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To: Honorable Mayor and Village Council

Date: October 17, 2016

From: Edward Silva, Village Manager

Re: Acceptance of a South Florida  
Water Management District  
(SFWMD) Grant

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**A RESOLUTION OF THE MAYOR AND VILLAGE COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, RELATING TO GRANTS; AUTHORIZING THE VILLAGE MANAGER TO EXECUTE AN AGREEMENT WITH SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD) ACCEPTING A GRANT IN THE AMOUNT OF \$125,000 FOR THE PURPOSE OF MAKING STORMWATER IMPROVEMENTS WITHIN THE VILLAGE OF PALMETTO BAY; AND PROVIDING FOR AN EFFECTIVE DATE. (Sponsored by Administration)**

**BACKGROUND AND ANALYSIS:**

South Florida Water Management District has granted the Village of Palmetto Bay funding in the amount of \$125,000 for use commencing in Fiscal Year 2016-2017, to provide the necessary financial assistance required for construction of Sub-Basin 59/60 Drainage Improvements.

The updated Stormwater Master Plan established by the Village of Palmetto Bay prioritized ten (10) sub-basin locations in need of drainage improvements. The various sub-basins are located within boundaries of the Village of Palmetto Bay between SW 136<sup>th</sup> Street and SW 184<sup>th</sup> Street, between US-1 and Biscayne Bay. Sub-Basin 59/60 is the number one (1) priority capital improvement project proposed for drainage improvements based on the data and hydrologic/hydraulic modeling contained in the updated Stormwater Master Plan. The proposed drainage improvements will address drainage deficiencies, improve the quality of water and mitigate environmental hazards associated with stormwater runoff by reducing the loading pollutants into Biscayne Bay which is considered a "priority" surface water body.

Sub-Basin 59/60 is generally located in the area of SW 82nd Avenue from NW 152nd Street to SW 160th Street and a localized improvement at the intersection of SW 160th Street and SW 81<sup>st</sup> Avenue and consists of approximately 40.97 acres of existing detached single-family residential development with approximately 7,520 linear feet of roadway, including SW 82nd Avenue, SW 81st Avenue, SW 155th Street, SW 156th Street, SW 158th Terrace, and SW 160th Street. Severe flooding complaints on SW 82nd Avenue and localized flooding on SW 160th Street west of SW 80th Avenue have been reported to the Village.

Planning, drainage design, construction plans and permitting of Sub-Basin No. 59/60 were completed by Kimley-Horn and Associates in FY 2015-16. The estimated cost for construction of Basin 59/60 stormwater improvements is estimated to cost \$966,000 (Opinion of Probable Cost from Kimley-Horn is attached as Exhibit A). Given that the Village of Palmetto Bay considers these areas to be of high priority, we have agreed to partner with SFWMD by providing a cost share of \$841,000, which exceeds the requirement of a 60% match. With this partnership in place, a total of \$966,000 will be available for 100% completion of construction activities per design plans, project specifications, and applicable permits of this shovel ready stormwater project by the deadline date of February 28, 2018. The total grant period is expected to be two (2) years, with the Village of Palmetto Bay contributions scheduled to take place within the two (2) year timeline.

The Village is proposing to construct drainage improvements to consist of cleaning and flushing all sediment and debris from existing catch basins and pipes, and adjust catch basin elevations and locations to minimize accumulation of sediment and debris. Installation of additional infrastructure in accordance with design plans, project specifications, and applicable permits are planned under this scope of work. Existing catch basins will be modified or reconstructed as required to provide sediment traps (sumps) and pollution retardant baffles to protect the exfiltration trench. Constructing 20-additional catch basins, 22-manholes, culverts, 21-baffles and 2,150 feet of exfiltration trench is recommended to interconnect the catch basins. The drainage system as designed will accommodate future connections to drainage systems in adjoining sub-basins.

**FISCAL/BUDGETARY IMPACT:**

The project will be funded with the \$125,000 grant awarded to the Village of Palmetto Bay by South Florida Water Management District.

The balance of funding in the amount of \$841,000 for 100% completion of construction activities for sub-basin 59/60 will be funded from the Village's Stormwater Utility Revenue account. The matching Stormwater Utility funds will be expended within grant established deadline.

**RECOMMENDATION:**

Approval is recommended.

**Exhibits:**

- Exhibit A – Opinion of Probable Cost of Project

# Kimley»Horn

## OPINION OF PROBABLE COST

Date:	4/27/2016
Project Name:	Village of Palmetto Bay-Sub-basin 59/60 Roadway & Drainage Improvements
Location:	NW 82nd Avenue

Civil Cost Estimate					
Item No.	Description	Unit	Quantity	Unit Cost	Cost
1	Mobilization	LS	1	\$60,000	\$60,000
2	Maintenance of Traffic (3% of Total Cost)	LS	1	\$20,000	\$20,000
3	Storm Water Pollution Prevention Plan	LS	1	\$10,000	\$10,000
4	Type "C" Catch Basin	EA	20	\$4,000	\$80,000
5	Type P-7 Manhole	EA	22	\$5,000	\$110,000
6	18" Exfiltration Trench	LF	2,150	\$120	\$258,000
7	18" HDPE	LF	1,150	\$80	\$92,000
8	15" HDPE	LF	500	\$70	\$35,000
9	24" Flap Gate	EA	1	\$750	\$750
10	Baffles	EA	21	\$200	\$4,200
11	Core Drills	EA	6	\$350	\$2,100
12	Asphalt Apron (2" Thick)	SY	150	\$15	\$2,250
13	Type SP 9.5 Asphalt (1" Thick)	SY	15,000	\$10	\$150,000
14	Milling (1" Avg. Depth)	SY	5,000	\$5	\$25,000
15	Adjusting Utility Covers	LS	1	\$10,000	\$10,000
16	Signing & Marking	LS	1	\$15,000	\$15,000
17	Swale Grading	SY	1,000	\$8	\$8,000
18	Site Restoration	LS	1	\$25,000	\$25,000
19	Contingency (10% of Total Cost)	LS	1	\$58,000	\$58,000
				Total	\$966,000
				Rounded Total	\$966,000

### Notes

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

**South Florida Water Management District  
Cooperative Funding Program  
Exhibit "B" Stormwater Management  
FINAL**

CFP No.	Entity	Project	County	Type	Receiving Waters	Eligible Construction Cost	Approved Funding
SW-2059	Town of Miami Lakes	Miami Lakes Lake Sarah Drainage Improvements Project	Miami-Dade	Water Quality/Quantity Improvement	Lake Sarah, Lake Adela, Lake Hilda	\$1,161,868	\$125,000
SW-2089	Town of Sewall's Point	Mandalay to Marguerita / South Sewall's Point Road Improvements	Martin	Water Quality/Quantity Improvement	St Lucie River Estuary, IRL-S	\$500,000	\$100,000
SW-2095	Central County Water Control District	Pump Station #11 Project	Hendry	Flood Protection	Alico Canal, L-2 Canal	\$281,000	\$200,000
SW-2085	North Bay Village	North Bay Village Outfall Improvement Project	Miami-Dade	Infrastructure Improvement	Biscayne Bay	\$450,000	\$150,000
SW-2098	City of Clewiston	Ventura Avenue Drainage and Water Quality Project	Hendry	Water Quality/Quantity Improvement	Lake Okeechobee	\$333,000	\$175,000
SW-2002	Village of Palmetto Bay	Drainage Infrastructure Improvements Sub-Basin 59/60	Miami-Dade	Water Quality/Quantity Improvement	C-100 and Biscayne Bay	\$779,000	\$125,000
SW-2093	City of Sweetwater	Stormwater Improvements: Phase 2B	Miami-Dade	Water Quality/Quantity Improvement	C-4 and Biscayne Bay	\$3,846,791	\$125,000
SW-2013	Town of Southwest Ranches	Dykes Road Drainage and Water Quality Project	Broward	Water Quality/Quantity Improvement	C-11	\$378,868	\$100,000
SW-2070	Riviera Beach	Singer Island South	Palm Beach	Water Quality/Quantity Improvement	Lake Worth Lagoon	\$1,183,583	\$150,000
SW-2049	Monroe County BCCC	Key Largo II Roadway and Drainage Improvement Project	Monroe	Flood Protection	Florida Keys	\$800,000	\$150,000
SW-2034	City of Oakland Park	East South Zone	Broward	Water Quality/Quantity Improvement	C-13	\$649,777	\$100,000
SW-2027	Village of Islamorada	Venetian Shores Stormwater Management Project, Bayview Isle Dr. and Villa Bella Dr.	Monroe	Water Quality/Quantity Improvement	Florida Keys	\$746,425	\$150,000
SW-2092	City of West Palm Beach	Gregory Road Green Streets Initiative	Palm Beach	Water Quality/Quantity Improvement	Lake Worth Lagoon	\$55,000	\$27,500
SW-2087	City of Okeechobee	Centennial Park Stormwater Drainage Construction	Okeechobee	Water Quality/Quantity Improvement	Lake Okeechobee	\$250,000	\$175,000
SW-2021	Martin County Board of County Commissioners	Hilltop Water Quality Retrofit Project	Martin	Water Quality/Quantity Improvement	Warner Creek and St Lucie River	\$250,000	\$100,000

\*REDI Community

\*\*Proposed funding under AWS CFF Applications - AWS-2020 and AWS-2021

Exhibit "B"

**EXHIBIT "B"**

**PAYMENT AND DELIVERABLES SCHEDULE**

**SUB-BASIN 59/60**

**SW 82<sup>ND</sup> AVENUE ARE PAVING AND DRAINAGE IMPROVEMENT**

**PROJECT NO. 15-01**

<b>Task</b>	<b>Deliverable(s)</b>	<b>Due Date</b>	<b>RECIPIENT Share (60%)</b>	<b>DISTRICT Not-To-Exceed Share (40%)</b>	<b>Estimated Project Cost (100%)</b>
1	Design Plans, Project Specifications, Bid Amount Documentation, and NTP	January 31, 2017	N/A	N/A	N/A
2	Exhibit "C" - Quarterly Status Report	April 30, 2017	N/A	N/A	N/A
3	Exhibit "C" - Quarterly Status Report	July 29, 2017	N/A	N/A	N/A
4	Exhibit "C" - Quarterly Status Report	October 29, 2017	N/A	N/A	N/A
5	Exhibit "C" - Quarterly Status Report	January 30, 2018	N/A	N/A	N/A
8	Exhibit "C" - Quarterly Status Report	February 28, 2018	\$841,000	\$125,000	\$966,000
	Complete 100% of construction activities per design plans, project specifications, and applicable permits.				
	Reimbursement Request Package				
<b>Total</b>			<b>\$841,000</b>	<b>\$125,000</b>	<b>\$966,000</b>

## **EXHIBIT "A"**

### **STATEMENT OF WORK**

#### **SUB-BASIN 59/60**

#### **SW 82<sup>ND</sup> AVENUE ARE PAVING AND DRAINAGE IMPROVEMENT**

#### **PROJECT NO. 15-01**

### **1.0 INTRODUCTION AND BACKGROUND**

The South Florida Water Management District (**DISTRICT**) has allocated funding in Fiscal Year 2017 to local governments and other entities for construction and implementation of stormwater management, alternative water supply, and water conservation projects through the Cooperative Funding Program.

Drainage sub-basin 59/60 is part of the C100C-W-7 Miami-Dade County basin. It includes portions of the Cutler, Banyan Cove, Banyan Woods, and Old Cutler Palms subdivisions. Data and hydrologic/ hydraulic modeling contained in the Storm Water Master Plan identified the need for drainage improvements in the area of Sub-Basin No. 59/60. More specifically, SW 82nd Avenue from NW 152nd Street to SW 160th Street and a localized improvement at the intersection of SW 160th Street and SW 81<sup>st</sup> Avenue.

The sub-basin consists of approximately 40.97 acres of existing detached single-family residential development with approximately 7,520 linear feet of roadway, including SW 82nd Avenue, SW 81st Avenue, SW 155th Street, SW 156th Street, SW 158th Terrace, and SW 160th Street. The drainage system in this sub-basin is a closed system with catch basins connected to exfiltration trench located in the vegetated swales along the sides of the roadways. Severe flooding complaints on SW 82nd Avenue and localized flooding on SW 160th Street west of SW 80th Avenue have been reported to the Village. The entire sub-basin area was modeled and based on data collected as part of the Stormwater Master Plan update process.

Based on the detailed hydrologic and hydraulic calculations for drainage sub-basin 59/60, the sub-basin is subject to flooding during all design storm events. The drainage system in the area recommended for improvement is a closed system with catch basins connected to exfiltration trench located in the vegetated swales along the sides of the roadways. The capacity of the existing swales and French drains is not sufficient to discharge the volume of runoff outlined in the performance criteria during the modeled storm events. Pavement condition within the sub-basin area is generally average and in need of resurfacing or rehabilitation. Improvements to drainage infrastructure will be needed to address these inadequacies.

## **OBJECTIVE**

1. Construct catch basins and exfiltration trenches at the low points in roadway swales of sub-basin 59/60 that will connect to drainage wells throughout various locations in the Village.
2. Control flooding and other hazards associated with stormwater surges.
3. Improve water quality and mitigate the environmental hazards associated with stormwater runoff.
4. Reduce the loading pollutants into Biscayne Bay, considered a "priority" surface water body.

## **SCOPE OF WORK**

The **RECIPIENT** shall construct drainage improvements to consist of cleaning and flushing all sediment and debris from existing catch basins and pipes and adjust catch basin elevations and locations to minimize accumulation of sediment and debris. Installation of additional infrastructure in accordance with design plans, project specifications, and applicable permits are planned under this scope of work. Existing catch basins will be modified or reconstructed as required to provide sediment traps (sumps) and pollution retardant baffles to protect the exfiltration trench. Constructing 20-additional catch basins, 22-manholes, culverts, 21-baffles and 2,150 feet of exfiltration trench is recommended to interconnect the catch basins

The **RECIPIENT** will be responsible for satisfactory completion of the scope of work and may retain consultants, contractors, and/or vendors to provide the professional and construction services required. The **RECIPIENT** will also be responsible for project management, budget management, quality control, and public outreach.

## **WORK BREAKDOWN STRUCTURE**

The work breakdown structure is presented below:

### **Task 1**

Submit design plans, project specifications, bid amount documentation, and Notice to Proceed (NTP) to the **DISTRICT** Project Manager via email.

Initiate construction activities per design plans, project specifications, and applicable permits.

### **Task 2**

Continue construction activities per design plans, project specifications, and applicable

permits.

Submit a quarterly status report (Exhibit "C") to the **DISTRICT** Project Manager via email which provides a narrative of construction activities completed since the NTP was issued; a discussion of project status; an explanation of conflicts or issues, if any, which may affect construction progress or project performance; and a description of other pertinent information attached to the quarterly status report such as project oversight/management documentation, results from applicable inspections or field tests, addendums or revisions to design plans or project specifications, and relevant project correspondence.

#### Task 3

Continue construction activities per design plans, project specifications, and applicable permits.

Submit a quarterly status report (Exhibit "C") to the **DISTRICT** Project Manager which provides a narrative of construction activities completed since March 31, 2017; a discussion of project status; an explanation of conflicts or issues, if any, which may affect construction progress or project performance; and a description of other pertinent information attached to the quarterly status report such as project oversight/management documentation, results from applicable inspections or field tests, addendums or revisions to design plans or project specifications, and relevant project correspondence.

#### Task 4

Continue construction activities per design plans, project specifications, and applicable permits.

Submit a quarterly status report (Exhibit "C") to the **DISTRICT** Project Manager which provides a narrative of construction activities completed since June 30, 2017; a discussion of project status; an explanation of conflicts or issues, if any, which may affect construction progress or project performance; and a description of other pertinent information attached to the quarterly status report such as project oversight/management documentation, results from applicable inspections or field tests, addendums or revisions to design plans or project specifications, and relevant project correspondence.

#### Task 5

Continue construction activities per design plans, project specifications, and applicable permits.

Submit a quarterly status report (Exhibit "C") to the **DISTRICT** Project Manager which provides a narrative of construction activities completed since September 29, 2017; a discussion of project status; an explanation of conflicts or issues, if any, which may affect construction progress or project performance; and a description of other pertinent information attached to the quarterly status report such as project oversight/management documentation, results from applicable inspections or field tests, addendums or revisions to design plans or project specifications, and relevant project correspondence.

#### Task 6

Continue construction activities per design plans, project specifications, and applicable permits.

Submit a quarterly status report (Exhibit "C") to the **DISTRICT** Project Manager which provides a narrative of construction activities completed since December 29, 2017; a discussion of project status; an explanation of conflicts or issues, if any, which may affect construction progress or project performance; and a description of other pertinent information attached to the quarterly status report such as project oversight/management documentation, results from applicable inspections or field tests, addendums or revisions to design plans or project specifications, and relevant project correspondence.

#### Task 7

Continue construction activities per design plans, project specifications, and applicable permits.

Submit a quarterly status report (Exhibit "C") to the **DISTRICT** Project Manager which provides a narrative of construction activities completed since March 30, 2018; a discussion of project status; an explanation of conflicts or issues, if any, which may affect construction progress or project performance; and a description of other pertinent information attached to the quarterly status report such as project oversight/management documentation, results from applicable inspections or field tests, addendums or revisions to design plans or project specifications, and relevant project correspondence.

#### Task 8

Complete construction activities (100%) per design plans, project specifications, and applicable permits.

Submit a quarterly status report (Exhibit "C") to the **DISTRICT** Project Manager which provides a narrative of construction activities completed since June 29, 2018; a discussion of project status and final punch list items; an explanation of conflicts or issues, if any, which may affect project performance; and a description of other pertinent information attached to the quarterly status report such as project oversight/management documentation, results from applicable inspections or field tests, addendums or revisions to design plans or project specifications, and relevant project correspondence.

Submit a Reimbursement Request Package to the **DISTRICT** Project Manager which includes a **RECIPIENT** invoice and supporting documentation such as consultant, contractor, and/or vendor invoices and proof of payment(s).

## Corrice Patterson

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**From:** Garrido, Nestor <ngarrido@sfwmd.gov>  
**Sent:** Friday, September 30, 2016 2:45 PM  
**To:** Luz Dominguez  
**Cc:** Corrice Patterson  
**Subject:** RE: Drainage Infrastructure Improvements Sub-Basin 59/60

Hi Luz,

Thanks for submitting the SOW and DS. I will review them and will let you know if I need additional information.

**Nestor L. Garrido, PMP**  
Senior Project Manager  
Office of Everglades Policy and Coordination  
South Florida Water Management District  
(561) 682-6908  
[ngarrido@sfwmd.gov](mailto:ngarrido@sfwmd.gov)

**From:** Luz Dominguez [<mailto:ldominguez@palmettobay-fl.gov>]  
**Sent:** Friday, September 30, 2016 2:16 PM  
**To:** Garrido, Nestor <ngarrido@sfwmd.gov>  
**Cc:** Corrice Patterson <cpatterson@palmettobay-fl.gov>  
**Subject:** RE: Drainage Infrastructure Improvements Sub-Basin 59/60

Good afternoon Mr. Garrido,

As requested, attached please find Exhibits A and B for our above-mentioned project. Please confirm receipt of these documents, and feel free to contact our office should you have any questions, or require anything further.

Thank you,



Luz Dominguez, Administrative Assistant  
Public Services Department  
Village of Palmetto Bay  
9495 SW 180th Street  
Palmetto Bay, Florida 33157  
Office: (305) 969-5011  
Fax: (305) 969-5091  
[www.palmettobay-fl.gov](http://www.palmettobay-fl.gov)

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**From:** Garrido, Nestor [<mailto:ngarrido@sfwmd.gov>]  
**Sent:** Friday, September 16, 2016 1:01 PM

**To:** Corrice Patterson

**Subject:** RE: Drainage Infrastructure Improvements Sub-Basin 59/60

Hi Corrice,

I am attaching a template for the SOW (Exh A) and the deliverable schedule (Exh B) for you to complete the SOW and DS for your project. Also, I need your project timeline. Please let me know if you have questions.

Regards,

***Nestar L. Garrido, PMP***

Senior Project Manager

Office of Everglades Policy and Coordination

South Florida Water Management District

(561) 682-6908

[ngarrido@sfwmd.gov](mailto:ngarrido@sfwmd.gov)

## Corrice Patterson

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**From:** Corrice Patterson  
**Sent:** Wednesday, May 04, 2016 2:05 PM  
**To:** 'Robert Ruano'  
**Cc:** Olga Cadaval; Jessica Lee  
**Subject:** RE: SFWMD grant - due May 20th

Tracking:	Recipient	Read
	'Robert Ruano'	
	Olga Cadaval	Read: 5/5/2016 12:23 PM
	Jessica Lee	Read: 5/23/2016 5:01 PM

A grant application for a project that is currently in the design phase was submitted to SFWMD on April 27, 2016 for Sub basin 59/60. Currently, the Village doesn't have any shovel ready project available. Staff spoke with representatives from SFWMD and advised that project submitted will be shovel ready for construction by December 2016.

Sincerely,

Corrice E. Patterson, Director  
Public Works Department  
Village of Palmetto Bay  
9495 SW 180th Street  
Palmetto Bay, Florida 33157  
Office: (305) 969-5011  
Fax: (305) 969-5091  
[www.palmettobay-fl.gov](http://www.palmettobay-fl.gov)

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**From:** Robert Ruano [<mailto:rjruano@ecostratas.com>]  
**Sent:** Wednesday, May 04, 2016 1:50 PM  
**To:** Corrice Patterson  
**Cc:** Olga Cadaval; Jessica Lee  
**Subject:** SFWMD grant - due May 20th

Ms. Patterson,

Olga asked me to send you the attached, in case you have a shovel-ready stormwater management project that we could submit for a grant by the May 20<sup>th</sup> deadline. They will not pay for engineering or design, but only construction.

Please let me know either if you don't mind. If you have a project, I would need to start working on the application right away.

Talk to you soon.  
Robert



Robert Ruano, LEED AP  
President  
Ecostrata Services, Inc.  
221 Aragon Avenue, Ste. 204  
Coral Gables, FL 33134

786-441-9200 ofc  
305-962-6142 cell  
[rjruano@ecostratas.com](mailto:rjruano@ecostratas.com)  
[www.ecostratas.com](http://www.ecostratas.com)

- The budgets include a 17% allowance for surveying, engineering, permitting, and limited construction phase assistance (site observations).
- The budgets do not include any landscape costs for improvements or restoration.

The capital improvement budgets are a preliminary opinion of probable construction costs in the current marketplace. Unit pricing for similar projects constructed by the Village of Palmetto Bay, as well as other nearby municipalities, were used as the basis for the construction budgets. Kimley-Horn has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. The preliminary opinions of probable costs provided herein are based on the information known to Kimley-Horn at this time and represent only the engineer's judgment as a design professional familiar with the construction industry. Kimley-Horn cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its preliminary opinions of probable costs. Based on the preliminary budgets, the priority sub-basin proposed improvements were prioritized to provide the capital improvement program.

*Table 32: Sub-basin Prioritization Matrix*

Priority Ranking	Area	Hydraulic Analysis	Observed Flooding	Complaints	Roadway Condition	Traffic Volumes	Total Score
1	Drainage Sub-basin #59/60	2.19	4	4	3	3	16.19
2	Drainage Sub-basin #61	4.66	2	2	3	1	12.66
3	Drainage Sub-basin #43	4.61	2	2	3	1	12.61
4	Drainage Sub-basin #57/96	2.70	2	2	3	1	10.70
5	Drainage Sub-basin #11	1.70	4	1	3	1	10.70
6	Drainage Sub-basin #41	4.37	3	1	1	1	10.37
7	Drainage Sub-basin #12	3.36	3	2	1	1	10.36
8	Drainage Sub-basin #39	5.23	2	1	1	1	10.23
9	Drainage Sub-basin #42	3.20	2	1	3	1	10.20
10	Drainage Sub-basin #44	3.90	2	1	1	1	8.9

Table 32 shows the priority ranking for the capital improvement projects. With the exception of the hydraulic analysis score, each project was given a score between 1 and 5 in each of the four categories: observed flooding, complaints, roadway condition, and traffic volumes. The scores

Danny Casals

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Subject: FW: Palmetto Bay, Sub-basin 59/60 grant application

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**From:** [jaime.albino@kimley-horn.com](mailto:jaime.albino@kimley-horn.com) [mailto:[jaime.albino@kimley-horn.com](mailto:jaime.albino@kimley-horn.com)]  
**Sent:** Tuesday, April 26, 2016 3:45 PM  
**To:** Danny Casals  
**Cc:** [Gary.Ratay@kimley-horn.com](mailto:Gary.Ratay@kimley-horn.com)  
**Subject:** RE: Palmetto Bay, Sub-basin 59/60 grant application

Good Afternoon Danny,

The Sub-basin 59/60 covers a large area but we used the intersection of SW 82<sup>nd</sup> Avenue and NW 156<sup>th</sup> Street which is a central location in the basin to provide this information. Below is latitude and longitude for that intersection. Please let us know if you need anything else for the grant application.

Latitude: 25°37'32.20"N  
Longitude: 80°19'30.89"W

Thank you for your time,

**Kimley»Horn**

**Jaime L. Albino III, E.I**

Direct: 954-535-5109 | Mobile: 352-215-9392

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**From:** Ratay, Gary  
**Sent:** Tuesday, April 26, 2016 3:39 PM  
**To:** Albino, Jaime <[jaime.albino@kimley-horn.com](mailto:jaime.albino@kimley-horn.com)>  
**Cc:** Danny Casals ([dcasals@palmettobay-fl.gov](mailto:dcasals@palmettobay-fl.gov)) <[dcasals@palmettobay-fl.gov](mailto:dcasals@palmettobay-fl.gov)>  
**Subject:** Palmetto Bay, Sub-basin 59/60 grant application

Jamie,

Please send Danny a Latitude/ Longitude for Sub-basin 59/60 as discussed.

Thanks,

  
**Gary R. Ratay, P.E.**  
Kimley-Horn | 800 North Pine Island Road, Suite 450, Plantation, FL 33324  
Direct: 954 535 5112 | Mobile: 954 646 3509

Celebrating nine years as one of FORTUNE's 100 Best Companies to Work For

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**From:** Danny Casals [mailto:[dcasals@palmettobay-fl.gov](mailto:dcasals@palmettobay-fl.gov)]  
**Sent:** Tuesday, April 26, 2016 2:38 PM

1 Constructing additional catch basins, manholes, culverts, and exfiltration trench is recommended to  
2 interconnect the catch basins.

3  
4 **NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND VILLAGE**  
5 **COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, AS FOLLOWS:**  
6

7 **Section 1:** The Village Manager is authorized to continue the agreement with Kimley Horn  
8 and Associates, Inc. to provide design, permitting, final construction plans and bidding support for  
9 drainage improvements in sub-basin no. 59/60 in accordance with the Village's Stormwater Master  
10 Plan Update in an amount not to exceed \$85,000.

11  
12 **Section 2:** This Resolution shall take effect 60 days after approval.

13  
14 **PASSED and ADOPTED** this 7<sup>th</sup> day of December, 2015.  
15

16  
17  
18 *Melghar J. Alexander*  
19  
20 Melghar J. Alexander  
21 Village Clerk  
22

*Eugene F. Fliin*  
Eugene Fliin  
Mayor  
23

24 **APPROVED AS TO FORM AND LEGAL SUFFICIENCY FOR THE USE**  
25 **AND RELIANCE OF THE VILLAGE OF PALMETTO BAY, FLORIDA ONLY:**  
26

27 *Dexter W. Lehtinen*  
28  
29 Dexter W. Lehtinen  
30 Village Attorney  
31

32  
33  
34 **FINAL VOTE AT ADOPTION:**

35  
36 Council Member Karyn Cunningham YES  
37  
38 Council Member Tim Schaffer YES  
39  
40 Council Member Larissa Siegel Lara YES  
41  
42 Vice-Mayor John DuBois YES  
43  
44 Mayor Eugene Fliin YES

1  
2  
3 **RESOLUTION NO. 2015-113**

4 **A RESOLUTION OF THE MAYOR AND VILLAGE COUNCIL OF THE**  
5 **VILLAGE OF PALMETTO BAY, FLORIDA, RELATING TO A**  
6 **DRAINAGE IMPROVEMENT PROJECT AT SUB-BASIN NO. 59/60**  
7 **WITHIN THE VILLAGE OF PALMETTO BAY; AUTHORIZING THE**  
8 **VILLAGE MANAGER TO ENTER INTO CONTRACT WITH KIMLEY**  
9 **HORN & ASSOCIATES, INC. TO PROVIDE DESIGN, PERMITTING,**  
10 **AND BIDDING SUPPORT; AUTHORIZING THE VILLAGE MANAGER**  
11 **TO ISSUE A PURCHASE ORDER AND APPROVE EXPENDITURE OF**  
12 **FUNDS IN AN AMOUNT NOT TO EXCEED \$85,000.00; AND**  
13 **PROVIDING FOR AN EFFECTIVE DATE.**

14 **WHEREAS, Kimley Horn and Associates, Inc. submitted a proposal to assist the Village in**  
15 **addressing the current flooding issues occurring in sub-basin 59/60 as identified in the Village's**  
16 **Stormwater Master Plan Update; and,**

17  
18 **WHEREAS, according to collection findings and hydrologic/hydraulic modeling contained**  
19 **in the Stormwater Master Plan Update, the need for drainage improvements has been identified in**  
20 **the area of sub-basin no. 59/60, which is identified as SW 82<sup>nd</sup> Avenue from SW 152<sup>nd</sup> Street to SW**  
21 **160<sup>th</sup> Street and a localized improvement at the intersection of SW 160<sup>th</sup> Street and SW 81<sup>st</sup> Avenue.**  
22 **Drainage sub-basin 59/60 is part of the C100C-W-7 Miami-Dade County basin. It includes portions**  
23 **of the Cutler, Banyan Cove, Banyan Woods, and Old Cutler Palms subdivisions; and,**

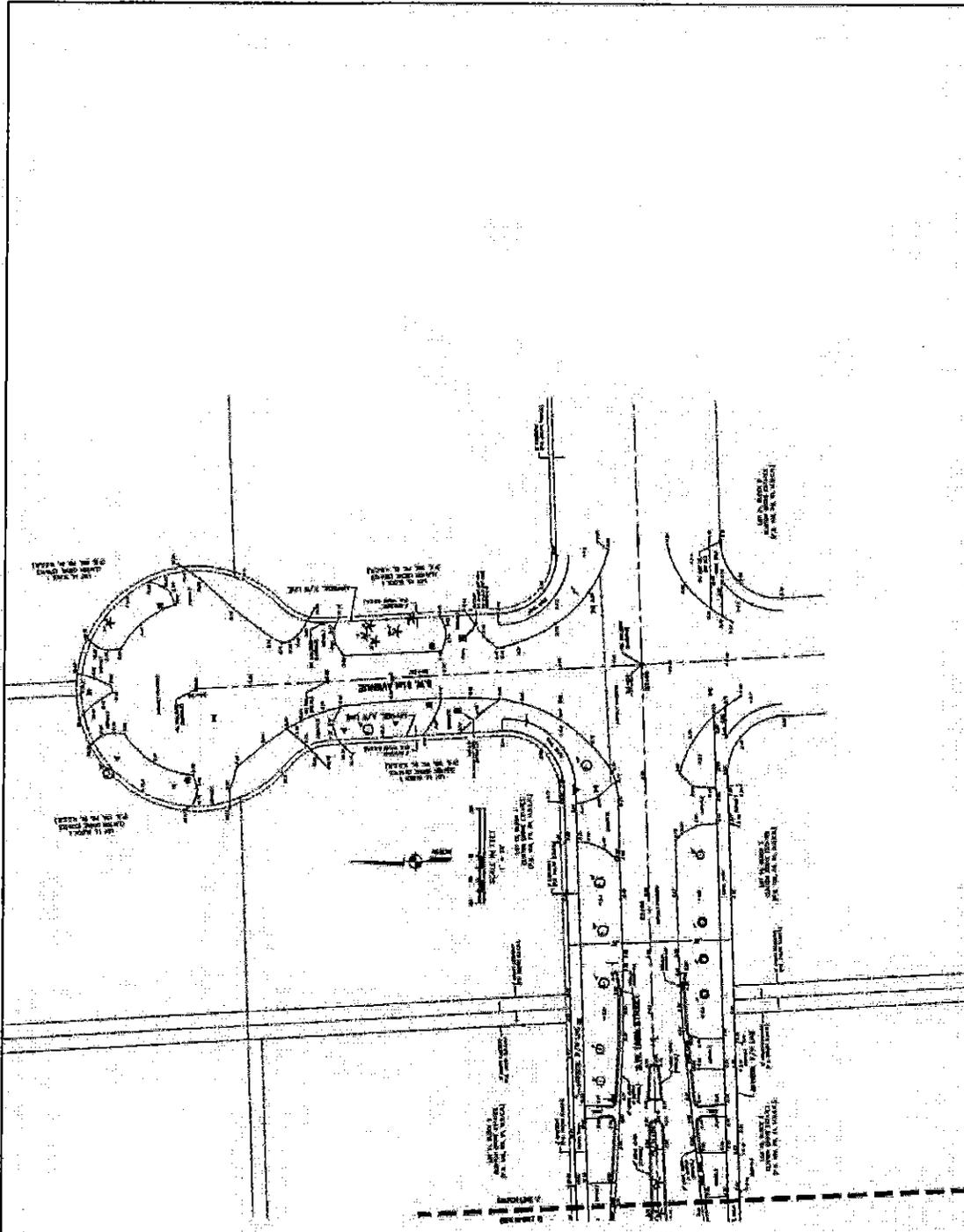
24  
25 **WHEREAS, Kimley Horn and Associates, Inc. shall provide planning, design development**  
26 **plans, drainage design, permitting, final construction plans, and bid support to successfully construct**  
27 **drainage improvements and repaving of sub-basin no. 59/60; and,**

28  
29 **WHEREAS, the sub-basin consists of approximately 40.97 acres of existing detached**  
30 **single-family residential development with approximately 7,520 linear feet of roadway, including SW**  
31 **82<sup>nd</sup> Avenue, SW 81<sup>st</sup> Avenue, SW 155<sup>th</sup> Street, SW 156<sup>th</sup> Street, SW 158<sup>th</sup> Terrace, and SW 160<sup>th</sup>**  
32 **Street; and,**

33  
34 **WHEREAS, the drainage system in the area recommended for improvement is a closed**  
35 **system with catch basins connected to exfiltration trenches located in the vegetated swales along the**  
36 **sides of the roadways; and,**

37  
38 **WHEREAS, the drainage improvements will consist of cleaning and flushing all sediment**  
39 **and debris from existing catch basins and pipes and adjusting catch basin elevations and locations to**  
40 **minimize accumulation of sediment and debris and installing the additional infrastructure depicted in**  
41 **Figure 14; and,**

42  
43 **WHEREAS, existing catch basins should be modified or reconstructed as required to**  
44 **provide sediment traps (sumps) and pollution retardant baffles to protect the exfiltration trench.**



NO.	DATE	BY	REVISION
1			
2			
3			
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**ROUTE OF LINE SURVEY**  
**VILLAGE OF PALMETTO BAY**  
 S.W. 13th AVENUE FROM S.W. 13th STREET  
 TO S.W. 15th STREET  
 MANASSAS COUNTY  
 FLORIDA

NO.	DATE	BY	REVISION
1			
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NOTED AND CORRECTED BY: [Signature]

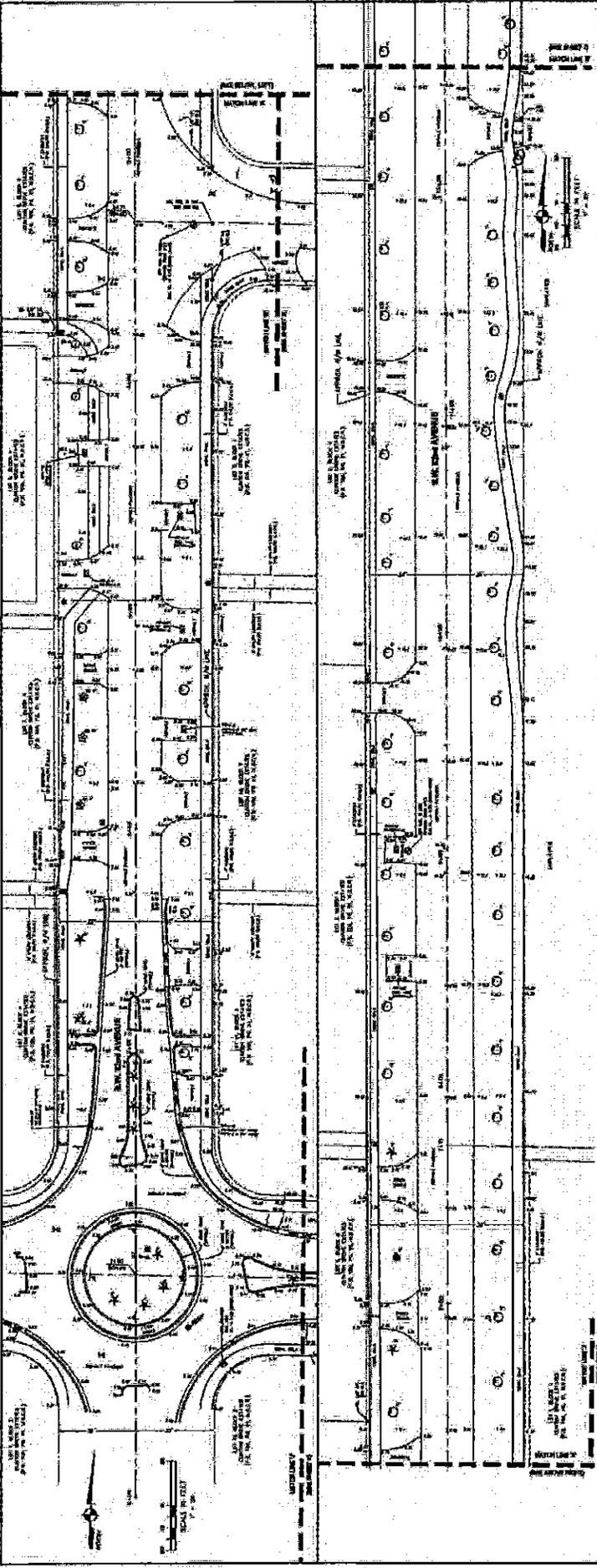
**AWBOM & ASSOCIATES, INC.**  
 SURVEYING & MAPPING  
 10100 W. HAVENWAY, SUITE 100, BOCA RATON, FLORIDA 33433  
 (561) 365-1111  
 www.awbom.com

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**SYMBOL LEGEND:**

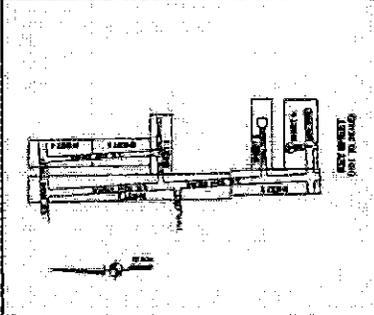
- Proposed Right-of-Way
- Proposed Centerline
- Proposed Easement
- Proposed Utility
- Proposed Structure
- Proposed Building
- Proposed Fence
- Proposed Survey
- Proposed Boundary
- Proposed Easement
- Proposed Utility
- Proposed Structure
- Proposed Building
- Proposed Fence
- Proposed Survey
- Proposed Boundary

**FIELD LEGEND:**

- Proposed Right-of-Way
- Proposed Centerline
- Proposed Easement
- Proposed Utility
- Proposed Structure
- Proposed Building
- Proposed Fence
- Proposed Survey
- Proposed Boundary
- Proposed Easement
- Proposed Utility
- Proposed Structure
- Proposed Building
- Proposed Fence
- Proposed Survey
- Proposed Boundary

**NOTES:**

- The proposed right-of-way is shown in solid black lines.
- The proposed centerline is shown in dashed black lines.
- The proposed easements are shown in dotted black lines.
- The proposed utility lines are shown in solid black lines with cross-ticks.
- The proposed structures are shown in solid black lines with hatching.
- The proposed buildings are shown in solid black lines with hatching.
- The proposed fences are shown in solid black lines with cross-ticks.
- The proposed surveys are shown in solid black lines with cross-ticks.
- The proposed boundaries are shown in solid black lines with cross-ticks.



**SYMBOL LEGEND:**

- Proposed Right-of-Way
- Proposed Centerline
- Proposed Easement
- Proposed Utility
- Proposed Structure
- Proposed Building
- Proposed Fence
- Proposed Survey
- Proposed Boundary
- Proposed Easement
- Proposed Utility
- Proposed Structure
- Proposed Building
- Proposed Fence
- Proposed Survey
- Proposed Boundary

**FIELD LEGEND:**

- Proposed Right-of-Way
- Proposed Centerline
- Proposed Easement
- Proposed Utility
- Proposed Structure
- Proposed Building
- Proposed Fence
- Proposed Survey
- Proposed Boundary
- Proposed Easement
- Proposed Utility
- Proposed Structure
- Proposed Building
- Proposed Fence
- Proposed Survey
- Proposed Boundary

**AVROM & ASSOCIATES, INC.**  
**SURVEYING & MAPPING**  
 1000 N. 10th Street, Suite 100  
 Phoenix, Arizona 85004  
 Telephone: (602) 254-1111  
 Fax: (602) 254-1112

**ROUTE OF LINE SURVEY**  
**WILLOW OF PALMETTO BAY**  
 4th AVENUE FROM S.W. 10th STREET  
 TO S.W. 10th STREET  
 MARICOPA COUNTY  
 PHOENIX

DATE: 11/11/11  
 DRAWN BY: J. J. AVROM  
 CHECKED BY: J. J. AVROM  
 SCALE: AS SHOWN

NO.	DATE	BY	DESCRIPTION
1	11/11/11	J. J. AVROM	PRELIMINARY PLAN
2	11/11/11	J. J. AVROM	FINAL PLAN
3	11/11/11	J. J. AVROM	AS SHOWN

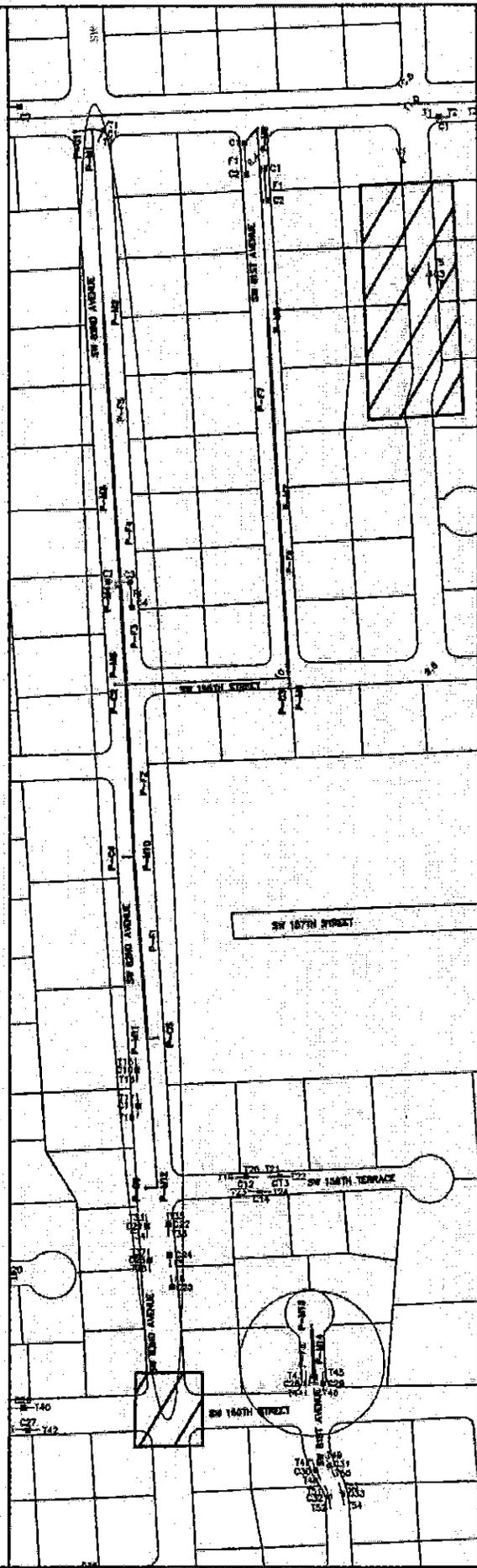




# DRAINAGE SUB-BASIN #59/60 PROPOSED CONDITIONS



SCALE AS SHOWN



LEGEND	
■	Catch Basin (CI)
—	French Drain (FI)
—	Trench (TI)
—	Pipe (PI)
—	Outfall (OI)
—	Sub-Basin Boundary
●	Manhole (MI)
0.00	Elevation
■	Proposed Catch Basin (P-CI)
—	Proposed French Drain (P-FI)
—	Proposed Trench (P-TI)
—	Proposed Pipe (P-PI)
—	Proposed Outfall (P-OI)
●	Proposed Manhole (P-MI)
○	Proposed Pipe
○	Flooding reported by the Village
▨	Local drainage improvements complete

**PERFORMANCE GOAL CRITERIA**

- Min. Roadway EOP Elevation 2.15
- Min. Roadway Centerline Elevation 2.40
- Min. Building FFE 10.07

**PROPOSED MODIFICATIONS**

- Add 2,300 LF 18" French Drain / Exfiltration Trench
- Add 1,500 LF of 18" Storm Sewer Pipe (HDPE)
- Add 300 LF of 15" Storm Sewer Pipe (HDPE)
- Add 6 Catch Basins
- Add 14 Manholes

Kimley»Horn

**Capital Improvement Budget:** A budget was developed for the proposed stormwater capital improvements.

*Table 27: Drainage Sub-basin 59/60 – Capital Improvement Budget*

Item	Description	Qty.	Units	Unit Price	Sub-total
1	Maintenance of Traffic	1	L.S.	\$18,636	\$19,000
2	Mobilization	1	L.S.	\$62,120	\$63,000
3	Stormwater Pollution Prevention Plan (SWPPP)	1	L.S.	\$6,212	\$7,000
4	Asphalt Concrete Surface Course	14,000	S.Y.	\$8	\$112,000
5	Inlet Apron (Asphalt)	17	S.Y.	\$8	\$200
6	15" Diameter Polyethylene Pipe	300	L.F.	\$70	\$21,000
7	18" Diameter Polyethylene Pipe	1,500	L.F.	\$85	\$128,000
8	18" French Drain Exfiltration Trench	2,300	L.F.	\$100	\$230,000
9	Manhole	14	EA.	\$5,500	\$77,000
10	Catch Basin Inlet	6	EA.	\$6,000	\$36,000
11	Pollution Retardant Baffle	16	EA.	\$240	\$4,000
12	Utility Adjustments	1	L.S.	\$12,164	\$13,000
13	Professional Services	1	L.S.	\$120,734	\$121,000
14	Contingency	1	L.S.	\$71,020	\$72,000
<b>TOTAL</b>					<b>\$900,000</b>



ACKNOWLEDGMENT

Before me, the undersigned authority, personally appeared Edward Silva (Authorized Representative of the project owner) this April day of 26, 2016 who, first being duly sworn, as required by law, hereby acknowledges:

1. The statements contained in this project information package are true, correct and complete to the best of his/her knowledge and that the undersigned has the authority from the project owner to make the representations contained herein.
2. The undersigned represents the described deliverables for this phase of the project will be completed and invoiced no later than September 15, 2018.
3. The undersigned represents that the project owner intends to begin construction of the project by this January day of 9<sup>th</sup>, in the year 2017.
4. The undersigned represents that the project owner understands the project contract expiration is September 30, 2018, and further understands that if the project is not completed by that date, the South Florida Water Management District reserves the right to rescind funding.

STATE OF Florida

COUNTY OF Miami-Dade

[Signature]  
Project Owner's Representative

Edward Silva  
Print Name

SWORN TO and subscribed before me 26<sup>th</sup> day of April, 2016.

Such person(s) (Notary Public must check applicable box):

is/are personally known to me.

produced a current driver license(s).

produced as identification: \_\_\_\_\_

(NOTARY PUBLIC SEAL)



[Signature]  
Notary Public

VILLAGE OF PALMETTO BAY  
9705 EAST HIBISCUS STREET, PALMETTO BAY, FL 33157  
(305) 259-1234 Fax: (305) 259-1290

**COOPERATIVE FUNDING PROGRAM  
STORMWATER MANAGEMENT PROJECT APPLICATION**

Applications are limited to 25 pages including figures, Reduction of Matching Funds (if applicable), and Acknowledgment letters. Application submittals must be uploaded at <http://www.sfwmd.gov/coopfunding> by **May 20, 2016 at 6:00 PM**. Prior to completing this Application, it is recommended you read the CFP Guidelines. This application is for projects which will be constructed between October 1, 2016 and September 30, 2018.

**PROJECT SUMMARY**

**Project Name:** Drainage Infrastructure Improvements Sub- basin 59/60

**Project Location:** Village of Palmetto Bay

**County:** Miami-Dade

**Project Type (check all that apply):**

Water Quality / Quantity Improvement  Infrastructure Improvement

Natural System Restoration  Storage  Flood Protection

**Receiving Waters for Project:** C100C-W-7 Canal

**Applicant:** Village of Palmetto Bay

**Authorized Representative:** Edward Silva

**Project Manager (PM), if different:** Corrice Patterson

**Address:** 9705 E. Hibiscus Street

**PM Address:** 9495 SW 180<sup>th</sup> Street

**City/Zip:** Palmetto Bay, 33157

**PM City/Zip:** Palmetto Bay, 33157

**Telephone:** 305-259-1234

**PM Telephone:** 305-969-5011

**Email:** esilva@palmettobay-fl.gov

**PM Email:** cpatterson@palmettobay-fl.gov

**Project Cost:** \$900,000

**Total Project Cost, if multi-year:** Enter text. N/A

**Eligible (Construction) Cost:** \$779,000

**Local Match:** \$529,000

**Requested Funding Amount:** \$250,000

**Requested Funding Percentage:** 32%

**Is this a multi-year:** Yes  No

If yes, Number of Project Phases: Enter text.

If yes, Project Phases Completed to Date: Enter text.

If yes, Expected Total Project Completion Date: Enter text.

If yes, has this project received previous SFWMD funding? Yes  No

If yes, please provide the following information:

<u>Agreement No.</u>	<u>Year Awarded</u>	<u>Amount Awarded</u>	<u>Amount Invoiced</u>
Enter text.	Enter text.	Enter text.	Enter text.
Enter text.	Enter text.	Enter text.	Enter text.
Enter text.	Enter text.	Enter text.	Enter text.
Enter text.	Enter text.	Enter text.	Enter text.

**Are there other District programs or other agencies contributing funding to this project?** Yes  No

If yes, source(s): Enter text.

If yes, amount(s): Enter text.

**Does any SFWMD employee, Governing Board member, contractor, or other affiliate of the Applicant have a financial interest in this project, the property associated with this project or with any party that may profit financially from this project?** Yes  No

If yes, list the parties and interests: Enter text.

**Is the project part of a capital improvement plan?** Yes  No

**This is a reimbursement program with the entire project scope expected to be completed within the funding period, regardless of amount awarded. There is no guarantee the Applicant will be awarded the amount requested. Are budgeted funds available to pay for the entire scope of the project?** Yes  No

**Does the applicant understand that if for any reason, the project scope is not fulfilled to 100% completion as**

**COOPERATIVE FUNDING PROGRAM  
STORMWATER MANAGEMENT PROJECT APPLICATION**

outlined in the statement of work, the funding amount will be reduced to match the original percentage of funding in the purchase order that was based on the estimated total initial project cost estimate as provided in the application? Yes  No

Does the applicant understand that if the project scope is completed as outlined in the statement of work and total actual total project costs are below the estimated total project cost, the applicant may not be eligible to receive up to the full award amount? Yes  No

Does the applicant understand that funds are only for expenses incurred or obligated during the funding period (October 1, 2016- September 30, 2018)? Yes  No

Is the Applicant a REDI Community? Yes  No

If yes, can the Applicant provide REDI Community certification? Yes  No

**PROJECT DETAILS****1. Provide a high-level description (several sentences) of the project.**

The updated Stormwater Master Plan established by the Village of Palmetto Bay prioritized ten (10) sub-basin locations in need of drainage improvements. The various sub-basins are located within boundaries of the Village of Palmetto Bay between SW 136<sup>th</sup> Street and SW 184<sup>th</sup> Street, between US-1 and Biscayne Bay. The proposed drainage improvements in sub-basin 59/60 is generally SW 82nd Avenue from NW 152nd Street to SW 160th Street and a localized improvement at the intersection of SW 160th Street and SW 81st Avenue. Drainage sub-basin 59/60 is part of the C100C-W-7 Miami-Dade County basin. It includes portions of the Cutler, Banyan Cove, Banyan Woods, and Old Cutler Palms subdivisions. Sub-basin 59/60 is listed as priority #1 in the Village's Stormwater Master Plan based on the findings from the assessments of existing drainage conditions within the Village and the detailed analysis of the ten drainage sub-basins that were identified as priority sub-basins in the Stormwater Master Plan Update. Hydrologic and hydraulic calculations for this sub-basin confirmed the existing drainage infrastructure does not discharge adequate runoff to meet the desired performance criteria. The capacity of the existing swales and French drains is not sufficient to discharge the volume of runoff outlined in the performance criteria during the modeled storm events. Pavement condition within the sub-basin area is generally average and in need of resurfacing or rehabilitation. Improvements to drainage infrastructure will be needed to address these inadequacies. Drainage improvements planned will address drainage deficiencies in sub-basin 59/60 whereas, the Village is proposing to clean and flush all sediment and debris from existing catch basins and pipes and adjust catch basin elevations and locations to minimize accumulation of sediment and debris. Install the additional infrastructure depicted in Figure 14. Existing catch basins should be modified or reconstructed as required to provide sediment traps (sumps) and pollution retardant baffles to protect the exfiltration trench. Constructing additional catch basins, manholes, culverts, and exfiltration trench is recommended to interconnect the catch basins.

**2. Please upload or attached the following:**

- a. At least one letter-sized figure that depicts the project location in relation to the nearest major road

**COOPERATIVE FUNDING PROGRAM  
STORMWATER MANAGEMENT PROJECT APPLICATION**

intersection

- b. At least one letter-sized figure that depicts project details and illustrates information provided in the Statement of Work
- c. A GIS shapefile or AutoCAD dwg file per Florida State East Zone, NAD83 HARN, US Survey feet of the project location or latitude/longitude. See Attached Survey of Project Area

**3. Provide a description for the project, which may be used to create contract documents if selected, that includes:**

**a. Relevant Background Information**

The Village of Palmetto Bay encompasses the easternmost section of South Miami-Dade from SW 136<sup>th</sup> Street to SW 184<sup>th</sup> Street, and includes a large part of Biscayne Bay. This has made Palmetto Bay particularly vulnerable to the effects of severe weather conditions, including flooding and property destruction due to wind damage and saltwater intrusion. In fact, Palmetto Bay is still recovering from the devastating effects of at least five past major hurricanes and storms. These natural events significantly impacted neighborhoods throughout Palmetto Bay and caused ongoing issues with stormwater discharge and flooding.

Roadway drainage basins with closed systems within the Village consist of small isolated drainage facilities. The roadway longitudinal profiles in sub-basin 59/60 have numerous high and low points, with only minimal existing undersized exfiltration drainage systems. Other areas within Palmetto Bay that experience localized roadway flooding have closed systems with no drainage facilities other than infiltration via grass swales, and homeowner constructed drywells. The capacity of the existing swales and exfiltration trenches in this basin is not sufficient to discharge the volume of runoff outlined in the performance criteria during the modeled storm events. Existing drainage systems with outfalls to the C-100 canal appear to be undersized and cannot handle peak basin discharge during large/heavy rainfalls. Heavy flooding occurs at final catch basin prior to reaching canal outfall. This undesirable scenario potentially lends itself to short and long term flooding conditions within the Village of Palmetto Bay, and as a consequence of these deficient conditions, the area experiences frequent flooding.

As an unincorporated area of Miami-Dade County, funding limitations hinders the implementation of stormwater improvements projects in Palmetto Bay to mitigate the effects of past weather systems. However, Palmetto Bay has completed an update of its Stormwater Master Plan that has identified and prioritizes eleven (11) problem areas in need of improvement. Subsequent to aggressive hurricane seasons of prior years, Palmetto Bay revised the program to include additional areas where flooding has been a serious problem. These are locations where water accumulates and remains stagnate for days.

**b. Purpose or Objective(s)**

- Objective 1: Construct catch basins and exfiltration trenches at the low points in roadway swales of this sub-basin that will connect to drainage wells.
- Objective 2: Control flooding and other hazards associated with stormwater surges.
- Objective 3: Improve water quality and mitigate the environmental hazards associated with stormwater runoff.
- Objective 4: Reduce the loading pollutants into Biscayne Bay, considered a "priority" surface water body.

The catch basins inspected in this sub-basin were observed to be clean, with only limited debris and sediment. As a result, drainage deficiency issues are likely to be a function of limited system capacity and infrastructure age and condition.

**c. Statement of Work**

Clean and flush all sediment and debris from existing catch basins and pipes and adjust catch basin elevations and locations to minimize accumulation of sediment and debris. Install the

**COOPERATIVE FUNDING PROGRAM  
STORMWATER MANAGEMENT PROJECT APPLICATION**

additional infrastructure. Existing catch basins should be modified or reconstructed as required to provide sediment traps (sumps) and pollution retardant baffles to protect the exfiltration trench. Constructing additional catch basins, manholes, culverts, and exfiltration trench is recommended to interconnect the catch basins.

**4. Explain how the project aligns with the District's mission.**

Hydrologic and hydraulic calculations for this sub-basin confirmed the existing drainage infrastructure does not discharge adequate runoff to meet the desired performance criteria. Construction of this project will improve the quality of water and will mitigate the environmental hazards associated with stormwater runoff by reducing the loading pollutants into Biscayne Bay which is considered a "priority" surface water body. Drainage sub-basins discharging into canals should have minimum water quality pre-treatment equal to the greater of the volume of the first one-inch of runoff or 2.5-inches over the impervious area contained within the sub-basin. This goal ensures that the drainage improvements meet South Florida Water Management District (SFWMD) and Miami-Dade County Department of Regulatory and Economic Resources (DRER) formerly the Department of Environmental Resource Management (DERM) requirements for water quality pre-treatment.

**5. Explain how the project aligns with other applicable plans such as a watershed protection plan, basin management plan, total maximum daily load allocation, or stormwater improvement master plan.**

Reduction in pollutant loadings to Biscayne Bay; the Village's stormwater treatment design standards are developed to reduce loading for the total suspended solids, total nitrogen, total phosphorus and other contaminants that may enter into water management district designated priority surface water bodies. Pollutant Load Reduction calculations are based on the proposed project design consisting of Inlet Traps + Baffle Box + Exfiltration Trench (to treat 0.5" runoff). (completion of project).

**6. Describe measurable community or environmental benefits of this project with respect to relevant considerations (improvement of water quality and/or quantity and benefits to natural systems; degree of flood protection and/or resource protection). Please include specific details such as estimated mass of nutrient/contaminant reductions (parts per billion, pounds per day/year) or removal efficiencies, area of natural systems to be restored or enhanced (acres), level of service attributes, conveyance capacity (CFS), and/or volume of storage (acre-feet). Please include all calculations.**

A full analysis of the estimated pollutant loading for existing, future, and proposed conditions was prepared for the priority sub-basins using a spreadsheet developed for this purpose (see Appendix B). The table below shows how the proposed improvements will result in a significant reduction in the pollutant load contribution from this sub-basin to the Biscayne Aquifer for three major pollutants.

Pollutant	Existing Load	Reduction (kg/yr)	Proposed Load (kg/yr)
Total Phosphorous	24.35	22.56	1.79
Total Nitrogen	191.88	171.73	20.15
Total Suspended	2,300.10	2,082.74	217.36

**7. If applicable, provide the name and reference (i.e., page number) of the related project in the relevant plan associated with the proposed work: Page 81-87**

**COOPERATIVE FUNDING PROGRAM  
STORMWATER MANAGEMENT PROJECT APPLICATION**

**PROJECT READINESS**

1. Does this project have approval from your Commission or Council? Yes  No

When did approval for this project occur or when is approval expected to occur? **December 7, 2015**

Additional space for further explanation: Enter text.

2. Is design of this project complete? Yes  No

If no, is design of this project currently underway? Yes  No

If yes, what percentage of design is complete? The field survey and geotechnical information is complete, and the Schematic Design is 90% complete. Design Development and Drainage Design are at 20%.

If yes, when will design of this project be complete? **October 2016**

If no, explain: Enter text.

3. Are the necessary land acquisitions for this project complete? Yes  No

If no, when will land acquisition be complete? Enter text.

Additional space for further explanation: Enter text.

4. Have the necessary access agreements, right-of-way permits, and/or easements for this project been finalized? Yes  No

If no, when will these items be finalized? Enter text.

Additional space for further explanation: Enter text.

5. List requisite federal, state, and/or local permits in the following table and provide applicable information.

Agency	Permit No.	Permit Type (Water/WW, ERP, CUP, Building)	Permit Obtained?		Permit Date (expected date if not obtained yet)
			Yes	No	
DERM	Enter text.	ERP	Enter text.	X	8/2016
Village of Palmetto Bay	Enter text.	Building/Public Works	Enter text.	X	1/2017
	Enter text.		Enter text.		Enter text.
Enter text.	Enter text.	Enter text.	Enter text.	Enter text.	Enter text.
Enter text.	Enter text.	Enter text.	Enter text.	Enter text.	Enter text.

6. Has a contractor been selected for this project? Yes  No

If no, when will a contractor be selected? **November 2016**

Additional space for further explanation: Enter text.

7. Describe the project timeline and identify significant project milestones and associated dates.

1. Permitting - August 2016, Permits from the Dept. of Environmental Resource Management (DERM) and Village of Palmetto Bay; and

2. Preparation of Bid Document and Specifications - October 2016 final bid document and specifications including cost estimate; and

COOPERATIVE FUNDING PROGRAM  
STORMWATER MANAGEMENT PROJECT APPLICATION

3. Construction, Construction Support and Construction Certification- January 2017- June 2017 Work documents, final certification and as-built drawings upon completion of construction and an Operation of Maintenance Plan

A Gantt chart may be attached for additional illustration.

When will construction for this project begin? January 2017

What is the duration of construction activities in months? 6 months

When will this project be complete? June 2017

SUBMITTAL CHECKLIST

Have project figures been included in the application or uploaded/attached separately? Yes  No

Has the GIS shapefile or AutoCAD dwg file for the project been uploaded? Yes  No

If no, have latitude and longitude been provided as requested in question 2-C? Yes  No

Have measurable community or environmental benefits been sufficiently discussed and quantified in question 6? Yes  No

Has the Acknowledgment Form been completed and notarized (on letterhead) and uploaded/attached as a pdf? Yes  No

If applicable, has the Waiver to Reduction Form been completed (on letterhead) and uploaded/attached as a pdf? Yes  No  N/A

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RESOLUTION NO. 2016-\_\_\_\_

**A RESOLUTION OF THE MAYOR AND VILLAGE COUNCIL OF THE VILLAGE OF PALMETTO BAY, FLORIDA, RELATING TO GRANTS; AUTHORIZING THE VILLAGE MANAGER TO EXECUTE AN AGREEMENT WITH SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD) ACCEPTING A GRANT IN THE AMOUNT OF \$125,000 FOR THE PURPOSE OF MAKING STORMWATER IMPROVEMENTS WITHIN THE VILLAGE OF PALMETTO BAY; AND PROVIDING FOR AN EFFECTIVE DATE.**  
(Sponsored by Administration)

**WHEREAS,** South Florida Water Management District has granted the Village of Palmetto Bay funding in the amount of \$125,000 in Fiscal Year 2016-2017, to provide the necessary financial assistance required for construction of Sub-Basin 59/60 Drainage Improvements; and

**WHEREAS,** Sub-Basin 59/60 is generally located in the area of SW 82<sup>nd</sup> Avenue from NW 152<sup>nd</sup> Street to SW 160<sup>th</sup> Street and a localized improvement at the intersection of SW 160<sup>th</sup> Street and SW 81<sup>st</sup> Avenue and consists of approximately 40.97 acres of existing detached single-family residential development with approximately 7,520 linear feet of roadway, including SW 82<sup>nd</sup> Avenue, SW 81<sup>st</sup> Avenue, SW 155<sup>th</sup> Street, SW 156<sup>th</sup> Street, SW 158<sup>th</sup> Terrace, and SW 160<sup>th</sup> Street; and

**WHEREAS,** severe flooding complaints on SW 82<sup>nd</sup> Avenue and localized flooding on SW 160<sup>th</sup> Street west of SW 80<sup>th</sup> Avenue have been reported to the Village; and

**WHEREAS,** planning, drainage design, construction plans and permitting of Sub-Basin No. 59/60 were completed by Kimley-Horn and Associates in FY 2015-16 and is shovel ready for construction; and

**WHEREAS,** construction of this project will improve the quality of water and will mitigate the environmental hazards associated with stormwater runoff by reducing the loading pollutants into Biscayne Bay which is considered a "priority" surface water body; and

**WHEREAS,** the estimated cost for construction of Basin 59/60 stormwater improvements is estimated to cost \$966,000; and,

**WHEREAS,** the Village has agreed to partner with SFWMD by providing a cost share of \$841,000, which exceeds the 60% match; and

**WHEREAS,** a total of \$966,000 will be available for 100% completion of construction activities per design plans, project specifications, and applicable permits of this shovel ready stormwater project by the deadline date of February 28, 2018; and

**WHEREAS,** the Public Services Department recommends that the Village Council approve a Resolution accepting the grant award in the amount \$125,000 and further authorize the Village Manager to execute all the documents necessary for compliance with the agreement.

