



## TRANSPORTATION & STREET IMPROVEMENTS PROGRAM

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### Project: South Harrell's Ferry Road—Segment 2 (1,100' East of Millerville Road to O'Neal Lane)

Green Light Program ID: C  
 Project Length (feet): 4,550  
 Existing Typical Section: Two-lane asphalt roadway with open ditch drainage adjacent to pavement.  
 Proposed Typical Section: Four-lane curb and gutter boulevard with sidewalks.

#### Project Overview

This project will add two additional through lanes, sidewalks and a raised median to South Harrell's Ferry Road from 1,100' east of Millerville Road to O'Neal Lane. The project will require a new drainage crossing and raised roadway at the Knox Branch crossing (between Jones Creek Road and O'Neal Lane). This project will extend the improvements at South Harrell's Ferry Road (west of Millerville Road) and the expanded Millerville roadway (from Old Hammond Hwy. to S. Harrell's Ferry Road). When combined with other projects in the Plan, it will provide an improved east-west connection in this area, as well as an improved north-south connection between Jones Creek Road and Interstate 12.

#### TABLE OF CONTENTS

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Assumptions	1	
Utilities	1	
Hydrology / Hydraulics	1	In association with:
Traffic	1	PBS&J
Signalized Intersections	2	GOTECH, Inc.
Right of Way Impacts	2	Neel-Schaffer, Inc.
Environmental Concerns	2	Compliance Consultants, Inc.
Soils	2	Jones Walker, LLP
Cost Estimate	3	John C. Doiron MAI Appraisal Services
Project Schedule	4	Rampart Resources
Exhibit A—Typical Sections	5	SSA Consultants, LLC
Exhibit B—Layout Sheets	6	



**ASSUMPTIONS**

- Existing right of way approximately 75' for most of the project, based on visual observation.
- Existing sidewalk in front of Southeast Middle School. Addition of sidewalks is required for the project.
- Existing cemetery at intersection with Jones Creek Road will be avoided during alignment design.
- Right-of-way plans were prepared from Millerville to Jones Creek Road in 2003.
- The SJB Group is currently designing a 5 lane section for this roadway with bike lanes and sidewalks from Millerville Road to a point 1,100 feet to the east.
- The project area east of Jones Creek Road (Knox Branch area) is very low. A substantial amount of fill will be required to raise the roadway.

**UTILITIES**

Possible Utilities	Existing	Adjust / Relocate
Underground Electric		
Overhead Electric	●	●
Overhead Electric Transmission	●	●
Water	●	●
Sanitary Sewer	●	●
Telephone	●	●
CATV	●	●
Gas Distribution	●	●
Gas HP Pipeline	●	●

**HYDROLOGY / HYDRAULICS**

- A bridge extends over the Knox Branch crossing, just east of the Jones Creek Road intersection. This bridge is low and will be replaced with a double 10' by 10' concrete box culvert with a raised roadway across it.

**TRAFFIC**

- Projected Average Daily Traffic (ADT) for year 2030 is 45,655. The proposed project will have a Level of Service (LOS) D for year 2030.



**SIGNALIZED INTERSECTIONS**

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- Signal improvements required at Jones Creek Road and O'Neal Road. (The O'Neal intersection improvements will be covered in the O'Neal Segment 1 Project).
- Turn lanes will be added for Jones Creek Road and O'Neal Road intersections. Double left turns are recommended for Jones Creek Road, northbound at Harrell's Ferry Road, and eastbound Harrell's Ferry at O'Neal.

**RIGHT OF WAY IMPACTS**

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- Existing right of way is approximately 75'. Required right of way is 100'.
- Right of way acquisition is reported to be in progress between Millerville Road and Jones Creek Road. The real estate cost estimate has taken this into account.
- Roadway alignment is shifted to the north for the portion of the project between Jones Creek Road and O'Neal Lane in order to avoid the cemetery at Jones Creek Road and to avoid the structures at the O'Neal end of the project.

**ENVIRONMENTAL CONCERNS**

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- One acre of wetlands in the open ditches will be impacted.
- Potential concerns related to recycling business and possible discharge from dental laboratory.
- Cost of new sewer lines are included in the estimate. These sewer improvements will provide tie-ins for existing effluent lines that currently discharge into roadside ditches.

**SOILS**

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- Soils in the project area are predominantly silty loam.



**COST ESTIMATE**

Project Description:	Four-lane curb and gutter boulevard with sidewalks		
Project Length:	4550 Feet (0.86 miles)		
	Construction Cost		
Section 200 -	Earthwork	\$	471,574
Section 300 -	Base and Subbase Courses	\$	729,680
Section 400 -	Surface Courses	\$	-
Section 500 -	Pavements	\$	1,775,233
Section 600 -	Structures	\$	-
Section 700 -	Drainage Work	\$	586,960
Section 800 -	Sanitary Sewer Work	\$	514,500
Section 905 - 906	Pavement Markings & Signalization	\$	581,850
Section 907 - 911	Concrete Curbs & Sidewalks	\$	473,200
	SUBTOTAL CONSTRUCTION COST (2006 \$)	\$	5,132,997
MOBILIZATION		\$	410,640
	SUBTOTAL	\$	5,543,637
CONTINGENCY & UNFORESEEN CONDITIONS		\$	1,108,727
	SUBTOTAL	\$	6,652,364
	TOTAL CONSTRUCTION COST (2006 \$)	\$	6,652,364
UTILITY RELOCATIONS		\$	875,820
TESTING		\$	166,309
LIGHTING, LANDSCAPING, SEEDING		\$	266,095
ENVIRONMENTAL STUDY		\$	165,000
ENGINEERING		\$	665,236
ENVIRONMENTAL MITIGATION		\$	30,000
RIGHT-OF-WAY		\$	212,821
	SUBTOTAL	\$	9,033,645
PROGRAM & CONSTRUCTION MANAGEMENT		\$	451,682
	TOTAL PROJECT COST (2006 \$)	\$	9,485,328

Comments:

- Unit costs are assumed to include contractor overhead, profit and mark-ups
- Environmental mitigation will include environmental and protection of cultural resources
- Mobilization is expected to be 8% of construction cost
- Contingency and Unforeseen Conditions are expected to be 20% of construction cost
- Testing is expected to be 2.5% of construction cost
- Lighting, Landscaping, and Seeding is expected to be 4% of construction cost
- Note: Percent Cost is for the GLP Program Average and NOT project specific obligation
- Engineering is expected to be 10% of construction cost
- Program & Construction Management is expected to be 5% of project costs

