

**CITY OF NORTH MIAMI  
PROFESSIONAL ENGINEERING  
SERVICES AGREEMENT**

**(RFQ 08-17-18; Professional Engineering Services for Stormwater Master Plan)**

**THIS PROFESSIONAL ENGINEERING SERVICES AGREEMENT** (“Agreement”) is entered into on \_\_\_\_\_, between the **City of North Miami**, a Florida municipal corporation with a principal address of 776 NE 125<sup>th</sup> Street, North Miami, Florida (“City”), and **R.J. Behar & Company, Inc.**, a Florida for-profit corporation authorized to do business in the State of Florida, having its principal business office at 6861 SW 196 Avenue, # 302, Pembroke Pines, FL (“Consultant”). The City and Consultant shall collectively be referred to as the “Parties”.

**RECITALS**

**WHEREAS**, on December 7, 2017, the City advertised ***Request for Qualifications #08-17-18, Continuing Architectural & Engineering Services*** (“RFQ”), for the purpose of retaining a pool of experienced, licensed and insured architectural and engineering firms to provide on a continuing as-needed, when needed basis, the following specific services: Architecture/Interior Design, Landscape Architecture, Urban Planning & Design, Environmental Engineering, Transportation/Traffic Engineering, Water Resources/Stormwater Design, Wastewater Engineering, Geotechnical/Material Testing and Mechanical/Electrical/Plumbing (“Services”); and

**WHEREAS**, the RFQ was undertaken in accordance with the State of Florida Consultants’ Competitive Negotiation Act, Section 287.055, Florida Statues; and

**WHEREAS**, in response to the RFQ, Consultant submitted its sealed qualifications and was subsequently selected by City administration as having those qualifications and references most advantageous to the City; and

**WHEREAS**, the City desires Civil Engineering Services to update the Stormwater Master Plan, including proposed construction projects, flooding and water quality concerns (“Services”); and

**WHEREAS**, the Consultant possesses all necessary qualifications and expertise to perform the Services and has expressed the capability and desire to perform the Services; and

**WHEREAS**, on March 9, 2021, the City Council of the City of North Miami, passed and adopted Resolution No. 2021-29, approving the selection of Consultant for the provision of Services on a continuing basis, pursuant to the requirements of the RFQ; and

**WHEREAS**, the City Manager finds that entering into an agreement with Consultant for the provision of Services, is in the City’s best interests.

**NOW THEREFORE**, in consideration of the mutual terms and conditions set forth herein and other good and valuable consideration, the Parties hereto agree as follows:

## **ARTICLE 1 - RECITALS**

1.1 The recitals are true and correct and are hereby incorporated into and made a part of this Agreement.

## **ARTICLE 2 - CONTRACT DOCUMENTS**

2.1 The following documents are incorporated into and made a part of this Agreement (collectively referred to as the "Contract Documents"):

2.1.1 The City's Request for Qualifications #08-17-18, Continuing Architectural & Engineering Services, attached hereto by reference;

2.1.2 Consultant's Proposal & Scope of Services, attached hereto as Exhibit "A";

2.1.3 Any additional documents which are required to be submitted by Consultant under this Agreement.

2.2 In the event of any conflict between the Contract Documents or any ambiguity or missing specification or instruction, the following priority is hereby established:

2.2.1 Specific written direction from the City Manager or City Manager's designee.

2.2.2 This Agreement.

2.2.3 The RFQ.

2.3 The Parties agree that Consultant is responsible for clarifying any ambiguity, conflict, discrepancy, omission, or other error found in the RFQ prior to Consultant submitting its Qualifications or the right to clarify same shall be waived.

## **ARTICLE 3 - TIME FOR PERFORMANCE**

3.1 Subject to authorized adjustments, the Time for Performance shall not exceed Eighteen (18) months from the date the Notice to Proceed is issued by the City. The Consultant agrees that Services shall be performed on schedule, diligently and uninterrupted at a rate of progress which will reasonably ensure full completion within the agreed Time for Performance. Failure to achieve timely final completion shall be regarded as a material breach of this Agreement and shall be subject to the appropriate remedies available at law.

3.2 When, in the opinion of the City, reasonable grounds for uncertainty exist with respect to the Consultant's ability to perform Services or any portion thereof, the City may request that the Consultant, within a reasonable time frame set forth in the City's request, provide adequate assurances to the City in writing, of Consultant's ability to perform in accordance with terms of this Agreement. In the event that the Consultant fails to provide the City the requested assurances within the prescribed time frame, the City may treat such failure as a repudiation or breach of this Agreement, and resort to any remedy for breach provided for in this Agreement or at law.

## **ARTICLE 4 - COMPENSATION**

4.1 The Consultant shall be compensated an amount not to exceed One Hundred Ninety-Two Thousand Four Hundred Sixty-Nine Dollars (\$192,469.00) for Services. Funding for this

Agreement is contingent on the availability of funds and the Agreement is subject to amendment or termination due to lack of funds or a reduction of funds, upon ten (10) days written notice to Consultant.

### **ARTICLE 5 - SCOPE OF SERVICES**

5.1 Consultant agrees to perform professional Civil Engineering Services as more particularly described in Exhibit "A". Consultant shall perform Services in accordance with that degree of care and skill ordinarily exercised by reputable members of its profession.

5.2 One or more changes to the Services within the general scope of this Agreement may be ordered by Change Order. A Change Order shall mean a written order to the Consultant executed by the Parties after execution of this Agreement. The Consultant shall proceed with any such changes, and they shall be accomplished in strict accordance with the Contract Documents and the terms and conditions described in this Agreement.

5.3 The Consultant represents and warrants to the City that: (i) Consultant possesses all qualifications, licenses and expertise required in the provision of Services, with personnel fully licensed by the State of Florida; (ii) Consultant is not delinquent in the payment of any sums due the City, including payment of permit fees, local business taxes, or in the performance of any obligations to the City; (iii) all personnel assigned to perform work shall be, at all times during the term hereof, fully qualified and trained to perform the tasks assigned to each; (iv) the Services will be performed in the manner as described in the Contract Documents for the budgeted amounts, rates and schedules; and (v) the person executing this Agreement on behalf of Consultant is duly authorized to execute same and fully bind Consultant as a party to this Agreement.

5.4 The Consultant agrees and understands that: (i) any and all subconsultants used by Consultant shall be paid by Consultant and not paid directly by the City; and (ii) any and all liabilities regarding payment to or use of subconsultants for any of the work related to this Agreement shall be borne solely by Consultant. Any work performed for Consultant by a subconsultant will be pursuant to an appropriate agreement between Consultant and subconsultant which specifically binds the subconsultant to all applicable terms and conditions of the Contract Documents.

### **ARTICLE 6 - CITY'S TERMINATION RIGHTS**

6.1 The City shall have the right to terminate this Agreement, in its sole discretion at any time, with or without cause, upon ten (10) days written notice to Consultant. In such event, the City shall pay Consultant compensation for Services rendered prior to the effective date of termination. The City shall not be liable to Consultant for any additional compensation, or for any consequential or incidental damages.

### **ARTICLE 7 - INDEPENDENT CONTRACTOR**

7.1 The Consultant, its employees and agents shall be deemed to be independent contractors and not agents or employees of the City and shall not attain any rights or benefits under the civil service or pension ordinances of the City, or any rights generally afforded to classified or unclassified employees. The Consultant shall not be deemed entitled to the Florida Workers' Compensation benefits as an employee of the City.

## **ARTICLE 8 - DEFAULT**

8.1 In the event the Consultant fails to comply with any provision of this Agreement, the City may declare the Consultant in default by written notification. The City shall have the right to terminate this Agreement if the Consultant fails to cure the default within ten (10) days after receiving notice of default from the City. If the Consultant fails to cure the default, the Consultant will only be compensated for completed Services. In the event partial payment has been made for such Services not completed, the Consultant shall return such sums due to the City within ten (10) days after notice that such sums are due. The Consultant understands and agrees that termination of this Agreement under this section shall not release Consultant from any obligations accruing prior to the effective date of termination.

## **ARTICLE 9 - ENGINEER'S ERRORS AND OMISSIONS**

9.1 The Consultant shall be responsible for technically deficient designs, reports, or studies due to Consultant's errors and omissions, and shall promptly correct or replace all such deficient design work without cost to City. The Consultant shall also be responsible for all damages resulting from such errors and omissions. Payment in full by the City for Services performed does not constitute a waiver of this representation.

## **ARTICLE 10 - INDEMNIFICATION**

10.1 Consultant agrees to indemnify, defend, save and hold harmless the City its officers, agents and employees, from and against any and all claims, liabilities, suits, losses, claims, fines, and/or causes of action that may be brought against the City, its officers, agents and employees, on account of any negligent act or omission of Consultant, its agents, servants, or employees in the performance of Services under this Agreement and resulting in personal injury, loss of life or damage to property sustained by any person or entity, caused by or arising out of Consultant's negligence within the scope of this Agreement, including all costs, reasonable attorneys fees, expenses, including any appeal, and including the investigations and defense of any action or proceeding and any order, judgment, or decree which may be entered in any such action or proceeding, except for damages specifically caused by or arising out of the negligence, strict liability, intentional torts or criminal acts of the City, its officer, agents, employees or contractors, which claims are lodged by any person, firm, or corporation.

10.2 Nothing contained in this Agreement is any way intended to be a waiver of the limitation placed upon the City's liability as set forth in Chapter 768, Florida Statutes. Additionally, the City does not waive sovereign immunity, and no claim or award against the City shall include attorney's fees, investigative costs or pre-judgment interest.

## **ARTICLE 11 - INSURANCE**

11.1 Prior to the execution of this Agreement, the Consultant shall submit certificate(s) of insurance evidencing the required coverage and specifically providing that the City is an additional named insured or additional insured with respect to the required coverage and the operations of the Consultant under this Agreement. Consultant shall not commence work under this Agreement until after Consultant has obtained all of the minimum insurance described in the RFQ and the policies of such insurance detailing the provisions of coverage have been received and approved by the City. Consultant shall not permit its subconsultant to begin work until after similar minimum insurance to

cover subconsultant has been obtained and approved. In the event the insurance certificate provided indicates that the insurance shall terminate and lapse during the term of this Agreement, Consultant shall furnish, at least thirty (30) calendar days prior to expiration of the date of the insurance, a renewed certificate of insurance as proof that equal and like coverage and extension is in effect. Consultant shall not continue to perform the Services required by this Agreement unless all required insurance remains in full force and effect.

11.2 All insurance policies required from Consultant shall be written by a company with a best rating of B+ or better and duly authorized and licensed to do business in the State of Florida and be executed by duly licensed agents upon whom service of process may be made in Miami-Dade County, Florida.

#### **ARTICLE 12 - OWNERSHIP OF DOCUMENTS**

12.1 All documents developed by Consultant under this Agreement shall be delivered to the City by the Consultant upon completion of the Services and shall become property of the City, without restriction or limitation of its use. The Consultant agrees that all documents generated hereto shall be subject to the applicable provisions of the Public Records Law, Chapter 119, Florida Statutes. In the event the Agreement is terminated, Consultant agrees to provide the City all such documents within 10 days from the date the Agreement is terminated.

12.2 It is further understood by and between the Parties that any information, writings, tapes, Contract Documents, reports or any other matter whatsoever which is given by the City to the Consultant pursuant to this Agreement shall at all times remain the property of the City and shall not be used by the Consultant for any other purposes whatsoever without the written consent of the City.

#### **ARTICLE 13 - PUBLIC RECORDS**

13.1 Contractor understands that the public shall have access, at all reasonable times, to all documents and information pertaining to City contracts, subject to the provisions of Chapter 119, Florida Statutes (2020), and agrees to allow access by the City and the public to all documents subject to disclosure under applicable law.

13.2 The Contractor shall additionally comply with Section 119.0701, Florida Statutes (2014), including without limitation, the following conditions: (1) keep and maintain public records that ordinarily and necessarily would be required by the City to perform this service; (2) provide the public with access to public records on the same terms and conditions as the City would at the cost provided by Chapter 119, Florida Statutes (2020), or as otherwise provided by law; (3) ensure that public records that are exempt or confidential and exempt from disclosure are not disclosed, except as authorized by law; (4) meet all requirements for retaining public records and transfer, at no cost to the City, all public records in its possession upon termination of this Agreement and destroy any duplicate public records that are exempt or confidential and exempt from disclosure requirements; and (5) all electronically stored public records must be provided to the City in a format compatible with the City's information technology systems.

13.3 It is further understood between the Parties that any information, writings, tapes, Contract Documents, reports or any other matter whatsoever which is given by the City to the Contractor

pursuant to this Agreement shall at all times remain the property of the City and shall not be used by the Contractor for any other purposes whatsoever without the written consent of the City.

13.4 In the event the Agreement is terminated, Contractor agrees to provide the City all such documents within Ten (10) Days from the date the Agreement is terminated. All documents developed by Contractor under this Agreement shall be delivered to the City by the Contractor upon completion of the Services and shall become property of the City, without restriction or limitation of its use. The Contractor agrees that all documents generated hereto shall be subject to the applicable provisions of the Public Records Law, under Chapter 119, Florida Statutes (2020).

**13.5 IF THE YOU HAVE QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO YOUR DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT [FMEDRANDA@NORTHMIAMIFL.GOV](mailto:FMEDRANDA@NORTHMIAMIFL.GOV) , RECORDS CUSTODIAN, CITY OF NORTH MIAMI, 776 N.E. 125 STREET, NORTH MIAMI, FL 33161.**

#### **ARTICLE 14 - NOTICES**

14.1 All notices, demands, correspondence and other communications between the Parties shall be deemed sufficiently given under the terms of this Agreement when dispatched by registered or certified mail, postage prepaid, return receipt requested, addressed as follows or as the same may be changed from time to time:

For Consultant: R.J. Behar & Company, Inc.  
Attn: Evan Krakower, Esq., Registered Agent  
10061 NW 1ST COURT  
Plantation, FL 33324

For the City: City of North Miami  
Attn: City Manager  
776 N.E.125<sup>th</sup> Street  
North Miami, Florida 33161

With copy to: City of North Miami  
Attn: City Attorney  
776 N.E.125<sup>th</sup> Street  
North Miami, Florida 33161

14.2 Either Party may at any time designate a different address and/or contact person by giving notice as provided above to the other Party. Such notices shall be deemed given upon receipt by the addressee.

14.3 In the event there is a change of address and the moving Party fails to provide notice to the other Party, then notice sent as provided in this Article shall constitute adequate notice.

## **ARTICLE 15 - MISCELLANEOUS PROVISIONS**

15.1 No waiver or breach of any provision of this Agreement shall constitute a waiver of any subsequent breach of the same or any other provision hereof, and no waiver shall be effective unless made in writing.

15.2 All representations, indemnifications, warranties and guarantees made in, required by, or given in accordance with this Agreement, as well as all continuing obligations indicated in the Contract Documents, shall survive final payment, completion and acceptance of the Services and termination or completion of the Agreement.

15.3 Should any provision, paragraph, sentence, word or phrase contained in this Agreement be determined by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable under the laws of the State of Florida, such provision, paragraph, sentence, word or phrase shall be deemed modified to the extent necessary in order to conform with such laws, or if not modifiable, then same shall be deemed severable, and in either event, the remaining terms and provisions of this Agreement shall remain unmodified and in full force and effect or limitation of its use.

15.4 This Agreement and Contract Documents constitute the sole and entire agreement between the Parties. No modification or amendments to this Agreement shall be binding on either Party unless in writing and signed by both Parties.

15.5 This Agreement shall be construed and enforced according to the laws of the State of Florida. Venue in any proceedings between the Parties shall be in Miami-Dade County, Florida.

15.6 The City reserves the right to audit the records of the Consultant covered by this Agreement at any time during the provision of Services and for a period of three years after final payment is made under this Agreement.

15.7 The Consultant agrees to comply with and observe all applicable federal, state, and local laws, rules, regulations, codes and ordinances, as they may be amended from time to time.

15.8 Services shall not be subcontracted, transferred, conveyed, or assigned under this Agreement in whole or in part to any other person, firm or corporation without the prior written consent of the City.

15.9 The City of North Miami is exempt from Federal Excise and State taxes. The applicable tax exemption number or certificate shall be made available upon request.

15.10 The professional Services to be provided by Consultant pursuant to this Agreement shall be non-exclusive, and nothing herein shall preclude the City from engaging other firms to perform Services.

15.11 This Agreement shall be biding upon the Parties herein, their heirs, executors, legal representatives, successors and assigns.

15.12 The Consultant agrees that it shall not discriminate as to race, sex, color, creed, national origin, or disability, in connection with its performance under this Agreement.

15.13 All other terms, conditions and requirements contained in the Contract Documents, which have not been modified by this Agreement, shall remain in full force and effect.

15.14 This Agreement may be executed in two or more counterparts, each of which shall constitute an original but all of which, when taken together, shall constitute one and the same Agreement.

*[The remainder of this page is intentionally left blank.]*

**IN WITNESS WHEREOF**, the Parties have executed this Agreement by their respective proper officers duly authorized the day and year first written above.

ATTEST:

R.J. Behar & Company, Inc., a Florida for-profit corporation

**“Consultant”:**

Corporate Secretary or Witness:

By: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

ATTEST:

City of North Miami, a Florida municipal corporation: **“City”**

By: \_\_\_\_\_

By: \_\_\_\_\_

Vanessa Joseph, Esq.  
City Clerk

Theresa Therilus, Esq.  
City Manager

APPROVED AS TO FORM AND  
LEGAL SUFFICIENCY:

By: \_\_\_\_\_

Jeff P. H. Cazeau  
City Attorney

**SCOPE OF SERVICES  
FOR THE STORMWATER MASTER PLAN UPDATE  
For  
The City of North Miami  
Miami-Dade County, Florida**

### **A. INTRODUCTION**

The City of North Miami (CITY) is located in the Northeast region of Miami-Dade County. According to the CITY's Comprehensive Plan of 2016, the CITY has a population of 61,578 people living in a 9.98 square mile area and has struck a working balance between modernization, industrialization, and diversification on the one hand and an excellent residential environment on the other. Of the City's total land area; approximately 4% is allocated to commercial uses and approximately 3% to light industrial uses. Since its incorporation in 1926, the CITY has developed and maintained a Primary Stormwater Management System (PSMS) that discharges to various natural and manmade canals tributary to Biscayne Bay, which is listed as a protected Outstanding Florida Water (OFW).

The CITY is under the Miami-Dade County Department of Environmental Resources Management (DERM) MS4 Permit (Permit ID FLS000003) for a MS4 Phase I. As required by DERM, the CITY developed a Phase I Stormwater Master Plan. Completed in 1998, the plan was limited in scope and addressed, in general terms, the CITY's need for compliance with the inter-local agreements it has with Miami-Dade County, NPDES permit compliance and normal operation and maintenance requirements. Additionally, as part of the NPDES permit requirements, the CITY developed treatment performance standards set forth in the State Water Policy for areas of new development.

In October of 2000, with the assistance of PBS&J consultants, the CITY prepared a Phase II Stormwater Master Plan to mitigate areas of chronic flooding, address stormwater quality concerns, and bring the City in compliance with the National Flood Insurance Program's Community Rating System Guidelines for Stormwater Management Master Plans. Contained in the Phase II Stormwater Master Plan were recommended capital improvements needed to meet the DERM Level of Service (LOS) standards for local roads (reduce the street flooding for the 5-year, 24-hour storm to below the centerline of the roadway).

In the Year 2012, the CITY completed an update to the Stormwater Master Plan with the assistance of CDM Smith. The 2012 update incorporated completed construction projects and identified remaining priority flooding and water quality concerns. The stormwater master plan (SWMP) update supported the CITY's understanding of its primary stormwater management system (PSMS) and needs in order to comply with CITY and LOS standards, National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit requirements and Federal Emergency Management Agency (FEMA) requirements and audits. The 2012 SWMP update provided the City a document to support

decisions related to capital improvements, as well as those of its overall stormwater management program.

The CITY is now interested in updating the stormwater master plan to include completed construction projects since 2012, update the hydrologic-hydraulic model, evaluate land use changes within the CITY, consider sea level rise projections, update water quality analysis with new data, update funding options, and National Flood Insurance Program Community Rating System (CRS) changes. The updated SWMP will provide continued support to long-term stormwater management capital improvements and provide an assessment of possible sea level rise impacts on the CITY's PSMS.

The objective is to provide the CITY with an updated Stormwater Master Plan, which can be implemented and fully coordinated with the community and agencies.

## **B. STATEMENT OF PROPOSED WORK AND SCOPE OF SERVICES**

The following proposed Scope of Services outlines our understanding of the tasks necessary to update the Stormwater Management Master Plan for the City of North Miami, Florida.

The study area and the hydrologic units have been determined by the 2012 SWMP update. Figure 1 attached to this scope of work is Figure 3-1 from the 2012 Update and shows the SWMM Schematic and basin boundaries.

### **TASK 1 - PROJECT DEFINITION AND COORDINATION**

#### **1.1 Project Coordination**

Task 1 will continue throughout the project and will establish project coordination and clear definition of project objectives and schedule. Coordination meetings are anticipated at both the beginning of the project with the CITY and Project Team (Kickoff Meeting) and after completion of each major work element. Coordination will be established with appropriate agencies including the Florida Department of Transportation (FDOT), South Florida Water Management District (SFWMD), and Miami-Dade County, and other agencies and consultants as appropriate.

The following meetings and presentations are expected:

- Kick-off meeting
- Progress Meetings (4)
- Presentation of Final Report to CITY Staff
- Presentation of Final Report to Commission

Consultant will prepare presentation slides and summary notes for meetings as necessary. Consultant shall also prepare monthly progress reports outlining the progress and activities performed to date.

## **1.2 Field Reconnaissance**

Consultant shall conduct field visits to familiarize staff with critical areas that need facilities improvements. The field visits will focus on identifying major factors contributing to flooding, pollution sources and familiarization with current practices.

Deliverables for this task will include:

1. Meeting Minutes with the CITY and with Agencies and/or Stakeholders and copies of presentations.

## **TASK 2 - DATA COLLECTION, AND REGULATORY CRITERIA REVIEW**

### **2.1 Data Collection**

The consultant will gather existing information and assess the sufficiency of this information and data. The 2012 Stormwater Master Plan Update contains much of the necessary information. Other sources of information include the CITY's Comprehensive Plan, Miami-Dade County Water Quality Data, The Southeast Florida Regional Climate Change Action Plan, SFWMD, Federal Emergency Management Agency (FEMA) and FDOT. These tasks should include identifying critical areas using interviews with CITY's Public Works staff.

The CITY should provide the list of projects that have been completed since 2012 and the As-built plans, preferably CAD files of those projects, to be used in the modeling update.

#### **2.1.1 Geographic Information System (GIS) Data Collection**

The CITY will provide the latest versions of the available stormwater data and GIS coverages that will be used for this project, which may include:

- NPDES MS4 coverages
- Stormwater System data and as-builts plans of PSMS components
- Land Use
- Flooding complaint records
- Available topography
- Repetitive loss data related to flooding
- Seawall elevations
- Pump station, outfalls and flap gates/check valves

The Consultant will evaluate the data, identify potential data gaps for the subsequent master plan tasks and recommend options for the CITY to obtain additional data, if deemed necessary.

### **2.2 Review the Regulatory Requirements**

Review and summarize Federal, State, Regional and Local Agencies having jurisdiction over development of Stormwater Management Facilities in the region. These Agencies include at a minimum the FDOT,

FEMA, SFWMD, U.S. Army Corps of Engineers (USACE) and Miami-Dade County. The consultant will also review any proposed criteria or regulations being proposed and assess how they could impact the SWMP in the future.

According to the CITY's Comprehensive plan, the CITY has implemented a LOS, which shall be used as the basis for redevelopment and new development. The LOS Standards are as follows:

- Water Quality Standard: Stormwater facilities shall be designed to meet the design and performance standards established in Ch. 62-25, §25.025, F.A.C., with treatment of the runoff from the first 1" of rainfall onsite to meet the water quality standards required by Ch. 62-302, 862-302.500, F.A.C.
- Water Quantity Standard: During the five-year SFWMD design storm event, flooding of local roadways shall be below the crown of the roadway.

Where two or more standards impact a specific development, the most restrictive standard shall apply. These basic LOS criteria shall be followed by the stormwater master plan.

- Additionally, MDC ordinance No. 14-79 and resolution R-451-14 regarding considering potential impacts of sea level rise in all County infrastructure projects will be taken into consideration for the proposed recommendations.

Deliverables for this task will include:

1. A letter-report summarizing compiled information and identifying further data gathering or data development needs, a list of the identified potential stormwater problem areas, and a summary of environmental constraints. The need for water quality testing and identification of pollutants and contaminants will be determined as it may be needed for implementation of Best Management Practices.
2. Maps will be developed identifying the report findings in graphical way. These maps will be updated as the master plan is completed.
3. Database of drainage facilities and pervious / impervious coverage.

### **TASK 3 - STORMWATER SYSTEM MODELING.**

The 2012 SWMP used the US EPA SWMM 5.0 program to model and estimate hydrologic-hydraulic conditions of the CITY's PSMS. The intent is to re-use the SWMM model and update it to add completed projects since 2012, include sea level rise projections, update land use changes and other changes requested by the CITY. The city will provide the 2012 model SWMM files.

#### **3.1 Upload SWMM Model to Latest Version and Re-run the Model.**

This task includes uploading and converting the existing SWMM 5.0 model to the latest version, SWMM 5.1 and re-run the model. The results of the model should be compared with the results of the 2012

SWMP update to validate the new model prior to performing new updates. The model currently has 371 total nodes and 658 total links.

Consultant will execute five SFWMD design storms (2-year, and 5-year, 24-hour; and the 10-, 25-, and 100-year, 72-hour) to establish existing base model results.

### **3.2 Update SWMM Model**

This task includes updating the SWMM model to add completed projects since 2012, include sea level rise projections, update land use changes and any other changes requested by the CITY. The soil coverage values directly connected impervious areas (DCIA), storage values and other parameters will be updated based on the completed projects and known land use changes.

The sea level rise projections will be based on the Southeast Florida Regional Climate Change Action Plan. The Regional Climate Action Plan was the result of collaboration of existing staff and resources from the various cooperating agencies including Palm Beach, Broward, Miami-Dade, Monroe Counties, their municipalities and other partners. The plan presented the Unified Southeast Florida Sea Level Rise Projection. This projection uses historic tidal information from Key West and was calculated by Kristopher Esterson from the United States Army Corps of Engineers using USACE Guidance (USACE 2009) intermediate and high curves to represent the lower and upper bound for projected sea level rise in Southeast Florida.

Consultant will execute the same five SFWMD design storms (2-year, and 5-year, 24-hour; and the 10-, 25-, and 100-year, 72-hour) using updated parameters and compare to the existing base model results. This model will then be used to compare against any proposed improvements.

### **3.3 San Souci and Keystone Neighborhoods**

The San Souci and Keystone neighborhoods of North Miami were not included in the previous SWMP update. These areas are considered to be tidally-influenced and acknowledged to be naturally flood-prone because of low-lying terrain. The analysis of the stormwater systems in the area will be evaluated independently. Stormwater runoff for this region will be evaluated using a separate model.

Deliverables will include:

1. A section of the report summarizing and tabulating the results of Tasks 3.1, 3.2 and 3.3.
2. Graphics showing the impacts of projected sea level rise on the CITY's PSMS.
3. The updated SWMM model files.

## **TASK 4 – WATER QUALITY EVALUATIONS**

The Consultant will update the average annual stormwater-related pollutant loads to the Biscayne Bay and the Atlantic Ocean estimated by the 2012 SWMP using data collected since 2012. The Consultant will then estimate the average annual potential pollutant load reductions for the established NPDES parameters in the 2012 SWMP based on potential implementation of new BMPs.

Deliverables will include:

1. Updated average annual pollutant loads.
2. Water quality evaluation report section with a tabular comparison of average annual NPDES indicator parameter loads for existing and proposed BMP condition.

**TASK 5 - DEVELOP STORMWATER MANAGEMENT STRATEGIES AND SOLUTIONS**

5.1 During this phase alternatives will be developed for the implementation of stormwater management efforts to reduce flooding conditions and improve water quality problems. The alternatives will be conceptualized and discussed with the CITY. Alternatives that are considered viable will be further developed.

5.2 Identify retrofitting alternatives for existing systems. The plan should include the use of innovative technologies that have proven effective in the urbanized setting of the CITY.

5.3 Identify the need to re-establish existing systems and/or provide maintenance required by regulating agency permits.

5.4 Green alternatives and infrastructure such as permeable pavement, bioretention, rain gardens, vegetated swales, etc. will be evaluated as part of the proposed solutions.

5.5 The Consultant will simulate the 2- and 5-year 24-hour and the 10-, 25-, and 100-year 72-hour SFWMD design storms and report peak stages and flows for PSMS conduits and junctions in tabular form for comparison to existing conditions for identification of flood reduction benefits and LOS.

5.6 The Consultant will estimate conceptual-level probable capital costs for the selected alternatives and BMPs.

5.7 Develop alternatives for improvements within the San Souci and Keystone neighborhoods.

Deliverables will include:

1. A report summarizing the findings of tasks 5.1 to 5.6 in the form of the Final Master Plan Report. The report will be submitted as a draft report for review and comments by the CITY. Once comments have been addressed the final report will be submitted.

**TASK 6 - DEVELOP IMPLEMENTATION PLAN**

The program should identify the elements to be implemented, who has primary responsibility, and methods for the implementation. A relative order of the implementation should be developed identifying the elements that will produce the most cost-effective solutions. Consultant will also evaluate and summarize potential grant and loan opportunities for stormwater projects.

The operations and maintenance needs for the City stormwater infrastructure will be reviewed and updated to comply with the requirements of the NPDES joint permit with Miami-Dade County.

Deliverables will include:

1. Implementation Program,
2. Schedule of Implementation by Priorities,
3. Operations and Maintenances (O&M) needs.

Task 6 deliverables will be included in the Master Plan Report.

### **TASK 7 - STORM SURGE INUNDATION MAPS**

The consultant will provide a section in the report addressing storm surge and will include storm surge inundation maps showing the impacts of different hurricanes categories (category 1, 2, 3, 4 and 5). The maps will indicate the inundation height produced by storm surge flooding using the USEPA Storm Surge Flooding Map Tool. This map displays the results from the SLOSH (Sea, Lake, and Overland Surges from Hurricanes) model. SLOSH is a numerical model used by NWS (National Weather Service) to compute storm surge.

Deliverables will include:

1. Description of the methodology used to generate the maps, and map interpretation and engineering evaluation.
2. Storm Surge Inundation maps for different hurricanes categories.

Task 7 deliverables will be included in the Master Plan Report.

### **TASK 8 - FEMA CRS RATING ASSISTANCE**

The consultant will review the available information and will provide suggestions on documenting and reporting to FEMA additional work that would allow the CITY to reduce its CRS classification.

Deliverables will include:

1. Master Plan Report section describing the available data as well as the proposed activities to improve the current CITY's CRS rating.

### **TASK 9 – STORMWATER FUNDING EVALUATION**

Based on the cost estimates developed, CONSULTANT will develop a 50-year capital expenditure plan that will include capital improvements, as well as operation and maintenance. The projected costs will be compared with the stormwater utility revenues provided by the City to determine if there are any required adjustments to the current ERU fee. CONSULTANT will also update the CITY on the current fees adopted by nearby and similar communities within Florida.

CONSULTANT will evaluate and summarize potential grant and loan opportunities for stormwater projects.

Deliverables will include:

1. Stormwater funding evaluation and utility update recommendations draft report section.

## **TASK 10 - STORMWATER MASTER PLAN REPORT AND APPENDICES**

Consultant will prepare a comprehensive report documenting the data gathered, analyses performed, recommended improvements, figures and schematics and discussion of results. The report should identify the improvements that could be implemented to improve existing conditions. A relative order of the implementation should be developed identifying the elements that will produce the most cost-effective solutions and highest level of improvement.

### **Deliverables will include:**

1. Report and Schematic figures,
2. Summary of Results,
3. Implementation Program,
4. Schedule of Implementation by priorities, and
5. Conceptual-level probable capital costs.

## **QUALITY CONTROL**

The consultant will provide quality control reviews of each deliverable prior to submittal to the CITY.

## **TIME OF COMPLETION**

The consultant will complete this Scope of Services within 18 months from the date of the Notice to Proceed.

## **COMPENSATION**

See attached fee estimate table.

Note: This Scope does not include the following:

- Preparation of Construction Drawings and Permits for the proposed improvements.
- Topographic surveys of the existing drainage systems.
- Sampling of water quality data
- GIS mapping efforts.



City of North Miami

**Legend**

Hydrologic Unit

**SWMM Node**

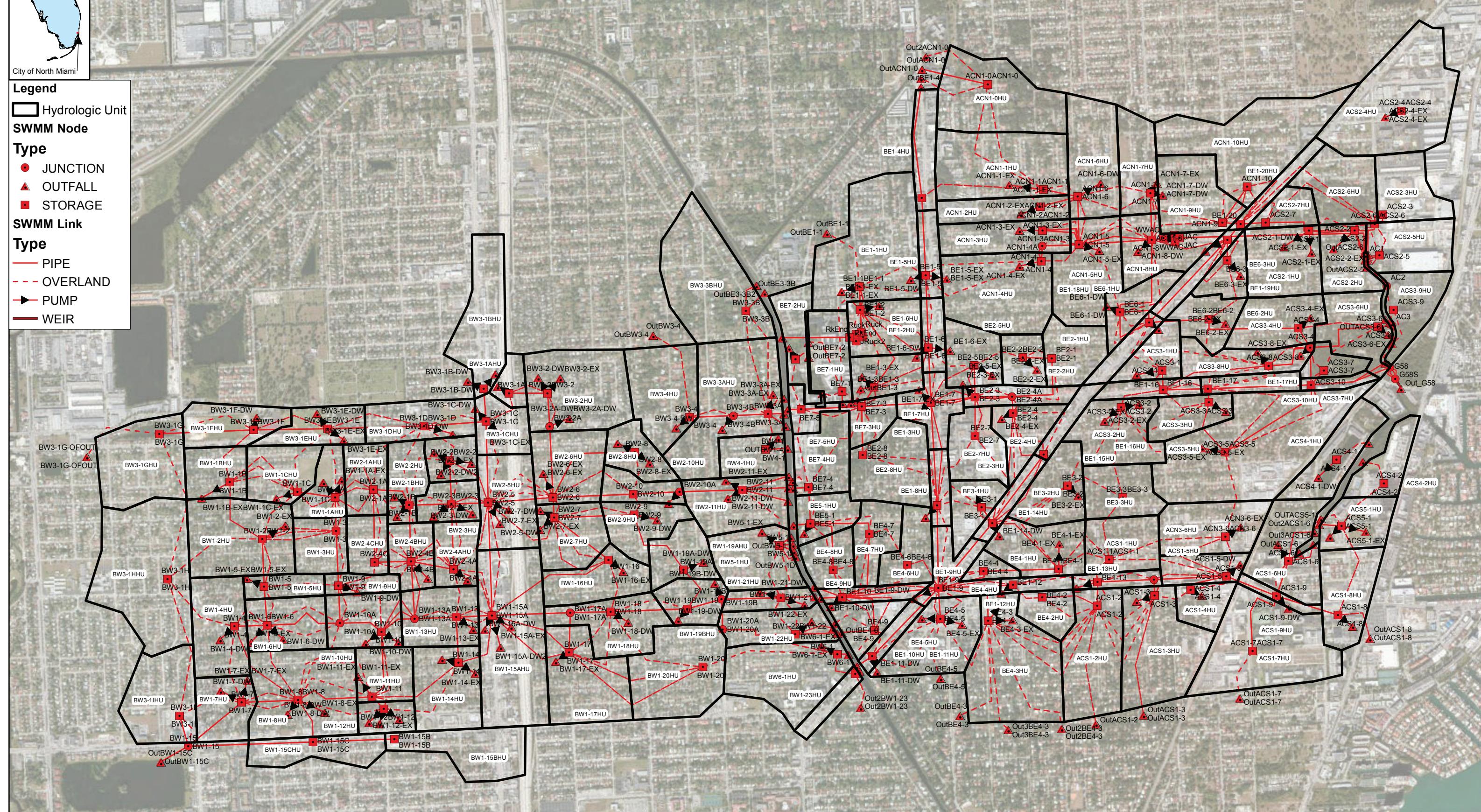
**Type**

- JUNCTION
- OUTFALL
- STORAGE

**SWMM Link**

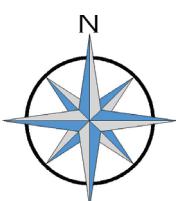
**Type**

- PIPE
- OVERLAND
- PUMP
- WEIR



**FIGURE 1**

**Figure 3-1**



**City of North Miami  
SWMM Schematic**

0 1,250 2,500 5,000  
Feet