

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA, AUTHORIZING EXPENDITURE OF APPROXIMATELY \$1.8 MILLION DOLLARS OF MONIES RECEIVED FROM JULINGTON CREEK PARTNERS LIMITED PARTNERSHIP PURSUANT TO PARAGRAPH 6.(D)(e) OF ST. JOHNS COUNTY RESOLUTIONS 93-158, 95-185 AND 97-25, BEING THE RESTATED JULINGTON CREEK DEVELOPMENT ORDER, FOR CONSTRUCTION OF IMPROVEMENTS TO RACETRACK ROAD.

RECITALS

WHEREAS, paragraph 6(D)(e) of St. Johns County Resolution 93-159, as amended by St. Johns County Resolutions 95-185 and 97-25, being the restated Julington Creek Development Order authorizes St. Johns County to expend a designated \$1.8 million dollars received from Atlantic Gulf Communities Corporation or its successors for designated improvement to Racetrack Road or Russell Sampson Road; and

WHEREAS, said \$1.8 million dollars has been transferred to St. Johns County for the above stated purpose; and

WHEREAS, the County Administrator and County Engineer find it proper and in the public interest to expend said monies for continued four laning of Racetrack Road from Bishop Estates Road to the eastern limits of the Julington Creek DRI, a distance of 1.6 miles. Funds should be allocated for design, right of way acquisition, wetland mitigation and construction of said road and intersection improvements.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA that:

1. The above stated Recitals are incorporated herein as Findings of Fact.
2. The \$1.8 million dollars received by St. Johns County from Julington Partners Limited Partnership (the successor developer of Atlantic Gulf Communities Corporation) pursuant to paragraph 6(D)(e) of the Julington Creek Development Order as amended by St. Johns County Resolutions 93-159, 95-185 and 97-25, may be expended for improvement of Racetrack Road to the eastern boundary of the Julington Creek DRI to the degree and purposes described in the above Recitals, provided that all applicable State and County purchasing and contracting procedures are fully complied with.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, State of Florida, this 27 day of April, 1999.

BOARD OF COUNTY COMMISSIONERS

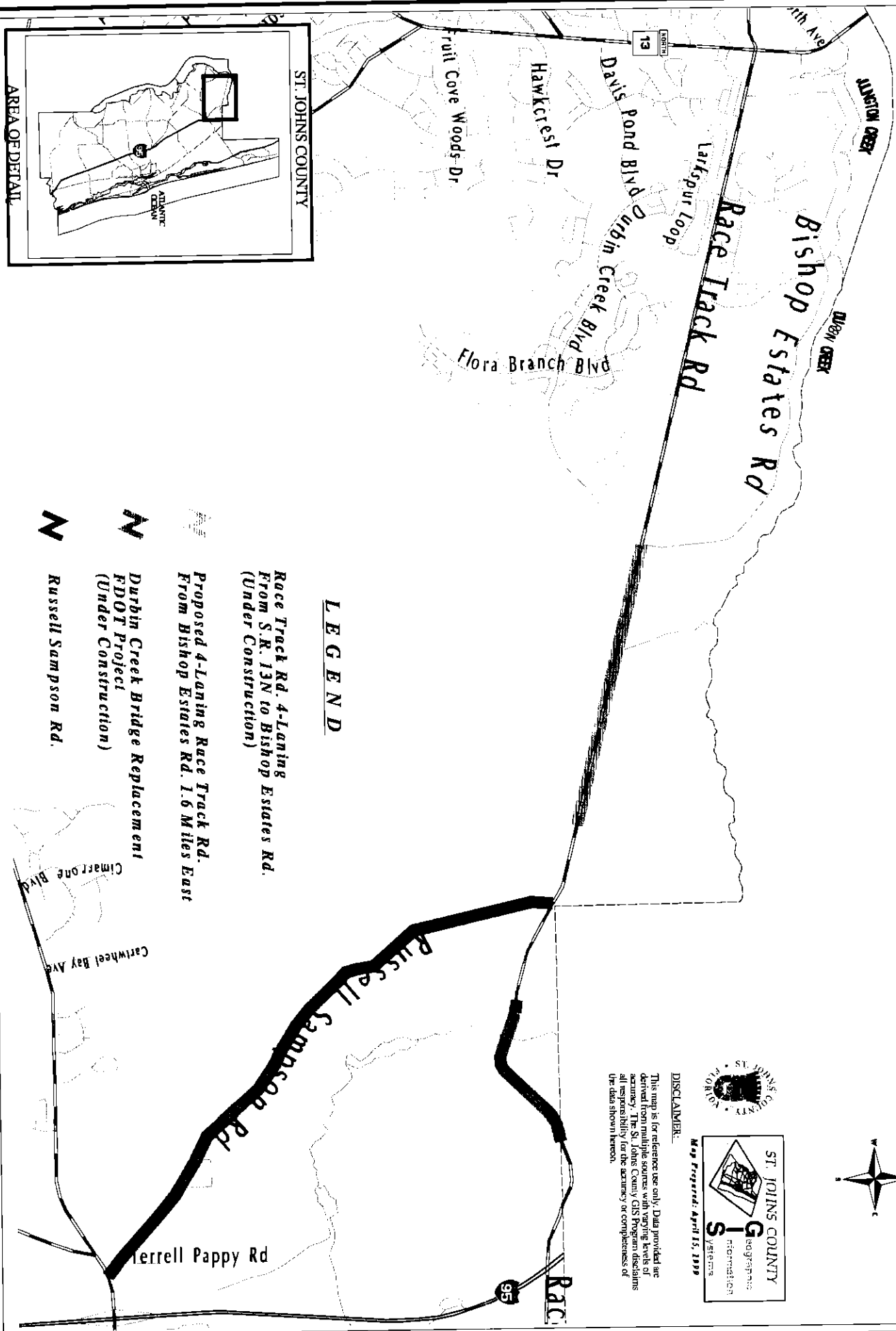
OF ST. JOHNS COUNTY, FLORIDA

By: Marc A. Jacalone
Marc A. Jacalone, Chairman

ATTEST: CHERYL STRICKLAND, CLERK

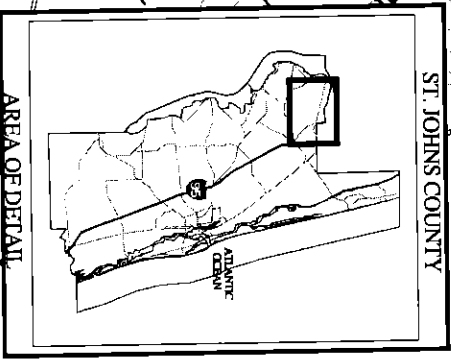
By: Patricia DeStanda
Deputy Clerk

RACE TRACK ROAD FOUR-LANING



LEGEND

- Race Track Rd. 4-Laning From S.K. 13N to Bishop Estates Rd. (Under Construction)
- Proposed 4-Laning Race Track Rd. From Bishop Estates Rd. 1.6 Miles East
- Durbin Creek Bridge Replacement FDOT Project (Under Construction)
- Russell Sampson Rd.



DISCLAIMER:
Map Prepared: April 15, 1999

This map is for reference use only. Data provided are derived from multiple sources with varying levels of accuracy. The St. Johns County GIS Program disclaims all responsibility for the accuracy or completeness of the data shown hereon.

section that extends from Durbin Creek Boulevard to Flora Branch Boulevard. As soon as the obligation of the second section of Racetrack Road arises, no further building permits for development within the DRI shall be issued until construction of the improvement of this section has commenced. Such obligation shall arise for the third section when the annual traffic survey projects that the p.m. peak hour level of service on that section will fall below level of service D in the p.m. peak hour within one year. The third section shall be the section that extends from Flora Branch Boulevard to Bishop Estates Road. As soon as the obligation for the third section of Racetrack Road arises, no further building permits for development within the DRI shall be issued until construction of the improvement of this section has commenced. The four-laning of Racetrack Road between State Road 13 and the Flora Branch Boulevard must be completed under all circumstances by the end of Phase II.

(e) In addition, if the Developer is able to meet the CDD-related deadline set forth in subsection (c) above, the Developer shall place in escrow by December 31, 1995, \$1.8 million, by a construction bond or other acceptable methods, in an appropriate county construction fund for use toward the future paving or other improvement of Russell Sampson Road by the County from Racetrack Road to C.R. 210 or the continued

four-laning of Racetrack Road to the eastern DRI project limits, as determined by County. Under all circumstances, the \$1.8 million shall be placed in escrow by a construction bond or other acceptable methods no later than December 15, 1999. These funds shall be expended for the use set forth above by no later than December 31, 2004.

(f) The traffic monitoring requirements described in Section 3 above shall end, insofar as they relate to Racetrack Road and any intersections along Racetrack Road upon completion of construction of the required four-lane improvement of Racetrack Road described herein, or upon completion of the construction of any section and related intersections of Racetrack Road from S.R. 13 to Bishop Estates Road, as those three sections are described herein.

E. S.R. 13. The Developer shall cause, if a Community Development District (CDD) is established pursuant to Chapter 190, F.S., and CDD bond funds sufficient to cover the cost of the S.R. 13 improvements are obtained by December 31, 1995, or, if such deadline is missed, the Developer shall be responsible for the four-laning of S.R. 13 from the intersection of Racetrack Road south to Davis Pond Boulevard, subject to the following conditions:



England-Thims & Miller, Inc.

ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS

VIA FACSIMILE AND US MAIL

April 22, 1999

Mr. John Bishop, P.E.
St. Johns County Engineer
P.O. Box 349
St. Augustine, Florida 32085-0349
Fax No (904) 823-2394

RE: Race Track Road Improvements

Subject: Revised Manhour Estimates

Dear Mr. Bishop:

Attached please find our revised manhour estimate for the widening of Race Track Road between Bishop Estates Road and the eastern boundary of the Julington Creek Plantation.

As I am sure you remember, our original proposed price was based upon the project limits extending from Bishop Estates Road past Russell Sampson Road. For the County's convenience we then broke down the scope into two phases; Bishop Estates Road to the eastern boundary of JCP, and eastern boundary of JCP to 0.2 miles past Russell Sampson Road. Since both projects were to be awarded simultaneously and one plan set was to be produced, our proposal included significant savings in comparison to preparing two stand-alone projects, specifically in the areas of plan production and environmental permitting.

As you can see from the following manhour estimate forms we have revised our estimate to include only the widening of Race Track between Bishop Estates and the eastern boundary of the JCP. The product of this effort will be a stand-alone set of construction plans and specifications for this 1.6 mile segment of roadway and associated transitions. Should the County elect to modify our contract prior to the submittal for the ERP to include the addition 0.7 miles of widening, we will be able to provide a credit for the saved expense of producing two plan sets. This credit would be approximately \$13,731.

Please call if you have any questions.

Sincerely,
England-Thims & Miller, Inc.



Jeff Crummond, P.E.
Vice President

cc: Joe Birch

Consultant Name: England, Thims & Miller, Inc.
 WPI No.:
 State Project No.:
 FAP No.:

Estimator's Name: Robert A. Mizell, P.E.

Name of Job: Race Track Road
 Bishop Estates Road
 East Boundary of JCP
 1.6miles
 From: To:
 Length:
 Date: 22-Apr-99

No./ACTIVITY	PRINCIPAL		PROJECT MANAGER		DESIGN ENGINEER		DESIGNER		CAD/TECHNICIAN DRAFTSMAN		CLERICAL		MANHOURS BY ACTIVITY	SALARY COST BY ACTIVITY	AVERAGE HOURLY RATE
	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE			
A. Roadway's Plans Package															
1. Design Analysis	13	\$78.75	38	\$43.27	50	\$28.37	83	\$18.24	76	\$16.00	12	\$12.00	252	\$6,914.63	\$25.85
2. Drainage Analysis	8	\$78.75	25	\$43.27	34	\$28.37	42	\$19.24	50	\$16.00	9	\$12.00	168	\$4,284.41	\$25.50
3. Roadway Plans	45	\$78.75	136	\$43.27	192	\$28.37	227	\$19.24	272	\$16.00	48	\$12.00	908	\$23,311.29	\$25.67
4. Drainage Plans	17	\$78.75	52	\$43.27	68	\$28.37	87	\$19.24	104	\$16.00	17	\$12.00	346	\$8,884.20	\$25.68
5. Traffic Control Plans	9	\$78.75	28	\$43.27	37	\$28.37	46	\$18.24	55	\$16.00	9	\$12.00	184	\$4,735.04	\$25.73
6. Utilities/Roadside	8	\$78.75	23	\$43.27	30	\$28.37	38	\$18.24	48	\$16.00	7	\$12.00	152	\$3,943.43	\$25.94
7. Environmental Services/Permits	15	\$78.75	48	\$43.27	81	\$28.37	76	\$19.24	91	\$16.00	15	\$12.00	304	\$7,620.48	\$25.73
B. Signing and Pavement Markings	7	\$78.75	20	\$43.27	27	\$28.37	34	\$19.24	41	\$16.00	7	\$12.00	136	\$3,482.80	\$25.68
C. Signalization Plans	0	\$78.75	0	\$43.27	0	\$28.37	0	\$19.24	0	\$16.00	0	\$12.00	0	\$0.00	\$0.00
D. Lighting	0	\$78.75	0	\$43.27	0	\$28.37	0	\$19.24	0	\$16.00	0	\$12.00	0	\$0.00	\$0.00
E. Landscaping	0	\$78.75	0	\$43.27	0	\$28.37	0	\$19.24	0	\$16.00	0	\$12.00	0	\$0.00	\$0.00
F. Post Design Services	0	\$78.75	0	\$43.27	0	\$28.37	0	\$19.24	0	\$16.00	0	\$12.00	0	\$0.00	\$0.00
TOTAL MANHRS & TOTAL COST	122		388		480		613		735		122		2450	\$82,986.28	\$25.71

COMBINED OVERHEAD COMPUTATIONS

Adm. & General % 105.37%
 Fringe Benefit % 55.33%
 (e1) combined O-H % 180.70%

TOTAL CONTRACT COST COMPUTATIONS

Total Activity Salary Costs \$82,986.28
 (e) Overhead Additives:
 (a1) Combined O-H Percentage 180.70%
 (a2) Combined O-H Cost \$101,218.95
 Subtotal (Salary + Overhead) \$184,205.23
 (b) Operating Margin:
 (b1) Operating Margin Percentage 10.00%
 (b2) Operating Margin Cost \$18,420.52
 Subtotal (Salary Retained Costs) \$180,625.75
 (c) Misc./Out-of-Pocket Expenses \$18,482.18
 Subtotal (Cost Elements of Basic Activities) \$197,107.93

SALARY RELATED COSTS

Preliminary Engineering \$57,450.28
 Final Design Plans \$100,748.69
 Environmental Services/Permits \$22,426.79
 Post Design Services \$0.00
 \$180,625.75

(d) Subcontract Items

Design Survey \$28,600.00
 R/W Maps \$24,381.81
 Geotechnical (UNIVERSAL) \$9,415.00
 Wetland Identification and Mitigation (ERS) \$8,227.75
 Environmental (Enos) \$2,450.00
 Fema (EMA) \$8,500.00
 Total Estimated Amount \$274,682.28

(PLEASE SIGN) Prepared By

[Signature]

Date: April 21, 1999

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 1 - DESIGN ANALYSIS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Typical Section Package	LS	1	12		12	2	
2. Geometrics	LS	1	14		14	7	
3. Update Access Management	LS						
4. Field Survey - Data Reduction	LS						By RMA
5. DTM Model Development	LS						By RMA
6. Traffic Analysis	LS	1	39		39	6	
7. Pavement Design Package	LS	1	20		20	6	
8. Contract File (Set-up & Maintain)	LS	1	10		10	0	Includes Progress Reports
9. Computation Book & Quantities	LS	1	80		80	14	
10. C.E.S. / Summary of Pay Items	LS						
11. Special Provisions	LS	1	21		21		
				0	196	35	
12. Quality Control	LS	1	10		10	3	
13. Supervision	LS	1	10		10		
14. Field Reviews	EA	3	8		24		
15. Progress Meetings	EA	3	4		12		
16.							
17.							
18.							
TOTAL				0	262	38	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 2 - DRAINAGE ANALYSIS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Design of Cross Drains	LS	1	24		24	6	
2. Design of Roadway Ditches	LS	1	40		40	10	
3. Design of Outfalls Ditches	EA	1	40		40	10	
4. Interchange Drainage Design	LS						
5. Design of Storm Sewers	LS						
6. Design of Retention/Detention Facility	EA	2	24		48	24	
7. Design of Special Drainage Systems	LS				0	0	
8. Prepare of Bridge Hydraulics Rpt.	EA				0	0	
9. Drainage Design Rpt.	EA				0	0	
10. Pond Sites. Rpt. (update)	EA				0	0	
11. SUB-TOTAL				0	152	50	
12.							
13. Quality Control	LS	1	8		8	1	
14. Supervision	LS	1	8		8		
15.							
16.							
17.							
18.							
19.							
20.							
TOTAL				0	168	51	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 3 - ROADWAY PLANS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Key Map	Sheet	1	16	1	16	14	
2. Typical Section & Notes	Sheet	1	8	0.5	8	6	
3. Summary of Quantities	Sheet	1	12	0.5	12	12	Drafting Only
4. Plan & Profiles	Sheet	8	44	8	352	264	1" = 40' Plan, 1" = 5' Prof. 1" = 20' Plan
5. Intersection Details	Sheet						
6. Intersection Profiles	Sheet						
7. Back of Sidewalk Profiles	Sheet						
8. Special Profiles	Sheet	1	8	1	8	6	
9. Miscellaneous Construction Data	Sheet	2	16	1	32	10	
10. Soil Data Sheet	Sheet			1	0	0	By Universal
11. Cross-Sections	Per Section	85	4	22	340	255	1" = 10' Horiz., 1" = 5' Vert.
12. Baseline Control/Curve Data	Sheet	1	24	1	24	18	
	SUB-TOTAL			36	792	585	
13. Quality Control	LS	1	40		40	8	
14. Supervision	LS	1	40		40		
15. Field Reviews	EA	3	8		24		
16. Progress Meetings	EA	3	4		12		
17.							
18.							
TOTAL				36	908	593	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 4 - DRAINAGE PLANS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Drainage Map	Sheet	3	20	3	60	45	1" = 100'
2. Drainage Structures	EA	12	4	2	48	36	4 per sheet
3. Summary of Drainage Structures	LS	1	10	0.5	10	8	
4. Lateral Ditch & Outfall Plan/Profile	Sheet	2	16	0.5	32	24	
5. Lateral Ditch Cross-Sections	Per Section	11	2	4	22	17	4 per sheet
6. Erosion Control Detail Sheet	Sheet	1	24	0.5	24	18	
7. Bridge Hydraulics Rec. Sheet	Sheet				0	0	
8. Retention/Detention Plans	Sheet	2	48	2	96	72	
9. Retention/Detention X-Sections	Per Section	6	2	3	12	9	3 per sheet
10. SWPPP	Sheet	1	2	0.5	2	2	
11. Box Culvert Data Sheet	Sheet	1	8	1	8	3	
	SUB-TOTAL			17	314	234	
12. Quality Control	LS	1	16		16	1	
13. Supervision	LS	1	16		16		
14.							
15.							
16.							
17.							
18.							
TOTAL				17	348	235	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 5 - TRAFFIC CONTROL PLANS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Traffic Control Plan Design Anally	LS	1	20		20		
2. Typical Sections	Sheet	1	8	1	8	6	
3. General Notes/Const. Sequence	Sheet	1	24	0.5	24	18	
4. Typical Details	Sheet	1	12	1	12	9	
5. Tabulation of Quantities	Sheet	1	8	0.5	8	6	
6. Plan Sheets	Sheet	4	24	4	96	72	
7. Pavement Marking/Signing Deta	Sheet						
8. Temporary Signal	Sheet						
SUB-TOTAL				7	168	111	
9. Quality Control	LS	1	8		8	2	
10. Supervision	LS	1	8		8		
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
TOTAL				7	184	113	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 6 - UTILITIES/RAILROADS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Initial Contact	EA	4	4		16		
2. Prepare Utility Adjustment Sheets	Sheet	8	8	8	64	48	1" = 40' Plan, 1" = 5' Profile
3. Coordination with Utilities	EA	4	12		48		
4. Prepare Railroad Crossing Detail	EA				0	0	
5. Utility Relocation Agreements	EA			8	128	48	
SUB-TOTAL							
6. Quality Control	LS	1	6		6	1	
7. Supervision	LS	1	6		6		
8. Utility Meetings	EA	3	4		12		
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
TOTAL				8	152	49	

HIGHWAY TASK LIST

ACTIVITY:

A. ROADWAY PLANS PACKAGE

SUBACTIVITY:

7. ENV. SERVICES/PERMITS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Preliminary Field Review	LS						By ERS
2. Agency Coordination (All Phases)	LS	1	96		96		By ERS
3. Establish Wetland Jurisdiction Lin	LS						By ERS
4. Agency Field Review	EA						By ERS
5. Prepare Wetland Resource/Dred & Fill Permit Application	LS	1	64		64	26	
6. Prepare MSSW Permit Application	LS	1	48		48	19	
7. Prepare Coast Guard Navigation Permit Application	LS						
8. Prepare NPDES/EPA Permit App	LS	1	32		32	13	
9. Prepare DNR/CCL Permit App.	LS						
10. Prepare Local Permits	LS	1	16		16	6	
11. Mitigation Coordination and Migs	LS	2	10		20	3	By ERS
12. Mitigation Design	LS				0	0	By ERS
13. Mitigation Plans (All Phases)	Sheet				0	0	By ERS
14. FEMA No-Rise Certification	LS						By EMA
SUB-TOTAL				0	276	67	
14. Quality Control	LS	1	14		14	3	
15. Supervision	LS	1	14		14		
16.							
TOTAL				0	304	70	

HIGHWAY TASK LIST

ACTIVITY: B. SIGNING AND PAVEMENT MARKINGS SUBACTIVITY: NONE

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS	
1. Key Sheet	Sheet	1	4	0.5	4	3		
2. General Notes	Sheet	1	8	0.5	8	6		
3. Tabulation of Quantities	Sheet	1	16	1	16	13		
4. Plan Sheets	Sheet	4	24	4	96	77	Double Plan Sheets 1" = 40'	
5. Guide Sign Worksheets	EA sign				0	0		
6. Cross-Section & Layout	Section				0	0		
7. Special Marking Details	EA Detail				0	0		
8. Sign Detail Sheet	Sheet				0	0		
9. Metal/Concrete Pole Detail	EA				0	0		
10. Service Point Detail	EA				0	0		
11. CES/Summary of Pay Items	LS				0			
12. Special Provisions	LS			6	124	99		
SUB-TOTAL								
13. Quality Control	LS	1	6		6	1		
14. Supervision	LS	1	6		6			
15.								
16.								
17.								
18.								
TOTAL					6	136	100	

HIGHWAY TASK LIST

ACTIVITY: A. Post Design Services SUBACTIVITY: None

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Monthly Site Visit	EA				0		
2. Miscellaneous Post Design Serv	Task				0		
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
TOTAL				0	0	0	

MISCELLANEOUS & OUT-OF-POCKET EXPENSES

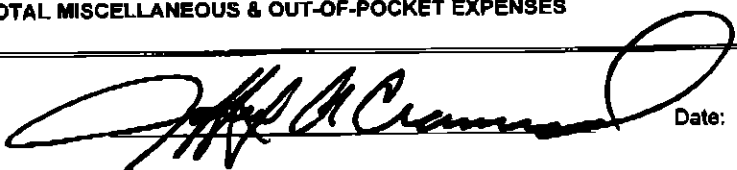
Consultant Name: ENGLAND, THIMS & MILLER, Inc.
 WPI No.:
 State Project No.:
 FAP No.:

Estimators Name: Robert A. Mizell, P.E.

Name of Job: Race Track Road
 From: Bishop Estates
 To: East Boundary of JCP
 Length: 1.6 miles
 Date: 22-Apr-99

ITEM DESCRIPTION	ITEM SUB-TOTAL	ITEM TOTAL
Aerial Photography:	N/A	\$0.00
Drafting Medium (Mylar) 74 @ \$6.00 per sheet (Velm) 296 @ \$1.50 per sheet	\$444.00 \$444.00	\$888.00
Reproduction (Blue Line, Xerographic & Photocopies) Costs: Blue Line 2,368 @ \$0.36 per sheet Xerographic 148 @ \$10.50 per sheet Photocopy 1,480 @ \$0.20 per sheet	\$852.48 \$1,554.00 \$296.00	\$2,702.48
Travel From: Jacksonville		
To Project:		
Full 24 Hour Day Per Deim	x _____ people x \$50.00 per day	\$0.00
Partial Day Per Deim	x _____ people x \$6.00 per day	\$0.00
Transport - (Comm.)	x _____ people x _____ per trip	\$0.00
- (POV) 3	x 40 miles x \$0.32 per mile	\$37.80
- (Rental)	x _____ miles x _____ per mile	\$0.00
	x _____ days x _____ per day	\$0.00
To St Augustine:		
Full 24 Hour Day Per Deim	x _____ people x \$50.00 per day	\$0.00
Partial Day Per Deim	x _____ people x \$6.00 per day	\$0.00
Transport - (Comm.)	x _____ people x _____ per trip	\$0.00
- (POV) 7	x 80 miles x \$0.32 per mile	\$176.40
- (Rental)	x _____ miles x _____ per mile	\$0.00
	x _____ days x _____ per day	\$0.00
To Lake City:		
Full 24 Hour Day Per Deim	x _____ people x _____ per day	\$0.00
Partial Day Per Deim	x _____ people x _____ per day	\$0.00
Transport - (Comm.)	x _____ people x _____ per trip	\$0.00
- (POV)	x _____ miles x _____ per mile	\$0.00
- (Rental)	x _____ miles x _____ per mile	\$0.00
	x _____ days x _____ per day	\$0.00
		\$214.20
Telephone & Fax (10 months @ \$10.00 per month)	\$100.00	
Mail Deliveries (10 package @ \$8.75 per package)	\$87.50	
CADD/Computer (1,249 hours @ \$10.00 per hour)	\$12,490.00	
		\$12,677.50
TOTAL MISCELLANEOUS & OUT-OF-POCKET EXPENSES		\$16,482.18

IGN) Prepared By:



Date:

April 24, 1999

ENGLAND THIMS AND MILLER, INC.

LETTER OF TRANSMITTAL

**3
J
PI
F**

To: *Joe Burch*

**load S.
12246**

From: *NICK P.*

March 26, 1999	ETM No. 98-239
ATTN: John Bishop, P.E.	
RE: Race Track Road	

WE ARE SENDING YOU

- Attached Under separate cover via
 U.S. Mail FEDEX Courier Other

THE FOLLOWING ITEMS

- Shop Drawings Prints Plans Samples Specifications
 Copy of letter Change Order _____

COPIES	DATE	NO.	DESCRIPTION
	3/26/99	1	Inside Julington Creek Plantation Fee Proposal and Scope of Services

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment FOR BIDS DUE _____ 19__
- PRINTS RETURNED AFTER LOAN TO US

REMARKS:

COPY TO:File

SIGNED

Cliff Larsen
Cliff Larsen

Consultant Name: England, Thims & Miller, Inc.
 WPI No.:
 State Project No.:
 FAP No.:

Estimator's Name: Robert A. Mizell, P.E.

Name of Job: Race Track Road
 From: Bishop Estates Road
 To: East Boundary of JCP
 Length: 1.6 miles
 Date: 29-Mar-99

No./ACTIVITY	PRINCIPLE		PROJECT MANAGER		DESIGN ENGINEER		DESIGNER		CADD TECHNICIAN DRAFTSMAN		CLERICAL		MANHOURS BY ACTIVITY	SALARY COST BY ACTIVITY	AVERAGE HOURLY RATE
	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE	MAN HOURS	HOURLY RATE			
A. Roadways/Plans Package															
1. Design Analysis	11	\$78.75	34	\$43.27	46	\$28.37	57	\$19.24	69	\$16.00	12	\$12.00	229	\$5,843.13	\$25.52
2. Drainage Analysis	8	\$78.75	25	\$43.27	34	\$28.37	42	\$19.24	50	\$16.00	9	\$12.00	168	\$4,284.41	\$25.50
3. Roadway Plans	45	\$78.75	135	\$43.27	180	\$28.37	225	\$19.24	270	\$16.00	45	\$12.00	900	\$23,140.80	\$25.71
4. Drainage Plans	17	\$78.75	50	\$43.27	66	\$28.37	83	\$19.24	100	\$16.00	16	\$12.00	332	\$8,571.59	\$25.82
5. Traffic Control Plans	8	\$78.75	25	\$43.27	33	\$28.37	42	\$19.24	50	\$16.00	8	\$12.00	166	\$4,256.04	\$25.64
6. Utilities/Railroads	7	\$78.75	20	\$43.27	26	\$28.37	33	\$19.24	39	\$16.00	5	\$12.00	130	\$3,413.19	\$26.26
7. Environmental Services/Permits	11	\$78.75	33	\$43.27	44	\$28.37	56	\$19.24	67	\$16.00	6	\$12.00	222	\$5,691.88	\$25.64
B. Signing and Pavement Markings	6	\$78.75	19	\$43.27	25	\$28.37	31	\$19.24	37	\$16.00	0	\$16.00	0	\$0.00	\$0.00
C. Signalization Plans	0	\$78.75	0	\$43.27	0	\$28.37	0	\$19.24	0	\$16.00	0	\$12.00	0	\$0.00	\$0.00
D. Lighting	0	\$78.75	0	\$43.27	0	\$28.37	0	\$19.24	0	\$16.00	0	\$12.00	0	\$0.00	\$0.00
E. Landscaping	0	\$78.75	0	\$43.27	0	\$28.37	0	\$19.24	0	\$16.00	0	\$12.00	0	\$0.00	\$0.00
F. Post Design Services	0	\$78.75	0	\$43.27	0	\$28.37	0	\$19.24	0	\$16.00	0	\$12.00	0	\$0.00	\$0.00
TOTAL MANHRS & TOTAL COST	113		341		454		569		682		112		2271	\$58,393.36	\$25.71

COMBINED OVERHEAD COMPUTATIONS

Adm. & General % 105.37%
 Fringe Benefit % 55.33%
 (a1) combined O-H % 160.70%

TOTAL CONTRACT COST COMPUTATIONS

Total Activity Salary Costs \$58,393.36
 (a) Overhead Additives:
 (a1) Combined O-H Percentage 160.70%
 (a2) Combined O-H Cost \$93,838.13
 Subtotal (Salary + Overhead) \$152,231.49
 (b) Operating Margin:
 (b1) Operating Margin Percentage 10.00%
 (b2) Operating Margin Cost \$15,223.15
 Subtotal (Salary Related Costs) \$167,454.64
 (c) Misc/Out-of-Pocket Expenses \$15,922.18
 Subtotal (Cost Elements of Basic Activities) \$183,376.82

SALARY RELATED COSTS

Preliminary Engineering \$54,915.29
 Final Design Plans \$96,216.74
 Environmental Services/Permits \$16,322.60
 Post Design Services \$0.00
\$167,454.62

(d) Subcontract Items

Design Survey \$26,600.00
 RW/Maps \$24,381.61
 Geotechnical (UNIVERSAL) \$9,415.00
 Wetland Identification and Mitigation (ERS) \$8,227.75
 Environmental (Enos) \$2,450.00
 Fema (EMA) \$6,500.00
Total Estimated Amount \$260,951.18

Note: Proposal based on being contracted simultaneously with Race Track Road Improvements outside the JCP

(PLEASE SIGN) Prepared By:



Date: 3/27/99

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 1 - DESIGN ANALYSIS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Typical Section Package	LS	1	7		7	1	
2. Geometrics	LS	1	14		14	7	
3. Update Access Management	LS						
4. Field Survey - Data Reduction	LS						By RMA
5. DTM Model Development	LS						By RMA
6. Traffic Analysis	LS	1	39		39	6	
7. Pavement Design Package	LS	1	14		14	4	
8. Contract File (Set-up & Maintain)	LS	1	10		10	0	Includes Progress Reports
9. Computation Book & Quantities	LS	1	70		70	14	
10. C.E.S. / Summary of Pay Items	LS						
11. Special Provisions	LS	1	21		21		
	SUB-TOTAL			0	175	32	
12. Quality Control	LS	1	9		9	3	
13. Supervision	LS	1	9		9		
14. Field Reviews	EA	3	8		24		
15. Progress Meetings	EA	3	4		12		
16.							
17.							
18.							
TOTAL				0	229	35	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE

SUBACTIVITY: 2 - DRAINAGE ANALYSIS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Design of Cross Drains	LS	1	24		24	6	
2. Design of Roadway Ditches	LS	1	40		40	10	
3. Design of Outfalls Ditches	EA	1	40		40	10	
4. Interchange Drainage Design	LS						
5. Design of Storm Sewers	LS						
6. Design of Retention/Retention Fa	EA	2	24		48	24	
7. Design of Special Drainage Syste	LS				0	0	
8. Prepare of Bridge Hydraulics Rpt	EA				0	0	
9. Drainage Design Rpt.	EA				0	0	
10. Pond Siles, Rpt. (update)	EA				0	0	
11. SUB-TOTAL				0	152	50	
12.							
13. Quality Control	LS	1	8		8	1	
14. Supervision	LS	1	8		8		
15.							
16.							
17.							
18.							
19.							
20.							
TOTAL				0	168	51	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 3 - ROADWAY PLANS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Key Map	Sheet	1	8	1	8	7	
2. Typical Section & Notes	Sheet	1	8	0.5	8	6	
3. Summary of Quantities	Sheet	1	12	0.5	12	12	Drafting Only
4. Plan & Profiles	Sheet	8	44	8	352	264	1" = 40' Plan, 1" = 5' Prof.
5. Intersection Details	Sheet						1" = 20' Plan
6. Intersection Profiles	Sheet						
7. Back of Sidewalk Profiles	Sheet						
8. Special Profiles	Sheet	1	8	1	8	6	
9. Miscellaneous Construction Details	Sheet	2	16	1	32	10	
10. Soil Data Sheet	Sheet			1	0	0	By Universal
11. Cross-Sections	Per Section	85	4	22	340	255	1" = 10' Horiz., 1" = 5' Vert.
12. Baseline Control/Curve Data	Sheet	1	24	1	24	18	
	SUB-TOTAL			36	784	578	
13. Quality Control	LS	1	40		40	8	
14. Supervision	LS	1	40		40		
15. Field Reviews	EA	3	8		24		
16. Progress Meetings	EA	3	4		12		
17.							
18.							
TOTAL				36	900	586	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 4 - DRAINAGE PLANS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Drainage Map	Sheet	3	20	3	60	45	1" = 100'
2. Drainage Structures	EA	12	4	2	48	36	4 per sheet
3. Summary of Drainage Structures	LS	1	10	0.5	10	8	
4. Lateral Ditch & Outfall Plan/Profile	Sheet	2	16	0.5	32	24	
5. Lateral Ditch Cross-Sections	Per Section	11	2	4	22	17	4 per sheet
6. Erosion Control Detail Sheet	Sheet	1	12	0.5	12	9	
7. Bridge Hydraulics Rec. Sheet	Sheet				0	0	
8. Retention/Detention Plans	Sheet	2	48	2	96	72	
9. Retention/Detention X-Sections	Per Section	6	2	3	12	9	3 per sheet
10. SWPPP	Sheet	1	2	0.5	2	2	
11. Box Culvert Data Sheet	Sheet	1	8	1	8	3	
	SUB-TOTAL			17	302	225	
12. Quality Control	LS	1	15		15	1	
13. Supervision	LS	1	15		15		
13.							
14.							
15.							
16.							
17.							
18.							
TOTAL				17	332	226	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 5 - TRAFFIC CONTROL PLANS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Traffic Control Plan Design Analy	LS	1	14		14		
2. Typical Sections	Sheet	1	8	1	8	6	
3. General Notes/Const. Sequence	Sheet	1	12	0.5	12	9	
4. Typical Details	Sheet	1	12	1	12	9	
5. Tabulation of Quantities	Sheet	1	8	0.5	8	6	
6. Plan Sheets	Sheet	4	24	4	96	72	
7. Pavement Marking/Signing Deta	Sheet						
8. Temporary Signal	Sheet						
	SUB-TOTAL			7	150	102	
9. Quality Control	LS	1	8		8	2	
10. Supervision	LS	1	8		8		
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
TOTAL				7	166	104	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE SUBACTIVITY: 6 - UTILITIES/RAILROADS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Initial Contact	EA	4	3		12		
2. Prepare Utility Adjustment Sheets	Sheet	8	8	8	64	48	1" = 40' Plan, 1" = 5' Profile
3. Coordination with Utilities	EA	4	8		32		
4. Prepare Railroad Crossing Detail	EA				0	0	
5. Utility Relocation Agreements	EA				0		
SUB-TOTAL				8	108	48	
6. Quality Control	LS	1	5		5	1	
7. Supervision	LS	1	5		5		
8. Utility Meetings	EA	3	4		12		
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
TOTAL				8	130	49	

HIGHWAY TASK LIST

ACTIVITY: B. SIGNING AND PAVEMENT MARKINGS SUBACTIVITY: NONE

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Key Sheet	Sheet	1	2	0.5	4	3	
2. General Notes	Sheet	1	4	0.5	4	3	
3. Tabulation of Quantities	Sheet	1	8	1	8	6	
4. Plan Sheets	Sheet	4	24	4	96	77	Double Plan Sheets 1" = 40'
5. Guide Sign Worksheets	EA Sign Section				0	0	
6. Cross-Section & Layout	Section				0	0	
7. Special Marking Details	EA Detail				0	0	
8. Sign Detail Sheet	Sheet				0	0	
9. Metal/Concrete Pole Detail	EA				0	0	
10. Service Point Detail	EA				0	0	
11. CES/Summary of Pay Items	LS				0		
12. Special Provisions	LS						
	SUB-TOTAL			6	112	89	
13. Quality Control	LS	1	6		6	1	
14. Supervision	LS	1	6		6		
15.							
16.							
17.							
18.							
	TOTAL			6	124	90	

HIGHWAY TASK LIST

ACTIVITY: A. Post Design Services

SUBACTIVITY: None

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Monthly Site Visit	EA				0		
2. Miscellaneous Post Design Serv	Task				0		
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
TOTAL				0	0	0	

HIGHWAY TASK LIST

ACTIVITY: A. ROADWAY PLANS PACKAGE

SUBACTIVITY: 7 - ENV. SERVICES/PERMITS

TASK	BASIS OF ESTIMATE	NO. OF UNITS	HOURS/ UNIT	NO. OF SHEETS	TOTAL HOURS	CADD HOURS	REMARKS
1. Preliminary Field Review	LS						By ERS
2. Agency Coordination (All Phases)	LS	1	66		66		
3. Establish Wetland Jurisdiction Lin	LS						By ERS
4. Agency Field Review	EA						By ERS
5. Prepare Wetland Resource/Dred & Fill Permit Application	LS	1	44		44	18	
6. Prepare MSSW Permit Applicatio	LS	1	34		34	14	
7. Prepare Coast Guard Navigation Permit Application	LS						
8. Prepare NPDES/EPA Permit App	LS	1	22		22	9	
9. Prepare DNR/CCL Permit App.	LS						
10. Prepare Local Permits	LS	1	16		16	6	
11. Mitigation Coordination and Migs	LS	2	10		20	3	
12. Mitigation Design	LS				0	0	By ERS
13. Mitigation Plans (All Phases)	Sheet				0	0	By ERS
14. FEMA No-Rise Certification	LS						By EMA
	SUB-TOTAL			0	202	50	
14. Quality Control	LS	1	10		10	2	
15. Supervision	LS	1	10		10		
16.							
TOTAL				0	222	52	

SURVEY ESTIMATION CHART

Consultant: Robert M. Angas Associates Name of Job: Race Track Rd
 From: Bishop Estates Rd To: East Boundary of
Julington Creek Plantation

Estimators (Name/date): J.L. Reynolds, 3/23/99 Length: 1.6 mi

# DAYS PER PARTY SIZE @ 8 HOURS PER DAY (THREE PERSON CREW)	PRIME. CREW DAYS	COMMENTS
Baseline Control	1.0	
Alignment	1.0	C/L S/O
Bench Levels	2.0	1000' intervals
Reference Points	2.0	
Side Street Intersections	1.0	
Topography	7.0	
Regular Roadway X-sections	7.0	
Underground Utilities		
Special X-secs		
Stake-out for Borings		
Bridge Survey		
Drainage Survey	4.0	Offsite Drainage
Hydrographic Survey		
Monumentation		
Property Ties	5.0	
Section-Line Ties		
Supplemental Survey	5.0	Offsite Mitigation*
Aerial Target Placement		
Excessive Travel @ x (Cost per day) \$ _____	_____	\$ _____
Survey Total Days X (Cost Per Day) \$ 760.00	35.0	\$ 26,600.00
X (Cost Per Day) \$ _____		\$ _____
Misc. Expenses _____		\$ _____
Total Survey Cost		\$ 26,600.00

(Please Sign) Prepared by: _____ Date: 3/23/99

Comments: * Reimbursable item estimate only.

RIGHT OF WAY MAPPING ESTIMATE CHART

CONSULTANT Robert M. Angas Associates, Inc.

C.R.NO. 5 FROM Bishop Estates Rd TO East Boundary of JCP COUNTY St. Johns

ESTIMATOR/DATE J.L. Reynolds / 3/23/99 LENGTH 1.6 mi

ACTIVITY	PROJECT MANAGER (PLS)		PROFESSIONAL LAND SURVEYOR		DATA PROCESSOR		CADD OPERATOR		CLERICAL		TOTAL	AVG. RATE
	HOUR	RATE	HOUR	RATE	HOUR	RATE	HOUR	RATE	HOUR	RATE		
R/W CONTROL SURVEY			28.0	25.00	35.0	16.58	238.0	13.45				
R/W MAP			7.0	25.00	14.0	16.58	70.0	13.45				
MAINTENANCE MAP												
ROADWAY CORRIDOR MAP												
RIGHT OF WAY SURVEY												
LEGAL DESCRIPTIONS			7.0	25.00			22.0	13.45				
TITLE SEARCH REPORTS												
DATA PROCESSING			28.0	25.00	88.0	16.58						
TOTAL (H X R)			70.0	1750.00	137.0	2271.46	330.0	4438.50				

Total Activity Salary Costs	=\$ 8,459.96
(a) Overhead Additives:	
(1) Administrative & General 162 %	=\$ 13,705.14
(2) Fringe Benefits %	=\$
Subtotal (Salary & Overhead)	=\$ 22,165.10
(b) (1) Lump Sum for Operating Margin 10 %	=\$ 2,216.51
Subtotal (Salary Related Costs)	=\$ 24,381.61
(c) Direct Reimbursable (Out-Of-Pocket)	=\$
Subtotal (Cost Elements Appl. to Basic Activities)	=\$ 24,381.61
(d) Subcontract Items	=\$
(e) Other Lump Sum Cost Survey	=\$ 26,600.00
TOTAL LUMP SUM FEE	=\$
TOTAL MAXIMUM LIMITING FEE	=\$ 50,981.61

PREPARED BY: _____ DATE: 3/23/99
SIGNATURE



UNIVERSAL ENGINEERING SCIENCES

Consultants In: Geotechnical Engineering • Environmental Sciences •
Construction Materials Testing • Threshold Inspection

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 - Daytona Beach
 - DeBary
 - St. Augustine
 - Orlando
 - Gainesville
 - Fort Myers
 - Rockledge
 - West Palm Beach

March 24, 1999

England, Thims & Miller, Inc.
3131 St. Johns Road South
Jacksonville, Florida 32216

Attention: Mr. Rob Mizell, P.E.

Subject: **SUBSURFACE EXPLORATION PROPOSAL**
Racetrack Road Project, Bishop Estates to Julington Creek Plantation
St. Johns County, Florida
UES Proposal No. 99J-106R

Dear Mr. Mizell:

As per your request, Universal Engineering Sciences (UES) is pleased to submit the following proposal for performance of a subsurface exploration for the referenced project. The proposed development is expected to consist of the improving of the existing paved roadway.

SITE AND PROJECT DESCRIPTION

The subject project currently consists of about 8,476 linear feet of two lane paved roadways between Bishop Estates Road and Julington Creek Plantation. We understand the project will consist of widening the existing roadway to four lanes. The proposed widening will occur on both sides of the existing roadway. The project site is located within a rural/residential area within the northern section of St. Johns County. We understand that two ponds will be needed for the proposed roadway improvements. In addition, one culvert will be widened.

OBJECTIVE

The purpose of this investigation is to characterize the site to evaluate the proposed pavement section, foundation soils and groundwater conditions as they relate to the proposed roadway improvement. An evaluation of the subsurface conditions will be made to provide foundation design criteria to include subgrade preparation, pavement design criteria, pond subsurface conditions, culvert foundation design, and estimation of seasonal

UES Proposal No. 99J-106R
March 24, 1999

high water level.

STAFFING PLAN

Mr. Jeffrey Pruett, P.E., Geotechnical Manager will have responsible charge and availability of all manpower resources of the St. Augustine office. Mr. Pruett will coordinate all requests for services with your firm as needed. Mr. Pruett will direct and review the activities of the Geotechnical Project Manager and Project Engineers which will include:

- Rick G. Kushner, P.E.
District Manager
- Ken Hill, P.E.
Project Engineer
- Lesli M. Lewis, P.E.
Senior Engineer

Individual qualified professional project engineers, engineering technicians and office personnel will be assigned to each work item authorized according to the skill level required to perform the work in a technically competent/cost effective manner.

SUMMARY OF WORK EFFORT

Prior to developing this proposal, we visited the project site and spoke with Mr. John Bishop, P.E., in order to estimate the work effort. In this regard the work effort required to perform the geotechnical services for this project was estimated on the basis of the length of the roadway and drainage improvements and may be summarized as follows:

Roadway

Roadway borings and laboratory testing will be performed; we estimate a total of 370 linear feet of roadway auger borings will need to be performed on both sides of the existing roadway.

I. Field Investigation - Roadway

The soils investigations for roadways shall include as required by the project needs:

1. One (1) 5 foot auger boring per 300 feet per lane of widening in the proposed roadway areas.
2. One (1) 10 foot auger boring per 1,000 feet per lane of widening of alignment within the proposed paved roadway widening areas.



UES Proposal No. 99J-106R
March 24, 1999

3. Soil samples for laboratory soil testing will be obtained as deemed appropriate.
4. Review USGS and SCS maps to identify areas of organic soils.
5. Determine the vertical and horizontal extent of compressible strata (i.e. muck, peat, clay, etc.).

II. Laboratory Testing

All laboratory testing will be performed in accordance with Florida Sampling and Testing Methods or ASTM or by related directives. Laboratory testing will include the following as required by the needs of the project.

1. Organic Content (FM 1-T 267)
2. Moisture Content (FM 1-T 265)
3. Sieve Analysis (FM 1-T 88)
4. Particle Size Analysis with hydrometer (FM 1-T 88)
5. Specific Gravity (FM 1-T 100)
6. Torvane Sensitivity
7. Atterberg Limits (FM 1-T 216)
8. Corrosion Series (BM&R 5/20/76)
9. Limerock Bearing Ratio (FM 5-515)

QUALITY CONTROL PLAN

As appropriate, the following procedures will be followed to ensure accurate and complete work products for our geotechnical investigation.

1. The project engineers will check field and laboratory test data as they are completed. Original data sheets will be maintained in the project file.
2. Calculations will be checked by a senior engineer/project manager other than the



UES Proposal No. 99J-106R
March 24, 1999

- originator.
3. Minor submittal/transmittals will be reviewed by the project manager or a senior engineer other than the originator.
 4. Report and drawings will be checked by the originator and division manager/project manager for accuracy and completeness.
 5. Major reports and drawings for submittals will be reviewed by the principal-in-charge. This fresh review will be incorporated into the work products as appropriate. For this contract we have specifically designated Mr. Rick Kushner, P.E. as Principal-in-Charge and/or Senior Technical Reviewer.

SCOPE OF SERVICES

In order to accomplish the above objective, we propose the following scope of services:

1. Perform 40 auger borings at approximately 300-foot intervals, each to a depth of 5 feet below grade on either side of the existing road.
2. Perform 16 auger borings at approximately 1,000-foot intervals, each to a depth of 10 feet below grade on alternative sides of the proposed road.
3. Two (2) 30 foot SPT borings in the proposed culvert widening areas.
4. Four (4) 20 foot auger borings with adjacent permeability tests in the proposed pond areas.
5. Three (3) roadway cores and auger borings in the existing paved areas.
6. Measure 24 hour stabilized groundwater table readings in each bore hole.
7. Perform fifteen (15) minus 200 sieve, four (4) organic content and seven (7) moisture content tests to aid in determining individual strata characteristics.
8. Perform 16 Limerock Bearing Ratio (LBR) tests to aid in determining in-situ subgrade suitability.
9. Perform two (2) corrosion series tests to determine the corrosivity of the subsurface conditions.
10. Prepare a report documenting the results of our field and laboratory exploration and presenting our evaluations and recommendations relative to



Mar-24-99 03:45P

UES Proposal No. 99J-106R
March 24, 1999

the stated objectives.

BUDGET AND SCHEDULING

It is proposed that the fee for the performance of the above-outlined services be determined on a not to exceed basis, in accordance with our attached Schedule of Services and Fees. Copies of our Schedule of Services and Fees and General Conditions are enclosed herewith and incorporated by reference into this proposal. On the basis of the estimated quantities and the Schedule of Services and Fees, it is estimated the total fee will be \$9,4150.00.

We anticipate that the field investigation could be started within five (5) working days following your authorization to proceed. Completion of the field work and preparation of our engineering report would require about 3 to 4 weeks.


CLOSURE

It is our pleasure to submit this proposal to you. To authorize this investigation, please sign and return a copy of this proposal to our office. Should you have any questions or need further services beyond the scope detailed herein, please do not hesitate to contact the undersigned.

Respectfully submitted,

UNIVERSAL ENGINEERING SCIENCES


Jeffrey S. Pruett, P.E.
Branch Manager


Rick G. Kushner, P.E.
District Manager

JSP/RGK/gw



**SUBSURFACE EXPLORATION
SCHEDULE OF SERVICES AND FEES**

Racetrack Road Project, St. Johns County, Florida
UES Proposal No. 99J-106R
March 24, 1999

Description	Estimated Quantity	Unit	Unit Price	Total Price
GEOTECHNICAL ENGINEERING SERVICES				
Geotechnical Exploration				
Mobilization of drill rig; crew and equipment to site and return	1	l.s.	\$200.00	\$200.00
Field Technician Boring location/utility coordination	4	hours	\$30.00	\$120.00
85 Auger Borings to depths 5 and 10 feet below the existing ground surfaces	370	feet	\$6.00	\$2,220.00
4 Pond Auger Borings - 20 feet each	80	feet	\$6.00	\$480.00
2 SPT Borings to 30 feet each	60	feet	\$8.00	\$480.00
Roadway Core and Patch	3	each	\$50.00	\$150.00
24-hour Groundwater Reading	2	hours	\$40.00	\$80.00
Muck delineation - 7 borings to 5 feet	35	feet	\$6.00	\$210.00
Subtotal:				\$3,940.00
Roadway Traffic Maintenance				
Roadway Signs and Traffic Control	0.5	day	\$500.00	\$250.00
Geotechnical Engineering Consultation				
Engineering personnel for consultation with client, general supervision of the field work, editing of boring logs, development of laboratory test data, and preparation of report of findings				
Principal Engineer	1	hour	\$100.00	\$100.00
Senior Project Manager	8	hours	\$75.00	\$600.00
Staff Engineer	16	hours	\$50.00	\$800.00
Drafting	4	hours	\$35.00	\$140.00
Technical Secretary	2	hours	\$30.00	\$60.00
Subtotal:				\$1,700.00



Racetrack Road Project, St. Johns County, Florida
 UES Proposal No. 99J-106R (Continued)
 March 24, 1999

Description	Estimated Quantity	Unit	Unit Price	Total Price
Geotechnical Engineering Laboratory Testing				
Visual Soil Classification	2	hours	\$50.00	\$100.00
Natural moisture content	7	each	\$5.00	\$35.00
Atterberg Limits	2	each	\$50.00	\$100.00
Mechanical sieve analysis	12	each	\$25.00	\$300.00
Permeability Test	4	each	\$100.00	\$400.00
Limerock Bearing Ratio	16	each	\$140.00	\$2,240.00
Organic Content	4	each	\$25.00	\$100.00
Corrosion Test	2	each	\$125.00	\$250.00
			Subtotal:	\$3,525.00
ESTIMATED TOTAL FOR GEOTECHNICAL ENGINEERING SERVICES:				\$9,415.00



UNIVERSAL ENGINEERING SCIENCES, INC.

WORK AUTHORIZATION / PROPOSAL ACCEPTANCE FORM

Universal Engineering Sciences, Inc. (UES) is pleased to provide the services described below. The purpose of this document is to describe the terms under which the services will be provided and to obtain formal authorization.

PROJECT NAME: Proposal for Subsurface Exploration
PROJECT LOCATION: Racetrack Road Project, St. Johns County, Florida
CLIENT NAME: England, Thims & Miller, Inc. - Rob Mizell, P.E. Date: February 16, 1999
CLIENT ADDRESS: 3131 St. Johns Bluff Road South Phone No.: 904-642-8990
Jacksonville, FL 32216 Fax No.: 904-646-9485

I. Scope of Services and Understanding of Project (See attached proposal or as indicated below)
As shown on UES Proposal No. 99J-106 (attached)

- II. Contract Documents. The following documents form part of this Agreement and are incorporated herein by referral:
A. UES General Conditions.
B. UES Proposal Dated: February 16, 1999
C. Plans, reports, specifications and other documents provided by the Client prior to this Agreement date.
D. Other exhibits marked and described as follows:

In the event of any inconsistency or conflict among the Contract Documents, the provision in the Contract Document first listed above shall govern.

III. Authority to proceed and for payment. (To be completed by Client)

If the invoice is to be mailed for approval to someone other than the account charged, please indicate whom below:

Firm: Social Security Number or Federal Identification No.:
Address:
Attention: Title:

IN WITNESS WHEREOF, the parties have caused this agreement to be executed by their duly authorized representatives

CLIENT UNIVERSAL ENGINEERING SCIENCES
BY (Signature) BY (Signature) Jeffrey S. Pruett, P.E.
TYPED NAME TYPED NAME Jeffrey S. Pruett, P.E.
TITLE TITLE Branch Manager
DATE DATE February 16, 1999

RETURN EXECUTED COPIES TO
UNIVERSAL ENGINEERING SCIENCES
2654 US 1 SOUTH, ST. AUGUSTINE, FLORIDA 32086
TELEPHONE: 904-797-7182 / FAX: 904-797-7185

**ASSOCIATED SCIENCES CORPORATION**

ENVIRONMENTAL SCIENTISTS AND CONSULTANTS
215 THIRTEENTH STREET
ST. AUGUSTINE, FLORIDA 32095
(904)824-8010 FAX (904)824-5385

March 24, 1999

Mr. Robert Mizell
England, Thims and Miller, Inc.
3131 St. Johns Bluff Road, South
Jacksonville, Florida 32246

VIA FAX

RE: Proposal for a Phase I ESA,
Revision to the February 15, 1999 Proposal
Race Track Road Inside the
Julington Creek Plantation, St. Johns County, Florida

Dear Mr. Mizell:

Associated Sciences Corporation (ASC) has prepared this proposal for Professional Services to conduct a Phase I Environmental Site Assessment (ESA) for the above referenced site, and as defined in our telephone conversation on Monday, February 15, 1999. This proposal outlines the objectives of the Phase I ESA as defined in the American Society of Testing and Materials E-1527-97, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. This ASTM procedure is generally accepted by financial institutes and includes:

- ◆ Site and adjacent property reconnaissance;
- ◆ Review of a recently updated database of Federal and State government record systems, and review of historical and current aerial photographs;
- ◆ Review of records available at local regulatory agencies, if necessary;
- ◆ Review of at least a 50-year chain-of-title to the property (if requested and provided by the client);
- ◆ Interviews with owners, occupants and historical contacts, if available;
- ◆ Compilation of information and report documenting recognized environmental conditions currently and historically associated with the site.

The ESA will be conducted following the ASTM Method, which generally complies with the requirements for the "innocent landowners defense" of Comprehensive Environmental Response Compensation and Liability Act (CERCLA), which states that "...all appropriate inquiry into previous ownership and uses of the property consistent with good commercial or customary practice" as defined in 42 USC Section 9601 (35)(B).

Mr. Robert Mizell

Page 2

March 24, 1999

As you have requested, this proposal is for an ESA for all of the parcels inside of the Julington Creek Plantation, to be identified by England, Thims and Miller, Inc.. Unless unforeseen circumstances are encountered, ASC proposes to complete the defined Scope of Services within 20 business days of written notice to proceed. In order for us to meet this schedule, we request that you provide:

- ◆ A scaled drawing or corridor survey of the site, accurately locating each individual parcel;
- ◆ Point of contact with the owner or the occupant of the property, if other than yourself; and,
- ◆ Arrangements for site access.


ASC proposes a cost for the Phase I ESA at \$2,450.00. However, if any field observation or questionable issues in a database or aerial search arises, we will immediately cease work on that portion of the project and bring the problem to your attention to discuss how to proceed and/or further cost considerations for the completion of the Phase I ESA.

Enclosed with this proposal are two copies of our Terms and Conditions. Please sign both and return one copy to us to begin the Phase I ESA. Alternatively, England, Thims and Miller, Inc. may issue a Purchase Order or Sub-Consultants Agreement (which requires our review and approval) to initiate the work

I look forward to working with you and England, Thims and Miller, Inc. on this project. If you have any questions regarding this proposal, please call me at (904)824-8010.

Sincerely yours,

ASSOCIATED SCIENCES CORPORATION



William M. Enos, P.G.
President

enclosure

ENVIRONMENTAL RESOURCE



SOLUTIONS, INCORPORATED

23 March 1999

Mr. Robert Mizell
England, Thims & Miller
3131 St. Johns Bluff Road South
Jacksonville, Florida 32246

RE: St. Johns County/Race Track Road Improvement Project
Within Julington Creek Plantation
Man-Hour and Fee Estimates/Wetland Delineation & Permitting
ERS Proposal No. P99023

Dear Mr. Mizell:

Environmental Resource Solutions, Inc. (ERS) is pleased to provide England, Thims & Miller (ETM) with man-hour and fee estimates for professional services associated with improvements proposed for Race Track Road in St. Johns County. The work scope below includes tasks directed toward obtaining state and federal authorizations for wetland impacts.

Scope of Services:

TASK 1 - Wetland Delineation. All wetland areas meeting U.S. Army Corps of Engineers (COE) and St. Johns River Water Management District (SJRWMD) wetlands criteria within the project corridor will be delineated. The delineation will be conducted with the use of sequentially numbered surveying ribbon. The flagging will extend 150' ± from the Race Track Road centerline and within proposed stormwater pond sites.

Senior Environmental Scientist I/5 hours @ \$90.00/hr.....	\$450.00
Environmental Technician II/11 hours @ \$37.00/hr.....	\$407.00
Environmental Technician II/11 hours @ \$35.00/hr.....	\$385.00
TASK TOTAL.....	\$1,242.00

Task 2 - Agency Review. ERS will schedule and attend agency site reviews with both SJRWMD and COE staff to verify the location of the wetland lines.

Senior Environmental Scientist I/3 hours @ \$90.00/hr.....	\$270.00
Environmental Technician II/17 hours @ \$37.00/hr.....	\$629.00
Draftsperson/1.5 hours @ \$45.00/hr.....	\$67.50
Secretary/1.5 hours @ \$30.00/hr.....	\$45.00
TASK TOTAL.....	\$1,011.50

TASK 3 - ERS will assist the project engineer as necessary to submit permit applications to SJRWMD and COE.

Senior Environmental Scientist I/8 hours @ \$90.00.....	\$720.00
Environmental Scientist II/21 hours @ \$75.00.....	\$1,575.00

23 March 1999
Mr. Rob Mizell
Page 2

CADD Operator/11 hours @ \$45.00	\$495.00
Secretary/5 hours @ \$30.00	\$150.00
TASK TOTAL	\$2,940.00

TASK 4 - Permit application Processing. ERS will accompany agency staff during all scheduled site inspections, respond to all agency requests for additional information (RAI's) and revise the permit application as necessary to process the required permits.

Senior Environmental Scientist/5 hours @ \$90.00/hr.....	\$450.00
Environmental Scientist II/14 hours @ \$75.00.....	\$1,050.00
CADD Operator/5 hours @ \$45.00	\$225.00
Secretary/4 hours @ \$30.00	\$120.00
TASK TOTAL	\$1,845.00

TASK 5 - Team Meetings. ERS will attend a maximum of 3 meetings with team members and/or agencies to discuss project planning/permitting issues.

Senior Environmental Scientist/10.5 hours @ \$90.00/hr.....	\$945.00
TASK TOTAL	\$945.00

OUT-OF-POCKET-EXPENSES

Mileage:

3 Trips @ 80 miles/trip @ \$0.35/mile.....	\$84.00
2 Trips @ 50 miles/trip @ \$0.35/mile.....	\$35.00

Copies:

8.5 x 11 (70 @ \$0.10/copy).....	\$7.00
11 x 17 (14 @ \$0.15/copy).....	\$2.10
Bluelines (14 @ \$1.00/copy).....	\$14.00

Misc:

Acetate (1 roll @ \$24.50) x 70% of Roll.....	\$17.15
Aerial Photographs (4 @ \$10.00).....	\$40.00
Courier (3 @ \$15.00).....	\$45.00

TOTAL - 133.50 Hours.....	\$7,983.50
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TOTAL OUT-OF-POCKET EXPENSES.....	\$244.25
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23 March 1999
Mr. Rob Mizell
Page 3

We look forward to working with the St. Johns County, ETM and other team members on this project.
Please call me if you have any questions or require further information regarding our cost proposal.

Sincerely,

ENVIRONMENTAL RESOURCE SOLUTIONS, INC.

Nancy C. Zyski

for
Nancy C. Zyski
President

Attachment: ERS Rate Schedule

(NCZ/pt9902/march revision70%)

EXHIBIT A

SCOPE OF SERVICES FOR ENGINEERING OF RACE TRACK ROAD IMPROVEMENTS FOR ADDITIONAL LANES FROM BISHOP ESTATES RD. TO EASTERN LIMIT OF JULINGTON CREEK PLANTATION ST. JOHNS COUNTY, FLORIDA

I. SCOPE OF PROJECT

- A. The intent of the project is to furnish design services for the proposed reconstruction of Race Track Road from Bishop Estates Road to the eastern limit of the Julington Creek Plantation. The approximate length of the project is 1.6 miles in length along Race Track Road. This project is to be funded with monies set aside by the Julington Creek Plantation.
- B. The additional lanes will begin at the terminus of the four-lane section east of Bishop Estates Road and end at the eastern boundary of the Julington Creek Plantation. Tapers will be included to transition from the four lane sections back into the two lane roadway.
- C. It is intended that Consultant's services will result in all drawings, specifications, permits, and other documents needed for the County to acquire necessary right-of-way, adjust utilities, seek bids, and contract for construction of the project.
- D. Consultant's services on the project may be in two (2) phases, Design and Construction Administration, with separate negotiation and fee for each phase. At the County's option and upon completion of the final design phase, Consultant's services may be extended to include a construction administration phase after negotiation of mutually satisfactory terms.

II. PROJECT REQUIREMENTS

- A. Final Design Requirements:
 - 1. The Consultant will proceed with the design of the Race Track Road Reconstruction project to continue the typical four lane section currently under construction from S.R. 13 to Bishop Estates Road.
 - 2. The basic roadway and drainage design shall meet County Standards.
 - 3. All design criteria shall be based on the "Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, State of Florida", latest edition; Florida Department of Transportation Roadway and Traffic Standards; and the American Association of State Highway and Transportation Officials Policies and Guidelines.

4. Bench Levels - Vertical control for the project will originate from existing FDOT benchmarks and will loop through the project, with a minimum of five (5) benchmarks established. Benchmarks will also be referenced to facilitate reestablishment at a future date.
5. Topography - The Consultant shall acquire topography, as required, throughout the project length. The Consultant shall show all above grade fixed improvements along the route (pavement, culverts, buildings, fences, signs, light poles, signals, utilities, etc.) All buildings within 50 feet of the proposed right-of-way lines shall be located and shown, as well as existing topographic data within 25 feet beyond the proposed right-of-way including, but not limited to, fences, drainage structures, walls or other fixed structures, and other appurtenances which may affect the design of the project. The full topographic survey shall be undertaken on all side street intersections for a minimum of 300 feet on each leg.
6. Roadway X-Sections - Full roadway X-sections will be obtained on stations at 100' intervals. Sections will extend to 25' outside the proposed right-of-way lines or to existing buildings. Half sections will be obtained at existing driveways and extend 50' beyond the right-of-way line or to existing buildings.
7. Underground Utilities - All underground utilities will be located along the route as marked on the surface by a representative of the utility company. Existing as-built information will be incorporated and field-verified where possible. All pertinent vertical information on pipe, inverts, conduits, etc., will be obtained where possible. Should additional verification of subsurface utilities requiring excavation be necessary, Vacuum Excavation services will be performed to accurately locate and determine the elevation of existing underground utilities that may be in conflict with the proposed improvements. Fees for Vacuum Excavation services will be included in the reimbursable portion of the contract.
8. Offsite Drainage Surveying - Outfall drainage surveys will be required. Topography and cross-sectioning will be taken as well as any subsurface utility location or other improvements.
9. Offsite Mitigation Surveying - There may be a need for a topographic survey, maps and legal descriptions. While wetland preservation is preferred, the site may be used for either wetland creation, enhancement or restoration. (Location of site to be determined). This work is reimbursable and an estimated budget is included under offsite mitigation services.
10. Bridge Plans - No bridges are required for this project.
11. Existing Right-of-Way Maps - Prior to the issuance of proposed right-of-way maps, the right-of-way control survey shall be updated to include additions to the project limits and a signed and sealed existing right-of-way map shall be issued as mandated by the Minimum Technical Standards, Chapter 21HH-6, Florida Administrative Code. The existing right-of-way map will include the following items:
 - a. Existing rights-of-way and easements within the limits of the project.
 - b. Baseline of survey including stations, bearing, bearing basis, all applicable curve data, all monumentation found and set along project and begin/end survey.
 - c. Ties to subdivision boundary lines, subdivision block lines, side street right-of-way lines, and all other tract lines along the route.

- d. Record distances of all properties adjacent to the right-of-way.
- e. Ties to all existing centerline stationing and equation.
- f. Centerline reference points.
- g. Subdivision names and recording information.
- h. Deeds or official records volume of non-platted or vaguely platted lands.
- i. The first tier of lots of the adjoining subdivisions.
- j. Mapping will be at a minimum scale of 1" = 40'.

12. Proposed Right-of-Way Maps - Right-of-way control mapping will be used as the basis for final right-of-way maps, to be done to FDOT standards and to the satisfaction of the County's Topographical/Survey Section. Additional survey items for the right-of-way maps will include:

- a. Ownership list with parcel numbers and square footage of taking. This list shall be updated at the 90% submittal. Ownership shown will be based on latest tax records. Parcel numbers to be assigned as follows:
 - Fee parcels numbered 100-199
 - Permanent easements numbered 800-899
 - Temporary construction easements numbered 700-799
- b. Legal descriptions of takings (per ownership), with the right-of-way maps serving as the certified sketches to accompany.
- c. Geometry of proposed R/W lines.
- d. First tier of abutting ownerships, with field data justifying the parcel boundaries.
- e. All recorded information of abutting properties.
- f. Pertinent topographic features.
- g. Mapping at a minimum scale of 1" = 40'.

13. Legal descriptions of taking (per ownership) shall be provided for all right-of-way takings and easements.

14. Geotechnical - The objective of geotechnical exploration is to provide sufficient site and subsurface information to evaluate the subsurface conditions along Race Track Road and at all required off-site locations such as pond sites for the proposed construction.

- a. For the roadway section, it is proposed to perform auger borings to depths of 6.0 feet on spacings not to exceed 200 feet in the roadway improvements areas. Borings shall be taken alternating left and right of centerline, with one of every five borings taken within the existing pavement area. In areas which have significant organic materials (i.e. muck) or other unsuitable materials, these areas will be delineated with additional auger borings to a depth of five feet

below the unsuitable material. One boring will be performed in each of the two proposed stormwater management ponds to a depth of 20 feet.

b. Laboratory classification and index soil tests will be performed as necessary on selected soil samples obtained from the exploration. Additionally, limerock bearing ratio tests will be performed to determine the existing subgrade support for roadway design.

c. A geotechnical engineer, registered in the State of Florida, will direct the geotechnical exploration and provide engineering analysis and evaluation of the site and subsurface conditions with respect to the planned construction and imposed loading conditions. The results of the exploration and engineering study will be presented in a report containing the following:

- (1) A brief discussion of the planned construction and imposed loading conditions.
- (2) A presentation of the field and laboratory test procedures used and the data obtained.
- (3) A presentation of the existing on-site conditions, such as topography, surface vegetation, encountered and seasonal high water tables, etc. as they relate to the planned construction.
- (4) A presentation of the subsurface conditions, including subsurface profiles and estimated seasonal high water levels.
- (5) A geotechnical engineering evaluation of the site and subsurface conditions with respect to the planned construction.
- (6) Recommendations for pavement design parameters.
- (7) Recommendations for the required site preparation and earthwork construction.

15. Signing and Pavement Markings - Plans shall be developed showing proposed signing and pavement marking along the roadway, at a minimum scale of 1" = 40'.

C. Sequence of Services:

1. Perform Design Surveys.
2. Acquire geotechnical information.
3. Final design for construction, including plans, specifications and right-of-way maps.
4. Perform all permitting requirements stated herein.
5. Respond to Bidder inquiries and review bids.

D. Project Submittal Requirements:

1. Preliminary Design: Preliminary drawings shall be furnished to addressees stipulated by the Project Manager. These drawings shall be marked up by the agencies involved and

returned for inclusion in follow-on design work. Each agency's mark-up shall be returned with the next design submittal, showing the Consultant's response to each agency comment. Documents shall include the following items, as a minimum:

- a. Location map with beginning, ending and any required equation stations.
- b. Drainage map(s) showing existing elevations, contours, major structures with high water information, and drainage areas with direction of flow indicated.
- c. Typical sections for anticipated roadway segment(s) including dimensions, pavement structure(s) and design traffic data. The Consultant shall submit his pavement design calculations to justify the proposed typical section(s).
- d. Plan and profile sheets showing existing topography, reference points, baseline of surveys, curve data, begin/end and required equation stations, existing and proposed roadway and existing water and sewer facilities; also benchmark datum, existing ground line and preliminary proposed profile grade, anticipated subsoil and profile and location of water table.
- e. Cross-sections showing existing ground line with preliminary template shown at critical locations and every 100 feet. The soil boring logs shall be shown on the appropriate cross-sections.
- f. Preliminary results of the drainage analysis of the outfalls indicating the probable extent of any downstream improvements required. (Include plan and profile of outfalls)
- g. The geotechnical report giving the results of the exploratory borings and providing recommendations for earthwork, culvert, and paving construction.
- h. A list of all permits which will be necessary to construct the project.
- i. Preliminary Opinion of Construction Cost.
- j. Existing right-of-way Control Maps (updated to include all additions to the project limits).

2. Rights-of-Way:

Two (2) sets of updated plans showing existing rights-of-way and easements including adjacent property boundaries and ownerships shall be submitted with the 30% submittal. Two sets of corrected, signed & sealed existing right-of-way maps shall be furnished within 30 days after receipt of comments from the 30% review.

For the 60% submittal, the right-of-way control survey maps shall be annotated to identify all parcels to be acquired for rights-of-way and drainage easements necessary to accomplish the proposed construction, as well as one original set of corresponding legal descriptions and sketches of each parcel to be acquired (one for each parcel) prepared in accordance with Minimum Technical Standards by a Professional Land Surveyor registered in Florida. In addition, one (1) reproducible of an index sheet listing all parcels shall be furnished.

Final right-of-way requirements will be established upon receipt of comments from review of the 60% submittal. Final right-of-way sketches and legal descriptions will be delivered within 60 days after receipt of the 60% review comments. Sketches and legal descriptions of off-site mitigation areas are not included in this schedule but will be due at 100% completion date.

3. Utility Coordination: During this work, the Consultant will be expected to furnish up-to-date drawings at the earliest possible time to assist utilities in locating their facilities for the purpose of resolving conflicts with the construction.
4. Final Design: Up to fourteen (14) sets of half-size (11" x 17") drawings and up to Eight (8) sets of full size (24" x 26") drawings shall be furnished to addressees stipulated by the Project Manager at the 30%, 60%, 90% and 100% completion points. These drawings will be marked-up by the agencies involved and returned for inclusion in follow-on design work. Each agency's mark-up shall be returned with the next design submittal, showing the Consultant's response to each agency comment.

At the 60% completion point, the plans shall include the following items, as a minimum, in addition to the preliminary design:

- a. Location map with begin/end and equation stations, limits of construction, north arrow and scale.
 - b. Drainage map(s) and drainage structures showing stationing, final profile and ditch grades, type and placement of drainage structures.
 - c. Plan and profile sheets showing all geometric data (radii, offsets, widths, centerline of construction, etc.) And complete stationing.
 - d. Complete cross sections with existing and proposed rights-of-way and easements shown, template shown on all sections.
 - e. Ten (10) sets of draft specifications, to include the bidding documents (typed, double spaced) for the Contract shall be furnished to the Project Manager at the 90% and 100% points for review comments. The specifications shall include the County's Standard Contract Documents with the individual sections modified as necessary for the project. Format, pagination and division shall conform to the County Standard Specifications in these aspects.
 - f. Following acceptance of the 100% completion set, up to twenty (25) sets of full size drawings and ten (10) sets of half-size (11" x 17") drawings and twenty-one (25) sets of specifications for construction shall be furnished to the Project Manager for bidding, bound and ready for distribution. The County will advertise, receive and open bids, and write and award the construction contract(s).
5. Estimates: Budget estimates for the anticipated cost of construction will be furnished at the 30%, 60% and 90% completion points, with two copies to the Project Manager. At the 100% completion point, a final engineering estimate will be furnished to the Project Manager, using the bidding documents incorporated in the specifications.
 6. Design Reviews: The Consultant, when submitting drawings at the 30%, 60%, 90% and 100% completion points, will allow up to three (3) weeks review time for each submittal and, if requested, will attend and prepare meeting minutes of a review conference at the

end of the period to discuss the agency comments. In addition, if directed by the Project Manager, a complete review will be held at the project site. Any changes, refinements, or modifications developed in each review shall be incorporated into the design or otherwise disposed of before proceeding to follow-on design work. Each agency's markup shall be returned with the next follow-on submittal, showing the Consultant's response to the agency comments.

7. As Built Drawings: If the County elects to have the Consultant administer the construction contract, the Consultant will provide reproducible Mylar as-built drawings at the end of construction. A duplicate set of the original drawings may be used for this. The original design data may be lined out or redrawn and the as-built data shown using a lettering style which call out the changes. Each drawing shall be marked "As-Built" in one (1) inch high letters.

E. Permitting Requirements:

1. With the Preliminary Design stage submittal (30%), the Consultant shall provide the County with a list of all permits which will need to be acquired to construct the project.
2. The Consultant shall take minutes and/or notes of all meetings with the permitting agencies. These notes shall be transcribed and furnished to the Project Manager within ten (10) calendar days of the meeting.
3. The Consultant shall keep a log of permit activities performed by his firm and subconsultants for review by the County.
4. The Consultant shall prepare all required applications for permits and supporting documentation and furnish to the Project Manager for signatures. The Project Manager will obtain the necessary signatures and return them to the Consultant for submittal to the permitting agencies.
5. The Consultant shall perform the services needed to request, diligently pursue, acquire and furnish to the County permit applications required for construction of the project. Permit application fees for all permits will be paid by the County. Such services shall include, but not be limited to, responding to Requests for Additional Information, modification to Permit Application and documents, and review of design drawings to meet permit conditions. Unless otherwise provided in the Agreement between the County and Consultant, all the Consultant's services, except those services associated with off-site mitigation requirements, that are required (on the date of the Consultant's Contract) in acquiring and furnishing permits, are included in the lump sum fee for final design. Services relating to off-site mitigation will be reimbursed out of the not-to-exceed fees for Mitigation Services.

Should modifications of the permits or Requests for Additional Information be required for reasons beyond the Consultant's control, a fee for the modification or services will be negotiated at that time if the services are required by the County. Permit applications that will be required for this project include, but are not limited to, the following:

- a. SJRWMD Environmental Resource Permit
- b. Corps of Engineers Wetland Resource Permit
- c. NPDES Construction Permit (Notice of Intent)

F. Additional Requirements:

1. Provide dialogue with Road and Bridge, Traffic Operations Division, and Engineering Division pertinent to all phases.
2. Provide dialogue with all affected utility companies as appropriate.
3. Plans shall be standard 24" x 36" Mylar or CADD Vellum sheers with 21" x 32" inside borders to facilitate half-size printing which is acceptable at the 30%, 60%, 90% and 100% submittals. Additionally, the Consultant shall submit all drawings in electronic form using a standard .dxf or .dwg format.
4. Specifications shall be on standard 8-1/2" x 11" paper.
5. The County shall be the Owner of the final documents.
6. The Consultant shall take notes of all design/review meetings held with County agencies. These notes shall be transcribed and furnished to the Project Manager for concurrence as soon as practical after the date of the meeting.
7. The Consultant shall assist the County concerning interpretation of the intent of the contract documents during the bidding/negotiation period by answering bidder inquiries and preparing required addenda.
8. The Consultant shall assist the County concerning interpretation of the intent of the contract documents during the construction phase, should the County elect not to retain the Consultant for Contract Administration Services. It is intended that this work will only be required when the County's Contract Administration and Roadway Design personnel are unable to answer questions regarding the plans and specifications.

III. TIME SCHEDULE

- A. 30% Review submittal 90 days from date of Notice to Proceed.
- B. 60% Review submittal 60 days from the 30% submittal date.
- C. 90% Review submittal 60 days from the 60% submittal date.
- D. 100% Review submittal 30 days from the 90% submittal date.
- E. It is anticipated that all permits will be acquired during the design process.
- F. The total time allowed for the active design and permitting of this project shall be 8 months.

IV. NOTICE TO PROCEED

No work on this project shall be performed until a contract has been executed and a Notice to Proceed is issued which specifically authorizes such work.

PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST
Race Track Road - 2.3 MILES

England-Thims & Miller, Inc.
 12-Apr-99

East JCP Limit to 0.2 miles East of
 Bishop Estates to
 East JCP Limit Russell Sampson Road
 1.6 miles
 0.7 miles

Item Description	Estimated Quantity	Unit	Unit Cost	Total Cost	Proportionate Share	
					1.6 miles	0.7 miles
General Conditions	12	MO	\$3,000.00	\$36,000.00	\$25,043.48	\$10,956.52
Mobilization	1	LS	\$100,000.00	\$100,000.00	\$69,565.22	\$30,434.78
Sub-total				\$136,000.00	\$94,608.70	\$41,391.30
SITE PREPARATION						
Cleaning and Grubbing	55.75	AC	\$4,500.00	\$250,875.00	\$174,521.74	\$76,353.26
Maintenance of Traffic	12	MO	\$7,500.00	\$90,000.00	\$62,608.70	\$27,391.30
Sub-total				\$340,875.00	\$237,130.43	\$103,744.57
EARTHWORK						
Earthwork	1	LS	\$350,000.00	\$350,000.00	\$243,478.26	\$106,521.74
Sub-total				\$350,000.00	\$243,478.26	\$106,521.74
PAVEMENT						
2" Asphalt Concrete	71,000	SY	\$3.41	\$242,110.00	\$168,424.35	\$73,685.65
8" Limerock Base	71,000	SY	\$6.94	\$492,740.00	\$342,775.65	\$149,964.35
12" Compacted Sub-base	269,000	SY	\$1.20	\$322,800.00	\$224,556.52	\$98,243.48
Concrete Curb & Gutter	25,000	LF	\$6.11	\$152,750.00	\$106,260.87	\$46,489.13
Concrete Sidewalk	12,500	SY	\$14.72	\$184,000.00	JCP Funded	\$56,000.00
Sub-total				\$1,266,400.00	\$842,017.39	\$424,382.61
STORM DRAINAGE						
Drainage Structures	15	LF	\$2,500.00	\$37,500.00	\$26,086.96	\$11,413.04
Concrete Culvert	1	LS	\$250,000.00	\$250,000.00	\$173,913.04	\$76,086.96
Concrete Pipe	1,500	LF	\$35.00	\$52,500.00	\$36,521.74	\$15,978.26
Underdrain	5000	LF	\$12.50	\$62,500.00	\$43,478.26	\$19,021.74
Sub-total				\$402,500.00	\$280,000.00	\$122,500.00
Grassing						
Sodding	27000	SY	\$1.50	\$40,500.00	\$28,173.91	\$12,326.09
Seed and Mulching	167317	SY	\$0.25	\$41,829.25	\$29,098.61	\$12,730.64
Sub-total				\$40,500.00	\$28,173.91	\$12,326.09
SIGNING AND PAVEMENT MARKING						
Reflective Pavement Markers	2000	EA	\$3.75	\$7,500.00	\$5,217.39	\$2,282.61
Sign Panel -F&I	20	EA	\$270.00	\$5,400.00	\$3,756.52	\$1,643.48
Solid Traffic Stripe	50,000	LF	\$0.17	\$8,500.00	\$5,913.04	\$2,586.96
Skip Traffic Stripe	25,000	LF	\$0.44	\$11,000.00	\$7,652.17	\$3,347.83
Sub-total				\$32,400.00	\$22,539.13	\$9,860.87
Erosion & Sediment Control						
Erosion & Sediment Control	1	LS	\$20,000.00	\$20,000.00	\$13,913.04	\$6,086.96
Stormwater Pollution Prevention	1	LS	\$5,000.00	\$5,000.00	\$3,478.26	\$1,521.74
Baled Hay or Straw	200	EA	\$8.34	\$1,668.00	\$1,160.35	\$507.65
Staked Silt Fence	10,000	LF	\$0.79	\$7,900.00	\$5,495.65	\$2,404.35
Turbidity Barrier	100	LF	\$7.23	\$723.00	\$502.96	\$220.04
Sub-total				\$35,291.00	\$24,550.26	\$10,740.74
As-Builts						
As-Builts	1	LS	\$15,000.00	\$15,000.00	\$10,434.78	\$4,565.22
Sub-total				\$15,000.00	\$10,434.78	\$4,565.22
Right-of-Way / Mitigation						
Mitigation	1	AC	\$12,000.00	\$12,000.00	\$8,347.83	\$3,652.17
Right-of-Way	13.43	AC	\$60,000.00	\$805,800.00	\$129,000.00	\$676,800.00
Sub-total				\$805,800.00	\$129,000.00	\$676,800.00
Subtotal				\$3,424,066.00	\$1,911,932.87	\$1,512,833.13
Construction Bond (3/4%)				\$25,685.75	\$14,339.50	\$11,346.25
Contingency (15%)				\$513,714.90	\$286,789.93	\$226,924.97
Total				\$3,964,466.65	\$2,213,062.30	\$1,751,104.35

Pre-Design Estimate
 Does not include: Design Services