



Item No. 166

LAUDERDALE • BY • THE • SEA

Agenda Item Memorandum

Capital Fund

Department

Bill Cole

Project Manager

COMMISSION MEETING DATE - 7:00 PM	Deadline to Town Clerk
<input checked="" type="checkbox"/> Aug 21 - Regular Meeting 7:00 PM	Aug 15

**Subject to Change*

- Presentation Reports Consent Ordinance
- Resolution Quasi-Judicial Old Business New Business

FY2012 DESIGNATED HIGH PRIORITY ITEM - PRIORITY
TOPIC: Bougainvilla Drainage & Streetscape Project

SUBJECT TITLE: Bougainvilla Drainage & Streetscape Project- Approval of Construction Work Authorization

EXPLANATION: The engineering design has been completed for the drainage system and street renovation for this project. Flynn Engineering estimated the cost of the project at \$625,000 including a \$104,000 contingency. The Town's general continuing construction contractor (E&M Equipment Corp.) has reviewed the plans and specifications. Based on E&M's contract prices and the quantity of work involved, the price to construct the project (excluding landscaping) is \$549,773 including a \$63,000 contingency allowance for change orders. We do not yet have a specific price for the stamped asphalt at the intersection of Bougainvilla and Washingtonia. E&M is getting prices from qualified subcontractors for that work but, since Flynn's estimate for this item is \$10,000.00, the cost can easily be covered by a change order within the project's contingency allowance.

The landscaping portion of the project will be bid and contracted separately, but E&M will prepare the islands for landscape installation including the concrete curbs as part of their work authorization. Flynn estimated the landscaping will cost \$26,000. We included \$625,000 for construction of this project in the proposed budget so there are ample funds to complete the project.

Members of the Commission inquired about the additional cost to have the swales replaced by a colored, stamped asphalt treatment rather than plain black asphalt. The engineer's estimate is this



would cost an additional \$62,500. If we keep the project budgeted at \$625,000 there are funds to do that. A photoshopped image will be available for viewing and discussion at the commission meeting.

Commissioner Brown also inquired about the option of using concrete paving instead of asphalt. A comparison of the costs between the two treatments has been made using the unit rates from the contract with E&M and maintenance estimates. This information has been summarized in a memo attached for your use and information. We do not recommend concrete for this project for two reasons. It appears there is no long term cost benefit and concrete requires a much higher initial cost.

EXPECTED OUTCOME: Staff seeks direction on whether the Commission wishes to revise the project to include stamped asphalt on the swales. If the Commission wishes to go that route, it will be brought back as a change order once it is priced.

RECOMMENDATION: It is advisable to start construction on this project as soon as possible both to alleviate flooding and so that it can be completed before high season begins. Staff seeks approval of a Work Authorization to E&M Equipment Corp. in the amount of \$549,773.02 for the civil improvements – drainage and roadway treatments – on Bougainvillea Drive between Town Hall and Pine Avenue.

SOURCE OF FUNDS: Account 300.559.015.500.630 - Bougainvillea Drainage Project

EXHIBITS: #1 Schedule of values for each category of work
#2 Paving Cost Comparison Memo
#3 Work Authorization to E&M



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Reviewed by Town Attorney

Yes No

Handwritten initials, possibly "CM", in a cursive style.

Town Manager Initials

July 29, 2012



E and M Equipment Corp
3450 West 84th Street, Suite 202B
Hialeah, FL 33018

GEN CONTINUING CONST CONTRACT
Town of Lauderdale-By-The-Sea
Bouganville Project WO # 1

					\$549,773.02	
ITEM No.	DESCRIPTION	QUANTITY	UNIT	SALE UNIT PRICE	TOTAL	
GENERAL ITEMS						
GC-1	SITE MOBILIZATION	1.00	LS	2,121.82	2,121.82	
GC-2	MAINTENANCE OF TRAFFIC	1.00	LS	4,243.64	4,243.64	
GC-3	AS-BUILT RECORD DRAWINGS	1380.00	LF	4.80	6,624.00	
GC-4	NPDES PERMIT/EROSION CONTROL	1.00	LS	636.55	636.55	
GC-5	PRE-CONSTRUCTION VIDEO TAPING	1380.00	LF	0.48	662.40	
GENERAL REQUIREMENTS SUB TOTAL					\$	14,288.41
DEMOLITION						
DM-1	REMOVE AND DISPOSE OF EXISTING ASPHALT PAVEMENT	3508.00	SY	4.80	16,838.40	
DM-2	REMOVE AND DISPOSE OF EXISTING CONCRETE SIDEWALK	1673.00	SY	3.60	6,022.80	
DM-3	REMOVE AND DISPOSE OF EXISTING SIGN	4.00	LF	250.00	1,000.00	
DM-4	REMOVE AND DISPOSE OF EXISTING DRAINAGE STRUCTURE	25.00	EA	216.00	5,400.00	
DM-5	REMOVE AND DISPOSE OF EXISTING DRAINAGE PIPE	1000.00	LF	4.20	4,200.00	
DEMOLITION SUB TOTAL					\$	33,461.20
DRAINAGE						
D-1	F & I TYPE C DRAINAGE INLET	35.00	EA	1,543.15	54,010.25	
D-3	F & I 4' ROUND DRAINAGE MANHOLE	4.00	EA	2,033.64	8,134.56	
D-4	F & I DRAINAGE PIPE 15" RCP DRAINAGE PIPE	1550.00	LF	36.36	56,358.00	
D-5	F & I DRAINAGE PIPE 18" RCP SLOTTED W/ 4' X 4' EXFIL TRENCH DRAINAGE PIPE	714.00	LF	84.00	59,976.00	
D-6	F & I BAFFLE BOXES	20.00	EA	282.00	5,640.00	
DRAINAGE SUB TOTAL					\$	184,118.81
ROADWAY						
R-1	FURNISH AND PLACE 1 1/4" ASPHALT TYPE S-1	3527.00	SY	9.48	33,435.96	
R-2	FURNISH AND PLACE 3/4" ASPHALT TYPE S-III	3527.00	SY	6.20	21,749.80	
R-3	FURNISH AND COMPACTION 8" LIMEROCK BASE	3527.00	SY	9.40	32,975.20	
R-4	FURNISH AND COMPACTION OF SUBGRADE (12" AVERAGE)	3527.00	SY	4.80	16,929.60	
R-5	MILL AND RESURFACE ROADWAY (1 INCH DEPTH)	2691.00	SY	10.20	27,448.20	
R-6	STAMPED ASPHALT PATTERN AND COLOR	263.00	SY	-	-	
R-7	ASPHALT PAVEMENT RESTORATION (TRENCH REPAIR ONLY)	176.00	LF	16.80	2,956.80	
R-8	F & I CONCRETE CURB & GUTTER	240.00	LF	13.98	3,355.20	
R-9	TYPE D CURB	707.00	LF	13.98	9,883.86	
R-10	CONCRETE SIDEWALK (6" THICK)	1661.00	SY	34.50	57,304.50	
R-11	ASPHALT PAVEMENT RESTORATION(1' STRIP BEHIND SIDEWALK)	205.00	SY	16.80	3,444.00	
ROADWAY SUB TOTAL					\$	209,482.92
STRIPING						
S-1	THERMOPLASTIC WHITE SOLID 6"	3150.00	LF	0.66	2,079.00	
S-2	THERMOPLASTIC WHITE SOLID 12" (CROSSWALK)	244.00	LF	2.40	585.60	
S-3	THERMOPLASTIC YELLOW (10' -30' SKIP) 6"	1020.00	LF	0.66	673.20	
S-4	THERMOPLASTIC YELLOW SOLID 6"	960.00	LF	0.66	633.60	
S-5	RPMS	5.00	EA	4.80	24.00	
STRIPING SUB TOTAL					\$	3,995.40
GRAVITY SANITARY SEWER						

SS-1	REPLACE EXISTING SANITARY SEWER LATERAL (UP TO 25 FEET IN LENGTH)	12.00	EA	2,444.57	29,334.82
GRAVITY SANITARY SEWER SUB TOTAL				\$	29,334.82
SWALE GRADING					
L-1	RE-GRADE EXISTING SWALE	2708.00	SY	3.60	9,748.80
SWALE GRADING SUB TOTAL				\$	9,748.80
WATER SYSTEM ITEMS					
W-1	RELOCATE EXIST FIRE HYDRANT	1.00	EA	758.40	758.40
WATER SYSTEM SUB TOTAL				\$	758.40
ALLOWANCES					
A-1	PERMIT FEE ALLOWANCE	1.00	EA	1,320.00	1,320.00
A-2	CONTINGENCY ALLOWANCE - WORK OR QUANTITIES NOT INCLUDED IN BID SCHEDULE	1.00	EA	63,264.26	63,264.26
MISCELLANEOUS SUB TOTAL				\$	64,584.26
GRAND TOTAL BASE BID ITEMS				\$	549,773.02

Memo

To: Connie Hoffmann
From: Bill Cole
Date: 8/16/2012
Re: Paving Cost Comparison

Message

Commissioner Brown asked about the option of using concrete paving on the swales instead of asphalt. Based on our most recent bids (i.e. the E&M Contract) the comparison is as follows:

Installation and maintenance costs for concrete and asphalt paving (per square yard):

Concrete paving, 6 inches thick	\$35.10
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Compacted subgrade, 12 inches thick	<u>\$4.80</u>
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Total	\$39.90
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Maintenance (negligible)	0
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Asphalt paving, first layer	\$9.48
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Asphalt paving, second layer	\$6.20
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Limerock base, 8 inches thick	\$9.40
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Compacted subgrade, 12 inches thick	<u>\$4.80</u>
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Total	\$29.88
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Maintenance, mill & resurface	\$10.20 (may be required after 15 years more or less)
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Total including maintenance	\$40.08
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As noted above asphalt paving is considerably less expensive to install than concrete. Only after maintenance costs are added (*which might not apply*) does the cost equal that of concrete.

Concrete is more durable than asphalt but its higher cost precludes its use in most instances. Exceptions include airport runways and industrial sites with heavy truck traffic.

*asphalt roads are resurfaced, but parking areas are usually resealed rather than resurfaced

**TOWN OF LAUDERDALE BY-THE-SEA
WORK AUTHORIZATION FOR PROFESSIONAL SERVICES**

Contractor: E&M Equipment Corp.

Address: 3450 West 84th Street, Suite 202B, Hialeah, Florida 33018

Contract No. AG-2012-08

Agreement Description: Continuing Construction Services Contract for Professional Services for Municipal Construction, Repair & Maintenance Projects

Work Authorization No.: 3

Effective Date August 22, 2012

P.O. # For Work Authorization:

Account #: 300.559.015.500.630

Brief Task Description: Provide civil improvements (drainage and roadway) with associated restoration along Bougainvillea Drive between Town Hall and Pine Avenue including a portion of Washingtonia near the intersection with Bougainvillea.

In accordance with the above referenced agreement, you are authorized to perform the tasks detailed in attached Exhibit A (Scope of Services). All required services will be completed on or before

The total amount or the limiting amount of the compensation will be: \$549,773.02 unless additional services are authorized by the Town in writing.

Compensation elements are as follows:

	Method of Compensation (Lump Sum, Hourly NTE)	Amount (\$)	Project Code
Task # 1 General Requirements	Lump Sum	\$14,288.41	
Task # 2 Demolition	Lump Sum	\$33,461.20	
Task # 3 Drainage	Lump Sum	\$184,118.81	
Task # 4 Roadway	Lump Sum	\$209,482.92	
Task # 5 Striping	Lump Sum	\$3,995.40	
Task #6 Gravity Sanitary Sewer	Lump Sum	\$29,334.82	
Task #7 Swale Grading	Lump Sum	\$9,748.80	
Task #8 Water Systems	Lump Sum	\$758.40	
Allowances	Lump Sum	\$64,584.26	
Total		\$549,773.02	

This Work Authorization is subject to the same terms and conditions of the Continuing Professional Services Contract dated 3/26/12

Please acknowledge receipt of, and agreement with, this Work Authorization by signing and dating and returning three (3) original signed copies to the Town Manager. The Town will send you one fully executed copy.

Town of Lauderdale by-the-Sea Approval:

Constance Hoffmann, Town Manager

_____ (Signature)

_____ (Date)

June White, Town Clerk

_____ (Signature)

_____ (Date)

If over \$15,000, date this work was approved by the Town Commission on: August 21, 2012

Contractor Acceptance:

Contractor Name: Edrey Rodriguez

_____ (Signature)

_____ (Date)

Title: President

Exhibit A

Name of Project

SUPPLY AND INSTALL ALL MATERIALS AND LABOR NECESSARY TO CONSTRUCT CIVIL IMPROVEMENTS TO A SECTION OF BOUGAINVILLE DRIVE IN THE TOWN OF LAUDERDALE-BY-THE-SEA

Scope of Services

GENERAL DESCRIPTION

Flynn Engineering has completed documents which describe the construction of an exfiltration system designed to handle a 10 year storm rainfall event. The sidewalks will be removed and replaced as part of the project. In addition the road surface of Bougainvillea will be milled and repaved. Twenty six islands of varying sizes and locations will be constructed in the swale for landscape materials. Installation of landscape materials will be under a separate contract.

The specific boundaries for the project are North Bougainvillea Drive from Pine Avenue to the northern edge of the Town owned property on the east side of the roadway.

CONSTRUCTION DOCUMENTS

C1.1	DEMOLITION PLAN	7/23/12
C1.2	DEMOLITION PLAN	7/23/12
C1.3	DEMOLITION PLAN	7/23/12
C2.1	PAVEMENT MARKING AND SIGNAGE PLAN	7/23/12
C2.2	PAVEMENT MARKING AND SIGNAGE PLAN	7/23/12
C2.3	PAVEMENT MARKING AND SIGNAGE PLAN	7/23/12
C3.1	PAVING, GRADING AND DRAINAGE PLAN	7/23/12
C3.2	PAVING, GRADING AND DRAINAGE PLAN	7/30/12
C3.3	PAVING, GRADING AND DRAINAGE PLAN	7/23/12
C4.0	PAVING, GRADING AND DRAINAGE DETAILS	7/23/12
C5.0	GENERAL NOTES & SPECIFICATIONS	7/20/12

COMPENSATION

Compensation for this project shall be quoted on a total, not-to-exceed sum and shall include the cost of all services, deliverables and installations listed above. The total cost shall also be broken down into segments for each of the previously-described nine (9) tasks of this Work Authorization.