' east of McNeal Street. The projects are needed due to increased development in the area and to help reduce the number of rear end accidents attempting to turn left onto McNeal Road and Horton Street. Current year traffic (2006) is 14,682 VPD and the design year traffic (2028) is projected to be 24,372 VPD.

The proposed construction will provide a three lane urban section on SR 211 (two, 11' driving lanes and one, 11' left turn lane), 12' shoulders with curb and gutter and sidewalk. A right turn lane will be included on SR 211 at Horton Street. The widening of the roadway will be done asymmetrically and symmetrically to alleviate the need for extensive right-of-way acquisition and allow traffic to be maintained in each direction during construction. A traffic signal will be installed at the intersection of SR 211 and McNeal Road.

Environmental concerns include requiring a Categorical Exclusion be prepared; a public hearing open house is not required; time saving procedures are appropriate.

The estimated costs for these projects are:

**CSSTP-0007-00(695)**

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>
Construction (includes E&C and inflation)	\$313,000	\$313,000	L240	Lump
Right-of-Way & Utilities*	Local	Local		

David Studstill

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P. I. Nos. 0007695 / 0007696, Barrow

July 25, 2006

**CSSTP-0007-00(696)**

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>
Construction (includes E&C and inflation)	\$466,000	\$466,000	L240	Lump
Right-of-Way & Utilities*	Local	Local		

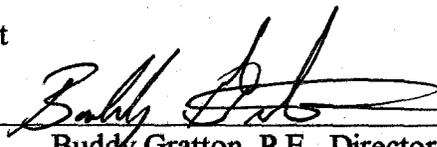
\*City of Winder signed PMA on 11-21-05 for PE and utilities; right of way and construction to be done by future agreements.

I recommend this project concept be approved.

MBP:JDQ/cj

Attachment

CONCUR

  
Buddy Gratton, P.E., Director of Preconstruction

APPROVE

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



**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
DISTRICT ONE**

**PROJECT CONCEPT REPORT**

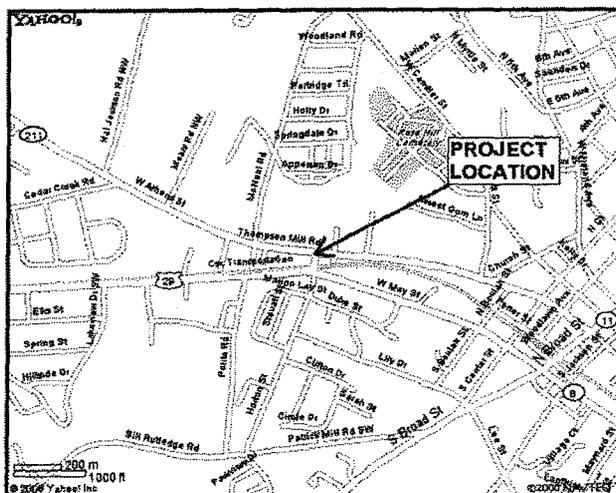
Project Number: CSSTP-0007-00(695)

County: Barrow

P. I. Number: 0007695

Federal Route Number: N/A

State Route Number: SR 211



Recommendation for approval:

DATE \_\_\_\_\_

\_\_\_\_\_  
Project Manager

DATE \_\_\_\_\_

\_\_\_\_\_  
Office Head/District Engineer

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

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Planning Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Financial Management Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Environmental Location Engineer

DATE 7-24-06

\_\_\_\_\_  
State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
District Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
Project Review Engineer



**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
DISTRICT ONE**

**PROJECT CONCEPT REPORT**

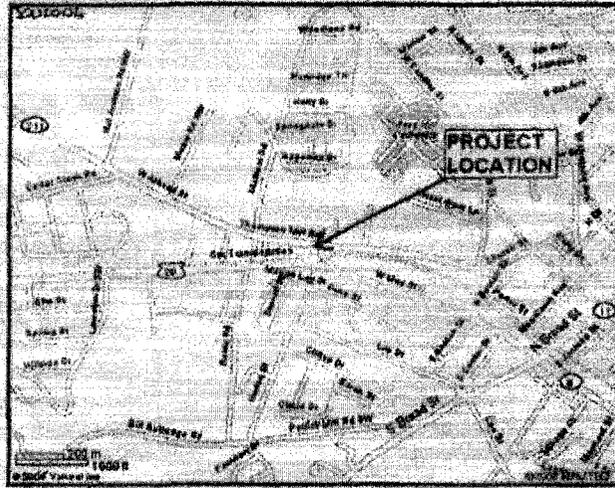
Project Number: CSSTP-0007-00(695)

County: Barrow

P. I. Number: 0007695

Federal Route Number: N/A

State Route Number: SR 211



Recommendation for approval:

DATE 6-20-2006

*[Signature]*

Project Manager

DATE 6-20-2006

*[Signature]*

Office Head/District Engineer

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

DATE \_\_\_\_\_

State Transportation Planning Administrator

DATE \_\_\_\_\_

State Transportation Financial Management Administrator

DATE 8-8-06

*[Signature]*  
State Environmental/Location Engineer

DATE \_\_\_\_\_

State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

District Engineer

DATE \_\_\_\_\_

Project Review Engineer

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
DISTRICT ONE**

**PROJECT CONCEPT REPORT**

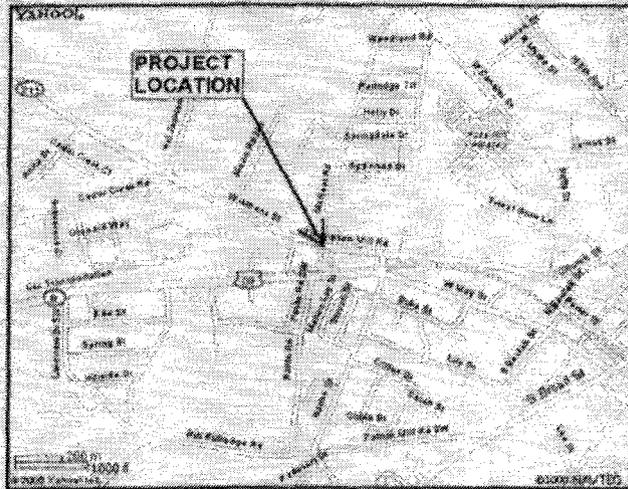
Project Number: CSSTP-0007-00(696)

County: Barrow

P. I. Number: 0007696

Federal Route Number: N/A

State Route Number: SR 211



Recommendation for approval:

DATE 6-20-2006

Project Manager

DATE 6-20-2006

Office Head/District Engineer

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

DATE \_\_\_\_\_

State Transportation Planning Administrator

DATE \_\_\_\_\_

State Transportation Financial Management Administrator

DATE \_\_\_\_\_

State Environmental/Land Use Engineer

DATE 8-9-06

State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

District Engineer

DATE \_\_\_\_\_

Project Review Engineer

Page 1



**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
DISTRICT ONE**

**PROJECT CONCEPT REPORT**

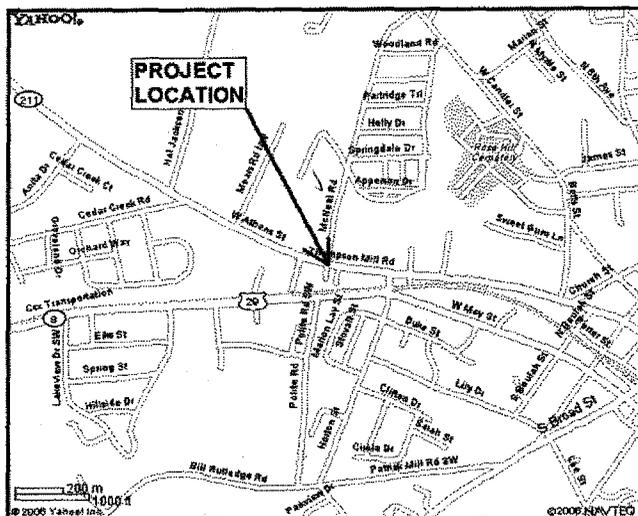
Project Number: CSSTP-0007-00(696)

County: Barrow

P. I. Number: 0007696

Federal Route Number: N/A

State Route Number: SR 211



Recommendation for approval:

DATE \_\_\_\_\_

\_\_\_\_\_ Project Manager

DATE \_\_\_\_\_

\_\_\_\_\_ Office Head/District Engineer

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

DATE 7/21/06

*Joseph P. [Signature]*  
State Transportation Planning Administrator

DATE \_\_\_\_\_

\_\_\_\_\_ State Transportation Financial Management Administrator

DATE \_\_\_\_\_

\_\_\_\_\_ State Environmental/Location Engineer

DATE \_\_\_\_\_

\_\_\_\_\_ State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_ District Engineer

DATE \_\_\_\_\_

\_\_\_\_\_ Project Review Engineer

# NOTICE OF LOCATION AND DESIGN APPROVAL

**PROJECT CSSTP-0007-00(695)  
BARROW COUNTY  
P. I. NUMBER 0007695**

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the location and design of the above project.

The date of location approval is AUGUST 15, 2006

Project number CSSTP-0007-00(696) will consist of the installation of left and right turn lanes at the east approach to Horton Street. Additionally, a left turn lane is proposed on SR 211 for west bound traffic turning left onto Horton Street. The western terminus along SR 211 is approximately 431 feet west of the intersection of Horton Street. The eastern terminus along SR 211 is approximately 340 feet east of the intersection of Horton Street. The project's southern terminus along Horton Street is approximately 152 feet south of the intersection of SR 211. There will be additional right of way and utility relocations required for this project.

This project lies entirely in the City of Winder, Barrow County, GA.

The project will construct a right turn lane and two left turn lanes at one intersection on State Route 211. The left turn lanes will be asymmetrically offset from the existing roadway to the northern side of State Route 211. Additionally, a right turn lane will be offset from the existing edge of pavement at the intersection and will improve the level of service for the intersection. The approximate net project length is 923 feet.

Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

Harold Mull, Area Engineer  
[Harold.Mull@dot.state.ga.us](mailto:Harold.Mull@dot.state.ga.us)  
Georgia Department of Transportation  
410 Hurricane Shoals Rd NW  
Lawrenceville, Georgia 30045  
(706)339-2308

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

Robert W. Mahoney, P. E., District Preconstruction Engineer  
[robert.mahoney@dot.state.ga.us](mailto:robert.mahoney@dot.state.ga.us)  
Georgia Department of Transportation  
P.O. Box 1057  
Gainesville, Georgia 30503-1057  
(770)532-5520

Any written request or communication in reference to this project or notice SHOULD include the Project and P.I. numbers as noted at the top of this notice.

# NOTICE OF LOCATION AND DESIGN APPROVAL

**PROJECT CSSTP-0007-00(696)  
BARROW COUNTY  
P. I. NUMBER 0007696**

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the location and design of the above project.

The date of location approval is AUGUST 15, 2006

Project number CSSTP-0007-00(696) will consist of the installation of a left turn lane on SR 211 at the eastbound approach to McNeal Road. Additionally, it is proposed that a signal be installed at the intersection. The western terminus along SR 211 is approximately 500 feet west of the intersection of McNeal Road. The eastern terminus along SR 211 is approximately 320 feet east of the intersection of McNeal Road. The project's northern terminus along McNeal Road is located at the terminus of the radius return north of the intersection of SR 211. There will be additional right of way and utility relocations required for this project.

This project lies entirely in the City of Winder, Barrow County, GA.

The project will construct a left turn lane at one intersection on State Route 211. The left turn lane will be symmetrically offset from the existing roadway. Additionally, a traffic signal is to be installed at the intersection of State Route 211 and McNeal road and will improve the level of service for the intersection. The approximate net project length is 820 feet.

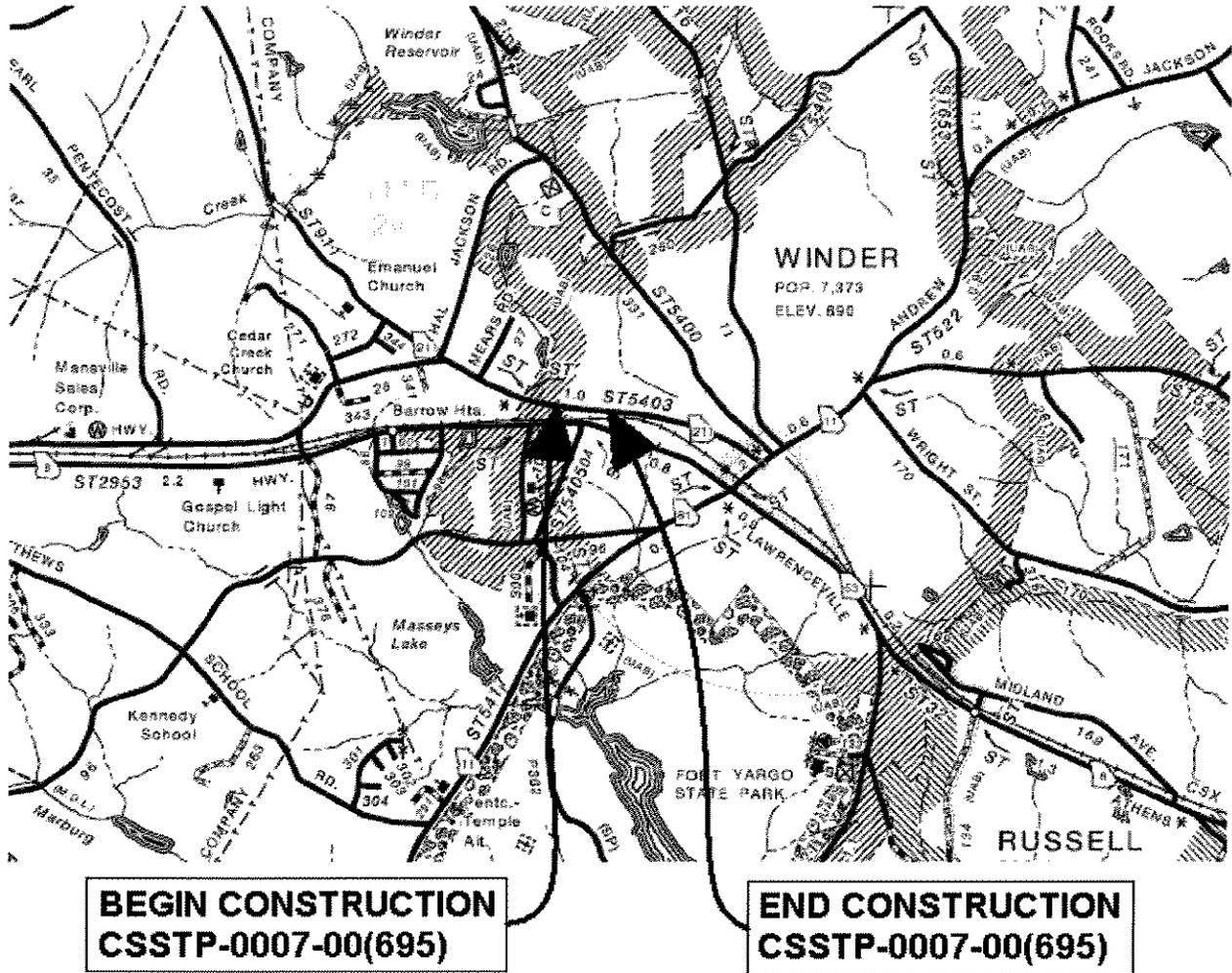
Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

Harold Mull, Area Engineer  
[Harold.Mull@dot.state.ga.us](mailto:Harold.Mull@dot.state.ga.us)  
Georgia Department of Transportation  
410 Hurricane Shoals Rd NW  
Lawrenceville, Georgia 30045  
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Any written request or communication in reference to this project or notice SHOULD include the Project and P.I. numbers as noted at the top of this notice.



# LOCATION MAP

Project Concept Report page 3  
Project Number: CSSTP-0007-00(695)  
P. I. Number: 0007695  
County: Barrow

**Need and Purpose:** See attachment number 5, Need and Purpose statement, located at the end of this concept report.

**Description of the proposed project:** At the intersection of SR 211, it is proposed that left and right turn lanes be installed on SR 211 at the east approach to Horton Street. Additionally, a left turn lane is proposed on SR 211 for west bound traffic turning left onto Horton Street.

**Is the project located in a Non-attainment area?**  X  Yes \_\_\_\_\_ No.

**PDP Classification:** Major \_\_\_\_\_ Minor  X

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

**Functional Classification:** SR 211-Urban Major Collector / Horton Street-Urban Collector

**U. S. Route Number(s):** N/A

**State Route Number(s):** SR 211

**Traffic (AADT):**

Build Year: (2008) 14682

Design Year: (2028) 24372

**Existing design features:**

- Typical Section: Two 12-foot lanes with narrow shoulders and roadside ditches.
- Posted speed 35 mph Minimum radius for curve: N/A
- Maximum super-elevation rate for curve: N/A
- Maximum grade Mainline 2.5 %
- Maximum grade Side Street 1.0 %
- Maximum grade driveway 10 %
- Width of right of way: 50 ft.
- Major structures: N/A List all bridge structures including length, width, and sufficient rating).
- Major interchanges or intersections along the project: SR 211 at McNeal Road
- Existing length of roadway segment and the beginning mile logs for each county segment. For new location projects, the existing length of roadway is zero (0). The project improves approximately 940 feet of existing 2-lane roadway at the intersection of SR 211 & Horton Street.

**Proposed Design Features:**

- Proposed typical section(s):
  - From the beginning of construction along SR 211 to the intersection of Horton Street (35 MPH) – Two 11-foot driving lanes, one 11-foot center lane, one 11-foot right turn lane, 12-foot shoulders with curb and gutter and sidewalk (10-shoulders may be necessary in areas with high impacts to adjacent property owners, more specifically at the right turn lane location). Turn lanes at intersection with Horton Street.
  - From the Horton Street intersection to the end of construction along SR 211 (35 MPH) - Two 11-foot driving lanes, one 11-foot turn lane with taper to existing roadway, 12-foot shoulders with curb and gutter and sidewalk (10-shoulders may be necessary in areas with high impacts to adjacent property owners).
- Proposed Design Speed Mainline 35 mph
- Proposed Maximum grade Mainline 2.5 %
- Proposed Maximum grade Side Street 1.0 %
- Proposed Maximum grade commercial driveway 11 %
- Proposed Minimum radius for curve no curves Minimum radius allowable 340 ft
- Proposed Maximum super-elevation rate for curve: no curves
- Right of way
  - Width varies maximum of 65 feet .
  - Easements: Temporary ( ), Permanent (  ), Utility ( ), Other ( ).
  - Type of access control: Full ( ), Partial ( ), By Permit (  ), Other ( ).
  - Number of parcels: 10 Number of displacements:
    - Business: 0
    - Residences: 0
    - Mobile homes: 0
    - Other: 0
- Structures:
  - Bridges: None
  - Retaining walls: Yes

- Major intersections and interchanges. SR 211 & McNeal Road
- Traffic control during construction: Traffic to be maintained on existing roadways during construction.
- Design Exceptions to controlling criteria anticipated:

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

- Design Variances: Design variance for 11' lanes submitted due to high impacts to adjacent property owners.
- Environmental concerns: UST survey will be required.
- Level of environmental analysis:
  - Are Time Savings Procedures appropriate? Yes ( X ), No ( ),
  - Categorical exclusion ( X ),
  - Environmental Assessment/Finding of No Significant Impact (FONSI) ( ), or
  - Environmental Impact Statement (EIS) ( ).
- Utility involvements: Water, Sanitary Sewer, Electrical Power, Telephone, Cable, Natural Gas

**Project responsibilities:**

- Design: City of Winder
- Right of Way Acquisition: City of Winder
- Relocation of Utilities: By locals (City of Winder to reimburse)
- Letting to contract: Georgia DOT
- Supervision of construction: Georgia DOT
- Providing material pits: Contractor
- Providing detours: N/A

**Coordination**

- Initial Concept Meeting date and brief summary. none
- Concept meeting date and brief summary. 4-28-2006 (see attached meeting minutes)
- P. A. R. meetings, dates and results: N/A.
- FEMA, USCG, and/or TVA: N/A.
- Public involvement: None to date.
- Local government comments. None to date.

- Other projects in the area. CSSTP-0007-00(696) Intersection improvements to SR 211 and McNeal Road, mill and overlay (resurfacing) on SR 211 to I-85 (fiscal year 2007).
- Other coordination to date: None
- Railroads: Possible coordination of signal timing and construction efforts

#### **Scheduling – Responsible Parties' Estimate**

- Time to complete the environmental process: 6-9 Months.
- Time to complete preliminary construction plans: 2 Months.
- Time to complete right of way plans: 2 Months.
- Time to complete the Section 404 Permit: 1 Month.
- Time to complete final construction plans: 4 Months.
- Time to complete to purchase right of way: 8 Months.
- List other major items that will affect the project schedule:
  - Possible coordination of signal timing and construction efforts: 6 Months.

#### **Other alternates considered:**

**No Build:** No build considered but does not satisfy the Need and Purpose of this project.

**No Right Turn Lane on Eastbound Approach:** This option does not provide adequate level of service.

**Symmetrical:** Symmetrical widening of travel lanes was considered, but high impact to property south of SR 211 justified asymmetrical widening on the north side of SR 211.

**Comments:** None.

#### **Attachments:**

1. Cost Estimates:
  - a. Construction including E&C,
  - b. Right of Way, and
  - c. Utilities.
2. Concept Meeting Minutes,
3. Capacity analysis,
4. Typical sections,
5. Need & Purpose Statement,
6. Concept Exhibit,
7. Notice of Location and Design Approval.

SR 211 / Horton Street (CSSTP-0007-00(695))

**Preliminary Cost Estimate**

**PRELIMINARY COST ESTIMATE**

PROJECT NO: CSSTP-0007-00(695)

COUNTY: BARROW

DATE: 5-16-06

ESTIMATED LET DATE: DEC. 2007

PREPARED BY: KECK &amp; WOOD, INC.

PROJECT LENGTH: ~ 2 YEARS

( ) PROGRAMMING PROCESS (X) CONCEPT DEVELOPMENT ( ) DURING PROJECT DEVELOPMENT

<b>PROJECT COST</b>	
<b>A. RIGHT-OF-WAY:</b>	
1. PROPERTY (LAND & EASEMENT) (NOTE: Local government to acquire all right of way)	\$ 30,000
2. DISPLACEMENTS; RES: 0, BUS: 0, M.H.: 0	\$ -
3. OTHER COST (ADM. / COST, INFLATION)	\$ -
SUBTOTAL A:	\$ 30,000
<b>B. REIMBURSABLE UTILITIES:</b>	
1. RAILROAD	\$ -
2. TRANSMISSION LINES ( NOTE: Utility companies to pay for all utility relocations)	\$ 5,000
3. SERVICES	\$ -
SUBTOTAL B:	\$ 5,000
<b>C. CONSTRUCTION:</b>	
1. MAJOR STRUCTURES	
a. RETAINING WALLS	\$ 20,000
b. BRIDGES	\$ -
c. DETOURS BRIDGES	\$ -
d. BOX CULVERTS	\$ -
SUBTOTAL C-1	\$ 20,000
2. GRADING AND DRAINAGE:	
a. EARTHWORK	\$ 8,000
b. DRAINAGE:	
1) CROSS DRAIN PIPE (EXCLUDE BOX CULVERTS)	\$ 7,260
2) CURB AND GUTTER	\$ 16,400
3) LONGITUDINAL SYSTEM (INCLUDE CATCH BASIN)	\$ 30,000
SUBTOTAL C-2	\$ 61,660

<b>PROJECT COST</b>		
3. BASE AND PAVING:		
a. AGGREGATE BASE		\$ 5,500
b. ASPHALT PAVING: Surface	\$ 18,000.00	
Binder	\$ 4,500.00	
Base	\$ 9,000.00	
SUBTOTAL C-3.b		\$ 31,500
c. CONCRETE PAVING		\$ 5,250
d. OTHER (ASPHALT LEVELING & TACK COAT)		\$ 250
SUBTOTAL C-3		\$ 42,500
4. LUMP ITEMS:		
a. TRAFFIC CONTROL		\$ 30,000
b. CLEARING AND GRUBBING		\$ -
c. LANDSCAPING		\$ 6,000
d. EROSION CONTROL		\$ 10,000
e. DETOURS		\$ -
SUBTOTAL C-4		\$ 46,000
5. MISCELLANEOUS:		
a. LIGHTING		\$ -
b. SIGNING - STRIPING - SIGNAL		\$ 80,000
c. GUARDRAIL		\$ -
d. SIDEWALK		\$ 20,000
SUBTOTAL C-5		\$ 100,000
6. SPECIAL FEATURES		
SUBTOTAL C-6		\$ -

<b>ESTIMATE SUMMARY</b>	
A. RIGHT-OF-WAY	\$ 30,000
B. REIMBURSABLE UTILITIES	\$ 5,000
C. CONSTRUCTION	
1. MAJOR STRUCTURES	\$ 20,000
2. GRADING AND DRAINAGE	\$ 61,660
3. BASE AND PAVING	\$ 42,500
4. LUMP ITEMS	\$ 46,000
5. MISCELLANEOUS	\$ 100,000
6. SPECIAL FEATURES	\$ -
SUBTOTAL CONSTRUCTION COST	\$ 270,160
E. & C. (10%)	\$ 28,000
INFLATION (5% PER YEAR)                      NO. OF YRS. = 1	\$ 15,000
TOTAL CONSTRUCTION COST	\$ 313,160
<b>GRAND TOTAL PROJECT COST</b>	<b>\$ 348,160</b>

SR 211 / Horton Street (CSSTP-0007-00(695))  
**Concept Meeting Minutes**

**DATE & TIME:** April 28, 2006 10:00 AM

**WHERE:** Conference Room  
Georgia Department of Transportation  
2505 Athens Hwy SE  
Gainesville, Ga. 30503-1057

**PROJECT:** CSSTP-0007-00(695) P.I. 0007695  
Barrow County  
Horton Street at SR 211

**PERSONNEL PRESENT:**

NAME	COMPANY	PHONE #	EMAIL
Shane Dover	GDOT	770.532.5580	Shane.Dover@dot.state.ga.us
Robby Oliver	GDOT Utilities	770.532.5510	Robby.Oliver@dot.state.ga.us
Kim Byers	GDOT Loc. Govt. RW	770.718.5015	Kim.Byers@dot.state.ga.us
Kim Coley	GDOT Environmentalist	770.532.5582	Kim.Coley@dot.state.ga.us
Rhonda Brady	GDOT Traffic Ops	770.534.5564	Rhonda.Brady@dot.state.ga.us
Harold D. Mull	GDOT – DRCA Eng.	770.339.2308	Harold.Mull@dot.state.ga.us
Jack Dokter	Georgia Power	770.995.4818	-----
Sam Serio	Keck & Wood, Inc.	678.417.4023	sserio@keckwood.com
Rick Gurney	Keck & Wood, Inc.	678.417.4008	rgurney@keckwood.com
Bob Beck	City of Winder	678.425.6806	bbeck@cityofwinder.com
Clifford Reed	City of Winder	770.867.7978	creed@cityofwinder.com
Mike Jewell	City of Winder	770.867.7978	mjewell@cityofwinder.com
Barry Edgar	City of Winder	770.867.3106	bedgar@cityofwinder.com
Neil Kantner	GDOT Dist. 1	770.532.5530	Neil.Kantner@dot.state.ga.us
Jeffrey Nix	GDOT Dist. 1	770.718.5012	Jeffrey.Nix@dot.state.ga.us
John Hancock	GDOT Dist. 1	770.339.2308	John.Hancock@dot.state.ga.us

**KEY TOPICS:**

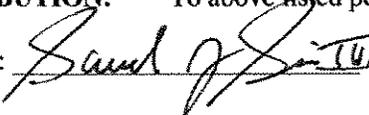
- Meeting was facilitated by Neil Kantner with GDOT Dist. 1
- Meeting began with GDOT comments regarding items to be revised in the concept report:
  - Page 1 Comments:
    - Remove company name
    - No “other offices” required
    - “District One”, not “Design Office”
  - Page 2 Comments:
    - Add title block at bottom
    - Pull text boxes out of image to make legible
  - Page 3 Comments:
    - Reference the Need & Purpose Statement instead of rewording it
    - Reword description to read “be installed on SR 211”
- At this point Rick Gurney with Keck & Wood, Inc. discussed project details and conceptual design.
  - Page 3 Comments, continued...:
    - Changing from Rural to Urban

- Other projects in vicinity: Mill and overlay (Resurfacing) on SR 211 to I-85 scheduled for fiscal year 2007
    - “Exempt” not “Full Oversight”
    - Change bold font type to regular font
    - Current year 2006 ADT needs to be shown as 2008 ADT
  - Page 4 Comments:
    - Major interchanges should read: McNeal Road & SR 211
    - Discussed appropriate shoulder width
      - 12’ shoulders to be used w/ 10’ minimum
- At this point it was discussed that portions of SR 211 may be taken offline in the future when the bypass is opened.
  - Page 4 Comments, continued...:
    - Reword “dual” left turn lane
    - Discussed Urban Area Type “A” for 11’ lanes
      - No design exception request would be needed
      - Clarification needed to ensure this project is a Type “A”
    - 11% maximum commercial driveway slope
  - Page 5 Comments:
    - Should read SR 211 @ McNeal, not Horton
    - Do not underline bullet # 2
    - UST location/details will be needed due to proximity to proposed right of way
- At this point it was discussed who was responsible for providing the Environmental Documentation for the project. Clarification is still needed to determine who is responsible.
  - Page 5 Comments, continued...:
    - Project Responsibilities:
      - Relocation of Utilities: By locals (reimbursable)
        - City is the sponsor and responsible for reimbursables to locals
- At this point it was discussed that there might be possible problems incurred with sewer locations.
- At this point it was discussed that the Project Framework Agreement (PFA) is to be prepared by GDOT. This document defines City of Winder responsibilities vs. GDOT responsibilities.
  - Page 5 Comments, continued...:
    - PAR: N/A
    - FEMA: N/A
  - Page 6 Comments:
    - Environmental Document: 6-9 months
    - Purchase of Right of Way: 8 months
- At this point the process & timeline for R/W purchase was discussed.
- At this point it was discussed whether the traffic signal needed to be coordinated with the Railroad signal. If this is not required the note about Railroad Signal Coordination may be taken out.
  - Page 6 Comments, continued...:
    - Change top note to “Possible coordination of signal timing and construction efforts.”
    - Alternatives:
      - No Build – does not satisfy Need & Purpose

- No right turn lane – does not provide adequate design features
- At this point Jack Dokter with Georgia Power voiced concerns with signage issues, conflict with power poles and signal poles, relocation of existing signage. These issues will be addressed when design is in place. All conflicts should be shown on plans.
  - Cost Estimate Comments:
    - (x) Concept Development
    - Show approximate R/W costs in case amount of cost exceeds city funds
    - Add reimbursable items
    - Verify all prices are correct
  - Project location map located before typical section may be removed. Also, project location map on cover needs to be zoomed in closer.
    - Typical Section Comments:
      - Delineate proposed 11' lanes
      - Layer "A" should read 1.5" **12.5** mm
      - Take out "Level A, Level B"
      - Show typical with all on one side
      - Add small detail showing right turn lane
    - Traffic Data Comments:
      - Summarize all traffic data and remove all data tables to cut down on report size
    - Need & Purpose Comments:
      - None
  - Combine entire document into 1 PDF with preferred file size of 3 megs, 5 meg max.
  - At this point discussion of design began. The following issues were discussed:
    - Right-in, right-out may not be located in the right turn lane
    - Add curb and gutter to SR 211, south east side of intersection
    - Right-in, right-out to be added on school access drive on east side of intersection on SR 211
    - **Discussion regarding impacts to adjacent Ace Hardware because of right turn lane**
      - **This impact is significant**
  - At this point discussions regarding CSSTP-0007-00(695) ended.

**ATTACHMENT:** None

**DISTRIBUTION:** To above listed personnel present & Robert Mahoney.

Notes by:  Sam J. Serio (Keck & Wood, Inc.)

SR 211 / Horton Street (CSSTP-0007-00(695))  
**Capacity Analysis Summary /  
Levels of Service Summary Table**

## Capacity Analysis Summary

The AM peak hour has a Level of Service (LOS) **B** without improvements for the build year 2008 and a LOS **A** with improvements. The PM peak hour has a Level of Service (LOS) **C** for the build year 2008 without the proposed improvements and LOS **B** with improvements.

The AM peak hour has a Level of Service (LOS) **F** for the design year 2028 without the proposed improvements and LOS **B** with improvements. The PM peak hour has a Level of Service (LOS) **F** for the design year 2028 without the proposed improvements and LOS **E** with improvements.

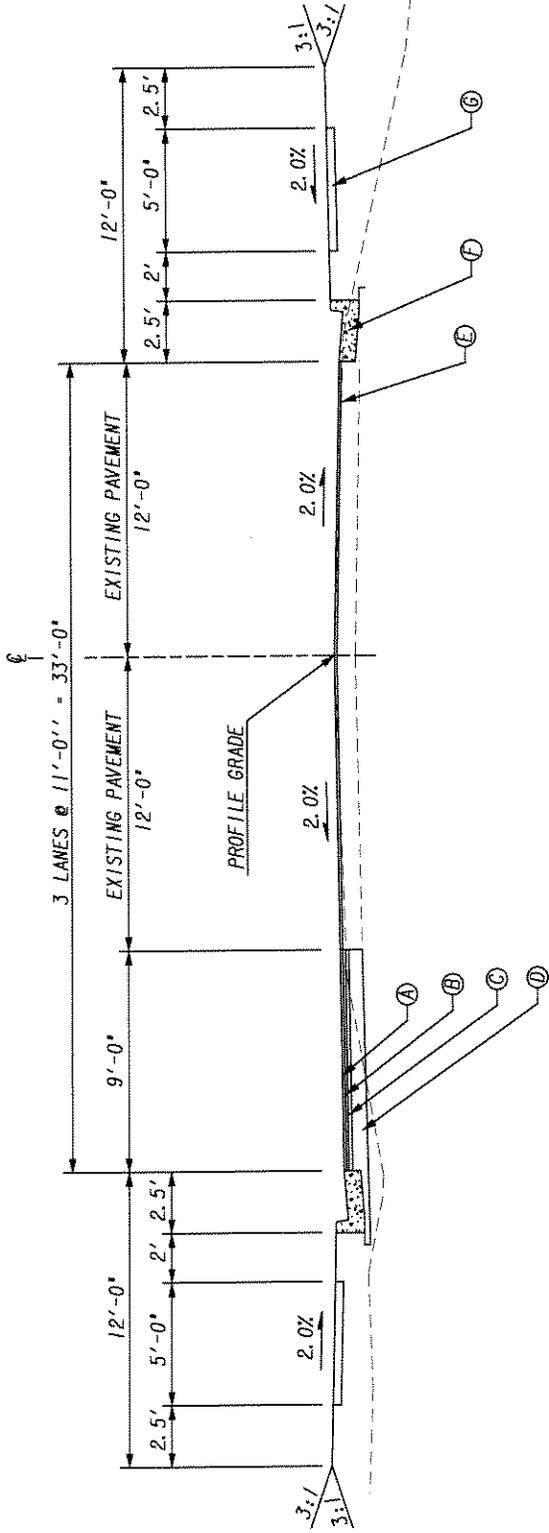
A level of service exceeding LOS "C" indicates that the intersection does not have the capacity to handle the volume of traffic. The level of service calculations indicate that the traffic volume at this intersection will exceed capacity prior to the year 2028 if the proposed improvements are not made. In the build scenario, this intersection is projected to operate *over* capacity in the year 2028. The LOS E for the design year 2028 with the proposed improvements is due to the high volume of traffic thru this intersection. A dual left turn lane for northbound traffic, along with 2 thru lanes for east and westbound traffic would improve the level of service to a LOS C for the design year 2028. Due to the impacts of the additional lanes, on adjacent property owners, this alternative is not an option. Another factor which creates additional delays is the proximity of a railroad crossing to this intersection.

Build Year (2008) Data					
Location	Traffic Control	Levels of Service			
		Movement			Intersection
		Left	Thru	Right	
<b>AM Peak</b>	Signal (without improvements)				B
NB		A	A	A	
SB		A	A	A	
EB		B	B	B	
WB		B	B	B	
<b>AM Peak</b>	Signal (with improvements)				A
NB		A	A	A	
SB		A	A	A	
EB		A	A	A	
WB		A	A	A	
<b>PM Peak</b>	Signal (without improvements)				C
NB		D	A	A	
SB		A	A	A	
EB		C	C	C	
WB		B	B	B	
<b>PM Peak</b>	Signal (with improvements)				B
NB		B	A	A	
SB		A	A	A	
EB		B	B	A	
WB		B	B	B	

Design Year (2028) Data					
Location	Traffic Control	Levels of Service			
		Movement			Intersection
		Left	Thru	Right	
<b>AM Peak</b>	Signal (without improvements)				F
NB		C	A	A	
SB		A	A	A	
EB		F	F	F	
WB		F	F	F	
<b>AM Peak</b>	Signal (with improvements)				B
NB		C	A	A	
SB		A	A	A	
EB		A	B	A	
WB		B	B	B	
<b>PM Peak</b>	Signal (without improvements)				F
NB		F	A	A	
SB		B	B	A	
EB		F	F	F	
WB		F	F	F	
<b>PM Peak</b>	Signal (with improvements)				E
NB		F	A	A	
SB		B	B	A	
EB		C	D	A	
WB		F	D	D	

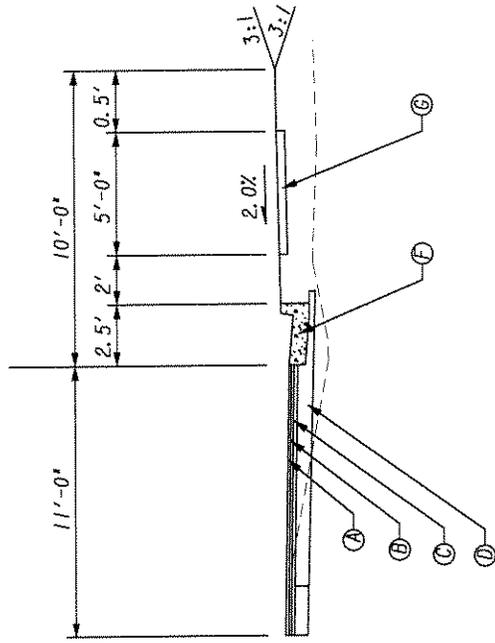
SR 211 / Horton Street (CSSTP-0007-00(695))

**Typical Section**



TYPICAL SECTION I

NOTE:  
10' SHOULDERS MAY BE NECESSARY DUE TO HIGH IMPACTS ON ADJACENT PROPERTY OWNERS.



RIGHT TURN LANE  
DETAIL

- (A) 1/4" 12.5 mm RECYCLED ASPHALTIC CONCRETE SUPERPAVE (165 \*/SY) - SUPERPAVE MIX DESIGN
- (B) 2" 19 mm ASPHALTIC CONCRETE SUPERPAVE (220 \*/SY) - SUPERPAVE MIX DESIGN
- (C) 4" 25 mm ASPHALTIC CONCRETE SUPERPAVE (440 \*/SY) - SUPERPAVE MIX DESIGN
- (D) 8" GRADED AGGREGATE BASE
- (E) ASPHALTIC CONCRETE LEVELING (AS REQUIRED)
- (F) CONCRETE CURB & GUTTER
- (G) 4" CONCRETE SIDEWALK

NOT TO SCALE

SR211 INTERSECTION IMPROVEMENTS  
TYPICAL SECTIONS

CITY OF  
WINDER, GEORGIA

KECK & WOOD, INC.  
2433 COMMERCE AVENUE  
BUILDING 2100, SUITE 300  
DECATUR, GEORGIA 30036

SCALE: AS SHOWN	DWG. NO. 5-01
DATE: 01/22/06	
DWG. 1 - S/S	
CAD. 1 - R/S	
PROJECT NO. 050162	

SR 211 / Horton Street (CSSTP-0007-00(695))

**Need & Purpose Statement**

**Need and Purpose Statement**  
**SR 211 at Horton Street**  
**CSSTP-0007-00 (695), Barrow County**  
**P.I. No.: 0007695**  
**Intersection Improvements**

Background

The project proposes improvements to the intersection of SR 211 and Horton Street. This intersection provides access from SR 211 to Horton Street, which provides access to SR 8 to the south. This project is located entirely within the City of Winder, Barrow County.

The preliminary engineering phase of this project was authorized in 2002. The Right of Way phase is scheduled for 2006. The construction phase is scheduled for 2007.



Existing and Projected Traffic Conditions

The existing conditions of the signalized intersection of SR 211 and Horton Street, is as follows: SR 211 and Horton Street are both two lane facilities. SR 211 is functionally classified as a Rural Major Collector street. Horton Street is functionally classified as a Urban Collector Street. SR 211 does not have a left or right turn lane for the westbound or eastbound traffic at the Horton Street intersection. The signal at this intersection permits left turns, but these turns are opposed by through traffic. Horton Street does have a left turn lane at this intersection. The shoulders at this intersection are inconsistent, as they are

variable width rural and are both paved and unpaved in different sections. The posted speed limit for SR 211 is 35 mph. The posted speed limit for Horton Street is not posted due to the short distance between the SR 8 intersection to the south and the SR 211 intersection. The percentage of trucks on SR 211 is estimated at eight tenths of a percent (0.8%) across this intersection.

Table 1 depicts the current and projected AADT at this intersection. A review of Table 1 shows that the current (2006) AADT at this intersection is as follows: SR 211 west of Horton Street (eastbound) is 4,478 and east of Horton Street (westbound) is 3,544. Horton Street south of SR 211 (northbound) is 4,462 and traveling south from SR 211 is N/A (Horton Street dead ends into SR 211). At build (2008), the AADT for SR 211 is projected to be 4,774 on SR 211 west of Horton Street and 3,544 east of Horton Street. In 2028, the AADT for SR 211 is projected to be 7,925 on SR 211 west of Horton Street and 6,272 east of Horton Street. Horton Street is projected to have AADT counts of 4,756 traveling north to SR 211 at build (2008) and 7,896 traveling north to SR 211 in 2028.

Table 1: Current and Projected AADT

Year	SR 211		Horton Street	
	West	East	North	South
2006	4,478	3,544	N/A	4,462
2008	4,774	3,778	N/A	4,756
2028	7,925	6,272	N/A	7,896

Nine tenths of a percent (0.9%) of vehicles headed eastbound on SR 211 perform a left turning movement into an existing parking area in the AM peak hour and six tenths of a percent (0.6%) in the PM peak hour. These vehicles are opposed by both through traffic and right turning movements from vehicles headed westbound on SR 211. Seven percent (7%) of vehicles headed westbound on SR 211 perform a right turning movement into an existing parking area in the AM peak hour and eight percent (8%) in the PM peak hour. It is anticipated that these rates of turning movements will remain constant in both the no-build and build scenarios through the build year of 2008 and in future conditions in 2028.

Nineteen percent (19%) of vehicles headed westbound on SR 211 perform a left turning movement onto Horton Street (southbound) in the AM peak hour and sixteen percent (16%) in the PM peak hour. These vehicles are opposed by both through traffic and right turning movements from vehicles headed eastbound on SR 211. Forty nine percent (49%) of vehicles headed eastbound on SR 211 perform a right turning movement onto Horton Street (southbound) in the AM peak hour and forty six percent (46%) in the PM peak hour. It is anticipated that these rates of turning movements will remain constant in both the no-build and build scenarios through the build year of 2008 and in future conditions in 2028.

In the current year (2006) this intersection operates at a volume/capacity (VC) ratio of 0.71 (under capacity) in the AM peak hour and operates at a VC ratio of 0.91 (under capacity) in the PM peak hour.

The AM peak hour VC ratio is projected to be 0.76 (under capacity) in 2008 and 1.70 (over capacity) in 2028 without improvements. With improvements, the AM peak hour VC ratio is projected to be 0.49 (under capacity) at build in 2008 and 0.83 (under capacity) in 2028.

The PM peak hour VC ratio is projected to be 0.98 (under capacity) in 2008 and 1.96 (over capacity) in 2028 without improvements. With improvements, the PM peak hour VC ratio is projected to be 0.72 (under capacity) at build in 2008 and 1.61 (over capacity) in 2028.

A volume/capacity rate exceeding one indicates that the intersection does not have the capacity to handle the volume of traffic. The volume/capacity ratio calculations indicate that the traffic volume at this intersection will exceed capacity prior to the year 2028 if the proposed improvements are not made. In the build scenario, this intersection is projected to continue to operate over capacity in the year 2028.

#### Proposed Improvements

At the intersection of SR 211, it is proposed that left and right turn lanes be installed at the east approach to Horton Street. Additionally, a left turn lane is proposed on SR 211 for west bound traffic turning left onto Horton Street.

#### Logical Termini

The western terminus along SR 211 is approximately 431 feet west of the intersection of Horton Street. The eastern terminus along SR 211 is approximately 340 feet east of the intersection of Horton Street. The project's southern terminus along Horton Street is approximately 152 feet south of the intersection of SR 211.

#### Project Linkage

The intersection of SR 211 and Horton Street provides access for the northern portion of the City of Winder to the southern portion of the City of Winder via access to SR 8. The intersection of SR 211 and Horton Street provides access for the southern of the City of Winder to the northern portion of the City of Winder via access to SR 211. Horton Street serves as the connector street between SR 211 and SR 8.

#### Bike and Pedestrian Facilities

There are no proposed bike improvements within this corridor in the GDOT Statewide Bicycle & Pedestrian Plan or in any local plans. A pedestrian sidewalk is to be installed on all roadway widening sections.

Accident Data

Table 2 depicts the accident rates on SR 211 at the intersection of Horton Street. A review of Table 2 shows that the accident rate on SR 211 at the intersection of Horton Street was above the statewide averages for the years 2002, 2003, and 2004. The injury rate was below the statewide average in 2002 and 2004, but was above in 2003. The fatality rate was lower than the statewide average in all three years. Of the seventeen accidents occurring on SR 211, the accidents included angle, sideswipe (opposite direction), and rear end collisions. These types of accidents are correlated with turning movements and indicate congested facilities.

Table 2: Accidents / Accident Rates for SR 211 at the intersection of Horton Street for the Years 2002, 2003, 2004

Year	2002		2003		2004	
	SR 211	Statewide	SR 211	Statewide	SR 211	Statewide
Accidents	5		6		6	
Accident Rate	665	195	851	211	795	273
Injuries	0		4		0	
Injury Rate	0	104	531	110	0	145
Fatalities	0		0		0	
Fatality Rate	0	2.37	0	2.95	0	3.24

In summary, the accident rates exceed the statewide average in 2002, 2003 and 2004 for SR 211. Provided that there is an average of 5-6 accidents per year, there seems to be significant safety concerns at this intersection.

Need and Purpose

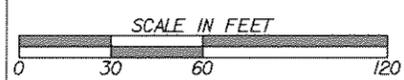
The need for improvements at the intersection of SR 211 and Horton Street is due to the volume of traffic on SR 211 that utilizes and performs turning movements onto Horton Street to access SR 8 and the City of Winder to the south. The purpose is to reduce congestion by providing turning lanes at this intersection to efficiently serve north and south bound turning movements, as well as west and east bound traffic on SR 211 that proceeds through this intersection.

SR 211 / Horton Street (CSSTP-0007-00(695))

**Concept Exhibit**



WINDER PROJECT CSSTP-0007-00(695)



REVISIONS		
NO	DATE	DESCRIPTION
1		
2		
3		
4		
5		

SR211/HORTON STREET  
 INTERSECTION IMPROVEMENTS  
 CONCEPTUAL LAYOUT  
 PROJECT CSSTP-0007-00(695)  
 WINDER, GEORGIA

 <b>KECK &amp; WOOD, INC.</b> 2425 COMMERCE AVENUE BUILDING 2100, SUITE 300 DULUTH, GEORGIA 30096	SCALE: AS SHOWN
	DATE: 03/22/06
	DWN: SJS
	CKD: RDS
	PROJECT NO.: 050162