

D.O.T. 66

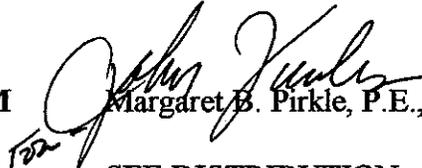
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP-F001-00(098) Oconee County
P. I. No. 0001098

OFFICE Preconstruction

DATE May 2, 2003

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

TO SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

MBP/cj

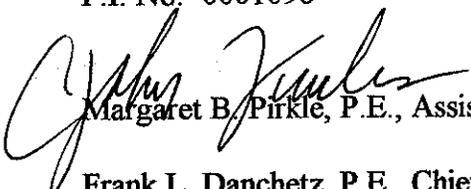
Attachment

DISTRIBUTION:

David Mulling
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Marta Rosen
Paul Liles
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Gerald Ross
Larry Dent
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA****INTERDEPARTMENT CORRESPONDENCE**

FILE STP-F001-00(098) Oconee County **OFFICE** Preconstruction
P.I. No. 0001098
DATE April 24, 2003

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

TO Frank L. Danchetz, P.E., Chief Engineer

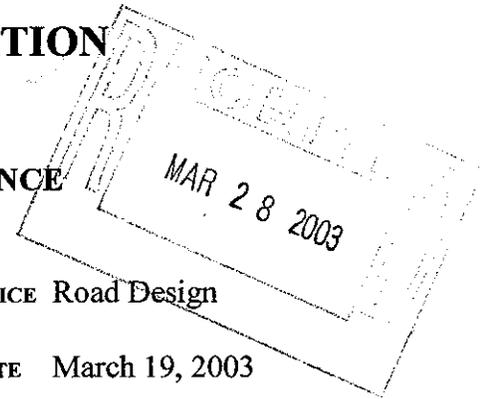
SUBJECT PROJECT CONCEPT REPORT

This project is the Jennings Mill Parkway Extension from the Oconee Connector (700'± north of MP 6.79) on new location to Epps Bridge Road (MP 0.37) where it intersects the existing Jennings Mill Parkway. The total length of the project is 1.17 miles. This project includes construction of a new interchange on SR 10 Loop at the newly constructed Jennings Mill Parkway to relieve congestion at the SR 316/SR 10 Loop interchange and provide additional capacity for increased access to Clarke County and planned local development in the area. Additionally, the project will improve connectivity within the area by providing alternative access routes for local traffic originating from south of SR 316/University Parkway and SR 10 Loop/Paul Brown Parkway to reach Epps Bridge Road to the north of SR 10 Loop. Jennings Mill Road consists of a two lane typical section and currently carries 5,800 VPD over its SR 10 Loop bridge. It is anticipated that the traffic demand caused by future planned commercial/retail development on the opposite side of SR 10 Loop would result in Jennings Mill Road carrying over 23,000 VPD over the existing SR 10 Loop bridge. The existing roadway network consisting of Jennings Mill Road, Epps Bridge Road and Jennings Mill Parkway (existing street) would not be able to accommodate these volumes.

The project proposes to construct on new location the Jennings Mill Parkway Extension from Virgil Langford Road at the Oconee Connector east to the existing Jennings Mill Parkway at Epps Bridge Road. The proposed project consists of a four lane divided roadway with a 20' raised median from the Oconee Connector to Frontage Road East and consists of a five lane section with a footprint for a future 20' raised median from Frontage Road to Epps Bridge Road. The five lane section would include a 14' two-way left turn lane, two, 12' inside and two, 13' outside travel lanes, two, 6' bike lanes, with curb and gutter and 5' sidewalks on both sides. The project also includes bridging Jennings Mill Parkway over SR 10 Loop/Paul Brown Parkway and constructing a half diamond interchange with northwest facing ramps. Additional improvements include the relocation of Jennings Mill Road on the south side of SR 10 Loop that would bend the roadway at the ramps of the new interchange and tie into Virgil Langford Road; a cul-de-sac that would be constructed at the end of the remaining portion of Jennings Mill Road southeast of the interchange; and a new frontage road that would be constructed on the northeast side of SR 10 Loop, connecting the Jennings Mill Parkway Extension to Jennings Mill Road.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE



FILE STP-F001-00 (098), Oconee County
Jennings Mill Parkway Ext. From Paul Broun Pkwy to
SR 316 & Int.
P.I. No. 0001098

OFFICE Road Design

DATE March 19, 2003

FROM *D. M. Ross*
Gerald M. Ross, P.E., State Road and Airport Design Engineer

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

SUBJECT **Concept Report Submittal**

Attached for your review and approval is the Project Concept Report for the above project.

If you have any questions, please contact Stanley Hill or Cynthia Clements at (404) 656-5180.

GMR:WJM:SH:ss

Attachment

- cc: Marta Rosen, w/attachment
- Percy Middlebrooks, w/attachment
- Harvey Keepler, w/attachment
- Phillip Allen, w/attachment
- Larry Dent, District 1 Engineer, w/attachment
- David Mulling, w/attachment
- Paul Liles, w/attachment

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

Office of Road and Airport Design

PROJECT CONCEPT REPORT

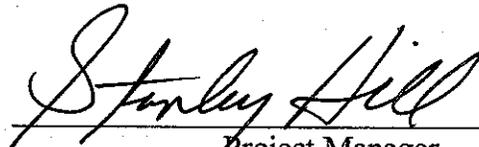
Project Number: STP-F001-00 (098)
County: Oconee
P. I. Number: 0001098

Federal Route Number: None
State Route Number: None

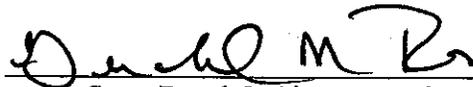
Date of Report: March 6, 2003

Recommendation for approval:

DATE 3-19-03


Project Manager

DATE 3/26/03


State Road & Airport Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

Office of Financial Management Administrator

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Safety & Design Engineer

DATE _____

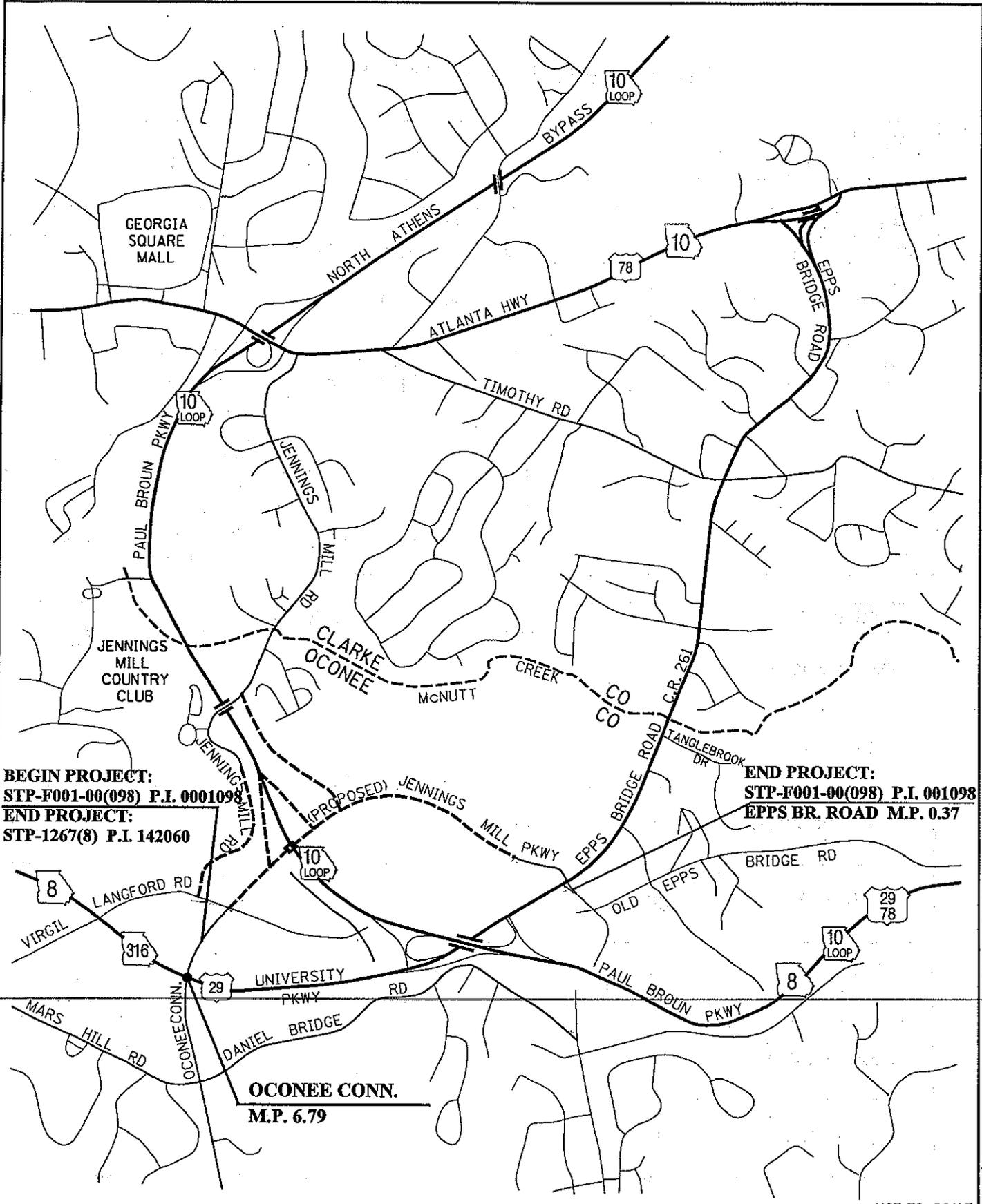
District Engineer

DATE _____

Project Review Engineer

DATE _____

Bridge Design Engineer



BEGIN PROJECT:
STP-F001-00(098) P.I. 0001098
END PROJECT:
STP-1267(8) P.I. 142060

END PROJECT:
STP-F001-00(098) P.I. 001098
EPPS BR. ROAD M.P. 0.37

OCONEE CONN.
M.P. 6.79

NOT TO SCALE



PROJECT LOCATION SKETCH
JENNINGS MILL PKWY

GDOT PROJECT STP-F001-00(098) P.I. 0001098

SCORING RESULTS AS PER MOG 2440-2

| | | | | | |
|---|--|---|---|---|---|
| Project Number: STP-F001-00(098) | | County: Oconee | | PI No.: 0001098 | |
| Report Date: March 26, 2003 | | | Concept By: DOT Office: Road Design | | |
| <input checked="" type="checkbox"/> Concept Stage | | | Consultant: Moreland Altobelli | | |
| Project Type: Choose One From Each Column | | <input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor | <input checked="" type="checkbox"/> Urban <input type="checkbox"/> Rural | <input type="checkbox"/> ATMS | <input type="checkbox"/> Bridge Replacement |
| | | | | <input type="checkbox"/> Building | <input type="checkbox"/> Interchange Reconstruction |
| | | | | <input type="checkbox"/> Intersection Improvement | <input type="checkbox"/> Interstate |
| | | | | <input checked="" type="checkbox"/> New Location | <input type="checkbox"/> Widening & Reconstruction |
| | | | | <input type="checkbox"/> Miscellaneous | |
| FOCUS AREAS | | SCORE | RESULTS | | |
| Presentation | | 100 | | | |
| Judgement | | 100 | | | |
| Environmental | | 100 | | | |
| Right of Way | | 100 | | | |
| Utility | | 100 | | | |
| Constructability | | 100 | | | |
| Schedule | | 100 | | | |

Need and Purpose: The existing CR 512/Jennings Mill Parkway extends only 900 feet west of CR 261/Epps Bridge Road and serves as a local roadway for a home improvement superstore. The proposed project is needed to improve connectivity within the area by providing alternative access routes for local traffic originating from south of SR 316/Univeristy Parkway and SR 10 Loop/Paul Broun Parkway to reach Epps Bridge Road to the north of SR 10 Loop. The purpose of the project is to improve connectivity by utilizing the newly constructed Oconee Connector, beginning at CR 37/Virgil Langford Road, to replace CR 26/Jennings Mill Road as the primary roadway to cross over SR 10 Loop from the southwest. By connecting to Epps Bridge Road on the northeast side of SR 10 Loop, the new roadway would provide an alternative route for local traffic to cross SR 10 Loop, other than SR 316 and the existing interchange with SR 10 Loop. Construction of a new interchange on SR 10 Loop at the newly constructed Jennings Mill Parkway would relieve existing congestion at the SR 316/SR 10 Loop interchange and provide additional capacity for increased access to Clarke County and planned local development within the area. The new roadway will provide a more direct connection between the two facilities for traffic originating to the north on SR 10 Loop and to the west on SR 316.

As a result of recent improvements within the immediate vicinity of SR 316, the intersection of Jennings Mill Road and SR 316 has been replaced by the construction of the Oconee Connector. Currently, all traffic wishing to reach areas on either side of the SR 10 Loop must use either Jennings Mill Road, via the Oconee Connector, or use SR 316 to then cross over SR 10 Loop. The limited access nature of SR 10 Loop has severed all other local roadways that formerly connected areas to the north and to the south of the freeway. In addition, as part of its transportation master plan, Oconee County plans to transform SR 316 into a limited access facility, requiring the further consolidation of all remaining intersections with SR 316 into grade-separated interchanges. Departing its intersection with SR 316 to the north, the newly constructed Oconee Connector is a four-lane roadway that quickly tapers into two lanes prior to terminating into Jennings Mill Road at the intersection with Virgil Langford Road. Jennings Mill Road consists of a two-lane typical section and currently carries an average daily traffic (ADT) volume of 5,800 vehicles over its SR 10 Loop Bridge. Under a No-Build scenario, it is anticipated that the traffic demand caused by future planned commercial/retail development on the opposite side of SR 10 Loop would result in Jennings Mill Road carrying an ADT of over 23,000 vehicles over the existing SR 10 Loop Bridge. The existing roadway network consisting of Jennings Mill Road, Epps Bridge Road and Jennings Mill Parkway (existing street) would not be able to accommodate these volumes.

The planned commercial/retail development is located in the northwest quadrant of the SR 316/SR 10 Loop interchange immediately to the west of Jennings Mill Parkway, and would extend from the existing roadway terminus across SR 10 Loop to Virgil Langford Road approaching SR 316. The development would consist of approximately 1.7 million square feet of gross floor area of commercial/retail space with additional outparcels, occupying a total area of 180 acres depending on the final land use determinations associated with each parcel.

The logical western terminus of the proposed Jennings Mill Parkway Extension occurs where the roadway would tie into the existing Oconee Connector approximately 700 feet north of MP 6.79 where it intersects SR 316. The logical eastern terminus occurs at MP 0.37 on Epps Bridge Road where it intersects the existing Jennings Mill Parkway. Total length of the project is

approximately 1.17 miles. Associated with the construction of the interchange, Jennings Mill Road south of SR 10 Loop would be relocated to provide room for the eastbound off-ramp from SR 10 Loop to Jennings Mill Parkway. Jennings Mill Road would be relocated to intersect Virgil Langford Road, approximately 700 feet to the west of Jennings Mill Parkway. On the east side of SR 10 Loop, a frontage road would be constructed on the northwest side of and parallel to SR 10 Loop that would connect Jennings Mill Road to the Jennings Mill Parkway Extension. This roadway would be approximately 0.53 miles long and consist of a three-lane urban section.

The proposed project should not result in any disproportionate effect to minority and low-income populations. As of the 2000 U.S. Census, Oconee County has a total population of 26,225, of which 22,612 or 86% live in unincorporated areas. Of the total population, approximately 11.9% are minorities. There is one anticipated displacement as a result of the project; however, this individual does not belong to a minority population.

Two wetlands and three stream crossings were identified within the project survey area during preliminary field surveys; however, the proposed project would result in only one wetland and open water impact within the proposed construction limits. The proposed project would be expected to produce some increased siltation within wetland and stream crossings during the construction phase. Adverse impacts to jurisdictional waters in and around the project area would be minimized through the implementation of standard soil erosion and hydrological control measures. During continued project development, if it is determined that impact to Jurisdictional Waters are unavoidable, these impacts would be mitigated in accordance with the ACOE Standard Operating Procedures for Compensatory Mitigation. For detailed descriptions and an analysis of each jurisdictional waters site see the ecology discussion in the Environmental Assessment.

This project is listed in the State Transportation Improvement Program (STIP) as a long range project, and in the Georgia DOT 6-year Construction Work Program (CWP), and is intended to be coordinated with other recently constructed and planned projects to upgrade the existing transportation infrastructure for this part of Oconee County, including the adjoining regional area surrounding Athens within neighboring Clarke County. This project follows and is consistent with the recent construction of the Oconee Connector, and the planned widening of SR 53/Mars Hill Road from Watkinsville to the southern terminus of this project. All three of these projects are intended to provide sustainable traffic capacity and connectivity to accommodate significant historical and anticipated growth associated with the northeastern portions of Oconee County and the SR 316 corridor, including the City of Watkinsville and the adjoining areas on the southern edge of the Athens metropolitan area. Construction of the Jennings Mill Parkway Extension/Interchange will be a significant part of the county transportation master plan, including the transition of SR 316 into a limited access facility within and beyond Oconee County.

Description of the proposed project: Georgia DOT Project STP-F001-00 (098), Jennings Mill Parkway Extension, is located in Oconee County approximately 5.3 miles southwest of downtown Athens and less than one-half mile south of the Clarke County line. The project would begin at the northern terminus of Georgia DOT Project STP-1267(8), SR 53 & Mars Hill Road, and it proposes to construct on new location the Jennings Mill Parkway Extension from

Virgil Langford Road at the Oconee Connector east to the existing Jennings Mill Parkway at Epps Bridge Road. The proposed project consists of a 4-lane divided roadway with a 20-foot raised median from the Oconee Connector to Frontage Road East and consists of a 5-lane section with a footprint for a future 20-foot raised median from Frontage Road East to Epps Bridge Road. The proposed 5-lane section would include a 14-foot two-way left turn lane, two 12-foot inside and two 13-foot outside travel lanes, two 6-foot bike lanes, with curb and gutter and 5-foot sidewalks on both sides. The 4-lane divided section with the 20-foot median will also have 4-foot bike lanes, with curb and gutter and 5-foot sidewalks on both sides. The project would also include bridging Jennings Mill Parkway over SR 10 Loop/Paul Broun Parkway and constructing a half-diamond interchange with northwest facing ramps. Additional proposed improvements include: the relocation of Jennings Mill Road on the south side of SR 10 Loop that would bend the roadway at the ramps of the new interchange and tie into Virgil Langford Road; a cul-de-sac that would be constructed at the end of the remaining portion of the Jennings Mill Road, southeast of the new interchange; and, a new frontage road that would be constructed on the northeast side of SR 10 Loop, connecting the Jennings Mill Parkway Extension to Jennings Mill Road.

Is the project located in a Non-attainment area? No.

PDP Classification: Major -- New Location

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

Functional Classification:

| | |
|-------------------------------|--------------------------|
| S.R. 10 Loop/Paul Broun Pkwy: | Rural Principal Arterial |
| Jennings Mill Parkway: | Rural Major Collector |
| Jennings Mill Road: | Rural Major Collector |
| Virgil Langford Road: | Rural Major Collector |

U. S. Route Number(s): None

State Route Number(s): None

Traffic (AADT):

| <u>Roadway</u> | <u>Base Year 2005</u> | <u>Design Year 2025</u> |
|----------------------------------|-----------------------|-------------------------|
| Jennings Mill Parkway (proposed) | 15,800 | 26,000 |
| SR 10 Loop/Paul Broun Parkway | 28,000 | 43,700 |
| Jennings Mill Road | 9,200 | 15,200 |
| Virgil Langford Road | 6,000 | 9,600 |

Existing Design Features:

- Typical Section: Jennings Mill Parkway (C.R. 512) – [Existing roadway in front of Lowes]
Four 12-foot urban lanes, 14-foot center turn lane, curb and gutter on both sides.
- Jennings Mill Road (C.R. 26) – Two 12-foot rural lanes, grass shoulders.
- Virgil Langford Road (C.R. 37) – Two 12-foot rural lanes, grass shoulders.

- | | <u>Posted Speed</u> | <u>Max degree of curve</u> | <u>Max grade</u> |
|-------------------------|---------------------|----------------------------|------------------|
| • Jennings Mill Parkway | 25 mph | 14° | 5.5% |
| • Jennings Mill Road | 35 mph | 12° | 8.4% |
| • Virgil Langford Road | 25 mph | 20° | 6% |
-
- Width of right of way:

| | |
|------------------------|--------|
| Jennings Mill Parkway: | 80 ft. |
| Jennings Mill Road: | 80 ft. |
| Virgil Langford Road: | 40 ft. |
 - Major Structures: None
 - Major Interchanges or Intersections along Project: None
 - Existing Length of Roadway Segment: The existing Jennings Mill Parkway is approximately 0.10 miles long and serves as an access road for a Lows Home Improvement Warehouse. It intersects with Epps Bridge Road at MP 0.37 along Epps Bridge Road.

Proposed Design Features:

- Typical Section:
 - Jennings Mill Parkway (C.R. 512) – [Proposed roadway from Frontage Rd to Epps Bridge Rd] Five-lane section: four (two 12-foot inside, two 13-foot outside) travel lanes with 14-foot two-way left turn lane, two 6-foot bike lanes with curb and gutter, and 5-foot sidewalks on both sides.
 - Jennings Mill Parkway (C.R. 512) – [Proposed roadway from Virgil Langford Rd to Frontage Rd] Four 12-foot lanes divided with a 20-foot raised median, two 4-foot bike lanes with curb and gutter, and 5-foot sidewalks on both sides.
 - Jennings Mill Road (C.R. 26) – Two 12-foot urban lanes with curb and gutter, 5-foot sidewalks on both sides, and a left turn lane at its intersection with the Frontage Road.
 - ~~Relocated Jennings Mill Road (C.R. 26) – Two 12-foot urban lanes with curb and gutter, 5-foot sidewalks on both sides.~~
 - Frontage Road East (C.R. 337) – Two 12-foot urban lanes, 14-foot two-way left turn lane, with curb and gutter and 5-foot sidewalks on both sides.
 - Virgil Langford Road (C.R. 37) – Two 12-foot urban lanes with curb and gutter, 5-foot sidewalks on both sides, and left turn lanes at its intersection with Jennings Mill Road and Jennings Mill Parkway. Additionally, there will be a right turn lane at its intersection with Relocated Jennings Mill Road.

- Right of Way:
 - Width: Jennings Mill Parkway: 112 –124 feet
Jennings Mill Road: 80 feet
Frontage Road East: 100 feet
Virgil Langford Road: 60 feet
 - Easements: Temporary and Permanent easements for slopes and drainage structures
 - Type access control: Jennings Mill Parkway: By County Permit
Jennings Mill Road: By County Permit
Frontage Road East: By County Permit
Virgil Langford Road: By County Permit
 - Number of parcels impacted: 18 parcels Number of displacements: 1
- Structures:
 - Bridge: A new bridge over SR 10 Loop/Paul Broun Parkway is proposed to accommodate the new roadway, and tie into the proposed configurations at the cross-street intersections. (See Typical Section.)

| | |
|--|-----------|
| <u>Bridge Type</u> | PSC Beams |
| <u>No. of spans</u> | 2 |
| <u>Length</u> | 166' |
| <u>Maximum Span</u> | 83' |
| NOTE: MSE walls are proposed at the end bents of the bridge. | |
| <u>Deck Structure Width</u> | 94'-5" |
| <u>Roadway Width</u> | 80' |
| <u>Minimum Vertical Clearance</u> | 17.0' |
| <u>Total Horizontal Clearance</u> | 39' |

- Major Intersections and Interchanges: A new half-diamond interchange is proposed at the new bridge over SR 10 Loop with northwest facing ramps. Other major intersections along the new constructed Jennings Mill Parkway Extension would occur at Frontage Road East, just north of the proposed SR 10 Loop westbound on-ramp, and at Epps Bridge Road at the eastern terminus of the project.
- Traffic control during construction: Traffic will be maintained 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: This project does not meet the 1,000-foot minimum spacing requirements between ramps and intersections. Therefore, a design variance of median spacing would be required. The spacing between the two ramp intersections is 660 feet and the spacing between the ramps and Frontage Road East is 720 feet. A traffic queue analysis was conducted to determine if this design variance would have a negative impact on the traffic operations of the intersections and roadway. The queue length analysis results showed that the queue length of traffic between the intersections of the interchange area would not exceed the spacing requirements. Also, the levels of service determined by the traffic network analysis showed that the intersections would operate a level of service "D" or better. Therefore, it was concluded that the reduced spacing of intersections would not negatively impact the operational level of service of Jennings Mill Parkway or the interchange with SR 10 Loop. (See Traffic Analysis Section)
- Environmental concerns: Nationwide Permit 14 will be required for crossing jurisdictional waters. There are no known possible hazardous waste sites and one UST site within the project construction limits.
- Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes (), No (X)
 - Categorical exclusion (),
 - Environmental Assessment (X), or
 - Environmental Impact Statement ().
- Utility Involvements: Oconee County will be responsible for all reimbursable utility relocations. Possible affected utilities include:
 - Georgia Power – Distribution & Transmission
 - Walton EMC
 - BellSouth
 - AT&T
 - Charter Communications
 - Atlanta Gas Light
 - Oconee County Utilities

• **Project responsibilities:**

- Design – *Oconee County, GA*
- Right-of-Way Acquisition – *Oconee County, GA*
- Relocation of Utilities – *Oconee County, GA*
- Letting to contract – *Georgia DOT*
- Providing material pits – *Construction Contractor*
- Providing detours - *Construction Contractor*

Coordination:

- Initial Concept Team meeting was held at 10:00 A.M. on May 23, 2002 in the GDOT Road Design Conference Room. Minutes of the meeting are included in the Attachments.
- Concept Team Meeting was held at 10:00 A.M. on December 12, 2002 in the GDOT Road Design Conference Room. Minutes of the meeting are included in the Attachments.
- Public Involvement. A public information meeting was held June 13, 2002 at the Oconee County Civic Center to present the project to the public for their review and input. A summary of the comments received at that meeting is also included in the Appendix.
- Local Government Project Agreement. Oconee County will be responsible for the preconstruction engineering (design), right-of-way acquisition and utility relocation costs necessary for the construction of the project. (See attached document.)

Other projects in the area:

1. Project NH-003-2 (76), P.I. No. 122870 – SR 316 Barrow/Oconee Counties – 26 Interchanges
2. Project STP-1267 (8), P.I. No. 142060 – SR 53/Mars Hill Rd FM SR 15 to SR 316/Oconee Connector

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: 6 months.
- Time to complete preliminary construction plans: 9 months.
- Time to complete right-of-way plans: 6 months.
- Time to complete final construction plans: 8 months.
- Time to purchase right-of-way: 10 months.

Other alternates considered:

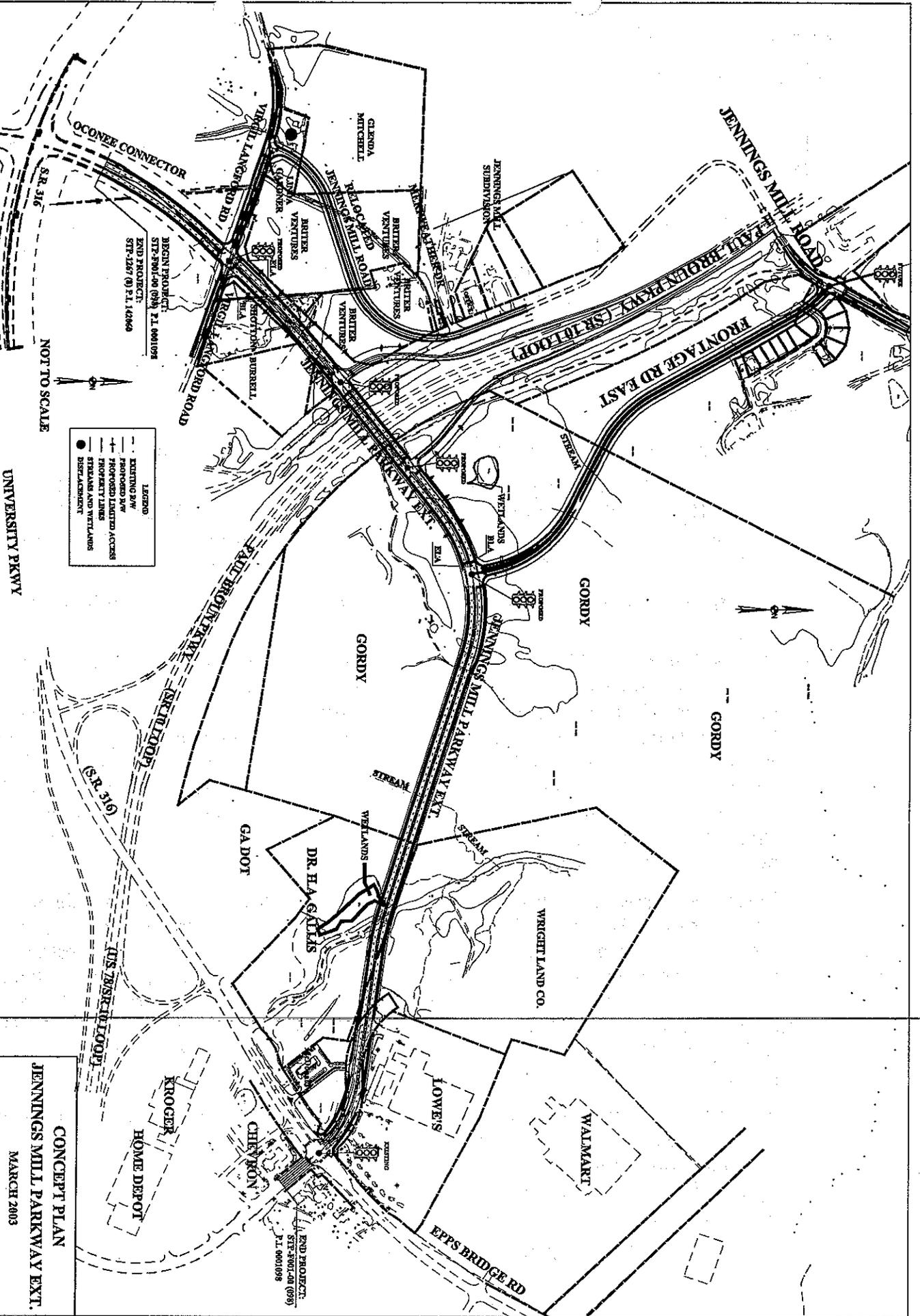
1. No Build: No action would be taken to construct the Jennings Mill Parkway Extension as it is currently planned; however, ~~some access roadway would have to be constructed in order to~~ access the development. This alternative would significantly hinder mobility in the area.
2. Jennings Mill Parkway Extension – No Interchange: The proposed project would construct the Jennings Mill Parkway Extension from the Oconee Connector to Epps Bridge Road. The facility would bridge over SR 10 Loop, but no interchange would be constructed. This project would provide access to both sides of the development; however, the lack of an interchange with SR 10 Loop would significantly overburden the project intersections of Jennings Mill Parkway and Epps Bridge Road, and Jennings Mill Parkway at Frontage Road East, as well as the SR 316/SR 10 Loop interchange. This alternative would also not satisfy the stated Need and Purpose of project in that it would not provide necessary connectivity

between SR 10 Loop traffic and the proposed developments located along Jennings Mill Parkway and remove local trips from traveling on SR 316.

3. Full Build Condition: This alternative would include construction of the Jennings Mill Parkway Extension, and would also include construction of an interchange where the newly constructed Jennings Mill Parkway crosses over SR 10 Loop. Associated with the interchange construction, Jennings Mill Road would be relocated and a Frontage Road would be constructed on the northeast side of SR 10 Loop that would connect Jennings Mill Road to Jennings Mill Parkway within the new development.

Comments:

- No accident information is available as this is a new location construction project.
- An additional 12 feet of right-of-way along Jennings Mill Parkway is to be acquired from the SR 10 Loop Westbound On-Ramp to the property line of the Wright Land Company, to be used for purposes of providing a future additional left turn lane at Frontage Road East and at a proposed new development roadway into the Gordy Property.
- Frontage Road East is to be constructed centered about the proposed 100-foot right-of-way.
- Existing Jennings Mill Parkway on the east side of Epps Bridge Road is proposed to be modified by removing the raised median, resurfacing and restriping the roadway to provide the following lane configuration: one eastbound through lane, two westbound left turn lanes, one westbound through lane and one westbound right turn lane. Additionally, Jennings Mill Parkway on the west side of Epps Bridge Road is to be designed with two eastbound 15-foot lanes plus the 4-foot bike lane; this would provide the required width to accept possible future double left turns from northbound Epps Bridge Road if the need arises beyond the 20-year design horizon. All other lanes are to be 12-foot lanes. A concept sketch of this intersection is attached.
- There is a proposal to extend the existing Jennings Mill Parkway on the east side of Epps Bridge Road across US 78/SR 10 Loop to connect with Daniels Bridge Road. When and if that project is constructed, the east leg of Jennings Mill Parkway would be restriped to allow for two eastbound through lanes, two westbound left turn lanes and one westbound through lane. An additional through and/or right turn lane would require construction on the north side of Jennings Mill Parkway. The newly constructed lane would already align with the westbound outside lane of Jennings Mill Parkway being constructed in this project. A concept sketch of this intersection is attached.
- A right turn lane on Virgil Langford Road at its intersection with Relocated Jennings Mill Road was added because of the high volume of right turning vehicles. However, by separating the right turning traffic from the westbound through traffic creates the additional benefit of reducing conflict for left turning vehicles exiting from Relocated Jennings Mill Road.
- See Minutes of Concept Team Meeting (attached) for additional comments.



LEGEND

| | |
|--|-------------------------|
| | EXISTING HWY |
| | PROPOSED LIMITED ACCESS |
| | PROPERTY LINES |
| | STREAMS AND WETLANDS |
| | REZONING |

UNIVERSITY PKWY

CONCEPT PLAN
 JENNINGS MILL PARKWAY EXT.
 MARCH 2003

MA
 Herdland Mitchell Associates, Inc.

Attachments:

1. Cost Estimates
 2. Typical sections
 3. Traffic Analysis, Traffic Flow Diagrams, Capacity Analysis Worksheets
 4. Intersection Concepts of Jennings Mill Parkway at Epps Bridge Road
 5. Minutes of Initial Concept Team Meeting
 6. Minutes of Concept Team Meeting
 7. Summary of PIM Comments
 8. LGPA's or PMA's
 9. Project Concept Layout
 10. IJR Waiver
-

Jennings Mill Parkway Project
 STP-F001-00 (098)
 COST ESTIMATE

| ITEM # | ITEM DESCRIPTION | UNITS | UNIT PRICE | QUANTITY | TOTAL COST |
|---------------|--|-------|-------------|----------|-------------|
| ROADWAY ITEMS | | | | | |
| 150-1000 | TRAFFIC CONTROL - PROJECT STP-F001-00 (098) | LUMP | LUMP | LUMP | \$90,000 |
| 153-1300 | FIELD ENGINEERS OFFICE TP 3 | EA | \$57,678.73 | 1 | \$57,679 |
| 201-1500 | CLEARING AND GRUBBING | LUMP | LUMP | LUMP | \$500,000 |
| 207-0203 | FOUND BK FILL MATL. TP II | CY | \$33.30 | 3400 | \$113,220 |
| 205-0001 | UNCLASSIFIED EXCAVATION | CY | \$1.79 | 252500 | \$451,975 |
| 206-0001 | BORROW EXCAVATION | CY | \$4.40 | 173700 | \$764,280 |
| 310-5120 | GR AGGR BASE CRS, 12" INCL MATL | SY | \$12.10 | 85700 | \$1,036,970 |
| 402-1812 | RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME | TONS | \$35.53 | 250 | \$8,883 |
| 402-3130 | RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME | TONS | \$34.32 | 8807 | \$302,256 |
| 402-3190 | RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME | TONS | \$36.18 | 9263 | \$335,135 |
| 402-3143 | RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME | TONS | \$35.76 | 22038 | \$788,079 |
| 413-1000 | BITUM TACK COAT | GAL | \$0.91 | 6379 | \$5,805 |
| 432-5010 | MILL ASPH CONC PVMT, VARIABLE DEPTH | SY | \$1.20 | 1000 | \$1,200 |
| 433-1100 | REINF CONC APPROACH SLAB, INCL CURB | SY | \$98.05 | 1060 | \$103,933 |
| 439-0020 | PLAIN PC CONC PVMT, CL 3 CONC, 9 INCH THK | SY | \$46.00 | 9016 | \$414,736 |
| 441-0016 | DRIVEWAY CONCRETE, 6" | SY | \$25.60 | 500 | \$12,800 |
| 441-0104 | CONC SIDEWALK, 4 IN | SY | \$20.12 | 15500 | \$311,860 |
| 441-0301 | CONCRETE SPILLWAY, TP 1 | EA | \$1,184.64 | 2 | \$2,369 |
| 441-0740 | CONCRETE MEDIAN, 4 IN | SY | \$24.90 | 1250 | \$31,125 |
| 441-4030 | CONCRETE VALLEY GUTTER, 8" | SY | \$34.63 | 815 | \$28,223 |
| 441-6222 | CONC CURB & GUTTER, 8 IN X 30 IN, TP 2 | LF | \$9.61 | 26000 | \$249,860 |
| 441-6740 | CONC CURB & GUTTER, 8 IN X 30 IN, TP 7 | LF | \$9.24 | 5000 | \$46,200 |
| 500-0100 | GROOVED CONCRETE APPROACH SLABS | SY | \$3.37 | 1060 | \$3,572 |
| 500-3101 | CLASS A CONCRETE - CULVERTS | CY | \$379.40 | 380 | \$144,172 |
| 500-3800 | CLASS A CONCRETE, INCL REINF STEEL | CY | \$617.13 | 25 | \$15,428 |
| 511-1000 | BAR REINF STEEL | LB | \$0.51 | 62900 | \$32,079 |
| 550-1180 | STORM DRAIN PIPE, 18 IN, H 1-10 | LF | \$22.81 | 8000 | \$182,480 |
| 550-1240 | STORM DRAIN PIPE, 24 IN, H 1-10 | LF | \$27.77 | 3000 | \$83,310 |
| 550-1361 | STORM DRAIN PIPE, 36 IN, H 10-15 | LF | \$50.00 | 800 | \$40,000 |
| 550-1541 | STORM DRAIN PIPE, 54 IN, H 10-15 | LF | \$69.00 | 600 | \$41,400 |
| 550-4218 | FLARED END SECTION 18 IN, STORM DRAIN | EA | \$384.55 | 6 | \$2,307 |
| 550-4224 | FLARED END SECTION 24 IN, STORM DRAIN | EA | \$412.78 | 3 | \$1,238 |
| 550-4230 | FLARED END SECTION 30 IN, STORM DRAIN | EA | \$521.89 | 1 | \$522 |
| 550-4236 | FLARED END SECTION 36 IN, STORM DRAIN | EA | \$683.90 | 1 | \$684 |
| 634-1200 | RIGHT OF WAY MARKER | EA | \$74.09 | 60 | \$4,445 |
| 641-1100 | GUARDRAIL, TP T | LF | \$24.29 | 100 | \$2,429 |
| 641-1200 | GUARDRAIL, TP W | LF | \$8.78 | 3800 | \$33,364 |
| 641-5001 | GUARDRAIL ANCHORAGE, TP1 | EA | \$375.03 | 2 | \$750 |
| 641-5012 | GUARDRAIL ANCHORAGE, TP12 | EA | \$1,250.05 | 10 | \$12,501 |
| 668-1100 | CATCH BASIN, GP 1 | EA | \$1,598.08 | 80 | \$127,846 |
| 668-1110 | CATCH BASIN, GP1 ADDL DEPTH | LF | \$151.04 | 40 | \$6,042 |
| 668-1200 | CATCH BASIN, GP 2 | EA | \$1,522.71 | 2 | \$3,045 |
| 668-1210 | CATCH BASIN, GP2, ADDL DEPTH | LF | \$175.03 | 10 | \$1,750 |
| 668-2100 | DROP INLET, GP 1 | EA | \$1,362.62 | 2 | \$2,725 |
| 668-2110 | DROP INLET, GP1, ADDL DEPTH | LF | \$141.55 | 10 | \$1,416 |
| 668-2200 | DROP INLET, GP 2 | EA | \$2,106.67 | 2 | \$4,213 |
| 668-2210 | DROP INLET, GP2, ADDL DEPTH | LF | \$174.79 | 10 | \$1,748 |
| 668-4300 | STORM SEWER MANHOLE, TP 1 | EA | \$1,589.84 | 3 | \$4,770 |
| 668-5000 | JUNCTION BOX | EA | \$1,132.25 | 1 | \$1,132 |

Jennings Mill Parkway Project
 STP-F001-00 (098)
 COST ESTIMATE

| ITEM # | ITEM DESCRIPTION | UNITS | UNIT PRICE | QUANTITY | TOTAL COST |
|-----------------------|---|-------|------------|----------|------------|
| EROSION CONTROL ITEMS | | | | | |
| 163-0232 | TEMPORARY GRASSING | AC | \$417.47 | 7 | \$2,922 |
| 163-0240 | MULCH | TONS | \$286.30 | 40 | \$11,452 |
| 163-0300 | CONSTRUCTION EXIT | EA | \$1,160.17 | 10 | \$11,602 |
| 163-0501 | CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 1 | EA | \$800.21 | 1 | \$800 |
| 163-0503 | CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 3 | EA | \$264.98 | 2 | \$530 |
| 163-0504 | CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 4 | EA | \$536.42 | 14 | \$7,510 |
| 163-0521 | CONSTRUCT AND REMOVE TEMPORARY DITCH CHECKS | EA | \$144.74 | 12 | \$1,737 |
| 163-0530 | CONSTRUCT AND REMOVE BALED STRAW EROSION CHECK | LF | \$1.42 | 5300 | \$7,526 |
| 163-0531 | CONSTRUCT AND REMOVE SEDIMENT BASIN, TP 1, STA NO | EA | \$4,853.12 | 2 | \$9,706 |
| 165-0010 | MAINTENANCE OF TEMPORARY SILT FENCE, TP A | LF | \$0.90 | 5100 | \$4,590 |
| 165-0030 | MAINTENANCE OF TEMPORARY SILT FENCE, TP C | LF | \$1.19 | 11900 | \$14,161 |
| 165-0040 | MAINTENANCE OF EROSION CONTROL CHECKDAMS / DITCH CHECKS | EA | \$53.93 | 12 | \$647 |
| 165-0060 | MAINTENANCE OF TEMPORARY SEDIMENT BASIN, STA NO | EA | \$714.94 | 2 | \$1,430 |
| 165-0070 | MAINTENANCE OF BALED STRAW EROSION CHECK | LF | \$1.07 | 5300 | \$5,671 |
| 165-0085 | MAINTENANCE OF SILT CONTROL GATE, TP 1 | EA | \$235.52 | 1 | \$236 |
| 165-0087 | MAINTENANCE OF SILT CONTROL GATE, TP 3 | EA | \$89.36 | 2 | \$179 |
| 165-0088 | MAINTENANCE OF SILT CONTROL GATE, TP 4 | EA | \$145.00 | 14 | \$2,030 |
| 165-0101 | MAINTENANCE OF CONSTRUCTION EXIT | EA | \$368.55 | 10 | \$3,686 |
| 167-0100 | WATER QUALITY MONITORING | MO | \$1,159.61 | 42 | \$48,704 |
| 167-0200 | WATER QUALITY SAMPLING | EA | \$88.55 | 126 | \$11,157 |
| 171-0010 | TEMPORARY SILT FENCE, TYPE A | LF | \$1.84 | 5100 | \$9,384 |
| 171-0030 | TEMPORARY SILT FENCE, TYPE C | LF | \$2.66 | 11900 | \$31,854 |
| 603-2012 | STN DUMPED RIP RAP, TP 1, 12 IN | SY | \$45.00 | 700 | \$31,500 |
| 603-2182 | STN DUMPED RIP RAP, TP 3, 24 IN | SY | \$29.50 | 500 | \$14,750 |
| 603-7000 | PLASTIC FILTER FABRIC | SY | \$2.57 | 1200 | \$3,084 |
| 700-6910 | PERMANENT GRASSING | AC | \$833.49 | 14 | \$11,669 |
| 700-7000 | AGRICULTURAL LIME | TONS | \$47.27 | 42 | \$1,985 |
| 700-7010 | LIQUID LIME | GL | \$21.74 | 35 | \$761 |
| 700-8000 | FERTILIZER MIXED GRADE | TONS | \$232.80 | 14 | \$3,259 |
| 700-8100 | FERTILIZER NITROGEN CONTENT | LB | \$1.39 | 135 | \$188 |
| 710-9000 | PERMANENT SOIL REINFORCING MAT | SY | \$5.09 | 1750 | \$8,908 |
| 715-2100 | BITUMINOUS TREATED ROVING, SLOPES | SY | \$2.41 | 110000 | \$265,100 |
| SIGNING & MARKING | | | | | |
| 500-3101 | CLASS A CONCRETE | CY | \$379.40 | 10 | \$3,794 |
| 636-1020 | HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3 | SF | \$16.17 | 150 | \$2,426 |
| 636-1029 | HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 3 | SF | \$17.28 | 60 | \$1,037 |
| 636-1031 | HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 6 | SF | \$18.56 | 65 | \$1,206 |
| 636-1032 | HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 6 | SF | \$13.87 | 160 | \$2,219 |
| 636-1072 | HIGHWAY SIGNS, ALUM EXTRUDED PANELS, REFL SHEETING TP 3 | SF | \$30.08 | 700 | \$21,056 |
| 636-2070 | GALV STEEL POST, TP 7 | LF | \$11.52 | 55 | \$634 |
| 636-2080 | GALV STEEL POST, TP 8 | LF | \$11.52 | 285 | \$3,283 |
| 636-3000 | GALV STEEL STR SHAPE POST | LB | \$2.60 | 2700 | \$7,020 |
| 636-5010 | DELINEATORS, TP 1 | EA | \$30.78 | 25 | \$770 |
| 636-9094 | PILING IN PLACE, SIGNS, STEEL H, HP 12 X 53 | LF | \$53.07 | 18 | \$955 |
| 638-1001 | STR SUPPORT FOR OVERHEAD SIGN, TP I, STA.-- | LUMP | LUMP | LUMP | \$37,841 |
| 652-0094 | PAVEMENT MARKING, SYMBOL, TP 4 | EA | \$33.17 | 16 | \$531 |
| 652-0110 | PAVEMENT MARKING, ARROW, TP1 | EA | \$37.25 | 16 | \$596 |
| 652-5451 | SOLID TRAF STRIPE, 5 IN, WHITE | LF | \$0.26 | 12000 | \$3,120 |
| 652-5301 | SOLID TRAF STRIPE, 6 IN, WHITE | LF | \$0.13 | 12000 | \$1,560 |
| 652-6301 | SKIP TRAF STRIPE, 6 IN, WHITE | GLF | \$0.13 | 1000 | \$130 |
| 652-6501 | SKIP TRAF STRIPE, 5 IN, WHITE | GLF | \$0.41 | 1000 | \$410 |
| 653-0120 | THERMOPLASTIC PVMT MARKING, ARROW, TP 2 | EA | \$64.87 | 40 | \$2,595 |
| 653-0210 | THERMOPLASTIC PVMT MARKING, WORD, TP 1 | EA | \$91.26 | 6 | \$548 |

Jennings Mill Parkway Project
 STP-F001-00 (098)
 COST ESTIMATE

| ITEM # | ITEM DESCRIPTION | UNITS | UNIT PRICE | QUANTITY | TOTAL COST |
|-------------------|--|-------|-------------|----------|------------|
| 653-1501 | THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE | LF | \$0.26 | 27900 | \$7,254 |
| 653-1502 | THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW | LF | \$0.25 | 34700 | \$8,675 |
| 653-1704 | THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE | LF | \$4.16 | 575 | \$2,392 |
| 653-1804 | THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE | LF | \$1.58 | 4000 | \$6,320 |
| 653-3501 | THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE | GLF | \$0.19 | 12000 | \$2,280 |
| 653-3502 | THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW | GLF | \$0.19 | 12000 | \$2,280 |
| 653-6004 | THERMOPLASTIC TRAF STRIPING, WHITE | SY | \$2.32 | 730 | \$1,694 |
| 654-1001 | RAISED PVM T MARKERS TP 1 | EA | \$3.56 | 180 | \$641 |
| 654-1003 | RAISED PVM T MARKERS TP 3 | EA | \$3.57 | 300 | \$1,071 |
| TRAFFIC SIGNALS | | | | | |
| 639-4004 | STRAIN POLE TYPE IV | EA | \$3,904.78 | 20 | \$78,096 |
| 647-1000 | TRAFFIC SIGNAL INSTALLATION | LUMP | \$50,000.00 | 5 | \$250,000 |
| 647-2140 | PULL BOX, PB - 4 | EA | \$1,443.29 | 3 | \$4,330 |
| 647-2150 | PULL BOX, PB - 5 | EA | \$1,751.58 | 5 | \$8,758 |
| 682-6120 | CONDUIT, RIGID, 2 IN | LF | \$10.57 | 2710 | \$28,645 |
| 682-6222 | CONDUIT, NONMETAL, TP 2, 2 IN | LF | \$4.36 | 2000 | \$8,720 |
| 935-1113 | OUTSIDE PLANT FIBER OPTIC CABLE, LOOSE TUBE, SM 24 FIBER | LF | \$1.82 | 3640 | \$6,625 |
| 935-1511 | OUTSIDE PLANT FIBER OPTIC CABLE, DROP, SINGLE MODE, 6 FIBER | LF | \$0.98 | 250 | \$245 |
| 935-3103 | FIBER OPTIC CLOSURE, UNDERGROUND, 24 FIBER | EA | \$551.86 | 5 | \$2,759 |
| 935-4010 | FIBER OPTIC SPLICE, FUSION | EA | \$34.24 | 18 | \$616 |
| 935-6562 | EXTERNAL TRANSCEIVER, DROP AND REPEAT, 1310 SM (SIGNAL JOBS) | EA | \$1,408.00 | 5 | \$7,040 |
| 935-8000 | TESTING | LS | \$3,887.50 | 1 | \$3,888 |
| BRIDGE ITEMS | | | | | |
| 500-0100 | GROOVED CONCRETE | SY | \$3.37 | 2461 | \$8,294 |
| 500-1006 | SUPERSTR CONCRETE, CL AA, BR NO - 1 (711 CY) | LS | \$600.79 | 711 | \$427,162 |
| 500-3101 | CLASS A CONCRETE | CY | \$379.40 | 185.4 | \$70,341 |
| 507-9032 | PSC BEAMS, AASHTO BULB TEE, 72 IN, BR NO - 1 | LF | \$136.86 | 5022 | \$687,311 |
| 511-1000 | BAR REINF STEEL | LB | \$0.53 | 34668 | \$18,374 |
| 511-3000 | SUPERSTR REINF STEEL, BR NO - 1 (135100 LB) | LS | \$0.51 | 135100 | \$68,901 |
| 520-1125 | PILING IN PLACE, STEEL H, HP 12 X 53 | LF | \$35.36 | 1080 | \$38,189 |
| 520-1147 | PILING IN PLACE, STEEL H, HP 14 X 73 | LF | \$37.53 | 1350 | \$50,666 |
| WALL NO - 1 ITEMS | | | | | |
| 627-1000 | MSE WALL FACE, 0 - 10 FT HT, WALL NO - 1 | SF | \$34.62 | 235 | \$8,136 |
| 627-1010 | MSE WALL FACE, 10 - 20 FT HT, WALL NO - 1 | SF | \$39.56 | 2996 | \$118,522 |
| 627-1100 | COPING A, WALL NO - 1 | FT | \$48.80 | 200 | \$9,760 |
| WALL NO - 2 ITEMS | | | | | |
| 627-1000 | MSE WALL FACE, 0 - 10 FT HT, WALL NO - 2 | SF | \$34.62 | 356 | \$12,325 |
| 627-1010 | MSE WALL FACE, 10 - 20 FT HT, WALL NO - 2 | SF | \$39.56 | 3886 | \$153,730 |
| 627-1100 | COPING A, WALL NO - 2 | FT | \$48.80 | 225 | \$10,980 |

SUBTOTAL CONSTRUCTION = \$9,147,219

Preliminary Right of Way Cost Estimate

Harvey P. Booker
 Right of Way Administrator
 By Rick Ford

Date: October 30, 2002
Project: STP-F001-00 (098) Oconee
Existing/Required R/W: Varies/Varies
Project Termini: Jennings Mill Parkway Extension
Project Description: Jennings Mill Parkway Extension

P.I. Number: 0001098
No. Parcels: 18

Land:

Residential / Agricultural
 385,934 SF x \$ 0.50 / SF = \$ 192,967
 Commercial
 20,422 SF x \$ 3.00 / SF = \$ 61,266

\$ 254,233

Improvements:

1 SFR, , signs & misc. site improvements

\$ 100,000

Relocation

Residential - 1 Parcels

\$ 20,000

Damages:

None

\$ - 0 -

\$ 422,166

| | | | |
|------------------------|------|----|----------------|
| Net Cost | | \$ | 422,166 |
| Scheduling Contingency | 55 % | \$ | 243,191 |
| Adm/Court Cost | 60 % | \$ | 399,214 |
| Inflation Factor | 40 % | \$ | <u>425,828</u> |
| | | \$ | 1,490,399 |

Total Cost \$ **1,490,400**

For your use as requested is the following utility cost estimate for the subject project:

| <u>UTILITY OWNERS</u> | <u>ESTIMATE</u> |
|-------------------------|---------------------|
| Ga Power-Distribution | 30,000.00 |
| Ga Power-Transmission | 0.00 |
| Walton EMC | 18,000.00 |
| Bellsouth | 80,000.00 |
| AT&T | 0.00 |
| Charter Communications | 14,500.00 |
| Atlanta Gas Light | 0.00 |
| Oconee County Utilities | 50,000.00 |
| TOTAL | \$192,500.00 |

Please advise if any additional info is needed.

Thanks,

Thomas E. Davis
Georgia Department of Transportation
District Utilities Engineer
Gainesville District Office
P.O. Box 1057
Gainesville, GA 30503
Phone---(770) 532-5510
Fax-----(770) 532-5581
Southern Linc # 21005

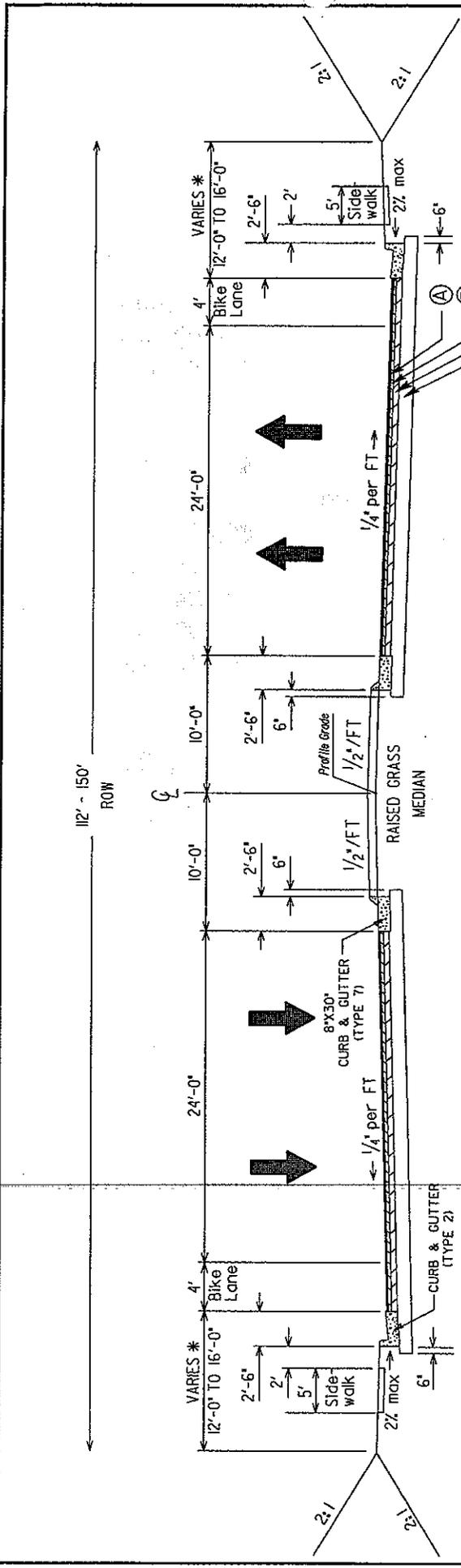
Project Number: STP-F001-00(098)

P. I. Number: 00001098

Oconee County

SUMMARY OF PROJECT COSTS

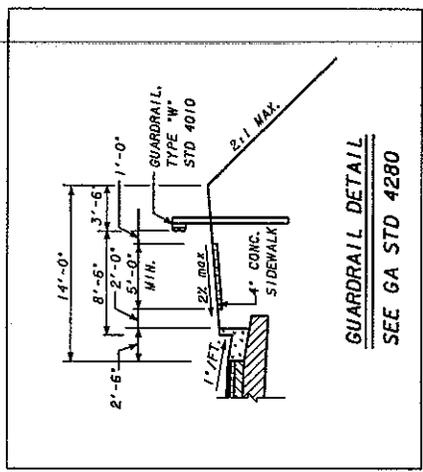
| | | |
|-------------|---|--------------|
| A. | Right-of-Way | \$1,490,400 |
| B. | Reimbursable Utilities | \$192,500 |
| Local Funds | Total Non-Construction Cost | \$1,682,900 |
| C. | Construction | |
| | 1. Major Structures | \$1,682,689 |
| | 2. Roadway Items: Including Grading and Drainage Base and Paving, Concrete Work, Guardrail | \$6,411,958 |
| | 3. Erosion Control Items | \$528,516 |
| | 4. Signing & Marking | \$124,336 |
| | 5. Traffic Signals & Interconnect | \$399,721 |
| | Construction Cost Subtotal | \$9,147,219 |
| | Four years of inflation @ 5% | \$1,971,283 |
| | Engineering & Construction; 10% | \$914,722 |
| | Total Construction Cost | \$12,033,224 |



* SHOULDER WIDTH VARIES AT DRIVEWAYS DUE TO ADA SIDEWALK REQUIREMENTS.

PROPOSED PAVEMENT

- Ⓐ ASPHALTIC CONC. 12.5 mm SUPERPAVE (165 lbs/SY) LEVEL C
- Ⓑ ASPHALTIC CONC. 19 mm SUPERPAVE (220 lbs/SY) LEVEL B
- Ⓒ ASPHALTIC CONC. 25 mm SUPERPAVE (440 lbs/SY) LEVEL B
- Ⓓ GRADED AGGREGATE BASE, 12 IN.

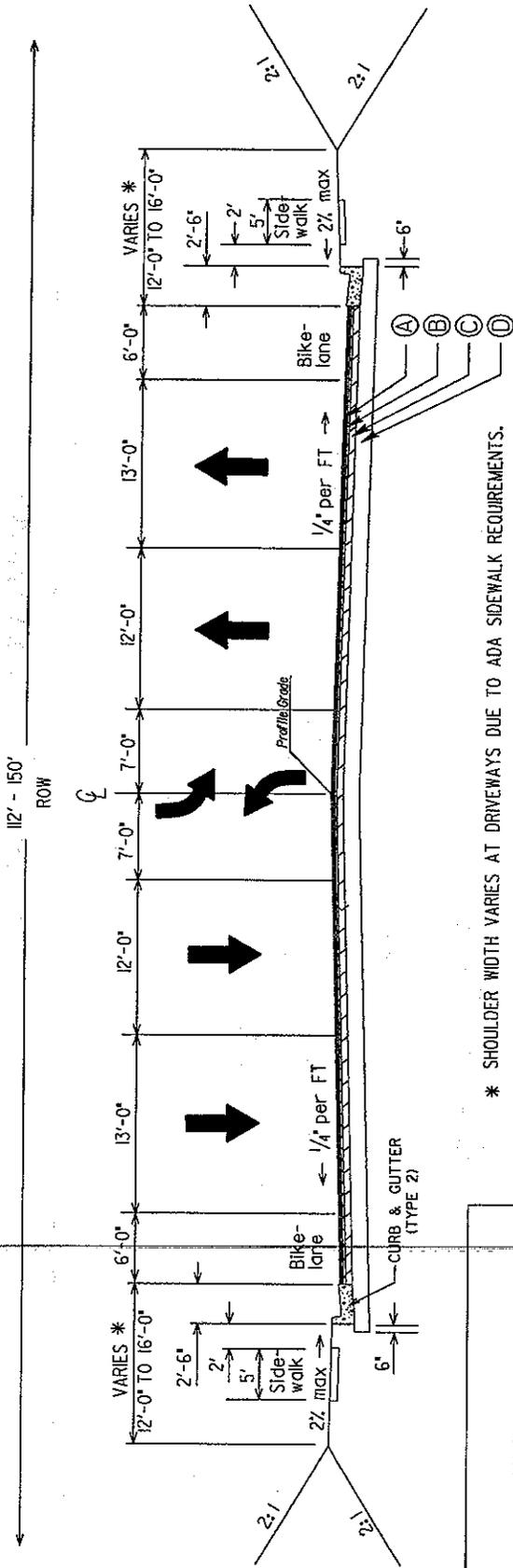


| SLOPE CONTROLS | | |
|----------------|-------------------|--------|
| SLOPE | CUT | FILL |
| 4:1 | 0'-6" | 0'-10" |
| 2:1 | OVER 10' OVER 10' | |

* GUARDRAIL IS REQUIRED

NOT TO SCALE

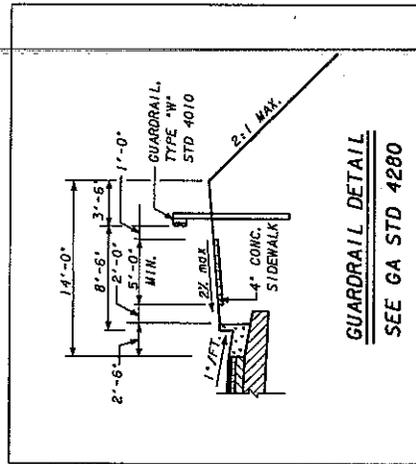
TYPICAL SECTION DIAGRAM
 JENNINGS MILL PARKWAY EXTENSION - VIRGIL LANGFORD ROAD TO FRONTAGE ROAD
 STP-F001-00 (098) OCONEE COUNTY



* SHOULDER WIDTH VARIES AT DRIVEWAYS DUE TO ADA SIDEWALK REQUIREMENTS.

PROPOSED PAVEMENT

- Ⓐ ASPHALTIC CONC. 12.5 mm SUPERPAVE (165 lbs/SY) LEVEL C
- Ⓑ ASPHALTIC CONC. 19 mm SUPERPAVE (220 lbs/SY) LEVEL B
- Ⓒ ASPHALTIC CONC. 25 mm SUPERPAVE (440 lbs/SY) LEVEL B
- Ⓓ GRADED AGGREGATE BASE, 12 IN.

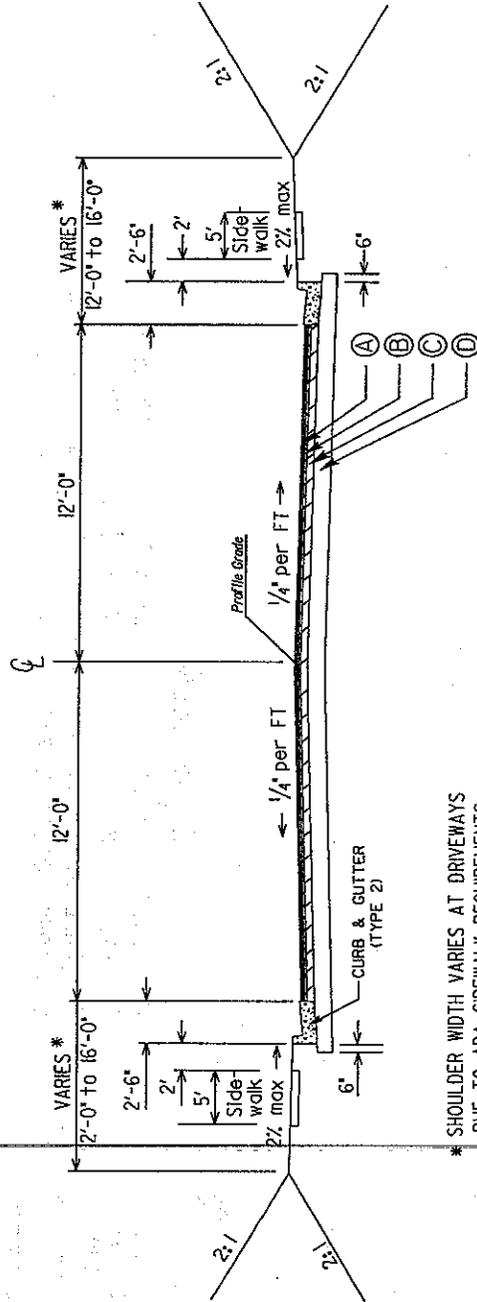


| SLOPE CONTROLS | |
|----------------|----------|
| SLOPE | CUT FILL |
| 4:1 | 0-6' |
| 2:1 | OVER 10' |

* GUARDRAIL IS REQUIRED

NOT TO SCALE

TYPICAL SECTION DIAGRAM
 JENNINGS MILL PARKWAY EXTENSION - FRONTAGE ROAD TO EPPS BRIDGE ROAD
 STP-F001-00 (098) OCONEE COUNTY



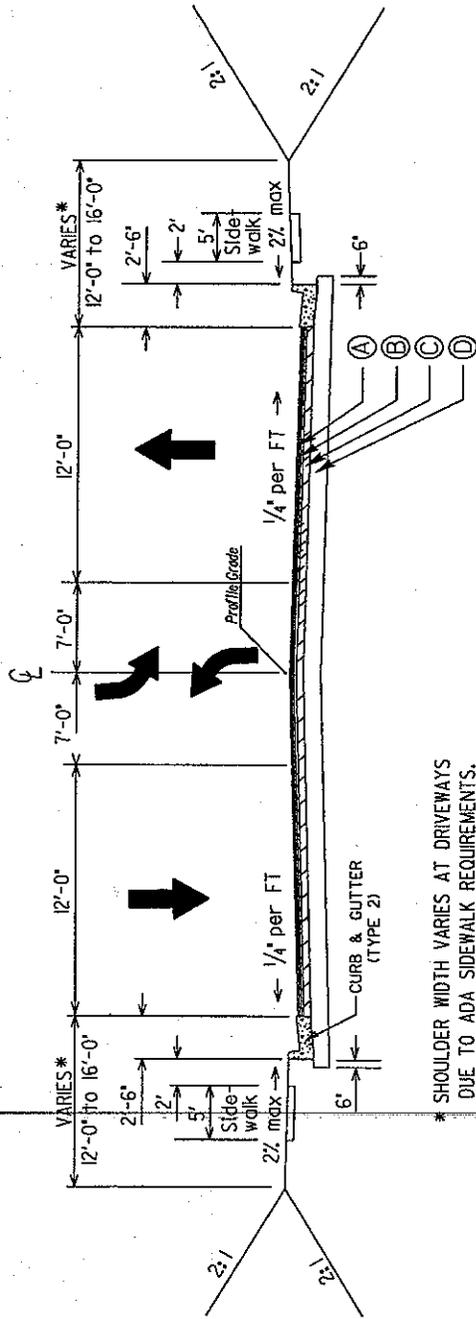
* SHOULDER WIDTH VARIES AT DRIVEWAYS
DUE TO ADA SIDEWALK REQUIREMENTS.

PROPOSED PAVEMENT

- Ⓐ ASPHALTIC CONC. 12.5 mm SUPERPAVE (165 lbs/SY) LEVEL B
- Ⓑ ASPHALTIC CONC. 19 mm SUPERPAVE (220 lbs/SY) LEVEL A
- Ⓒ ASPHALTIC CONC. 25 mm SUPERPAVE (440 lbs/SY) LEVEL A
- Ⓓ GRADED AGGREGATE BASE, 12 IN.

NOT TO SCALE

TYPICAL SECTION DIAGRAM
 RELOCATED JENNINGS MILL ROAD
 STP-F001-00 (098) OCONEE COUNTY



* SHOULDER WIDTH VARIES AT DRIVEWAYS
DUE TO ADA SIDEWALK REQUIREMENTS.

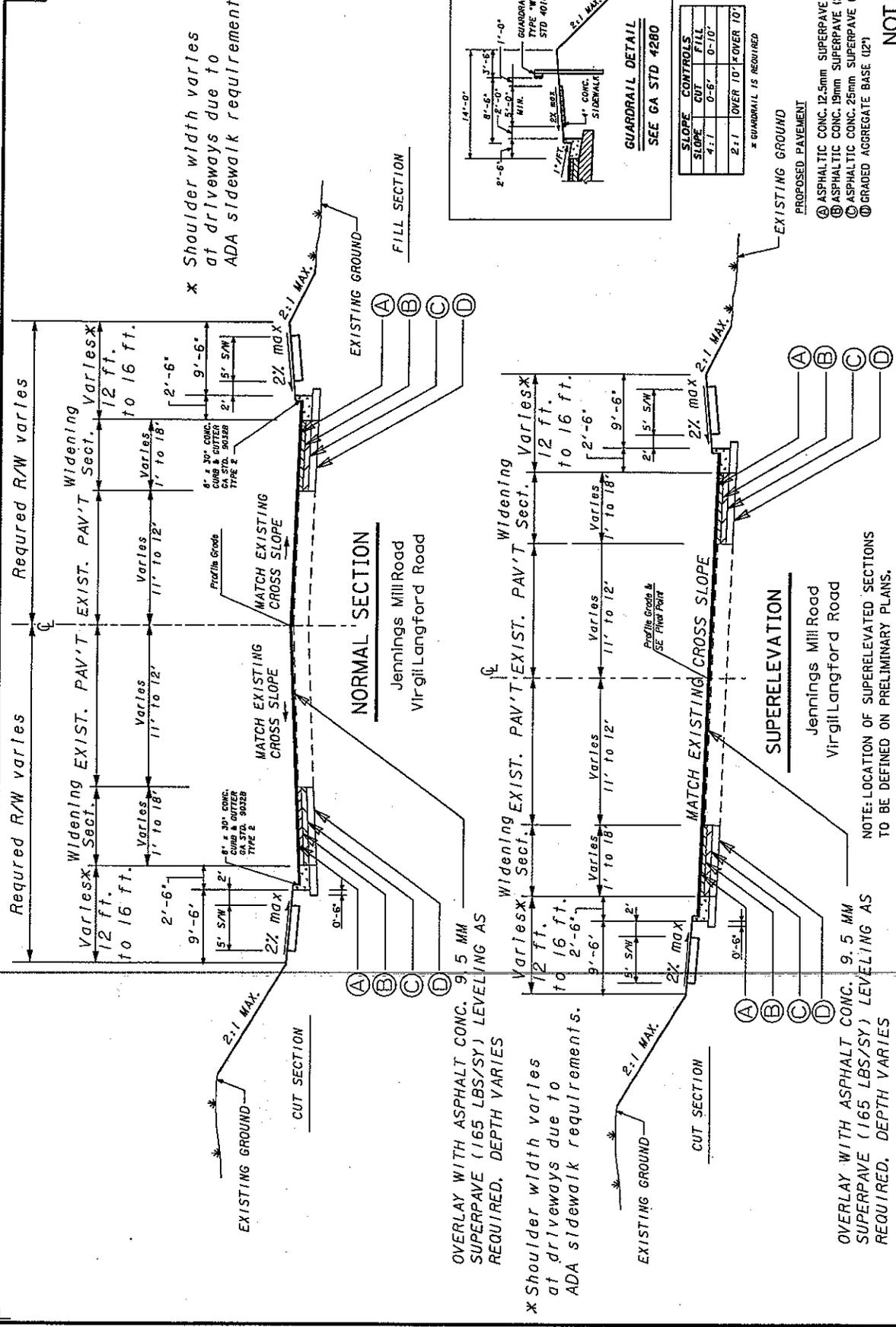
PROPOSED PAVEMENT

- Ⓐ ASPHALTIC CONC. 12.5 mm SUPERPAVE (165 lbs/SY) LEVEL B
- Ⓑ ASPHALTIC CONC. 19 mm SUPERPAVE (220 lbs/SY) LEVEL A
- Ⓒ ASPHALTIC CONC. 25 mm SUPERPAVE (440 lbs/SY) LEVEL A
- Ⓓ GRADED AGGREGATE BASE, 12 IN.

NOT TO SCALE

TYPICAL SECTION DIAGRAM
FRONTAGE ROAD
STP-F001-00 (098) OCONEE COUNTY

| | | | |
|---------|----------------|------|-------|
| STATE | PROJECT NUMBER | DATE | SCALE |
| GEORGIA | | | |



NOT TO SCALE

| | | | | | |
|------|-----------|------|----|------|----|
| DATE | REVISIONS | DATE | BY | DATE | BY |
| | | | | | |

DESIGNED BY: _____ CHECKED BY: _____

DATE: _____

PROJECT: JENNINGS MILL PKWY EXT. AND INTERCHANGE TYPICAL SECTIONS

LOCATION: JENNINGS MILL ROAD AND VIRGIL LANGFORD ROAD

SCALE: _____

PROJECT NUMBER: _____

STATE: _____

TRAFFIC ANALYSIS & TRAFFIC FLOW DIAGRAMS

Intersection capacity analysis for the future 2025 design year peak hour traffic conditions was performed at major intersections along the proposed project, including the proposed interchange with SR 10 Loop. This analysis was performed using the Highway Capacity Software (HCS), Version 4.1b, which employs the procedures outlined in the *2000 Highway Capacity Manual (HCM)*. These procedures measure intersection operations using Level of Service (LOS), which bases its evaluation on the intersection's turning movement (hourly) volume, lane configuration and traffic control operations according to threshold values defined in the HCM. The proposed lane configurations as analyzed using HCS were a result of the proposed trip generation and trip distribution associated with the proposed development and traffic characteristics as a result of construction of the project. Details with respect to these configurations are shown in the attached concept layout.

The results of the analysis are provided below in Figure 1 for the future 2025 design year build condition. Because it is anticipated that all proposed traffic signals along the project corridor would be coordinated to optimize traffic flow, a consistent 110-second cycle length was used for each intersection.

Figure 1; HCS Analysis Results

| Intersection | Type | A.M. | | P.M. | |
|---|--------------|-------|-----|-------|-----|
| | | Delay | LOS | Delay | LOS |
| 1; Jennings Mill Pkwy at Virgil Langford Road | Signalized | 19.7 | B | 31.9 | C |
| 2; Jennings Mill Pkwy at SR 10 Loop EB Off-Ramp | Unsignalized | 16.1 | C | N/A | F |
| | Signalized | 16.0 | B | 29.9 | C |
| 3; Jennings Mill Pkwy at SR 10 Loop WB On-Ramp | Unsignalized | 9.5 | A | 29.3 | D |
| | Signalized | 3.6 | A | 7.8 | A |
| 4; Jennings Mill Pkwy at Frontage Road East | Signalized | 18.5 | B | 38.6 | D |
| 5; Jennings Mill Road at Frontage Road East | Unsignalized | 19.3 | C | N/A | F |
| | Signalized | 14.5 | B | 16.2 | B |
| 6; Jennings Mill Pkwy at Epps Bridge Road | Signalized | 34.2 | C | 50.9 | D |
| 7; Virgil Landford Rd at Relocated Jennings Mill Road | Unsignalized | 13.1 | B | 19.8 | C |

The results of the HCS analysis indicate that each of the major intersections of the project would independently operate at an acceptable level of service for both morning and evening peak time periods. The intersections of Jennings Mill Parkway with the SR 10 Loop ramps, and the intersection of Jennings Mill Road at Frontage Road East were analyzed as both unsignalized and signalized intersections. The results indicate that for the 2025 PM Peak Hour, two-way stop control will not adequately accommodate the projected turning movements at these intersections. In addition, it is recommended that the two ramp intersections at SR 10 Loop be signalized as part of a coordinated system of traffic signals along Jennings Mill Parkway so as to maintain proper gaps in through traffic.

A TRAF-CORSIM analysis was also conducted along Jennings Mill Parkway to determine the queue lengths at the intersections through the interchange area. TRAF-CORSIM is a network oriented analysis tool where traffic at any point in the network is a function of the upstream and downstream operations. The results of the TRAF-CORSIM analysis are attached along with the output data sheets.

The TRAF-CORSIM analysis indicates that the intersections along the interchange area would operate at acceptable levels of service. The A.M. and P.M. maximum queue lengths for each turning movement at each intersection were determined and shown in the attached table.

A design variance for this project is required because the intersection spacing requirements of 1,000 feet are not met through the interchange area of Jennings Mill Parkway. However, the TRAF-CORSIM results indicate that the highest maximum queue length that occurs between any of the intersections in the interchange area is 450 feet. This is the maximum queue length for the northbound left turn lane on Jennings Mill Parkway at Frontage Road East during the P.M. peak hour. This queue length does not exceed the intersection spacing between the ramps and Frontage Road East, which is 720 feet. Therefore, the queue of left turning traffic should not negatively impact the operations of the upstream ramp intersection.

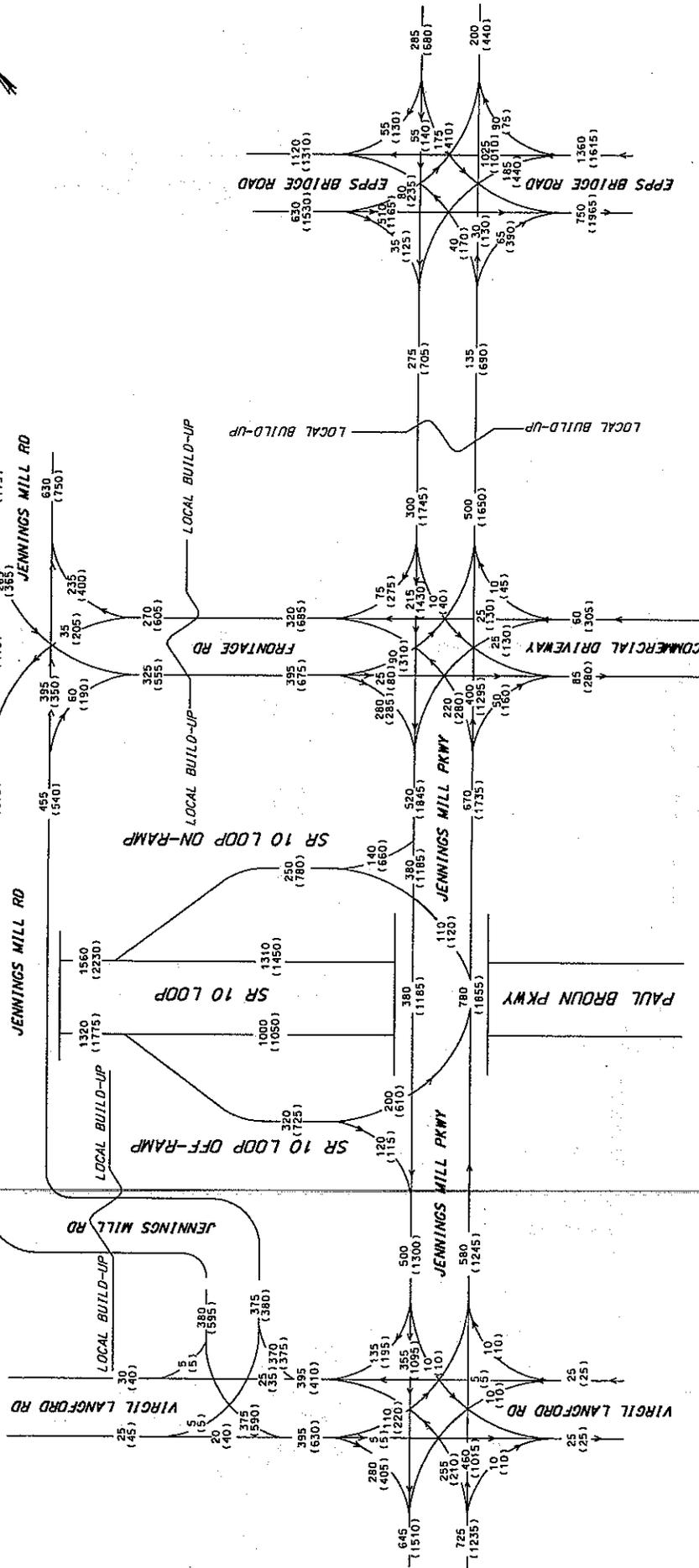
SUMMARY OF TRAF-CORSIM RESULTS
Jennings Mill Parkway Extension
Year 2025 Peak Hours Intersection Analysis

| | Link | AM Peak Hour | PM Peak Hour |
|--|-------|-------------------------|-------------------------|
| Jennings Mill Pkwy @ Virgil Langford Rd | | Delay Time (s/v) | Delay Time (s/v) |
| Northbound Approach | 6-4 | 16.3 | 12.8 |
| Southbound Approach | 3-4 | 40.0 | 44.6 |
| Westbound Approach | 8-4 | 17.4 | 22.3 |
| Eastbound Approach | 7-4 | 25.2 | 37.4 |
| Average Intersection Delay | | 24.7 | 29.3 |
| Level of Service | | C | C |
| Jennings Mill Pkwy @ SR 10 Loop EB Off-Ramp | | Delay Time (s/v) | Delay Time (s/v) |
| Northbound Approach | 4-3 | 26.8 | 38.5 |
| Southbound Approach | 1-3 | 18.1 | 21.2 |
| Eastbound Approach | 9-3 | 32.9 | 35.3 |
| Average Intersection Delay | | 25.9 | 31.7 |
| Level of Service | | C | C |
| Jennings Mill Pkwy @ SR 10 Loop WB On-Ramp | | Delay Time (s/v) | Delay Time (s/v) |
| Northbound Approach | 3-1 | 17.2 | 19.5 |
| Southbound Approach | 2-1 | 20.9 | 24.6 |
| Average Intersection Delay | | 19.1 | 22.1 |
| Level of Service | | B | C |
| Jennings Mill Pkwy @ Frontage Road East | | Delay Time (s/v) | Delay Time (s/v) |
| Northbound Approach | 1-2 | 37.4 | 42.6 |
| Southbound Approach | 5-2 | 41.4 | 48.5 |
| Westbound Approach | 12-2 | 36.1 | 47.8 |
| Eastbound Approach | 11-2 | 17.7 | 28.3 |
| Average Intersection Delay | | 33.2 | 41.8 |
| Level of Service | | C | D |
| Jennings Mill Pkwy @ Epps Bridge Road | | Delay Time (s/v) | Delay Time (s/v) |
| Eastbound Approach | 22-14 | 35.8 | 30.0 |
| Westbound Approach | 15-14 | 49.3 | 48.5 |
| Northbound Approach | 21-14 | 27.8 | 48.4 |
| Southbound Approach | 20-14 | 28.7 | 37.0 |
| Average Intersection Delay | | 35.4 | 41.0 |
| Level of Service | | C | D |

Jennings Mill Parkway Ext. - 2025 Maximum Queue Lengths (ft)

| Approach Location | Link | Left | | Through | | Right | |
|--|-------|------|-----|---------|---------|-------|-----|
| | | AM | PM | AM | PM | AM | PM |
| Jennings Mill Pkwy @ Virgil Langford Rd | | | | | | | |
| Northbound Approach | 6-4 | 150 | 150 | 75(TR) | 125(TR) | --- | --- |
| Southbound Approach | 3-4 | 25 | 50 | 150 | 425 | 25 | 50 |
| Westbound Approach | 8-4 | 25 | 25 | 25(TR) | 25(TR) | --- | --- |
| Eastbound Approach | 7-4 | 175 | 250 | 50(TR) | 200(TR) | --- | --- |
| Jennings Mill Pkwy @ SR 10 Loop EB Off-Ramp | | | | | | | |
| Northbound Approach | 4-3 | --- | --- | 125 | 350 | --- | --- |
| Southbound Approach | 1-3 | --- | --- | 25 | 125 | --- | --- |
| Eastbound Approach | 9-3 | 75 | 175 | --- | --- | 50 | 150 |
| Jennings Mill Pkwy @ SR 10 Loop WB On-Ramp | | | | | | | |
| Northbound Approach | 3-1 | 100 | 100 | 25 | 125 | --- | --- |
| Southbound Approach | 2-1 | --- | --- | 50 | 150 | 25 | 75 |
| Jennings Mill Pkwy @ Frontage Road East | | | | | | | |
| Northbound Approach | 1-2 | 175 | 450 | 125 | 325 | 50 | 50 |
| Southbound Approach | 5-2 | 25 | 75 | 75 | 550 | 25 | 200 |
| Westbound Approach | 12-2 | 25 | 150 | 25 | 125 | 25 | 50 |
| Eastbound Approach | 11-2 | 50 | 200 | 75 | 175 | 25 | 50 |
| Jennings Mill Pkwy @ Epps Bridge Road | | | | | | | |
| Eastbound Approach | 22-14 | 50 | 125 | 50 | 100 | 50 | 175 |
| Westbound Approach | 15-14 | 75 | 150 | 100 | 175 | 50 | 150 |
| Northbound Approach | 21-14 | 125 | 400 | 300 | 300 | 50 | 50 |
| Southbound Approach | 20-14 | 100 | 225 | 125 | 325 | 25 | 25 |

| | | | |
|------|----------------|-------|-------------|
| DATE | PROJECT NUMBER | SCALE | FILE NUMBER |
| | | | |



YEAR 2025
00 AM PEAK HOUR
(00) PM PEAK HOUR

| | | | | | | | | | |
|------|-------------|----|------|------|------|------|------|------|------|
| DATE | DESCRIPTION | BY | DATE |
| | | | | | | | | | |

Maryland A. J. J. Inc.
 2311 S. ...
 ...
 Department of Transportation
 State of Georgia

JENNINGS MILL PARKWAY
YEAR 2025 AM (PM) PEAK HOUR VOLUME
TRAFFIC FLOW DIAGRAM

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI
 Agency: Georgia DOT
 Date: 4/30/02
 Period: AM Peak Hour
 Project ID: 97981dl - Jennings Mill Parkway Extension
 E/W St: Virgil Langford Road

Inter.: Jennings Mill Pkwy @ Virg Lang Rd
 Area Type: All other areas
 Jurisd: Oconee County
 Year : 2025 Build Conditions
 N/S St: Jennings Mill Pkwy/Oconee Conn

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|------|-----|-----------|------|----|------------|------|----|------------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 110 | 5 | 280 | 10 | 5 | 10 | 255 | 460 | 10 | 10 | 355 | 135 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas
 Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|------|---|---|---|----------|------|---|---|
| EB Left | | P | | | NB Left | P | P | |
| Thru | | P | | | Thru | P | P | |
| Right | | P | | | Right | P | P | |
| Peds | | | | | Peds | | | |
| WB Left | | P | | | SB Left | | P | |
| Thru | | P | | | Thru | | P | |
| Right | | P | | | Right | | P | |
| Peds | | | | | Peds | | | |
| NB Right | | | | | EB Right | P | | |
| SB Right | | | | | WB Right | | | |
| Green | 30.0 | | | | 10.0 | 55.0 | | |
| Yellow | 4.0 | | | | 4.0 | 4.0 | | |
| All Red | 1.0 | | | | 1.0 | 1.0 | | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------------|---------------------------|-----------------------------|--------|------|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |
| Eastbound | | | | | | | | |
| L | 387 | 1418 | 0.32 | 0.27 | 34.0 | C | | |
| TR | 442 | 1620 | 0.72 | 0.27 | 45.8 | D | 42.5 | D |
| Westbound | | | | | | | | |
| L | 176 | 644 | 0.06 | 0.27 | 30.3 | C | | |
| TR | 468 | 1716 | 0.04 | 0.27 | 29.5 | C | 29.8 | C |
| Northbound | | | | | | | | |
| L | 646 | 1805 | 0.44 | 0.64 | 11.1 | B | | |
| TR | 2246 | 3529 | 0.23 | 0.64 | 8.8 | A | 9.6 | A |
| Southbound | | | | | | | | |
| L | 436 | 872 | 0.03 | 0.50 | 14.0 | B | | |
| T | 1770 | 3539 | 0.22 | 0.50 | 15.8 | B | 15.7 | B |
| R | 808 | 1615 | 0.19 | 0.50 | 15.7 | B | | |

Intersection Delay = 19.7 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI
 Agency: Georgia DOT
 Date: 4/30/02
 Period: PM Peak Hour
 Project ID: 97981d1 - Jennings Mill Parkway Extension
 E/W St: Virgil Langford Road

Inter.: Jennings Mill Pkwy @ Virg Lang Rd
 Area Type: All other areas
 Jurisd: Oconee County
 Year : 2025 Build Conditions
 N/S St: Jennings Mill Pkwy/Oconee Conn

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|------|-----|-----------|------|----|------------|------|----|------------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 1 |
| LGConfig | L | TR | | L | TR | | L | TR | | L | T | R |
| Volume | 220 | 5 | 405 | 10 | 5 | 10 | 210 | 1015 | 10 | 10 | 1095 | 195 |
| Lane Width | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas
 Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|------|---|---|---|----------|------|---|---|
| EB Left | | P | | | NB Left | P | P | |
| Thru | | P | | | Thru | P | P | |
| Right | | P | | | Right | P | P | |
| Peds | | | | | Peds | | | |
| WB Left | | P | | | SB Left | | P | |
| Thru | | P | | | Thru | | P | |
| Right | | P | | | Right | | P | |
| Peds | | | | | Peds | | | |
| NB Right | | | | | EB Right | P | | |
| SB Right | | | | | WB Right | | | |
| Green | 30.0 | | | | 15.0 | 50.0 | | |
| Yellow | 4.0 | | | | 4.0 | 4.0 | | |
| All Red | 1.0 | | | | 1.0 | 1.0 | | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|---------------------------|---------------------------|-----------------------------|-----------|------|------------|----------------------|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |
| Eastbound | | | | | | | | |
| L | 387 | 1418 | 0.63 | 0.27 | 42.7 | D | | |
| TR | 442 | 1619 | 1.03 | 0.27 | 91.2 | F | 74.3 | E |
| Westbound | | | | | | | | |
| L | 69 | 253 | 0.16 | 0.27 | 35.3 | D | | |
| TR | 468 | 1716 | 0.04 | 0.27 | 29.5 | C | 31.8 | C |
| Northbound | | | | | | | | |
| L | 346 | 1805 | 0.67 | 0.64 | 34.3 | C | | |
| TR | 2250 | 3535 | 0.51 | 0.64 | 11.5 | B | 15.4 | B |
| Southbound | | | | | | | | |
| L | 215 | 474 | 0.05 | 0.45 | 17.2 | B | | |
| T | 1609 | 3539 | 0.76 | 0.45 | 28.3 | C | 27.0 | C |
| R | 734 | 1615 | 0.30 | 0.45 | 19.9 | B | | |
| Intersection Delay = 31.9 | | | (sec/veh) | | | Intersection LOS = C | | |

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: MAAI
 Agency/Co.: GDOT
 Date Performed: 4/4/02
 Analysis Time Period: AM Peak Hour
 Intersection: Jennings Mill Pkwy @ SR 10 LOOP EB Off-Ramp
 Jurisdiction: Oconee County
 Units: U. S. Customary
 Analysis Year: 2025 Build Conditions
 Project ID: Jennings Mill Parkway Extension/Interchange
 East/West Street: SR 10 LOOP EB Off-Ramp
 North/South Street: Jennings Mill Parkway
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

| Major Street: | Approach Movement | Northbound | | | | Southbound | | |
|------------------------|-------------------|------------|--------|--------|--------|------------|--------|--|
| | | 1 L | 2 T | 3 R | 4 L | 5 T | 6 R | |
| Volume | | 580 | | | | 380 | | |
| Peak-Hour Factor, PHF | | 0.90 | | | | 0.90 | | |
| Hourly Flow Rate, HFR | | 644 | | | | 422 | | |
| Percent Heavy Vehicles | | -- | | | | -- | | |
| Median Type | TWLTL | | | | | | | |
| RT Channelized? | | | | | | | | |
| Lanes | | 2 | | | | 2 | | |
| Configuration | | T | | | | T | | |
| Upstream Signal? | | No | | | | No | | |

| Minor Street: | Approach Movement | Westbound | | | Eastbound | | |
|--------------------------|-------------------|-----------|--------|--------|-----------|---------|---------|
| | | 7 L | 8 T | 9 R | 10 L | 11 T | 12 R |
| Volume | | | | | 200 | | |
| Peak Hour Factor, PHF | | | | | 0.90 | | |
| Hourly Flow Rate, HFR | | | | | 222 | | |
| Percent Heavy Vehicles | | | | | 0 | | |
| Percent Grade (%) | | 0 | | | 0 | | |
| Median Storage | 1 | | | | | | |
| Flared Approach: Exists? | Storage | | | | | | |
| RT Channelized? | | | | | No | | |
| Lanes | | | | | 1 | | |
| Configuration | | | | | L R | | |

Delay, Queue Length, and Level of Service

| Approach Movement | NB | SB | Westbound | | | Eastbound | | | |
|-------------------|----|----|-----------|------|---|-----------|------|----|--|
| | | | 7 | 8 | 9 | 10 | 11 | 12 | |
| Lane Config | 1 | 4 | | | | | L | R | |
| v (vph) | | | | 222 | | | 133 | | |
| C(m) (vph) | | | | 467 | | | 801 | | |
| v/c | | | | 0.48 | | | 0.17 | | |
| 95% queue length | | | | 2.51 | | | 0.59 | | |
| Control Delay | | | | 19.5 | | | 10.4 | | |
| LOS | | | | C | | | B | | |
| Approach Delay | | | | | | | 16.1 | | |
| Approach LOS | | | | | | | C | | |

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: MAAI
 Agency/Co.: GDOT
 Date Performed: 4/4/02
 Analysis Time Period: PM Peak Hour
 Intersection: Jennings Mill Pkwy @ SR 10 Loop EB Off-Ramp
 Jurisdiction: Oconee County
 Units: U. S. Customary
 Analysis Year: 2025 Build Conditions
 Project ID: Jennings Mill Parkway Extension/Interchange
 East/West Street: SR 10 Loop EB Off-Ramp
 North/South Street: Jennings Mill Parkway
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

| Major Street: | Approach Movement | Northbound | | | | Southbound | | |
|------------------------|-------------------|------------|--------|--------|----------|------------|--------|--|
| | | 1 L | 2 T | 3 R | 4 L | 5 T | 6 R | |
| Volume | | 1245 | | | | 1185 | | |
| Peak-Hour Factor, PHF | | 0.90 | | | | 0.90 | | |
| Hourly Flow Rate, HFR | | 1383 | | | | 1316 | | |
| Percent Heavy Vehicles | | -- | | | | -- | | |
| Median Type | TWLTL | | | | | | | |
| RT Channelized? | | | | | | | | |
| Lanes | | 2 | | | | 2 | | |
| Configuration | | T | | | | T | | |
| Upstream Signal? | | No | | | | No | | |

| Minor Street: | Approach Movement | Westbound | | | Eastbound | | |
|------------------------|--------------------|-----------|--------|--------|-----------|---------|---------|
| | | 7 L | 8 T | 9 R | 10 L | 11 T | 12 R |
| Volume | | | | | 610 | | |
| Peak Hour Factor, PHF | | | | | 0.90 | | |
| Hourly Flow Rate, HFR | | | | | 677 | | |
| Percent Heavy Vehicles | | | | | 0 | | |
| Percent Grade (%) | | 0 | | | 0 | | |
| Median Storage | 1 | | | | | | |
| Flared Approach: | Exists? Storage | | | | | | |
| RT Channelized? | | | | | No | | |
| Lanes | | | | | 1 | | |
| Configuration | | | | | L R | | |

Delay, Queue Length, and Level of Service

| Approach Movement | NB | | Westbound | | | Eastbound | | |
|-------------------|----|---|-----------|---|---|-----------|----|---------|
| | 1 | 4 | 7 | 8 | 9 | 10 L | 11 | 12 R |
| Lane Config | | | | | | | | |
| v (vph) | | | | | | 677 | | |
| C(m) (vph) | | | | | | 156 | | |
| v/c | | | | | | 4.34 | | |
| 95% queue length | | | | | | 68.81 | | |
| Control Delay | | | | | | 17.6 | | |
| LOS | | | | | | F C | | |
| Approach Delay | | | | | | | | |
| Approach LOS | | | | | | F | | |

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI
 Agency: Georgia DOT
 Date: 4/30/02
 Period: AM Peak Hour
 Project ID: 97981d1 - Jennings Mill Parkway Extension/Interchange
 E/W St: SR 10 Loop Eastbound Off-Ramp
 Inter.: Jen Mill Pkwy @ SR 10 Loop EB Ramp
 Area Type: All other areas
 Jurisd: Oconee County
 Year : 2025 Build Conditions
 N/S St: Jennings Mill Parkway

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|---|------|-----------|---|---|------------|------|---|------------|------|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| LGConfig | L | | R | | | | | T | | | T | |
| Volume | 200 | | 120 | | | | | 580 | | | 380 | |
| Lane Width | 12.0 | | 12.0 | | | | | 12.0 | | | 12.0 | |
| RTOR Vol | | | 0 | | | | | | | | | |

Duration 0.25 Area Type: All other areas
 Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|------|---|---|---|------|---|---|
| EB Left | | P | | | | | | |
| Thru | | | | | | P | | |
| Right | | P | | | | | | |
| Peds | | | | | | | | |
| WB Left | | | | | | | | |
| Thru | | | | | | P | | |
| Right | | | | | | | | |
| Peds | | | | | | | | |
| NB Right | | | | | | | | |
| SB Right | | | | | | | | |
| Green | | 35.0 | | | | 65.0 | | |
| Yellow | | 4.0 | | | | 4.0 | | |
| All Red | | 1.0 | | | | 1.0 | | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------------|---------------------------|-----------------------------|--------|------|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |
| Eastbound | | | | | | | | |
| L | 574 | 1805 | 0.39 | 0.32 | 31.1 | C | 30.4 | C |
| R | 514 | 1615 | 0.26 | 0.32 | 29.1 | C | | |
| Westbound | | | | | | | | |
| Northbound | | | | | | | | |
| T | 2091 | 3539 | 0.31 | 0.59 | 11.6 | B | 11.6 | B |
| Southbound | | | | | | | | |
| T | 2091 | 3539 | 0.20 | 0.59 | 10.7 | B | 10.7 | B |

Intersection Delay = 16.0 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI Inter.: Jen Mill Pkwy @ SR 10 Loop EB Ramp
 Agency: Georgia DOT Area Type: All other areas
 Date: 4/30/02 Jurisd: Oconee County
 Period: PM Peak Hour Year : 2025 Build Conditions
 Project ID: 97981d1 - Jennings Mill Parkway Extension/Interchange
 E/W St: SR 10 Loop Eastbound Off-Ramp N/S St: Jennings Mill Parkway

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|---|------|-----------|---|---|------------|------|---|------------|------|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| LGConfig | L | | R | | | | | T | | | T | |
| Volume | 610 | | 115 | | | | | 1245 | | | 1185 | |
| Lane Width | 12.0 | | 12.0 | | | | | 12.0 | | | 12.0 | |
| RTOR Vol | | | 0 | | | | | | | | | |

Duration 0.25 Area Type: All other areas
 Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|------|---|---|---|------|---|---|---|
| EB Left | | P | | | | | | |
| Thru | | | | | | P | | |
| Right | | P | | | | | | |
| Peds | | | | | | | | |
| WB Left | | | | | | | | |
| Thru | | | | | | P | | |
| Right | | | | | | | | |
| Peds | | | | | | | | |
| NB Right | | | | | | | | |
| SB Right | | | | | | | | |
| Green | 45.0 | | | | 55.0 | | | |
| Yellow | 4.0 | | | | 4.0 | | | |
| All Red | 1.0 | | | | 1.0 | | | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------------|---------------------------|-----------------------------|--------|------|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |
| Eastbound | | | | | | | | |
| L | 738 | 1805 | 0.92 | 0.41 | 49.1 | D | 44.7 | D |
| R | 661 | 1615 | 0.19 | 0.41 | 21.5 | C | | |
| Westbound | | | | | | | | |
| Northbound | | | | | | | | |
| T | 1770 | 3539 | 0.78 | 0.50 | 26.1 | C | 26.1 | C |
| Southbound | | | | | | | | |
| T | 1770 | 3539 | 0.74 | 0.50 | 24.8 | C | 24.8 | C |

Intersection Delay = 29.9 (sec/veh) Intersection LOS = C

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: MAAI
 Agency/Co.: GDOT
 Date Performed: 4/4/02
 Analysis Time Period: PM Peak Hour
 Intersection: Jennings Mill Pkwy @ SR 10 Loop WB On-Ramp
 Jurisdiction: Oconee County
 Units: U. S. Customary
 Analysis Year: 2025 Build Conditions
 Project ID: Jennings Mill Parkway Extension/Interchange
 East/West Street: SR 10 Loop WB On-Ramp
 North/South Street: Jennings Mill Parkway
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

| Major Street: Approach Movement | Northbound | | | | Southbound | | | |
|------------------------------------|------------|--------|--------|--------|------------|--------|--|--|
| | 1 L | 2 T | 3 R | 4 L | 5 T | 6 R | | |
| Volume | 120 | 1735 | | | 1185 | 660 | | |
| Peak-Hour Factor, PHF | 0.90 | 0.90 | | | 0.90 | 0.90 | | |
| Hourly Flow Rate, HFR | 133 | 1927 | | | 1316 | 733 | | |
| Percent Heavy Vehicles | 0 | -- | -- | | -- | -- | | |
| Median Type | TWLTL | | | | | | | |
| RT Channelized? | No | | | | | | | |
| Lanes | 1 | 2 | | | 2 | 1 | | |
| Configuration | L | T | | | T | R | | |
| Upstream Signal? | No | | | | No | | | |

| Minor Street: Approach Movement | Westbound | | | | Eastbound | | | |
|------------------------------------|-----------|--------|--------|---------|-----------|---------|--|--|
| | 7 L | 8 T | 9 R | 10 L | 11 T | 12 R | | |

Volume
 Peak Hour Factor, PHF
 Hourly Flow Rate, HFR
 Percent Heavy Vehicles
 Percent Grade (%) 0 0
 Median Storage 1
 Flared Approach: Exists?
 Storage
 RT Channelized?
 Lanes
 Configuration

Delay, Queue Length, and Level of Service

| Approach Movement Lane Config | NB | SB | Westbound | | | Eastbound | | |
|-------------------------------------|----|----|-----------|---|---|-----------|----|----|
| | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |

v (vph) 133
 C(m) (vph) 278
 v/c 0.48
 95% queue length 2.43
 Control Delay 29.3
 LOS D
 Approach Delay
 Approach LOS

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI Inter.: Jen Mill Pkwy @ SR 10 Loop WB Ramp
 Agency: Georgia DOT Area Type: All other areas
 Date: 4/30/02 Jurisd: Oconee County
 Period: AM Peak Hour Year : 2025 Build Conditions
 Project ID: 97981d1 - Jennings Mill Parkway Extension/Interchange
 E/W St: SR 10 Loop Westbound On-Ramp N/S St: Jennings Mill Parkway

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|---|---|-----------|---|---|------------|------|---|------------|------|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | 1 |
| LGConfig | | | | | | | L | T | | | T | R |
| Volume | | | | | | | 110 | 670 | | 380 | 140 | |
| Lane Width | | | | | | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| RTOR Vol | | | | | | | | | | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|---|---|---|----------|--------------------------|------|---|
| EB Left | | | | | NB Left | P | P | |
| Thru | | | | | Thru | P | P | |
| Right | | | | | Right | | | |
| Peds | | | | | Peds | | | |
| WB Left | | | | | SB Left | | | |
| Thru | | | | | Thru | P | | |
| Right | | | | | Right | P | | |
| Peds | | | | | Peds | | | |
| NB Right | | | | | EB Right | | | |
| SB Right | | | | | WB Right | | | |
| Green | | | | | | 30.0 | 70.0 | |
| Yellow | | | | | | 4.0 | 4.0 | |
| All Red | | | | | | 1.0 | 1.0 | |
| | | | | | | Cycle Length: 110.0 secs | | |

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | Approach | |
|----------------------|---------------------------|-----------------------------|--------|-----|------------|-----------|-----------|
| | | | v/c | g/c | | Delay LOS | Delay LOS |

Eastbound

Westbound

Northbound

| | | | | | | | | |
|---|------|------|------|------|-----|---|-----|---|
| L | 1106 | 1805 | 0.11 | 0.95 | 0.5 | A | | |
| T | 3378 | 3539 | 0.22 | 0.95 | 0.3 | A | 0.3 | A |

Southbound

| | | | | | | | | |
|---|------|------|------|------|-----|---|-----|---|
| T | 2252 | 3539 | 0.19 | 0.64 | 8.4 | A | 8.4 | A |
| R | 1028 | 1615 | 0.15 | 0.64 | 8.4 | A | | |

Intersection Delay = 3.6 (sec/veh) Intersection LOS = A

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI
 Agency: Georgia DOT
 Date: 4/30/02
 Period: PM Peak Hour
 Project ID: 97981d1 - Jennings Mill Parkway Extension/Interchange
 E/W St: SR 10 Loop Westbound On-Ramp
 Inter.: Jen Mill Pkwy @ SR 10 Loop WB Ramp
 Area Type: All other areas
 Jurisd: Oconee County
 Year : 2025 Build Conditions
 N/S St: Jennings Mill Parkway

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|---|---|-----------|---|---|------------|------|---|------------|------|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | 1 |
| LGConfig | | | | | | | L | T | | | T | R |
| Volume | | | | | | | 120 | 1735 | | 1185 | 660 | |
| Lane Width | | | | | | | 12.0 | 12.0 | | 12.0 | 12.0 | |
| RTOR Vol | | | | | | | | | | | | 0 |

Duration 0.25 Area Type: All other areas
 Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|---|---|---|----------|------|------|---|
| EB Left | | | | | NB Left | P | P | |
| Thru | | | | | Thru | P | P | |
| Right | | | | | Right | | | |
| Peds | | | | | Peds | | | |
| WB Left | | | | | SB Left | | | |
| Thru | | | | | Thru | P | | |
| Right | | | | | Right | P | | |
| Peds | | | | | Peds | | | |
| NB Right | | | | | EB Right | | | |
| SB Right | | | | | WB Right | | | |
| Green | | | | | | 30.0 | 70.0 | |
| Yellow | | | | | | 4.0 | 4.0 | |
| All Red | | | | | | 1.0 | 1.0 | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group Delay LOS | | Approach Delay LOS | |
|----------------|---------------------|-----------------------|--------|-----|----------------------|--|--------------------|--|
| | | | v/c | g/c | | | | |

Eastbound

Westbound

Northbound

| | | | | | | | | |
|---|------|------|------|------|-----|---|-----|---|
| L | 685 | 1805 | 0.19 | 0.95 | 5.5 | A | | |
| T | 3378 | 3539 | 0.57 | 0.95 | 1.0 | A | 1.3 | A |

Southbound

| | | | | | | | | |
|---|------|------|------|------|------|---|------|---|
| T | 2252 | 3539 | 0.58 | 0.64 | 12.7 | B | 14.4 | B |
| R | 1028 | 1615 | 0.71 | 0.64 | 17.5 | B | | |

Intersection Delay = 7.8 (sec/veh) Intersection LOS = A

Analyst: MAAI
 Agency: Georgia DOT
 Date: 10/10/02

Inter.: Jennings Mill Pkwy@ Front Rd E
 Area Type: All other areas
 Jurisd: Oconee County
 Year : 2025 Build Conditions

Period: AM Peak Hour
 Project ID: 97981dl - Jennings Mill Parkway Extension/Interchange
 E/W St: Frontage Road East
 N/S St: Jennings Mill Parkway

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|------|------|-----------|------|------|------------|------|------|------------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 90 | 25 | 280 | 25 | 25 | 10 | 220 | 400 | 50 | 10 | 215 | 75 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 0 | | | 0 | | | 0 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|------|------|---|---|----------|------|---|---|
| EB Left | P | P | | | NB Left | P | P | |
| Thru | P | P | | | Thru | P | P | |
| Right | P | P | | | Right | P | P | |
| Peds | | | | | Peds | | | |
| WB Left | | P | | | SB Left | | P | |
| Thru | | P | | | Thru | | P | |
| Right | | P | | | Right | | P | |
| Peds | | | | | Peds | | | |
| NB Right | | | | | EB Right | P | | |
| SB Right | P | | | | WB Right | | | |
| Green | 15.0 | 25.0 | | | 15.0 | 35.0 | | |
| Yellow | 4.0 | 4.0 | | | 4.0 | 4.0 | | |
| All Red | 1.0 | 1.0 | | | 1.0 | 1.0 | | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------------|---------------------------|-----------------------------|--------|------|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |
| Eastbound | | | | | | | | |
| L | 565 | 1805 | 0.18 | 0.41 | 21.1 | C | | |
| T | 777 | 1900 | 0.04 | 0.41 | 19.6 | B | 14.8 | B |
| R | 954 | 1615 | 0.33 | 0.59 | 12.3 | B | | |
| Westbound | | | | | | | | |
| L | 319 | 1404 | 0.09 | 0.23 | 34.1 | C | | |
| T | 432 | 1900 | 0.06 | 0.23 | 33.6 | C | 33.7 | C |
| R | 367 | 1615 | 0.03 | 0.23 | 33.2 | C | | |
| Northbound | | | | | | | | |
| L | 604 | 1805 | 0.40 | 0.50 | 18.1 | B | | |
| T | 1770 | 3539 | 0.25 | 0.50 | 16.1 | B | 16.6 | B |
| R | 808 | 1615 | 0.07 | 0.50 | 14.4 | B | | |
| Southbound | | | | | | | | |
| L | 299 | 940 | 0.04 | 0.32 | 26.1 | C | | |
| T | 1126 | 3539 | 0.21 | 0.32 | 27.9 | C | 24.5 | C |
| R | 808 | 1615 | 0.10 | 0.50 | 14.7 | B | | |

Intersection Delay = 18.5 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1c

Analyst: MAAI

Agency: Georgia DOT

Date: 10/10/02

Period: PM Peak Hour

Project ID: 97981d1 - Jennings Mill Parkway Extension/Interchange

E/W St: Frontage Road East

Inter.: Jennings Mill Pkwy@ Front Rd E

Area Type: All other areas

Jurisd: Oconee County

Year : 2025 Build Conditions

N/S St: Jennings Mill Parkway

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|------|------|-----------|------|------|------------|------|------|------------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 310 | 80 | 285 | 130 | 130 | 45 | 280 | 1295 | 160 | 40 | 1430 | 275 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 50 | | | 0 | | | 30 | | | 50 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|------|------|---|----------|------|------|---|
| EB Left | | P | P | | NB Left | P | P | |
| Thru | | P | P | | Thru | P | P | |
| Right | | P | P | | Right | P | P | |
| Peds | | | | | Peds | | | |
| WB Left | | | P | | SB Left | | P | |
| Thru | | | P | | Thru | | P | |
| Right | | | P | | Right | | P | |
| Peds | | | | | Peds | | | |
| NB Right | | | | | EB Right | P | | |
| SB Right | | P | | | WB Right | | | |
| Green | | 13.0 | 15.0 | | | 15.0 | 47.0 | |
| Yellow | | 4.0 | 4.0 | | | 4.0 | 4.0 | |
| All Red | | 1.0 | 1.0 | | | 1.0 | 1.0 | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------------|---------------------------|-----------------------------|--------|------|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |
| Eastbound | | | | | | | | |
| L | 354 | 1805 | 0.92 | 0.30 | 69.8 | E | | |
| T | 570 | 1900 | 0.15 | 0.30 | 28.7 | C | 45.3 | D |
| R | 778 | 1615 | 0.32 | 0.48 | 18.5 | B | | |
| Westbound | | | | | | | | |
| L | 182 | 1335 | 0.75 | 0.14 | 70.4 | E | | |
| T | 259 | 1900 | 0.53 | 0.14 | 51.7 | D | 58.6 | E |
| R | 220 | 1615 | 0.21 | 0.14 | 44.5 | D | | |
| Northbound | | | | | | | | |
| L | 315 | 1805 | 0.94 | 0.61 | 71.6 | E | | |
| T | 2156 | 3539 | 0.63 | 0.61 | 15.1 | B | 23.9 | C |
| R | 984 | 1615 | 0.14 | 0.61 | 9.5 | A | | |
| Southbound | | | | | | | | |
| L | 150 | 350 | 0.28 | 0.43 | 25.1 | C | | |
| T | 1512 | 3539 | 1.00 | 0.43 | 53.5 | D | 47.2 | D |
| R | 954 | 1615 | 0.25 | 0.59 | 11.4 | B | | |

Intersection Delay = 38.6 (sec/veh) Intersection LOS = D

HCS2000: Unsignalized Intersections Release 4.1b
 TWO-WAY STOP CONTROL SUMMARY

Analyst: MAAI
 Agency/Co.: GDOT
 Date Performed: 4/4/02
 Analysis Time Period: AM Peak Hour
 Intersection: Jennings Mill Road @ Frontage Rd East
 Jurisdiction: Oconee County
 Units: U. S. Customary
 Analysis Year: 2025 Build Conditions
 Project ID: Jennings Mill Parkway Extension/Interchange
 East/West Street: Frontage Road East
 North/South Street: Jennings Mill Road
 Intersection Orientation: NS Study period (hrs): 0.25

| | | Vehicle Volumes and Adjustments | | | | | | | |
|------------------------|-------------------|---------------------------------|--------|--------|--------|------------|--------|--|--|
| Major Street: | Approach Movement | Northbound | | | | Southbound | | | |
| | | 1 L | 2 T | 3 R | 4 L | 5 T | 6 R | | |
| Volume | | | 395 | 60 | 265 | 315 | | | |
| Peak-Hour Factor, PHF | | | 0.90 | 0.90 | 0.90 | 0.90 | | | |
| Hourly Flow Rate, HFR | | | 438 | 66 | 294 | 350 | | | |
| Percent Heavy Vehicles | | | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | | |
| RT Channelized? | | | | No | | | | | |
| Lanes | | | 1 | 1 | | 1 | 1 | | |
| Configuration | | | T | R | | L | T | | |
| Upstream Signal? | | | No | | | No | | | |

| | | Westbound | | | | Eastbound | | | |
|------------------------|--------------------|-----------|---|------|----|-----------|----|--|--|
| Minor Street: | Approach Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | | L | T | R | L | T | R | | |
| Volume | | 35 | | 235 | | | | | |
| Peak Hour Factor, PHF | | 0.90 | | 0.90 | | | | | |
| Hourly Flow Rate, HFR | | 38 | | 261 | | | | | |
| Percent Heavy Vehicles | | 0 | | 0 | | | | | |
| Percent Grade (%) | | | 0 | | | 0 | | | |
| Median Storage | | | | | | | | | |
| Flared Approach: | Exists? Storage | | | | | | | | |
| RT Channelized? | | | | No | | | | | |
| Lanes | | 1 | | 1 | | | | | |
| Configuration | | L | | R | | | | | |

| | | Delay, Queue Length, and Level of Service | | | | | | | |
|-------------------|-------------|---|------|-----------|------|---|-----------|----|----|
| Approach Movement | Lane Config | NB | SB | Westbound | | | Eastbound | | |
| | | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | | L | L | | R | | | |
| v (vph) | | 294 | 38 | | 261 | | | | |
| C(m) (vph) | | 1071 | 118 | | 623 | | | | |
| v/c | | 0.27 | 0.32 | | 0.42 | | | | |
| 95% queue length | | 1.12 | 1.26 | | 2.07 | | | | |
| Control Delay | | 9.6 | 49.4 | | 14.9 | | | | |
| LOS | | A | E | | B | | | | |
| Approach Delay | | | | 19.3 | | | | | |
| Approach LOS | | | | C | | | | | |

TWO-WAY STOP CONTROL SUMMARY

Analyst: MAAI
 Agency/Co.: GDOT
 Date Performed: 4/4/02
 Analysis Time Period: PM Peak Hour
 Intersection: Jennings Mill Road @ Frontage Road East
 Jurisdiction: Oconee County
 Units: U. S. Customary
 Analysis Year: 2025 Build Conditions
 Project ID: Jennings Mill Parkway Extension/Interchange
 East/West Street: Frontage Road East
 North/South Street: Jennings Mill Road
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

| Major Street: | Approach Movement | Northbound | | | Southbound | | |
|------------------------|----------------------|------------|--------|--------|------------|--------|--------|
| | | 1 L | 2 T | 3 R | 4 L | 5 T | 6 R |
| Volume | | 350 | 190 | | 365 | 410 | |
| Peak-Hour Factor, PHF | | 0.90 | 0.90 | | 0.90 | 0.90 | |
| Hourly Flow Rate, HFR | | 388 | 211 | | 405 | 455 | |
| Percent Heavy Vehicles | | -- | -- | | 0 | -- | -- |
| Median Type | Undivided | | | | | | |
| RT Channelized? | | | No | | | | |
| Lanes | | 1 | 1 | | 1 | 1 | |
| Configuration | | T | R | | L | T | |
| Upstream Signal? | | No | | | | No | |

| Minor Street: | Approach Movement | Westbound | | | Eastbound | | |
|------------------------|----------------------|-----------|--------|--------|-----------|---------|---------|
| | | 7 L | 8 T | 9 R | 10 L | 11 T | 12 R |
| Volume | | 205 | | 400 | | | |
| Peak Hour Factor, PHF | | 0.90 | | 0.90 | | | |
| Hourly Flow Rate, HFR | | 227 | | 444 | | | |
| Percent Heavy Vehicles | | 0 | | 0 | | | |
| Percent Grade (%) | | | 0 | | | 0 | |
| Median Storage | | | | | | | |
| Flared Approach: | Exists? Storage | | | | | | |
| RT Channelized? | | | No | | | | |
| Lanes | | 1 | 1 | | | | |
| Configuration | | L | R | | | | |

Delay, Queue Length, and Level of Service

| Approach Movement | NB 1 | SB 4 | Westbound | | | Eastbound | | |
|----------------------|---------|---------|-----------|--------|--------|-----------|---------|----|
| | | | 7 L | 8 R | 9 L | 10 T | 11 R | 12 |
| Lane Config | | L | L | | R | | | |
| v (vph) | | 405 | 227 | | 444 | | | |
| C(m) (vph) | | 988 | 64 | | 665 | | | |
| v/c | | 0.41 | 3.55 | | 0.67 | | | |
| 95% queue length | | 2.03 | 23.93 | | 5.09 | | | |
| Control Delay | | 11.2 | | | 20.6 | | | |
| LOS | | B | F | | C | | | |
| Approach Delay | | | | 447.0 | | | | |
| Approach LOS | | | | F | | | | |

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI Inter.: JM Road @ FR East
 Agency: Georgia DOT Area Type: All other areas
 Date: 4/01/02 Jurisd: Oconee County
 Period: AM Peak Hour Year : 2025 Build Conditions
 Project ID: 97981dl - Jennings Mill Parkway Extention
 E/W St: Frontage Road East N/S St: Jennings Mill Road

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|---|---|-----------|---|------|------------|------|------|------------|------|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| LGConfig | | | | L | | R | | T | R | L | T | |
| Volume | | | | 35 | | 235 | | 395 | 60 | 265 | 315 | |
| Lane Width | | | | 12.0 | | 12.0 | | 12.0 | 12.0 | 12.0 | 12.0 | |
| RTOR Vol | | | | | | 0 | | | 0 | | | |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|------|---|---|----------|------|------|---|
| EB Left | | | | | NB Left | | | |
| Thru | | | | | Thru | P | | |
| Right | | | | | Right | P | | |
| Peds | | | | | Peds | | | |
| WB Left | | P | | | SB Left | P | P | |
| Thru | | | | | Thru | P | P | |
| Right | | P | | | Right | | | |
| Peds | | | | | Peds | | | |
| NB Right | | P | | | EB Right | | | |
| SB Right | | | | | WB Right | P | | |
| Green | | 20.0 | | | | 10.0 | 30.0 | |
| Yellow | | 4.0 | | | | 4.0 | 4.0 | |
| All Red | | 1.0 | | | | 1.0 | 1.0 | |

Cycle Length: 75.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------------|---------------------------|-----------------------------|--------|-----|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |

Eastbound

Westbound

| | | | | | | | | |
|------------|------|------|------|------|------|---|------|---|
| L | 481 | 1805 | 0.08 | 0.27 | 20.9 | C | 14.9 | B |
| R | 754 | 1615 | 0.35 | 0.47 | 14.0 | B | | |
| Northbound | | | | | | | | |
| T | 745 | 1863 | 0.59 | 0.40 | 21.1 | C | 18.7 | B |
| R | 1184 | 1615 | 0.06 | 0.73 | 2.9 | A | | |
| Southbound | | | | | | | | |
| L | 503 | 1805 | 0.58 | 0.60 | 14.4 | B | | |
| T | 1118 | 1863 | 0.31 | 0.60 | 8.1 | A | 11.0 | B |

Intersection Delay = 14.5 (sec/veh) Intersection LOS = B

H

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI Inter.: JM Road @ FR East
 Agency: Georgia DOT Area Type: All other areas
 Date: 4/01/02 Jurisd: Oconee County
 Period: PM Peak Hour Year : 2025 Build Conditions
 Project ID: 97981d1 - Jennings Mill Parkway Extention
 E/W St: Frontage Road East N/S St: Jennings Mill Road

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|---|---|-----------|---|------|------------|------|---|------------|------|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| LGConfig | | | | L | | R | | T | R | L | T | |
| Volume | | | | 205 | | 400 | 350 | 190 | | 365 | 410 | |
| Lane Width | | | | 12.0 | | 12.0 | 12.0 | 12.0 | | 12.0 | 12.0 | |
| RTOR Vol | | | | | | 0 | | | 0 | | | |

Duration 0.25 Area Type: All other areas
 Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|------|---|---|----------|------|------|---|
| EB Left | | | | | NB Left | | | |
| Thru | | | | | Thru | P | | |
| Right | | | | | Right | P | | |
| Peds | | | | | Peds | | | |
| WB Left | | P | | | SB Left | P | P | |
| Thru | | | | | Thru | P | P | |
| Right | | P | | | Right | | | |
| Peds | | | | | Peds | | | |
| NB Right | | P | | | EB Right | | | |
| SB Right | | | | | WB Right | P | | |
| Green | | 20.0 | | | | 10.0 | 30.0 | |
| Yellow | | 4.0 | | | | 4.0 | 4.0 | |
| All Red | | 1.0 | | | | 1.0 | 1.0 | |

Cycle Length: 75.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------|---------------------|-----------------------|--------|-----|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |

Eastbound

Westbound

| | | | | | | | | |
|------------|------|------|------|------|------|---|------|---|
| L | 481 | 1805 | 0.47 | 0.27 | 26.4 | C | | |
| R | 754 | 1615 | 0.59 | 0.47 | 18.1 | B | 20.9 | C |
| Northbound | | | | | | | | |
| T | 745 | 1863 | 0.52 | 0.40 | 19.7 | B | 13.9 | B |
| R | 1184 | 1615 | 0.18 | 0.73 | 3.4 | A | | |
| Southbound | | | | | | | | |
| L | 532 | 1805 | 0.76 | 0.60 | 19.9 | B | | |
| T | 1118 | 1863 | 0.41 | 0.60 | 9.0 | A | 14.2 | B |

Intersection Delay = 16.2 (sec/veh) Intersection LOS = B

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI
 Agency: Georgia DOT
 Date: 7/10/02
 Period: AM Peak Hour
 Project ID: 97981d1 - Jennings Mill Parkway Extension/Interchange
 E/W St: Jennings Mill Parkway
 Inter.: Jen Mill Pkwy @ Epp Bridge Pkwy
 Area Type: All other areas
 Jurisd: Oconee County
 Year : 2025 Build Conditions
 N/S St: Epps Bridge Parkway

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|------|------|-----------|------|------|------------|------|------|------------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 40 | 30 | 65 | 175 | 55 | 55 | 185 | 1025 | 90 | 80 | 510 | 35 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 0 | | | 25 | | | 15 | | | 25 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|------|------|---|----------|------|------|---|
| EB Left | | P | | | NB Left | P | | |
| Thru | | | P | | Thru | | P | |
| Right | | | P | | Right | | P | |
| Peds | | | | | Peds | | | |
| WB Left | | P | | | SB Left | P | | |
| Thru | | | P | | Thru | | P | |
| Right | | | P | | Right | | P | |
| Peds | | | | | Peds | | | |
| NB Right | | P | | | EB Right | P | | |
| SB Right | | P | | | WB Right | P | | |
| Green | | 12.0 | 15.0 | | | 13.0 | 50.0 | |
| Yellow | | 4.0 | 4.0 | | | 4.0 | 4.0 | |
| All Red | | 1.0 | 1.0 | | | 1.0 | 1.0 | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------------|---------------------------|-----------------------------|--------|------|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |
| Eastbound | | | | | | | | |
| L | 386 | 1805 | 0.11 | 0.29 | 29.1 | C | | |
| T | 259 | 1900 | 0.13 | 0.14 | 42.8 | D | 32.0 | C |
| R | 485 | 1615 | 0.15 | 0.30 | 28.9 | C | | |
| Westbound | | | | | | | | |
| L | 382 | 3502 | 0.51 | 0.11 | 51.0 | D | | |
| T | 259 | 1900 | 0.24 | 0.14 | 44.5 | D | 46.9 | D |
| R | 485 | 1615 | 0.07 | 0.30 | 27.8 | C | | |
| Northbound | | | | | | | | |
| L | 213 | 1805 | 0.97 | 0.12 | 102.0 | F | | |
| T | 1609 | 3539 | 0.71 | 0.45 | 26.8 | C | 36.6 | D |
| R | 984 | 1615 | 0.08 | 0.61 | 9.0 | A | | |
| Southbound | | | | | | | | |
| L | 213 | 1805 | 0.42 | 0.12 | 50.9 | D | | |
| T | 1609 | 3539 | 0.35 | 0.45 | 20.1 | C | 24.0 | C |
| R | 984 | 1615 | 0.01 | 0.61 | 8.5 | A | | |

Intersection Delay = 34.2 (sec/veh) Intersection LOS = C

HCS2000: Signalized Intersections Release 4.1b

Analyst: MAAI Inter.: Jen Mill Pkwy @ Epp Bridge Pkwy
 Agency: Georgia DOT Area Type: All other areas
 Date: 7/10/02 Jurisd: Oconee County
 Period: PM Peak Hour Year : 2025 Build Conditions
 Project ID: 97981d1 - Jennings Mill Parkway Extension/Interchange
 E/W St: Jennings Mill Parkway N/S St: Epps Bridge Parkway

SIGNALIZED INTERSECTION SUMMARY

| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | |
|------------|-----------|------|------|-----------|------|------|------------|------|------|------------|------|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| No. Lanes | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| LGConfig | L | T | R | L | T | R | L | T | R | L | T | R |
| Volume | 170 | 130 | 390 | 410 | 140 | 130 | 440 | 1010 | 75 | 235 | 1165 | 125 |
| Lane Width | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| RTOR Vol | | | 100 | | | 25 | | | 15 | | | 25 |

Duration 0.25 Area Type: All other areas

Signal Operations

| Phase Combination | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------|---|------|------|---|----------|------|------|---|
| EB Left | | P | | | NB Left | P | P | |
| Thru | | | P | | Thru | | P | |
| Right | | | P | | Right | | P | |
| Peds | | | | | Peds | | | |
| WB Left | | P | | | SB Left | P | P | |
| Thru | | | P | | Thru | | P | |
| Right | | | P | | Right | | P | |
| Peds | | | | | Peds | | | |
| NB Right | | P | | | EB Right | P | | |
| SB Right | | P | | | WB Right | P | | |
| Green | | 15.0 | 15.0 | | | 20.0 | 40.0 | |
| Yellow | | 4.0 | 4.0 | | | 4.0 | 4.0 | |
| All Red | | 1.0 | 1.0 | | | 1.0 | 1.0 | |

Cycle Length: 110.0 secs

Intersection Performance Summary

| Appr/ Lane Grp | Lane Group Capacity | Adj Sat Flow Rate (s) | Ratios | | Lane Group | | Approach | |
|----------------------|---------------------------|-----------------------------|--------|------|------------|-----|----------|-----|
| | | | v/c | g/C | Delay | LOS | Delay | LOS |
| Eastbound | | | | | | | | |
| L | 384 | 1805 | 0.47 | 0.32 | 32.8 | C | | |
| T | 259 | 1900 | 0.53 | 0.14 | 51.7 | D | 36.0 | D |
| R | 587 | 1615 | 0.52 | 0.36 | 30.7 | C | | |
| Westbound | | | | | | | | |
| L | 478 | 3502 | 0.90 | 0.14 | 69.9 | E | | |
| T | 259 | 1900 | 0.57 | 0.14 | 53.2 | D | 59.0 | E |
| R | 587 | 1615 | 0.19 | 0.36 | 24.6 | C | | |
| Northbound | | | | | | | | |
| L | 414 | 1805 | 1.12 | 0.59 | 115.3 | F | | |
| T | 1287 | 3539 | 0.83 | 0.36 | 38.0 | D | 59.5 | E |
| R | 881 | 1615 | 0.07 | 0.55 | 12.0 | B | | |
| Southbound | | | | | | | | |
| L | 414 | 1805 | 0.60 | 0.59 | 30.3 | C | | |
| T | 1287 | 3539 | 0.95 | 0.36 | 50.1 | D | 44.5 | D |
| R | 881 | 1615 | 0.12 | 0.55 | 12.4 | B | | |

Intersection Delay = 50.9 (sec/veh) Intersection LOS = D

HCS2000: Unsignalized Intersections Release 4.1c

TWO-WAY STOP CONTROL SUMMARY

Analyst: MAAI
 Agency/Co.: GDOT
 Date Performed: 12/17/2002
 Analysis Time Period: AM Peak Hour
 Intersection: Virgil Langford @ Jenn Mill Rd
 Jurisdiction: Oconee County
 Units: U. S. Customary
 Analysis Year: Year 2025 Build Conditions
 Project ID: Jennings Mill Parkway Extension/Interchange
 East/West Street: Virgil Langford Rd
 North/South Street: Jennings Mill Road
 Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

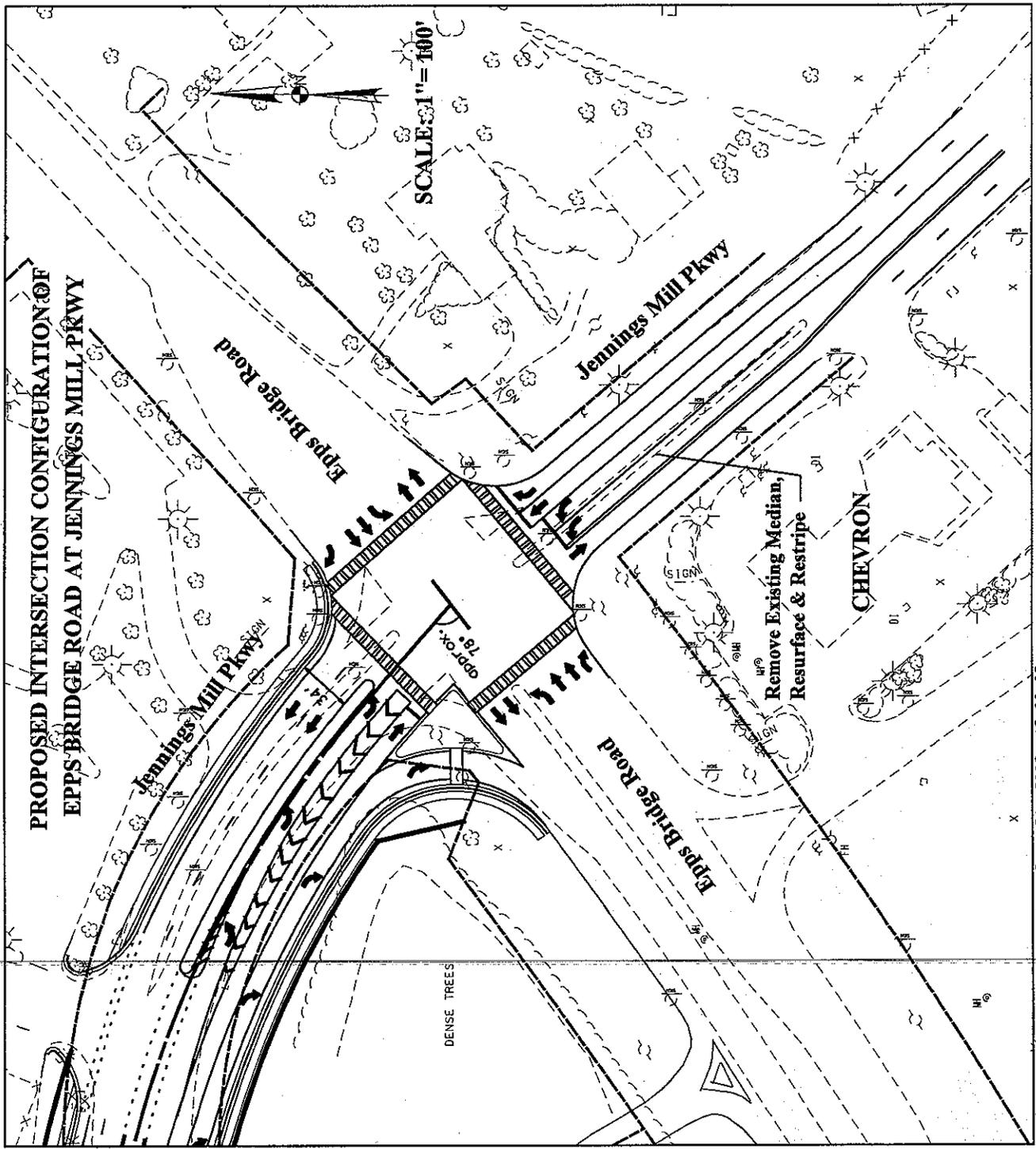
| Major Street: | Approach Movement | Eastbound | | | | Westbound | | |
|------------------------|-------------------|-----------|--------|--------|--------|-----------|--------|--|
| | | 1 L | 2 T | 3 R | 4 L | 5 T | 6 R | |
| Volume | | 5 | 20 | | | 25 | 370 | |
| Peak-Hour Factor, PHF | | 1.00 | 1.00 | | | 1.00 | 1.00 | |
| Hourly Flow Rate, HFR | | 5 | 20 | | | 25 | 370 | |
| Percent Heavy Vehicles | | 0 | -- | -- | | -- | -- | |
| Median Type | Undivided | | | | | | | |
| RT Channelized? | | | | | | | Yes | |
| Lanes | | 1 | 1 | | | 1 | 1 | |
| Configuration | | L | T | | | T | R | |
| Upstream Signal? | | | No | | | Yes | | |

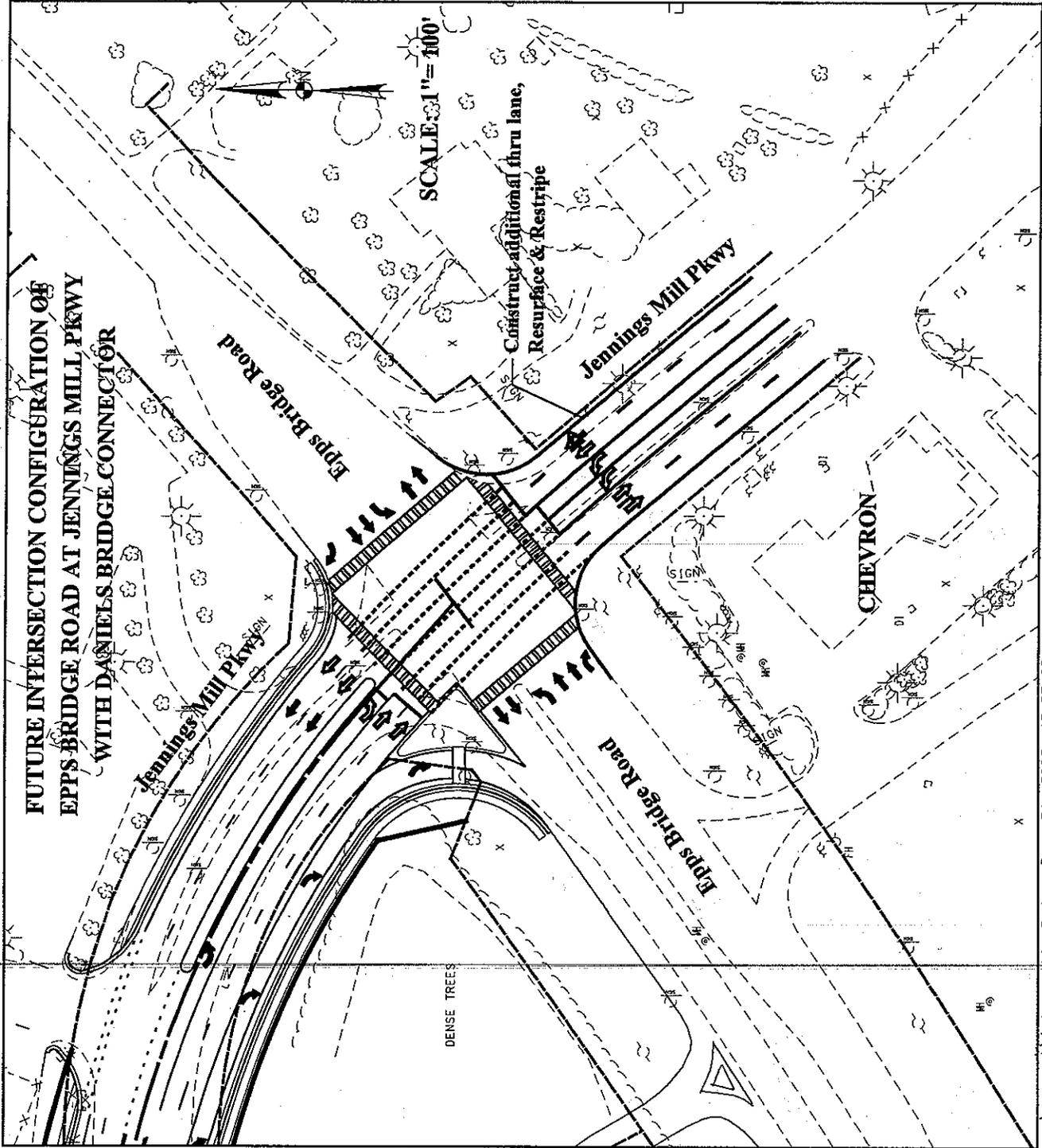
| Minor Street: | Approach Movement | Northbound | | | Southbound | | |
|--------------------------|-------------------|------------|--------|--------|------------|---------|---------|
| | | 7 L | 8 T | 9 R | 10 L | 11 T | 12 R |
| Volume | | | | | 375 | | 5 |
| Peak Hour Factor, PHF | | | | | 1.00 | | 1.00 |
| Hourly Flow Rate, HFR | | | | | 375 | | 5 |
| Percent Heavy Vehicles | | | | | 0 | | 0 |
| Percent Grade (%) | | | 0 | | | 0 | |
| Median Storage | | | | | | | |
| Flared Approach: Exists? | | | | | | No | |
| Storage | | | | | | | |
| RT Channelized? | | | | | | | |
| Lanes | | | | | 0 | | 0 |
| Configuration | | | | | | | LR |

Delay, Queue Length, and Level of Service

| Approach Movement | EB | WB | Northbound | | | Southbound | | |
|-------------------|------|----|------------|---|---|------------|------|----|
| | | | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Config | L | | | | | | LR | |
| v (vph) | 5 | | | | | | 380 | |
| C(m) (vph) | 1308 | | | | | | 821 | |
| v/c | 0.00 | | | | | | 0.46 | |
| 95% queue length | 0.01 | | | | | | 2.47 | |
| Control Delay | 7.8 | | | | | | 13.1 | |
| LOS | A | | | | | | B | |
| Approach Delay | | | | | | | 13.1 | |
| Approach LOS | | | | | | | B | |

**PROPOSED INTERSECTION CONFIGURATION OF
EPPS BRIDGE ROAD AT JENNINGS MILL PKWY**





Minutes of Initial Concept Team Meeting
May 23, 2002, 10:00 A.M., GDOT Road Design Conference Room
Jennings Mill Parkway Extension
Project Number: STP-F001-00 (098)
P.I. No. 0001098
Oconee County

A list of the attendees is attached.

Mr. Stanley Hill began the meeting by asking everyone to introduce him or herself and to sign the attendance sheet. Mr. Hill then stated that the project is an interchange project at U.S 78/Paul Broun Parkway. He then called on the GDOT Programming Office. Ms. Windy Bickers stated that the project is listed as a long-range project. The right-of-way and utility relocation costs is to be funded by the local government. The Local Government Project Agreement was signed in December 2000.

Mr. Stanley Hill then called on the GDOT Planning Office to comment on the need and purpose. The GDOT Planning Office spokesman stated that the need and purpose of the project was reviewed and all information was covered clearly. Mr. Hill then questioned the need for the design exception at Epps Bridge Road. Mr. Bill Moskal further commented that there was a problem with the horizontal curve in front of the Lowe's and that GDOT Road Design would not want to accept the proposed substandard curvature.

Mr. Stanley Hill then asked if right-of-way costs for this project have been estimated. Mr. Mike Leonas commented that most of the north side of the Jennings Mill Parkway would be donated. The County will identify the required areas of right-of-way and which areas would be donated. GDOT right-of-way stated that they would assist in the right-of-way estimate if MA could provide the total area to be acquired.

Mr. Stanley Hill then called on Ms. Karla Poshedly to present the project. Ms. Poshedly noted that the termini of the Mars Hill Road/Oconee Connector Project [STP-1267 (8), P.I. 142060] would need to be modified to include bike lanes so as to match the beginning of the Jennings Mill Parkway Project. She said the typical section of Jennings Mill Parkway is basically a four-lane undivided roadway with a 14-foot flush median, two 12-foot inside through lanes, two 13-foot outside through lanes and two 6-foot bike lanes with curb and gutter and 5-foot sidewalks on both sides.

Ms. Poshedly continued to discuss the project by stating that the Frontage Road that connects Jennings Mill Parkway with Jennings Mill Road will serve to provide an improved route to Jennings Mill Road. Currently, motorists have to execute a series of turns and bends to travel north over U.S. 78 to access areas on Jennings Mill Road north of U.S. 78.

Mr. Stanley Hill then noted that the concept report should be corrected to show this project as an exempt project.

Mr. Joe Garland commented that the concept report should be changed to show 18 months would be required to purchase right-of-way, instead of 6 months. Mr. Mike Leonas discussed the potential to shorten the construction schedule of Jennings Mill Parkway Extension by building the north side of Jennings Mill Parkway first. He stated that Jennings Mill Parkway Extension is one of the projects identified as part of the overall improvement of the S.R. 316 corridor. Ms. Karla Poshedly then mentioned the proposed GDOT project to improve the S.R. 316/U.S. 78 Interchange with associated frontage roads.

Mr. Stanley Hill then opened discussion and comments about the design exception and the intersection of Jennings Mill Parkway at Epps Bridge Road. Mr. Hill stated that the intersection should be realigned, perhaps with a slight skew. Mr. Mike Leonas noted that grade change problems at Lowe's would require significant slope easements onto Lowe's. Ms. Poshedly stated that GDOT would be revising the intersection in the future as part of the S.R. 316/U.S. 78 Interchange reconstruction and that this intersection could be modified later as part of that project. Mr. Hill noted that instead GDOT could match the intersection grades that are used in this project.

MA was asked to study options for revising the intersection at this time to avoid a design exception. Mr. Mike Leonas noted that property in this area could cost up to $\frac{3}{4}$ of a million dollars per acre. Mr. Stanley Hill stated again that the Department wants to avoid a substandard alignment. Mr. Bill Moskal suggested that MA try to do a centerline alignment break at the intersection and skew the Jennings Mill Parkway side to accommodate the horizontal curve needed to meet speed design.

Mr. Scott Zehngraft asked how much more traffic was on Jennings Mill Road then on Virgil Langford Road. Ms. Poshedly said that there is a much greater traffic demand on Jennings Mill Road but that changing the alignment did not result in a good design because of the location and parallel direction of Relocated Jennings Mill Road. Mr. Zehngraft said that GDOT would like to see the alternate with Relocated Jennings Mill Road tying directly into the Oconee Connector and Virgil Langford Road tying into the Relocated Jennings Mill Road. It was noted that Virgil Langford Road cannot be moved south because it would interfere with the future interchange at S.R. 316/Oconee Connector.

Mr. Mike Reynolds joined the meeting and stated that the ramps onto U.S. 78 looked a little short and needed to be tied into future collector-distributor roads.

Each of the representatives of the utility companies present was called upon to comment about possible utility conflicts. Georgia Power noted that they have some underground and distribution facility near the intersection of Jennings Mill Road and Epps Bridge Road. Intersection changes could affect electric power lines because there is a major underground transmission line. Georgia Power also commented that they would prefer that the County jointly use their corner power poles to attach the traffic signal spanwire.

Mr. Joe Garland commented that minimum spacing between traffic signals should be 1,000 feet. He stated that he is concerned about vehicle queuing between each traffic signal. Ms. Karla

Poshedly commented that MA would conduct a Traf-CORSIM analysis to ensure that traffic from one intersection would not queue into the adjacent intersections.

Mr. Scott Zehngraff asked, "Why did we not just include the median on the project." Ms. Poshedly explained that GDOT's policy is such that if the projected traffic does not reach a certain threshold volume in twenty years then the roadway is to be designed with a center turn lane and not a median. However, the policy requires that the curb and gutter placement should be set so that a future median could easily be accommodated.

GDOT mentioned that a concrete median could be placed through the interchange area because it is a limited access area. After further discussion, it was decided to include a median along the project from the Oconee Connector to approximately 300 feet east of the Frontage Road. Mr. Stanley Hill stated that in light of the median being placed on the project, a separate typical section showing the median would need to be added to the concept report.

GDOT Traffic Department expressed a concern that the Frontage Road may need to be a 5-lane based on traffic. MA said that they would check this concern and respond accordingly.

Mr. Bill Moskal stated that the limited access should be extended to the Frontage Road on the east side of the interchange with U.S. 78 and that the median should extend approximately 300 feet east of the Frontage Road.

Mr. Stanley Hill stated that GDOT would like to obtain a copy of the master plan of the development along Jennings Mill Parkway. Mr. Mike Leonas noted that he would have the consultant representing the developer send a copy of the master plan to GDOT. He also said that he would have the consultant meet with MA to coordinate driveway locations with the construction plans.

Commission Chairman Melvin Davis stated that there are opportunities for development along this roadway that need to be considered and that the County would like to move up the project on the programming schedule. Mr. Robert Mahoney said that the County would need to work through the District Office to try and move the project up, but that the County must remember that the District has to keep a balanced program throughout the District.

Mr. Mike Leonas reiterated the County's appreciation for the Georgia Department of Transportation's time working on this project with them.

The County announced that the dry run scheduled for May 29, 2002 prior to the PIM was cancelled so that the GDOT and County could have a joint dry run to discuss the alternates and layout that would be presented to the public at the June 13, 2002 PIM.

The GDOT stated that MA needs to coordinate the interchange design with GDOT and that MA needs to send GDOT the concepts that included the interchange at S.R. 316 and U.S. 78.

SIGN IN

| <u>NAME</u> | <u>OFFICE</u> | <u>PHONE #</u> | <u>EMAIL ADD.</u> |
|-------------------|--------------------|----------------|---------------------------|
| Jerry Milligan | West Annex | 404 463 2564 | |
| Rick Ford | DOT R/W | 404 463-2575 | Richard.Ford@ |
| Michelle Caldwell | DOT Planning | 404-651-5327 | |
| Windy Bickers | Financial Mtg. | 404-463-5023 | |
| MIKE LEONAS | Oconee PWD | 706-769-2937 | |
| DAN WILSON | " | " | " |
| Rodney Copeland | G-GEORGIA Power | 770/947-4272 | rcopeland@Utilitysys.co |
| KELVIN H. MULLINS | D.O.T. CONST. | 706/349/5627 | |
| KEVIN L. DEWITT | DOT-Const | 706/369/5627 | |
| Henry N. O'Kelley | GDOT Utilities | (770)532-5510 | |
| TERRY ALLGOOD | WALTON EMC | (770)267-2505 | tallgood@waltonemc. |
| MARK TILDEN | GEORGIA POWER | 404-506-4203 | MATILDEN@SOUTHERNCO.PA |
| Bill Moskal | GDOT-ROAD DES. | 4-656-5386 | |
| STANLEY Hill | GDOT-ROAD DES | 4-656-5100 | |
| Cynthia Clements | GDOT ROAD DES | 4-656-5100 | |
| Todd Hill | Moreland Altobelli | 7263-5945 | Thill@moreland-altobelli. |
| Karla Poshedly | " | " | Kposhedly " " |
| SCOTT ZEHNGRAFF | GADOT, TS&D | 404-635-8127 | |
| David Mullin | GADOT Eng. Serv. | 4)656-6846 | david.mullin@dot.ga.st |
| Melvin Davis | Chair - Co. Comm. | 706-769-5120 | |
| ROBERT W. MANNING | GADOT DIST 1 | 532-5526 | rdavis@ocome.ga.us |
| Joe Garland | GA DOT DIST 1 | 770.532.5563 | joe.garland@dot.ga. |
| Beniquez Jones | GADOT Road Design | | |
| Mark G. Kemp | GDOT Road Design | (404) 656-5407 | |
| LASHARON ROGERS | GDOT ROAD DESIGN | (404) 656-9156 | |

Minutes of Concept Team Meeting
December 12, 2002 10:00 A.M., GDOT Road & Airport Design Conference Room
Jennings Mill Parkway Project
Project Number: STP-F001-00 (098)
P.I. Number: 0001098
Oconee County

I. WELCOME - Mr. Stanley Hill

Mr. Hill welcomed attendees to the concept team meeting of the Jennings Mill Parkway Extension from Paul Broun Parkway to SR 316, which includes an interchange with SR 10 Loop. He then requested that everyone sign the attendance sheet that is being circulated in the room.

II. INTRODUCTION OF EACH ATTENDEE

Mr. Hill then requested that everyone introduce themselves.

III. PROJECT IDENTIFICATION

The project was identified by Mr. Stanley Hill as Project Number STP-F001-00 (098), P.I. Number 001098. He stated that the project is located in Oconee County.

IV. FUNCTIONAL CLASSIFICATION

Mr. Hill stated that Jennings Mill Parkway, Jennings Mill Road and Virgil Langford Road are classified as rural major collectors and Paul Broun Parkway/SR 10 Loop is classified as a rural principal arterial.

V. NEED AND PURPOSE STATEMENT - Moreland Altobelli and Associates, Inc. (Karla Poshedly)

Ms. Karla Poshedly of Moreland Altobelli and Associates then presented the project need and purpose, design features of the project, project layout and typical sections. Ms. Poshedly also addressed the environmental approval process, emphasizing that the need and purpose of the project was to provide access within the project area and not to relieve congestion at the SR 316 / US 78 interchange. She stated that there is a separate GDOT project that will address this interchange, and that this project would assume that those improvements would occur; however, this project would not preclude any reconstruction of that interchange. In response to this, Ms. Michelle Caldwell from the Office of Planning indicated that her office had reviewed the document and finds no problem with the Need & Purpose at this time.

V. TRAFFIC PROJECTIONS

Mr. Hill stated the projected traffic for each roadway in the project, as found on page 5 of the concept report.

VI. EXISTING TYPICAL SECTION

Mr. Hill stated the typical sections for Jennings Mill Parkway previously described by Ms. Poshedly are shown on the wall displays. He stated that the typical sections of Jennings Mill Road and Virgil Langford Road consist of two 12-foot urban lanes with curb and gutter and 5-foot sidewalks on both sides. Mr. Hill then described the Frontage Road East as consisting of two 12-foot urban lanes with a 14-foot two-way left turn lane, curb and gutter and 5-foot sidewalks on both sides. He stated that the typical section descriptions are shown on page 6 of the concept report.