

Meeting Date
July 21, 2015



AGENDA	
Section	Consent
Item No.	II.A.5

AGENDA REPORT
BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

SUBJECT:	Approval Re: Work Order #2012-1864-G-022 Construction Materials Testing and Inspection Services for the Barnes Boulevard Widening Project – District 4
DEPT/OFFICE:	Public Works Department – Finance and Contracts Administration

Requested Action:

It is requested that the Board of County Commissioners approve Work Order #2012-1864-G-022 Construction Materials Testing and Inspection Services with Ardaman & Associates, Inc. for the Barnes Boulevard Widening Project estimated at \$342,551.00.

Summary Explanation & Background:

In accordance with Board direction, staff has completed the coordination of engineering design, permitting, and right-of-way acquisition for the Barnes Boulevard Widening Project. As the project progresses in the construction phase, it is necessary to conduct materials testing and inspection services. This service will be completed utilizing the services of Ardaman & Associates, Inc. per the existing Professional Services Agreement with Brevard County approved by the Board on January 25, 2012 and executed on September 27, 2012. The acquisition of consultant professional services was obtained in conformance with Board Policy BCC-26.

Approval of Work Order #2012-1864-G-022 will provide authorization for Ardaman & Associates, Inc. to conduct materials testing and inspection services during the construction phase in the amount up to \$342,551.00 which is based on estimated quantities and corresponding individual unit prices conforming to the Professional Services Agreement. The \$342,551.00 amount proposed by Ardaman & Associates, Inc. is less than the budgeted amount for this purpose. It is also approximately only 2% of the project construction bid amount of \$21,199,943.69. This 2% is significantly lower than the customary compensation for such services based on generally accepted construction industry standards.

The construction phase is anticipated to last through April 2017. Approval of Work Order #2012-1864-G-022 estimated at \$342,551.00 for materials testing and inspection services is necessary to the construction phase of the Barnes Boulevard Widening Project. Per Administrative Order AO-29 section VI.A.1, Board approval is required for work order amounts \$100,000.00 or greater.

Fiscal Impact: FY 2014/2015/2016

Estimated at \$342,551.00 Funding is available in Business Area 1224 Cost Center 270420.

Clerk to the Board Instructions: Forward Board memorandum to Department.

Exhibits Attached: Proposal Construction Materials Testing and Inspection

Contract /Agreement (If attached):		Reviewed by County Attorney	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	PR	<input type="checkbox"/>
County Manager		Assistant County Manager			Department Director / Extension			
Stockton Whitten		Assistant County Manager			John P. Denninghoff / 57202			



Tammy Etheridge, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001
Fax: (321) 264-6972

July 22, 2015

MEMORANDUM

TO: John Denninghoff, Public Works Director

RE: Item II.A.5., Approval of Work Order #2012-1864-G-022 Construction Materials Testing and Inspection Services for Barnes Boulevard Widening Project

The Board of County Commissioners, in regular session on July 21, 2015, approved Work Order #2012-1864-G-022 Construction Materials Testing and Inspection Services with Ardaman & Associates, Inc. for the Barnes Boulevard Widening Project estimated at \$342,551.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
SCOTT ELLIS, CLERK

Tammy Etheridge

Tammy Etheridge, Deputy Clerk

/ds

cc: Contracts Administration
Finance
Budget



Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

May 9, 2014
File No. 1421-059
Revised July 6, 2015

Brevard County Public Works Department
2725 Judge Fran Jamieson Way, Bldg. A, Suite 20
Viera, Florida 32940

Attention: Ms. Tammy Thomas-Wood

Subject: Budget Estimate for Construction Materials Testing and Inspection
Barnes Boulevard Improvements from
Fiske Boulevard to Murrell Road
Brevard County, Florida

Dear Ms. Thomas-Wood:

Ardaman & Associates, Inc. is pleased to present this budget estimate to provide construction materials testing services on the above referenced project. It is our understanding that the proposed project will include installation of stormwater reinforced concrete pipe (RCP), box culverts, and miscellaneous drainage structures along the north and south sides of Barnes Boulevard throughout the project area. In addition, new pavement lanes (widening to 4 to 6 lanes) will be constructed and new concrete sidewalks will be constructed on both sides of the road throughout the project area. Additional improvements proposed for the project include new curbs, median areas, and drilled shafts at several intersections to support signal poles.

In general the scope of our work will include performing laboratory testing of existing soils (Proctors, Limerock Bearing Ratio, etc.); in-place density testing of soils during backfill, fill and compaction operations; asphaltic concrete testing; and compressive strength testing of concrete. As requested, we will maintain a written density log book (hard copy) within the on-site office trailer. We have also included provisions for inspecting the installation of the drilled shaft foundations and for asphalt plant inspection. We have assumed that we will provide the testing **services on a "will call" basis. That is, we will respond to specific requests for testing made by your designated representative.**

Based on the progress of this project to date, we estimate a cost of **\$342,551.00** for construction materials testing. A summary of our testing estimate is attached. We believe that we have proposed an adequate budget to provide the needed services. However, the total cost of the testing services will be a function of the actual quantities of work performed in accordance with the fee schedule in our contract with Brevard County. Any testing not identified on the attached scope of work that is required for the project will be charged according to the unit rates presented in the above referenced fee schedule.

We appreciate the opportunity to submit this estimate and look forward to working with you on this project. If this estimate meets your approval, please indicate your acceptance by issuing a work order. Please call if you have any questions or require additional information.

Respectfully,
ARDAMAN & ASSOCIATES, INC.

Jason P. Manning, P.E.
Branch Manager

Attachment: Materials Testing Budget Estimate

1300 N. Cocoa Boulevard, Cocoa, FL 32922 Phone (321) 632-2503 FAX (321) 636-4657

Louisiana: Alexandria, Baton Rouge, Monroe, New Orleans, Shreveport

Florida: Bartow, Cocoa, Fort Myers, Miami, Orlando, Port Charlotte, Port St. Lucie, Sarasota, Tallahassee, Tampa, West Palm Beach

Budget Estimate
Construction Materials Testing Services
Barnes Boulevard Improvements
Brevard County, Florida

	TASK	QUANTITY	UNITS	UNIT COST	TOTAL COST
I.	BARNES BLVD IMPROVEMENTS				
A.	<u>Subgrade, Fill, and Backfill In-Place Density Tests</u>				
	Sidewalk Density Tests	160	each	\$26.00	\$4,160.00
	Stormwater Pipe and Structure Density Tests	4,010	each	\$26.00	\$104,260.00
	Box Culvert Density Tests	500	each	\$26.00	\$13,000.00
	Curb and Misc. Structures Density Tests	200	each	\$26.00	\$5,200.00
	Pond Limerock Corewall Density Tests	19	each	\$26.00	\$494.00
	Laboratory Proctor Test	35	each	\$84.00	\$2,940.00
	Percent Fines, Atterberg Limits, Organic Content, Moisture Content	91	each	\$184.00	\$16,744.00
B.	<u>Cast In-Place Concrete</u>				
	Concrete Test Cylinders (up to 5 cylinders/set)	190	sets	\$81.00	\$15,390.00
	Slump Tests	190	each	\$17.00	\$3,230.00
C.	<u>Roadway Subgrade & Pavement Testing, Plant Inspection</u>				
	10-inch sanitary sewer and manhole backfill densities	185	each	\$26.00	\$4,810.00
	Roadway Subgrade and Fill Density Testing	1,050	each	\$26.00	\$27,300.00
	Roadway Stabilized Subgrade and Base Density Tests	850	each	\$26.00	\$22,100.00
	Limerock Bearing Ratio Test	40	each	\$263.00	\$10,520.00
	Laboratory Proctor Tests	16	each	\$84.00	\$1,344.00
	Extraction/Gradation Tests - SP Mix (field samples)	68	each	\$210.00	\$14,280.00
	Asphalt Cores	40	each	\$48.00	\$1,920.00
	CTQP Plant Inspector (34 days of paving assumed)	340	hours	\$62.00	\$21,080.00
	Extraction/Gradation Tests - SP Mix (plant samples)	68	each	\$210.00	\$14,280.00
	Misc. Inspection - Full Time Testing Technician On-Site	30	hours	\$48.00	\$1,440.00
	Project Engineer (coordination and reporting for plant work)	26	hours	\$103.00	\$2,678.00
	Technical Secretary	10	hours	\$48.00	\$480.00
D.	<u>Drilled Shaft Inspection & Testing (14 Shafts)</u>				
	CTQP Technician	150	hours	\$68.00	\$10,200.00
	Concrete Test Cylinders (up to 5 cylinders/set)	20	sets	\$81.00	\$1,620.00
	Slump Tests	20	each	\$17.00	\$340.00
	Air Content Tests	20	each	\$17.00	\$340.00
	Project Engineer	10	hours	\$103.00	\$1,030.00
	Technical Secretary	5	hours	\$48.00	\$240.00
E.	<u>Density Log Book</u>				
	Full Time Testing Technician On-Site	380	hours	\$48.00	\$18,240.00
	Project Engineer (Includes Meetings Requested by County)	49	hours	\$103.00	\$5,047.00
II.	NEW WATER PIPELINES (CITY OF COCOA)				
	In-Place Density Testing for Pipeline and Structures	280	each	\$26.00	\$7,280.00
	Laboratory Proctor Tests	5	each	\$84.00	\$420.00
III.	NEW SEWER AND REUSE PIPELINES (CITY OF ROCKLEDGE)				
	In-Place Density Tests for Pipeline and Structures	374	each	\$26.00	\$9,724.00
	Laboratory Proctor Tests	5	each	\$84.00	\$420.00
ESTIMATED TOTAL COST					\$342,551.00

Notes:

- 1 Cancellation of work without notice will be invoiced at the technician's hourly rate.
- 2 The final cost may be higher or lower than the estimated cost due to the actual quantity of units requested.
- 3 Any testing required but not included above will be billed in accordance with the fee schedule in our Brevard County contract.
- 4 Ardaman & Associates cannot be held responsible for testing that is not scheduled at least 24 hour in advance.