



# AGENDA ITEM MEMORADUM

**Town Manager**

**Connie Hoffmann** *CH*

Department

Department Director

| <b>COMMISSION MEETING DATE (*) - 7:00 PM</b>                     | <b>Deadline to Town Clerk</b> |
|--|-------------------------------|
| <input checked="" type="checkbox"/> Jan 10, 2012                 | Dec 30 <sup>th</sup>          |
| <input type="checkbox"/> Jan 17, 2012 SPECIAL COMMISSION MEETING | Jan 6                         |
| <input type="checkbox"/> Jan 24, 2012                            | Jan 13                        |
| <input type="checkbox"/> Feb14, 2012                             | Feb 3                         |
| <input type="checkbox"/> Feb 28, 2012                            | Feb 17                        |

*\*Subject to Change*

- |                                       |   |   |                                       |
|---------------------------------------|---|---|---------------------------------------|
| <input type="checkbox"/> Presentation | <input type="checkbox"/> Reports        | <input checked="" type="checkbox"/> Consent | <input type="checkbox"/> Ordinance    |
| <input type="checkbox"/> Resolution   | <input type="checkbox"/> Quasi-Judicial | <input type="checkbox"/> Old Business       | <input type="checkbox"/> New Business |

**FY2011 DESIGNATED HIGH PRIORITY ITEM - PRIORITY**  
**TOPIC: CIP: North Bougainvilla Drive Drainage & Streetscape Project**

**SUBJECT TITLE: Work Authorization for Design of the North Bougainvilla Drive Drainage & Streetscape Project**

**EXPLANATION:** The FY 2012 Capital Fund Budget contains \$800,000 for the design and construction of drainage and streetscape improvements on Bougainvilla Drive between the Fire Station property and Pine Avenue. The scope of services for the design of this project was given to two of the engineering firms that hold continuing contracts with the Town – Flynn Engineering and Keith & Associates – to provide proposals to do the work. Although Keith & Associates submitted the lower cost proposal (\$73,425), it is recommended that the Work Authorization be awarded to Flynn Engineering at a maximum cost of \$85,912 for several reasons:

1. Flynn Engineering will assign Professional Engineers (PEs) to design the project, as opposed to Keith's use of Engineering Interns to design the project. PEs hold the highest level of engineering proficiency.
2. Flynn's proposal calls for substantially more involvement of a Landscape Architect than Keith's proposal. The beautification/streetscape aspects of this project are challenging because of the proliferation of 90 degree angle back-out parking on the street and the greater involvement by a Landscape Architecture firm should provide a more thorough look at aesthetic options and considerations.
3. The Flynn proposal includes the services of a Traffic Engineer; the Keith proposal does not.
4. The Flynn proposal offers the possibility of reducing the electrical engineering fees by charging for only design hours incurred if it is determined either by space constraints or the Commission's possible choice of landscaping over increased street lighting that limited street lighting will be incorporated into the project.

For professional services, the quality of the design team and design approach is the strongest consideration in making an award recommendation.

**RECOMMENDATION: Award the Work Authorization to design the North Bougainvilla Drive Drainage & Streetscape Project in an amount not to exceed \$85,912 to Flynn Engineering Services under their Continuing Services Contract with the Town.**

**EXHIBIT(S):** Work Authorization Proposals from Flynn Engineering and Keith & Associates.

Reviewed by Town Attorney  
 Yes     No

Town Manager Initials *CH*

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

|   |  |   |                     |
|---|--|---|---------------------|
| <b>Consultant:</b> Flynn Engineering Services, PA   |  |   |                     |
| <b>Address:</b> 241 Commercial Blvd, Lauderdale by the Sea, FL 33308  |  |   |                     |
| <b>Contract No.</b><br><b>Agreement Description:</b> Continuing Professional Services Contract for Professional Services for Municipal Construction, Repair & Maintenance Projects  |  | <b>Work Authorization No.:</b><br><b>Effective Date</b> _____ |                     |
| <b>P.O. # For Work Authorization:</b>   |  | <b>Account #:</b> _____                                       |                     |
| <b>Brief Task Description:</b> Preparation of design and construction drawings for Storm Water Drainage and Beautification Improvements on the northern section of Bougainvillea Drive  |  |   |                     |
| In accordance with the above referenced agreement, you are authorized to perform the tasks detailed in attached Exhibit A (Scope of Services). All required services will be completed on or before: <u>See Exhibit "C"</u>   |  |   |                     |
| The total amount or the limiting amount of the compensation will be: \$85,912 unless additional services are authorized by the Town in writing. <b><u>***The full fee for Delta G will only be charged to the Town if the project does get the full lighting as described in the scope. If the design determines that lighting is limited due to conflicts with trees and also limited due to space constraints for light pole locations, then the fee for lighting will be prorated on an actual cost basis for time spent on the project.</u></b> |  |   |                     |
| <b>Compensation elements are as follows:</b>  |  |   |                     |
|   | <b>Method of Compensation (Lump Sum, Hourly NTE)</b> | <b>Amount (\$)</b>  | <b>Project Code</b> |
| Task # 1 Survey/Base Map Preparation  | Lump Sum   | \$7,785.  |                     |
| Task # 2 Conceptual Design  | Lump Sum   | \$15,802.   |                     |
| Task # 3 Storm Water Drainage Design  | Lump Sum   | \$4,278.  |                     |
| Task # 4 Schematic Design   | Lump Sum   | \$14,487.   |                     |
| Task # 5 Final Design   | Lump Sum   | \$18,850.   |                     |
| <b>Task # 6</b> Bid Phase Services and Permitting   | Lump Sum   | \$7,760.  |                     |
| Task# 7 Construction Phase Services   | Lump Sum   | \$16,950.   |                     |
| <b>Total</b>  |  | <b>***\$85,912.</b>   |                     |

This Work Authorization is subject to the same terms and conditions of the Continuing Professional Services Contract dated 8/3/11.

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

**Town of Lauderdale by-the-Sea Approval:**

Constance Hoffmann, Town Manager

\_\_\_\_\_

(Signature)

\_\_\_\_\_

(Date)

June White, Town Clerk

\_\_\_\_\_

(Signature)

\_\_\_\_\_

(Date)

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

**Contractor Acceptance:**

Contractor Name: Jay M. Flynn, PE

Title: President

Jay M Flynn  
\_\_\_\_\_

(Signature)

12-29-11  
\_\_\_\_\_

(Date)

Approved as to Form 7/2011 HK

## Exhibit A

### Name of Project

**SURVEY, DESIGN, CONSTRUCTION DOCUMENT PREPARATION, AND OTHER PROFESSIONAL SERVICES FOR STORMWATER DRAINAGE & BEAUTIFICATION IMPROVEMENTS TO A SECTION OF BOUGAINVILLE DRIVE IN THE TOWN OF LAUDERDALE-BY-THE-SEA**

### Scope of Services

#### **GENERAL DESCRIPTION**

The northern section of Bougainville Drive experiences flooding during significant rain events and ponding in the swale areas is common 24 hours after a storm. The Town wishes to install an exfiltration drainage system that will clear storm water quickly in a 10 year storm.

In addition, the Town wishes to beautify the street. The street and public right of way in its current condition is a swath of asphalt and concrete, with no landscaping, no curbing and no gutters. There are two traffic lanes of approximately 9' each in width in good condition, a 10'-11' asphalt swale on the side of each traffic lane that is in poor condition, and 4'-5' concrete sidewalks that abut the swale area on both sides of the street. Street lighting is intermittent, unattractive in appearance, and long stretches of the street are not lit. There is no pedestrian lighting for the sidewalks on the street.

The street is characterized by multifamily dwelling units and motels, almost all of which have 90 degree angled back out parking. The sidewalks are located between the private parking spaces and the swale. Parking is at a premium and often does not meet current code parking requirements, so eliminating access to parking – or replacing parking with parallel or 45 degree angled parking - in order to create areas for landscaping is not a viable design option. Town staff had considered the option of entering into easement agreements with property owners to allow them to park partially in the swale area in order to create a green, landscaped corridor on private property bordered by a sidewalk, but have abandoned that idea because of the following issues: a) there are too many individually-owned properties to make that feasible, 2) a traffic engineer has advised that the entire swale is needed to safely back out of a 90 degree angle parking space, and 3) the cost of moving the sidewalk.

Because of the parking restraints, it is likely that the beautification of the road will have to occur via decorative hardscape treatment of the swale, limited landscaping at the intersections and in those few swale areas that are not taken up by parking, and possible lighting enhancements with more decorative light poles that could display colorful banners and/or hanging plants. The Town is open, however, to other creative aesthetic enhancements and improvements that the design consultant can present that do not reduce the number of parking spaces and meet general traffic engineering practice for local roads and parking.

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

The Town has budgeted \$800,000 for this project in the current fiscal year, including design, permitting and construction administration. That budget was based on estimates prepared by the Town's engineering firm for drainage improvements, plus several hundred thousand dollars for undefined aesthetic improvements. The determination of a final budget for the project will be affected by decisions made by the Town Commission at the conceptual and schematic design stages on elements to be included in the final design.

As is in all projects, the Town has a strong interest in using sustainable materials and the design consultant is expected to advise the Town of the feasibility of using such materials.

The scope of services includes:

#### TASK 1: SURVEY/BASE MAP PREPARATION

The Town does not have a current survey of the street, therefore, the design consultant will have to have a survey done in order to create a base map. The Town can provide the following information to the design consultant team:

1. Maps that show the locations of existing storm water drainage systems.
2. Maps that show locations of existing sewer mains and lateral stubs in the public rights of way systems in the area.
3. FP&L component list for street lighting in the area.

The consultant shall prepare a survey of the project area that includes:

1. Horizontal and vertical data on a minimum of 50 foot stations and grade breaks in State Plane Coordinates and current Broward County Vertical Datum.
2. Surface features and limits indicating materials.
3. All above ground utilities and evidence of below ground utilities including main and service lines for potable water and fire hydrants, sanitary sewer manholes, mains and service laterals, storm drainage catch basins, pipes and manholes, aerial FPL, ATT and Comcast facilities, streetlights, signs and other incidental features. Includes locations of underground utilities as marked by Sunshine One Call for member utilities. Pipe diameter, invert elevation and pipe material, if observable, shall be included. Roadway striping shall be included.
4. Location and species of all trees 3" caliper and greater.

The survey/base map shall show all existing parking, including striping, that is adjacent to the public rights of ways and sidewalks. The design consultant shall perform necessary field investigations/reconnaissance and review of available records and add any information needed to prepare survey/base maps for use in design.

Deliverables: Provide five (5) hard copies of the survey/base map in 24" x 36" format, one electronic copy in pdf format and one electronic copy in Auto CAD format. The survey must be on state plane coordinates.

#### TASK 2: CONCEPTUAL DESIGN OF THE BEAUTIFICATION ELEMENTS

- A. Determine what publicly-owned areas can be landscaped without sacrificing the viability of existing parking spaces.
- B. Determine if there are viable beautification alternatives to those described in the scope of services and review them with the Town Manager.
- C. Prepare preliminary design concepts, consisting of two (2) prototype illustrations of a 300 foot section. The refined conceptual design package should consist of the following:
  - a. Landscaping improvements (most likely xeriscaping)
  - b. A minimum of two options for decorative treatment of the swale.
  - c. Recommendations regarding the relationship between the swale and the sidewalks (e.g. width of sidewalks versus width of swales; differentiation between the two).
  - d. A minimum of two options for aesthetic improvements that will significantly improve the appearance of the street.
  - e. Lighting evaluation and suggested alternatives for lighting.
  - f. Conceptual cost considerations for the various options under consideration.

Both design concepts shall satisfy traffic engineering standards or practices for local roads and back out parking.

- D. Present the conceptual design alternatives at a meeting to which the adjacent property owners have been invited and consider their input in making alterations to the preliminary design concepts.
- E. Confer with Town staff on feedback from the public meetings.
- F. Present the conceptual design alternatives at a Town Commission meeting and facilitate obtaining direction from the Commission on selection of the preferred designs from the alternatives presented.

In addition to the meetings detailed above, the Consultant shall regularly confer with the Town Manager and other staff members she may include to review progress, design issues, etc.

Deliverables: Conceptual design alternatives consisting of:

- Supporting typical sections, sketches, illustrations and or image boards illustrating proposed streetscape alternatives mounted on foam core board or other suitable mounting material for presentations.
- No fewer than 2 (two) boards, a PowerPoint presentation, and 7 (seven) formatted hard copies, showing typical sections, sketches, illustrations, images, that shows the various elements to a sufficient level of detail for observers to get a true sense of how the streets will appear with the improvements suggested.

### TASK 3: STORM WATER DRAINAGE DESIGN

The Town wishes to make drainage improvements that will clear storm water in a 10 year rain event in an hour. The assumption is that such drainage will be of an exfiltration design. The consultant shall:

- A. Perform design and analysis related to storm water drainage improvements, including undertaking hydraulic conductivity tests in advance of design. Work shall include design, details and technical specifications and shall be incorporated into the final construction drawings listed in Task 5.
- B. Prepare final certification of the improvements as required to place the system in service including review of as-builts prepared by the contractor, field review, and all other appropriate subtasks required.

Meetings: Meet with Town staff as needed to review design issues. No public meetings are expected.

Deliverables: The storm water drainage design shall be incorporated into final design for the entire project.

### TASK 4: SCHEMATIC DESIGN

Using feedback from meeting with the Town Commission, develop a Schematic Design for the project.

- A. Recommend two paving/ hardscape design options of for the Town to select from. Specify textures, colors, patterns and various aggregate or decorative materials. Provide samples and/or advise of installed location(s) of the recommended materials/surface treatment in Broward, Palm Beach or Dade Counties. Estimate life cycle costs and the benefits and disadvantages of each option.
- B. Recommend decorative elements for the project. Specify sources, models and model numbers if applicable, colors, placement, height, etc. for the decorative elements. Estimate life cycle costs and the benefits and disadvantages of each option.
- C. Provide detailed schematics for the location, size and type of landscape materials. Minimize the use of rocks, plastics and sand to reduce heat build-up.
- D. Prepare a preliminary construction cost estimate for the project itemized by the different components, including the storm water drainage improvements; hardscape, landscape enhancements, lighting enhancements, other aesthetic improvements, and any roadway resurfacing deemed necessary.
- E. Prepare a list of required or expected permits.
- F. Meet with the Broward County Traffic Engineering Division to review any aspects of the proposed design that they would need to approve and get their feedback.

- G. Confer with the Town Manager at least monthly to review progress, design issues, etc.
- H. Present the schematic design at a Town Commission meeting and facilitate obtaining direction from the Commission on which options to proceed with in final design.

Deliverables:

Provide a Schematic Design Package (two [2] color sets) as described earlier under the conceptual design phase.

- One set shall be mounted on foam core board or other suitable material for presentations.
- Consultant shall prepare the Schematic Design package with the intent to solicit detailed review and comment from the Town Commission, Town Manager, and general public.
- Provide one electronic and one hardcopy of the construction cost estimates and list of required or expected permits.

TASK 5: FINAL DESIGN

Prepare full design/construction drawings details and technical specifications for the drainage and beautification improvements needed to construct the project. At a minimum, the following elements are included:

1. Treatment of sidewalks/pedestrian facilities
2. Street lighting, pedestrian lighting and landscape lighting if proposed for inclusion in the project.
3. Specialty decorative features
4. Hardscape/Paving Plans
5. Curbs and paving
6. Storm water drainage plans
7. Erosion Control Plan if applicable
8. Landscaping Plans - Quantity, size, and description of the following:
  - a. Trees (including relocation of any existing trees)
  - b. Shrubs and groundcovers
  - c. Soil mixes
  - d. Planting details and specifications
9. Irrigation Plans where irrigation is feasible and necessary (Town to supply source information for irrigation source, i.e., well or Town water source).
10. Demolition Plan

B. Include all Construction Details required to construct the project such as:

1. Decorative elements
2. Special pavements or hardscapes
3. Lighting treatments if applicable
4. Landscaped edges and buffers
5. Pedestrian sidewalks or walkways
6. Curbs and hardscape edges
7. Storm water drainage improvements
8. Erosion Control if applicable
9. Construction Phasing Plans

C. Prepare technical specifications.

D. Prepare all permit applications required for approval of the proposed improvements or portions thereof by all appropriate jurisdictional agencies.

E. Prepare final estimate of quantities and construction cost estimate.

F. Prepare a narrative detailing recommended minimum contractor qualifications.

Meetings: Meet or confer with the Town Manager and other staff members to review progress, design issues, etc.

Deliverables: Provide two hardcopies each of the construction drawings at 60% complete and 90% complete for review and comment by the Town. (If the schematic design is done at the 50% level of design detail, the Town Manager will waive the 60% submittal requirement.)

Deliverables for the final design/construction drawings, specifications and cost estimate (unbound) are as follows:

1. Construction Drawings – one hardcopy full size, one hardcopy half size, and one electronic copy (pdf format)
2. Technical Specifications – one hardcopy and one electronic copy (.pdf format)
3. Construction Cost Estimate - one hardcopy

The Town will provide the front end bid documents that the Town normally uses to the consultant.

#### TASK 6: PERMITTING & BID PHASE SERVICES and

- A. Apply for and obtain all government or agency permits required for the project. (The Town will pay the permit fees).
- B. Attend one pre-bid conference
- B. Prepare responses to questions from possible contractors and issues.
- C. Prepare addenda as appropriate.
- D. Review bids received for the project and make written recommendation for contract award.

#### TASK 7: CONSTRUCTION PHASE SERVICES

The Town will employ a Project Manager who will take care of the administrative aspects of construction management for this and other major capital projects the Town is undertaking. However, the design consultant will be expected to provide the following services during the construction phase:

1. Review technical aspects of the Contractor's work for compliance with technical aspects of their contract with the Town. Elements including, but not limited to reviewing the Contractor's schedule for completeness, logic, durations, activity, flow, compliance with milestone dates, concurrency, resource allotment. Verify the schedule conforms with the construction phasing and MOT sequences, including all contract modifications. Provide a written review of the schedule identifying significant omissions, improbable or unreasonable activity durations, or errors in logic.
2. Perform periodic site visits to determine if the project is being constructed in conformance with the design or approved design modifications.
3. Inform the Town of any observed omissions, substitutions, defects, violation and/or issue of non-compliance and deficiencies noted in the work of the Contractor.
4. Process and respond to contractor's submittals including, but not limited to, requests for information (RFI's), shop drawings and other related project information and submittals.
5. Review, evaluate and provide recommendations regarding contractor's payment applications.
6. Attend meetings with the contractor, Town and other appropriate entities to discuss any disputes, discussions about contractor's non-conformance with their contract or performance deficiencies, requests for modifications, field conditions that require modification of the plans, etc.
7. Modify the design if the Town determines that field conditions found during the construction phase dictate a change.
8. Complete any project certification required by permitting agencies or as appropriate.

Deliverables: Upon completion of project, provide to Town 2 (two) electronic copies and 1 (one) hardcopy of all reports, logs, minutes, correspondence and other information, permits, forms, and data generated for the project.

## **COMPOSITION OF PROJECT TEAM**

If the lead Consultant does not have the capability of performing all services required by the scope of services, they shall identify in the work authorization any sub-consultants to be used on the project. The licenses and qualifications of the members of the sub-consultants shall be consistent with the requirements for their respective professions as required by the Town's RFQ # 11-05-1 for Continuing Contracts for Professional Services.

The lead consultant will be required to commit that the personnel and/or principals named in the proposal for both the lead consultant and the sub-consultants shall remain assigned to the project throughout the period of the work authorization unless provided for otherwise as described herein. No diversion or substitution of personnel or principals will be allowed without submission of a written request with the qualifications and experience of the proposed replacement. The written approval of the Town Manager will be required for any such diversion or substitution.

## **COMPENSATION**

Compensation for this project shall be quoted on a total, not-to-exceed sum and shall include the cost of all services, deliverables and meetings listed above. The total cost shall also be broken down into segments for each of the previously-described seven (7) tasks of this Work Authorization.

The Consultant shall also provide hourly compensation rates and an indication of the amount of time of various professionals on the project for the Lead Consultant in Exhibit B-1 and for sub-consultants in Exhibit B-2.

The Consultant shall also provide a schedule of time it shall take to complete each Task in Schedule C.



**Exhibit B-2 Staff Time Estimate / Hourly Rates**

| Personnel   | Hourly*<br>Rate | Hours per Task |          |         |          |          |         |          |        |        | Totals |          |
|---|-----------------|----------------|----------|---------|----------|----------|---------|----------|--------|--------|--------|----------|
|   |                 | Task 1         | Task 2   | Task 3  | Task 4   | Task 5   | Task 6  | Task 7   | Task 8 | Task 9 | Hrs    | Cost     |
| <b>Traffic Engineering</b>                        |                 |                |          |         |          |          |         |          |        |        |        |          |
| Principal   | \$200.00        |                | 16       |         | 2        | 2        |         |          |        |        | 20     | \$4,000  |
|   |                 |                |          |         |          |          |         |          |        |        | 0      | \$0      |
| Sub Total (hours)                                 |                 |                |          |         |          |          |         |          |        |        |        | \$4,000  |
| <b>Surveying</b>                                  |                 |                |          |         |          |          |         |          |        |        |        |          |
| Field Crew  | \$125.00        | 26             |          |         |          |          |         |          |        |        | 26     | \$3,250  |
| CAD Drafting                                      | \$85.00         | 20             |          |         |          |          |         |          |        |        | 20     | \$1,700  |
| Prof. Land Surveyor                               | \$100.00        | 3              |          |         |          |          |         |          |        |        | 3      | \$300    |
| Sub Total (hours)                                 |                 | 49             |          |         |          |          |         |          |        |        | 49     | \$5,250  |
| <b>Landscape Architecture</b>                     |                 |                |          |         |          |          |         |          |        |        |        |          |
| Principal Landscape Architect                     | \$145.00        |                | 8        |         | 10       | 20       |         | 6        |        |        | 44     | \$6,380  |
| Project Manager                                   | \$110.00        |                | 20       |         | 14       | 28       | 12      | 24       |        |        | 98     | \$10,780 |
| Landscape Architect                               | \$95.00         | 6              | 20       |         | 24       | 24       | 20      | 36       |        |        | 130    | \$12,350 |
| Sub Total (hours)                                 |                 | 6              | 48       | 0       | 48       | 72       | 32      | 66       | 0      | 0      | 272    | \$29,510 |
| <b>Civil Engineering</b>                          |                 |                |          |         |          |          |         |          |        |        |        |          |
| Principal Engineer, Jay Flynn, PE                 | \$195.00        |                | 4        | 2       | 4        | 4        |         |          |        |        | 14     | \$2,730  |
| Project Managers (all PEs)                        |                 |                |          |         |          |          |         |          |        |        |        |          |
| Dennis Shultz, PE w/ Joshua Horning, PE assisting | \$165.00        | 1              | 28       | 18      | 34       | 50       | 24      | 30       |        |        | 185    | \$30,525 |
| CAD/Engineering Technician, Damon Ricks           | \$107.00        |                |          | 8       |          |          |         | 30       |        |        | 38     | \$4,066  |
| Clerical, Susan Storelli                          | \$62.00         |                | 1        | 1       | 1        |          |         |          |        |        | 3      | \$186    |
| Sub Total (hours)                                 |                 | 1              | 33       | 29      | 39       | 54       | 24      | 60       | 0      | 0      | 240    | \$37,507 |
| <b>Electrical Engineering</b>                     |                 |                |          |         |          |          |         |          |        |        |        |          |
| Principal Engineer                                | \$150.00        |                | 2        |         | 2        | 1        |         |          |        |        | 5      | \$750    |
| Professional Engineer, Project Manager            | \$125.00        |                | 10       |         | 14       | 6        | 4       | 14       |        |        | 48     | \$6,000  |
| CAD/Engineering Technician                        | \$55.00         |                | 6        |         | 5        | 4        |         | 2        |        |        | 17     | \$935    |
| Clerical  | \$40.00         |                |          |         | 1        | 1        | 2       |          |        |        | 4      | \$160    |
| Sub Total (hours)                                 |                 | 0              | 18       | 0       | 22       | 12       | 6       | 16       | 0      | 0      | 74     | \$7,845  |
| <b>Cost per Task (\$)</b>                         |                 | \$5,985        | \$15,802 | \$4,278 | \$14,487 | \$18,850 | \$7,760 | \$16,950 | \$0    | \$0    |        | \$84,112 |
| <b>Budget \$ per Task</b>                         |                 | \$5,985        | \$15,802 | \$4,278 | \$14,487 | \$18,850 | \$7,760 | \$16,950 | \$0    | \$0    |        | \$84,112 |
| <b>Subconsultants</b>                             |                 |                |          |         |          |          |         |          |        |        |        |          |
| Avirom and Assoc. Survey                          |                 |                |          |         |          |          |         |          |        |        |        |          |
| Architectural Alliance...Landscape Architect      |                 |                |          |         |          |          |         |          |        |        |        |          |
| Molly Hughes, Traffic Planning                    |                 |                |          |         |          |          |         |          |        |        |        |          |
| Delta G, Electrical Engineering                   |                 |                |          |         |          |          |         |          |        |        |        |          |
| Nutting Engineers, Exfiltration tests             |                 | \$1,800        |          |         |          |          |         |          |        |        |        | \$1,800  |
| <b>Total Labor and Subconsultants</b>             |                 | \$7,785        | \$15,802 | \$4,278 | \$14,487 | \$18,850 | \$7,760 | \$16,950 | \$0    | \$0    |        | \$85,912 |

# Exhibit C

## Work Authorization Schedule

The schedule for the completion of the Work Authorization is as follows:

| <u>Task</u>                        | <u>Task Duration*</u>   | <u>Completion Date</u>   |
|------------------------------------|---|--|
| #1 Survey/Base Map Preparation     | 3 weeks   | Depends on authorization date, assume authorization to proceed 1/3/12...survey would be complete 1/24/12   |
| #2 Conceptual Design               | 3 weeks   | <u>2/14/12</u>   |
| #3 Storm water Design              | 1 Month   | <u>2/24/12</u>   |
| #4 Schematic Design                | 3 weeks   | <u>3/7/12</u>  |
| #5 Final Design                    | 3 weeks   | <u>4/1/12</u>  |
| #6 Permitting & Bid Phase Services | 2 Months  | <u>6/1/12</u>  |
| #7 Construction Phase Services     | 4 Month   | <u>10/1/12</u>   |
|                                    |   |  |
|                                    | <p>*Total time includes overlap of tasks...<i>We have not included time for the City Review process. If you assume the City takes one week review at the end of each phase, the final completion date would extend by approximately 1 month</i></p> | <p>9 Months from the Effective Date of Project Commencement</p> <p><i>Add one month for City Review time and the adjusted completion of construction would be 11/1/12...this can be faster with expedited City Reviews</i></p> |

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

|   |   |   |                     |
|---|---|---|---------------------|
| <b>Consultant:</b> Keith and Associates, Inc.   |   |   |                     |
| <b>Address:</b> 301 East Atlantic Boulevard, Pompano Beach, FL 33060  |   |   |                     |
| <b>Contract No.</b><br><b>Agreement Description:</b> Continuing Professional Services Contract for Professional Services for Municipal Construction, Repair & Maintenance Projects  |   | <b>Work Authorization No.:</b><br><b>Effective Date</b> _____ |                     |
| <b>P.O. # For Work Authorization:</b>   |   | <b>Account #:</b> _____                                       |                     |
| <b>Brief Task Description:</b> Preparation of design and construction drawings for Storm Water Drainage and Beautification Improvements on the northern section of Bougainville Drive                                       |   |   |                     |
| In accordance with the above referenced agreement, you are authorized to perform the tasks detailed in attached Exhibit A (Scope of Services). All required services will be completed on or before: <u>See Exhibit "C"</u> |   |   |                     |
| The total amount or the limiting amount of the compensation will be: \$ _____ unless additional services are authorized by the Town in writing.   |   |   |                     |
| <b>Compensation elements are as follows:</b>  |   |   |                     |
|   | <b>Method of Compensation (Lump Sum, Hourly NTE)</b>                                      | <b>Amount (\$)</b>  | <b>Project Code</b> |
| Task # 1 Survey/Base Map Preparation  | Lump Sum  | \$6,110.00  |                     |
| Task # 2 Conceptual Design  | Lump Sum  | \$10,100.00   |                     |
| Task # 3 Storm Water Drainage Design  | Lump Sum  | \$8,690.00  |                     |
| Task # 4 Schematic Design   | Lump Sum  | \$19,250.00   |                     |
| Task # 5 Final Design   | Lump Sum  | \$12,030.00   |                     |
| Task # 6 Bid Phase Services and Permitting  | Lump Sum  | \$5,055.00  |                     |
| Task# 7 Construction Phase Services   | Lump Sum  | \$12,190.00   |                     |
| <b>Total</b>  |   | <b>\$73,425.00</b>  |                     |
| This Work Authorization is subject to the same terms and conditions of the Continuing Professional Services Contract dated _____.   |   |   |                     |
| Please acknowledge receipt of, and agreement with, this Work Authorization by signing and dating and returning three (3) original signed copies to the Town Manager. The Town will send you one fully executed copy.        |   |   |                     |
| <b>Town of Lauderdale by-the-Sea Approval:</b>  |   |   |                     |
| Constance Hoffmann, Town Manager  | _____   | _____   |                     |
|   | (Signature)   | (Date)  |                     |
| June White, Town Clerk  | _____   | _____   |                     |
|   | (Signature)   | (Date)  |                     |
| If over \$15,000, date this work was approved by the Town Commission on: _____  |   |   |                     |
| <b>Contractor Acceptance:</b>   |   |   |                     |
| Contractor Name:  | _____  | _____   |                     |
| Title:  | (Signature)   | (Date)  |                     |

Approved as to Form 7/2011 HK

# **Exhibit A**

## **Name of Project**

**SURVEY, DESIGN, CONSTRUCTION DOCUMENT PREPARATION, AND OTHER PROFESSIONAL SERVICES FOR STORMWATER DRAINAGE & BEAUTIFICATION IMPROVEMENTS TO A SECTION OF BOUGAINVILLE DRIVE IN THE TOWN OF LAUDERDALE-BY-THE-SEA**

## **Scope of Services**

### **GENERAL DESCRIPTION**

The northern section of Bougainville Drive experiences flooding during significant rain events and ponding in the swale areas is common 24 hours after a storm. The Town wishes to install an exfiltration drainage system that will clear storm water quickly in a 10 year storm.

In addition, the Town wishes to beautify the street. The street and public right of way in its current condition is a swath of asphalt and concrete, with no landscaping, no curbing and no gutters. There are two traffic lanes of approximately 9' each in width in good condition, a 10'-11' asphalt swale on the side of each traffic lane that is in poor condition, and 4'-5' concrete sidewalks that abut the swale area on both sides of the street. Street lighting is intermittent, unattractive in appearance, and long stretches of the street are not lit. There is no pedestrian lighting for the sidewalks on the street.

The street is characterized by multifamily dwelling units and motels, almost all of which have 90 degree angled back out parking. The sidewalks are located between the private parking spaces and the swale. Parking is at a premium and often does not meet current code parking requirements, so eliminating access to parking – or replacing parking with parallel or 45 degree angled parking - in order to create areas for landscaping is not a viable design option. Town staff had considered the option of entering into easement agreements with property owners to allow them to park partially in the swale area in order to create a green, landscaped corridor on private property bordered by a sidewalk, but have abandoned that idea because of the following issues: a) there are too many individually-owned properties to make that feasible, 2) a traffic engineer has advised that the entire swale is needed to safely back out of a 90 degree angle parking space, and 3) the cost of moving the sidewalk.

Because of the parking restraints, it is likely that the beautification of the road will have to occur via decorative hardscape treatment of the swale, limited landscaping at the intersections and in those few swale areas that are not taken up by parking, and possible lighting enhancements with more decorative light poles that could display colorful banners and/or hanging plants. The Town is open, however, to other creative aesthetic enhancements and improvements that the design consultant can present that do not reduce the number of parking spaces and meet general traffic engineering practice for local roads and parking.

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

The Town has budgeted \$800,000 for this project in the current fiscal year, including design, permitting and construction administration. That budget was based on estimates prepared by the Town's engineering firm for drainage improvements, plus several hundred thousand dollars for undefined aesthetic improvements. The determination of a final budget for the project will be affected by decisions made by the Town Commission at the conceptual and schematic design stages on elements to be included in the final design.

As is in all projects, the Town has a strong interest in using sustainable materials and the design consultant is expected to advise the Town of the feasibility of using such materials.

The scope of services includes:

#### TASK 1: SURVEY/BASE MAP PREPARATION

The Town does not have a current survey of the street, therefore, the design consultant will have to have a survey done in order to create a base map. The Town can provide the following information to the design consultant team:

1. Maps that show the locations of existing storm water drainage systems.
2. Maps that show locations of existing sewer mains and lateral stubs in the public rights of way systems in the area.
3. FP&L component list for street lighting in the area.

The consultant shall prepare a survey of the project area that includes:

1. Horizontal and vertical data on a minimum of 50 foot stations and grade breaks in State Plane Coordinates and current Broward County Vertical Datum.
2. Surface features and limits indicating materials.
3. All above ground utilities and evidence of below ground utilities including main and service lines for potable water and fire hydrants, sanitary sewer manholes, mains and service laterals, storm drainage catch basins, pipes and manholes, aerial FPL, ATT and Comcast facilities, streetlights, signs and other incidental features. Includes locations of underground utilities as marked by Sunshine One Call for member utilities. Pipe diameter, invert elevation and pipe material, if observable, shall be included. Roadway striping shall be included in the survey
4. Location and species of all trees 3" caliper and greater.

The survey/base map shall show all existing parking, including striping, that is adjacent to the public rights of ways and sidewalks. The design consultant shall perform necessary field investigations/reconnaissance and review of available records and add any information needed to prepare survey/base maps for use in design.

Deliverables: Provide five (5) hard copies of the survey/base map in 24" x 36" format, one electronic copy in pdf format and one electronic copy in Auto CAD format. The survey must be on state plane coordinates.

#### TASK 2: CONCEPTUAL DESIGN OF THE BEAUTIFICATION ELEMENTS

- A. Determine what publicly-owned areas can be landscaped without sacrificing the viability of existing parking spaces.
- B. Determine if there are viable beautification alternatives to those described in the scope of services and review them with the Town Manager.
- C. Prepare preliminary design concepts, consisting of two (2) prototype illustrations of a 300 foot section. The refined conceptual design package should consist of the following:
  - a. Landscaping improvements (most likely xeriscaping)
  - b. A minimum of two options for decorative treatment of the swale.
  - c. Recommendations regarding the relationship between the swale and the sidewalks (e.g. width of sidewalks versus width of swales; differentiation between the two).
  - d. A minimum of two options for aesthetic improvements that will significantly improve the appearance of the street.
  - e. Lighting enhancement opportunities and their impact on the project.
  - f. Conceptual cost considerations for the various options under consideration.

Both design concepts shall satisfy traffic engineering standards or practices for local roads and back out parking.

- D. Present the conceptual design alternatives at a meeting to which the adjacent property owners have been invited and consider their input in making alterations to the preliminary design concepts.
- E. Confer with Town staff on feedback from the public meetings.
- F. Present the conceptual design alternatives at a Town Commission meeting and facilitate obtaining direction from the Commission on selection of the preferred designs from the alternatives presented.

In addition to the meetings detailed above, the Consultant shall regularly confer with the Town Manager and other staff members she may include to review progress, design issues, etc.

Deliverables: Conceptual design alternatives consisting of:

- Supporting typical sections, sketches, illustrations and or image boards illustrating proposed streetscape alternatives mounted on foam core board or other suitable mounting material for presentations.
- No fewer than 2 (two) boards, a PowerPoint presentation, and 7 (seven) formatted hard copies, showing typical sections, sketches, illustrations, images, that shows the various elements to a sufficient level of detail for observers to get a true sense of how the streets will appear with the improvements suggested.

### TASK 3: STORM WATER DRAINAGE DESIGN

The Town wishes to make drainage improvements that will clear storm water in a 10year rain event in an hour. The assumption is that such drainage will be of an exfiltration design. The consultant shall:

- A. Perform design and analysis related to storm water drainage improvements, including undertaking hydraulic conductivity tests in advance of design. Work shall include design, details and technical specifications and shall be incorporated into the final construction drawings listed in Task 5.
- B. Prepare and submit required permit applications for the drainage and monitor the approval process, providing any additional information the permitting agencies may require.
- C. Prepare final certification of the improvements as required to place the system in service including review of as-builts prepared by the contractor, field review, and all other appropriate subtasks required.

Meetings: Meet with Town staff as needed to review design issues. No public meetings are expected.

Deliverables: The storm water drainage design shall be incorporated into final design for the entire project.

### TASK 4: SCHEMATIC DESIGN

Using feedback from meeting with the Town Commission, develop a Schematic Design for the project.

- A. Recommend two paving/ hardscape design options of for the Town to select from. Specify textures, colors, patterns and various aggregate or decorative materials. Provide samples and/or advise of installed location(s) of the recommended materials/surface treatment in Broward, Palm Beach or Dade Counties. Estimate life cycle costs and the benefits and disadvantages of each option.
- B. Recommend decorative elements for the project. Specify sources, models and model numbers if applicable, colors, placement, height, etc. for the decorative elements. Estimate life cycle costs and the benefits and disadvantages of each option.
- C. Provide detailed schematics for the location, size and type of landscape materials. Minimize the use of rocks, plastics and sand to reduce heat build-up.
- D. Prepare a preliminary construction cost estimate for the project itemized by the different components, including the storm water drainage improvements; hardscape, landscape enhancements, lighting enhancements, other aesthetic improvements, and any roadway resurfacing deemed necessary.
- E. Prepare a list of required or expected permits.

- F. Meet with the Broward County Traffic Engineering Division to review any aspects of the proposed design that they would need to approve and get their feedback.
- G. Confer with the Town Manager at least monthly to review progress, design issues, etc.
- H. Present the schematic design at a Town Commission meeting and facilitate obtaining direction from the Commission on which options to proceed with in final design.

Deliverables:

Provide a Schematic Design Package (two [2] color sets) as described earlier under the conceptual design phase.

- One set shall be mounted on foam core board or other suitable material for presentations.
- Consultant shall prepare the Schematic Design package with the intent to solicit detailed review and comment from the Town Commission, Town Manager, and general public.
- Provide one electronic and one hardcopy of the construction cost estimates and list of required or expected permits.

**TASK 5: FINAL DESIGN**

Prepare full design/construction drawings details and technical specifications for the drainage and beautification improvements needed to construct the project. At a minimum, the following elements are included:

1. Treatment of sidewalks/pedestrian facilities
  2. Street lighting, pedestrian lighting and landscape lighting if proposed for inclusion in the project.
  3. Specialty decorative features
  4. Hardscape/Paving Plans
  5. Curbs and paving
  6. Storm water drainage plans
  7. Erosion Control Plan if applicable
  8. Landscaping Plans - Quantity, size, and description of the following:
    - a. Trees (including relocation of any existing trees)
    - b. Shrubs and groundcovers
    - c. Soil mixes
    - d. Planting details and specifications
  9. Irrigation Plans where irrigation is feasible and necessary (Town to supply source information for irrigation source, i.e., well or Town water source).
  10. Demolition Plan
- B. Include all Construction Details required to construct the project such as:
1. Decorative elements
  2. Special pavements or hardscapes
  3. Lighting treatments if applicable
  4. Landscaped edges and buffers
  5. Pedestrian sidewalks or walkways
  6. Curbs and hardscape edges
  7. Storm water drainage improvements
  8. Erosion Control if applicable
  9. Construction Phasing Plans
- C. Prepare technical specifications.

- D. Prepare all permit applications required for approval of the proposed improvements or portions thereof by all appropriate jurisdictional agencies.
- E. Prepare final estimate of quantities and construction cost estimate.
- F. Prepare a narrative detailing recommended minimum contractor qualifications.

Meetings: Meet or confer with the Town Manager and other staff members to review progress, design issues, etc.

Deliverables: Provide two hardcopies each of the construction drawings at 60% complete and 90% complete for review and comment by the Town. (If the schematic design is done at the 50% level of design detail, the Town Manager will waive the 60% submittal requirement.)

Deliverables for the final design/construction drawings, specifications and cost estimate (unbound) are as follows:

- 1. Construction Drawings – one hardcopy full size, one hardcopy half size, and one electronic copy (pdf format)
- 2. Technical Specifications – one hardcopy and one electronic copy (.pdf format)
- 3. Construction Cost Estimate - one hardcopy

The Town will provide the front end bid documents that the Town normally uses to the consultant.

#### TASK 6: PERMITTING & BID PHASE SERVICES and

- A. Apply for and obtain all government or agency permits required for the project. (The Town will pay the permit fees).
- B. Attend one pre-bid conference
- B. Prepare responses to questions from possible contractors and issues.
- C. Prepare addenda as appropriate.
- D. Review bids received for the project and make written recommendation for contract award.

#### TASK 7: CONSTRUCTION PHASE SERVICES

The Town will employ a Project Manager who will take care of the administrative aspects of construction management for this and other major capital projects the Town is undertaking. However, the design consultant will be expected to provide the following services during the construction phase:

- 1. Review technical aspects of the Contractor's work for compliance with technical aspects of their contract with the Town. Elements including, but not limited to reviewing the Contractor's schedule for completeness, logic, durations, activity, flow, compliance with milestone dates, concurrency, resource allotment. Verify the schedule conforms with the construction phasing and MOT sequences, including all contract modifications. Provide a written review of the schedule identifying significant omissions, improbable or unreasonable activity durations, or errors in logic.
- 2. Perform periodic site visits to determine if the project is being constructed in conformance with the design or approved design modifications.
- 3. Inform the Town of any observed omissions, substitutions, defects, violation and/or issue of non-compliance and deficiencies noted in the work of the Contractor.
- 4. Process and respond to contractor's submittals including, but not limited to, requests for information (RFI's), shop drawings and other related project information and submittals.
- 5. Review, evaluate and provide recommendations regarding contractor's payment applications.
- 6. Attend meetings with the contractor, Town and other appropriate entities to discuss any disputes, discussions about contractor's non-conformance with their contract or performance deficiencies, requests for modifications, field conditions that require modification of the plans, etc.

7. Modify the design if the Town determines that field conditions found during the construction phase dictate a change.
8. Complete any project certification required by permitting agencies or as appropriate.

Deliverables: Upon completion of project, provide to Town 2 (two) electronic copies and 1 (one) hardcopy of all reports, logs, minutes, correspondence and other information, permits, forms, and data generated for the project.

## **COMPOSITION OF PROJECT TEAM**

If the lead Consultant does not have the capability of performing all services required by the scope of services, they shall identify in the work authorization any sub-consultants to be used on the project. The licenses and qualifications of the members of the sub-consultants shall be consistent with the requirements for their respective professions as required by the Town's RFQ # 11-05-1 for Continuing Contracts for Professional Services.

The lead consultant will be required to commit that the personnel and/or principals named in the proposal for both the lead consultant and the sub-consultants shall remain assigned to the project throughout the period of the work authorization unless provided for otherwise as described herein. No diversion or substitution of personnel or principals will be allowed without submission of a written request with the qualifications and experience of the proposed replacement. The written approval of the Town Manager will be required for any such diversion or substitution.

## **COMPENSATION**

Compensation for this project shall be quoted on a total, not-to-exceed sum and shall include the cost of all services, deliverables and meetings listed above. The total cost shall also be broken down into segments for each of the previously-described seven (7) tasks of this Work Authorization.

The Consultant shall also provide hourly compensation rates and an indication of the amount of time of various professionals on the project for the Lead Consultant in Exhibit B-1 and for sub-consultants in Exhibit B-2.

The Consultant shall also provide a schedule of time it shall take to complete each Task in Schedule C.

# Exhibit C

## Work Authorization Schedule

The schedule for the completion of the Work Authorization is as follows:

| <b>Task</b>                        | <b>Task Duration*</b>                 | <b>Completion Date</b>  |
|------------------------------------|---------------------------------------|---|
| #1 Survey/Base Map Preparation     | 3 Weeks                               |   |
| #2 Conceptual Design               | 4 Weeks                               |   |
| #3 Storm water Design              | 6 Weeks                               |   |
| #4 Schematic Design                | 6 Weeks                               |   |
| #5 Final Design                    | 6 Weeks                               |   |
| #6 Permitting & Bid Phase Services | 12 Weeks                              |   |
| #7 Construction Phase Services     | 4 Months                              |   |
|                                    |                                       |   |
|                                    | *Total time includes overlap of tasks | (13) Months<br>from the Effective Date<br>of Project Commencement |

**EXHIBIT D  
STAFF TIME ESTIMATE**

| Personnel                       | Hourly Rate | Hours per Task              |                |                |                |                |                |                |                |                | Totals |              |
|---------------------------------|-------------|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------|--------------|
|                                 |             | Task 1<br>0001              | Task 2<br>0002 | Task 3<br>0003 | Task 4<br>0004 | Task 5<br>0005 | Task 6<br>0006 | Task 7<br>0007 | Task 8<br>0008 | Task 9<br>0009 | Hours  | Cost         |
|                                 |             | 01 Administrative Assistant | \$ 35.00       |                | 8              | 8              |                |                |                |                |        |              |
| 11 Technician                   | \$ 70.00    | 32                          |                |                |                |                |                |                |                |                | 32     | \$ 2,240.00  |
| 16 Senior Technician            | \$ 80.00    |                             | 20             | 35             | 50             |                |                |                |                |                | 105    | \$ 8,400.00  |
| 30 Associate Planner            | \$ 80.00    |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 32 Senior Planner (AICP)        | \$ 105.00   |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 36 GIS Specialist               | \$ 90.00    |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 50 Project Engineer             | \$ 90.00    |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 51 Senior Project Engineer      | \$ 105.00   |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 52 Professional Engineer (PE)   | \$ 120.00   |                             | 8              | 8              | 15             | 10             | 14             |                |                |                | 55     | \$ 6,600.00  |
| 53 Junior Field Inspector       | \$ 75.00    |                             |                |                |                |                |                | 20             |                |                | 20     | \$ 1,500.00  |
| 54 Field Inspector/Represent    | \$ 90.00    |                             |                |                |                |                |                | 65             |                |                | 65     | \$ 5,850.00  |
| 57 Inspector (Nights/Weeken     | \$ 135.00   |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 60 Project Manager              | \$ 115.00   | 0                           | 20             | 30             | 20             | 30             | 20             | 20             |                |                | 140    | \$ 16,100.00 |
| 61 Senior Project Manager       | \$ 120.00   | 0                           | 10             | 10             | 10             | 10             |                | 10             |                |                | 50     | \$ 6,000.00  |
| 70 Principal                    | \$ 150.00   |                             | 6              |                |                |                |                |                |                |                | 6      | \$ 900.00    |
| 72 Expert Witness Testimony     | \$ 250.00   |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 78 Project Surveyor             | \$ 85.00    |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 79 Senior Project Surveyor      | \$ 100.00   |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 80 Surveyor & Mapper (PSM)      | \$ 110.00   | 12                          |                |                |                |                |                |                |                |                | 12     | \$ 1,320.00  |
| 81 Survey Party (2) person      | \$ 85.00    | 30                          |                |                |                |                |                |                |                |                | 30     | \$ 2,550.00  |
| 82 Survey Party (3) person      | \$ 100.00   |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 83 Survey Party (4) person      | \$ 130.00   |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| 85 Survey Party w/ Watercraf    | \$ 160.00   |                             |                |                |                |                |                |                |                |                | 0      | \$ -         |
| Cost per Task                   |             | \$ 74.00                    | \$ 72.00       | \$ 91.00       | \$ 95.00       | \$ 50.00       | \$ 34.00       | \$ 115.00      | \$ -           | \$ -           |        |              |
| <b>SUB TOTAL</b>                |             |                             |                |                |                |                |                |                |                |                | 531    | \$ 52,020.00 |
| <b>Subconsultants</b>           |             | \$ -                        | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -   | \$ -         |
| <b>Subconsultants Sub Total</b> |             | \$ -                        | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -   | \$ -         |
| <b>Total</b>                    |             | \$ -                        | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -   | \$ -         |
| <b>Direct Expenses</b>          |             | \$ -                        | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -           | \$ -   | \$ -         |
| <b>GRAND TOTAL</b>              |             | \$ 74.00                    | \$ 72.00       | \$ 91.00       | \$ 95.00       | \$ 50.00       | \$ 34.00       | \$ 115.00      | \$ -           | \$ -           | \$ -   | \$ 52,020.00 |

Totals

|                               |            |             |            |             |             |            |             |                    |
|-------------------------------|------------|-------------|------------|-------------|-------------|------------|-------------|--------------------|
| K&A                           | \$6,110.00 | \$7,240.00  | \$8,690.00 | \$9,300.00  | \$5,850.00  | \$3,980.00 | \$10,850.00 | <b>\$52,020.00</b> |
| Delta G - Electrical/Lighting | \$0.00     | \$400.00    |            | \$3,520.00  | \$1,470.00  | \$1,075.00 | \$860.00    | <b>\$7,325.00</b>  |
| GFA - Soil Testing            |            |             |            | \$2,920.00  |             |            |             | <b>\$2,920.00</b>  |
| B&A - Landscape Architect     |            | \$2,460.00  |            | \$3,510.00  | \$4,710.00  |            | \$480.00    | <b>\$11,160.00</b> |
|                               | \$6,110.00 | \$10,100.00 | \$8,690.00 | \$19,250.00 | \$12,030.00 | \$5,055.00 | \$12,190.00 | <b>\$73,425.00</b> |



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December 5, 2011

Ms. Traci Scheppske  
**Keith and Associates, Inc.**  
301 East Atlantic Blvd.  
Pompano Beach, FL 33066  
Phone: 954-788-3400  
Fax: 954-788-3500

**RE: Proposal for Geotechnical Exploration  
North Bougainvillea  
Bougainvillea Drive  
Fort Lauderdale, FL  
Proposal No. 11-1533.00**

Dear Ms. Scheppske:

**GFA International, Inc. (GFA)** appreciates the opportunity to become a part of your project team. Our professional engineers, geologists, and operations staff are dedicated to making this project a success, both on schedule and within budget. We are proud of our commitment to maintaining the highest levels of customer service and client satisfaction, and respectfully submit the following for your consideration.

### **PROJECT INFORMATION**

It is our understanding that the proposed project will consist of stormwater drainage and beautification improvements to a section of Bougainvillea Drive in the Town of Lauderdale-By-the-Sea.

### **GEOTECHNICAL EXPLORATION**

We were requested to perform six (6) Standard Penetration Test borings (SPT) within the proposed structure for this geotechnical study. The borings will be completed with our truck-mounted drilling equipment. The depths are needed to evaluate the nature of the subsurface soils and general subsurface conditions for the proposed development. The borings will be performed to depths of 10 feet below grade.

We were also requested to perform four (4) exfiltration tests within the above-mentioned area to a depth of 10 feet below the existing grade. Constant head test procedures suggested by South Florida Water Management District (SFWMD) will be performed. A summary of the borehole percolation test data, including soils encountered and the calculated hydraulic conductivity at each test location will be submitted with our report.

1215 Wallace Drive • Delray Beach, Florida 33444 • (561) 347-0070 • (561) 395-5805 (fax) • [www.teamgfa.com](http://www.teamgfa.com)

OFFICES THROUGHOUT FLORIDA

The presence of underground utilities has not been disclosed; it is believed that utilities are present in the area of the proposed development. We request to be notified of the location of buried utilities and structures. We will not be responsible for utilities and structures not identified to our field crews.

### PURPOSE

The purpose of our services on this project is to explore the subsurface soil/rock conditions and provide foundation recommendations of soil engineering parameters to be used in evaluation of the site for future construction.

### PROPOSED SCOPE OF SERVICES

The geotechnical exploration and report shall include the following at a minimum:

- Perform 6 standard penetration test (SPT) borings. The borings will be completed to depths of 10 feet below existing grade. The borings will be completed with our truck mounted drilling equipment. The SPT borings will be used as an investigative tool.
- Perform four (4) exfiltration tests to depths of 15 feet below the existing grade. Constant head test procedures suggested by South Florida Water Management District (SFWMD) will be performed.
- A software-generated and plotted log of each boring will be prepared.
- Prepare a site plan showing the approximate test locations.
- Summarize our activities on this project in the form of a Geotechnical Exploration Report which will include test procedures used, data collected, our evaluation of subsurface soil conditions, and our engineering recommendations for the proposed construction.
- Provide recommended site preparation procedures and imported fill requirements.

An estimated **LUMP SUM** for the scope of services detailed above is **\$2,920.00.**

We will not exceed the fee stated above unless the encountered soils are significantly different than those anticipated, the site is not accessible to truck mounted drilling equipment and/or if the report will require additional hours for engineering analysis due to the encountered soils being significantly different than those anticipated. Additional borings will be charged at a flat rate of \$25/foot. This amount includes mobilization and pertinent engineering analysis and testing required by the scope of the project. You will be notified prior to initiating the additional work of any increase in costs. If unsuitable and/or unstable soil conditions are encountered, the boring depth will be increased to obtain sufficient data to provide you with foundation support recommendations for the proposed structure. Additional drilling footage necessitated by unsuitable and/or unstable soil conditions will be charged at a rate of \$12.00 per foot.



### CONDITIONS AND QUALIFICATIONS

Our terms are C.O.D. (credit cards are accepted) unless a credit application has been approved or credit has been previously established. If credit is established, our terms will be 2/10/net-30days. The pricing contained herein is subject to change if this proposal is not authorized within 90 days from the date of this proposal. If more than 90 days have passed since the date of this proposal, please contact us for an updated proposal. Additional items not listed in this proposal will be quoted upon request.

Reports will be distributed promptly to a maximum of three (3) interested parties without charge (Ex: Building Department, Owner, and Contractor). Additional reports will be billed at 1% of the monthly invoice for each additional party.

### AUTHORIZATION

All services will be conducted in accordance with this proposal and attached Terms and Conditions. To initiate services, please complete and return the included Proposal Acceptance Agreement form. The Terms and Conditions are part of this agreement. **The signed proposal acceptance agreement form must be received by GFA via fax or email prior to any work being performed, and an original copy must be received before completed reports can be distributed.**

### CLOSING

GFA appreciates the opportunity to submit this proposal, and looks forward to working with you as a member of the project team. Please contact the undersigned at 561.347.0070 if you have any questions or comments.

**From our team to yours,**

GFA International, Inc.  
CA#4930



**Thomas Ortner**  
Vice President – Branch Manager

**Attachments:**      Terms & Conditions





Traci Scheppske  
Keith & Associates  
301 E. Atlantic Blvd  
Pompano Beach, Florida 33060  
Fax: 954 788-3500  
Off: 954 788-3400

16 November 2011

Re: Proposal for professional engineering construction documents for the *North Bougainvillea Lauderdale by the Sea Street, Landscape and Decorative Lighting*. Our scope of work is related to Task 5 item #2.

Dear Mrs. Scheppske,

Thank you for considering us with regard to this project. Delta G Consulting Engineers, Inc. agrees to provide professional services to design systems for the above project as required for permit and code compliance. Services shall include detailed construction documents for electrical systems only with specifications and coordination with regulatory agencies and building departments for permit. Construction phase services are included as outlined herewith.

#### **ELECTRICAL SYSTEMS**

##### Site investigation with on-site Documentation

- Schematic Phase assistance and coordination of fixture selections
- One CAB meeting
- Site Lighting Layout with Photometrics for Site Plan Approval
- Pole and Fixture Details
- New Power Distribution with Power Company Coordination
- Lighting Controls
- Coordination with Existing and new Landscape Plans
- Permitting Coordination
- Issue 100% Construction Documents
- Coordination meeting with response to any city comments

#### **CONSTRUCTION ADMINISTRATION**

- One Pre-bid Meeting
- One Pre-Construction Meeting
- Shop drawing review (one per discipline) and response to RFI's
- Two on-site construction observations (Pre-Final and Final)

#### **SERVICES NOT INCLUDED**

- Architectural, HVAC and Plumbing design services
- Changes to Documents after S.D. Phase is completed
- Construction Observations unless otherwise noted
- Re-routing of Electrical lines underground or to buildings
- Coordination with D.O.T.

**SPECIFICATIONS, DOCUMENTS & DELIVERABLES COMPLETE**

- Three sets of signed and sealed documents with specifications on plans
- All work can be completed within (4-6) weeks of receipt of all information.

**REIMBURSABLE EXPENSES**

**COST**

|                   |            |
|-------------------|------------|
| Additional prints | Cost + 10% |
| Additional plots  | Cost + 10% |
| Courier fees      | Cost + 10% |

**HOURLY SERVICES**

Should additional service beyond the scope of those listed above be required, these services shall be separately negotiated at the time of the request. Typical hourly fees for services are:

|  |          |
|--|----------|
| Principal Time                         | \$150.00 |
| Site Survey and Field Engineering Time | \$125.00 |
| Office Engineering Time                | \$100.00 |
| Travel Time                            | \$ 80.00 |
| Cadd Technician                        | \$ 55.00 |
| Clerical Time                          | \$ 40.00 |

**FEES BY TASK**

**AMOUNT**

|  |                          |
|--|--------------------------|
| K.O. Mtgs, As-builts, Schematic Design | \$1,800.00               |
| 75% Construction Documents             | \$1,720.00               |
| 100% Construction Documents            | \$970.00                 |
| Bidding and Permitting                 | \$ 475.00                |
| Construction Administration on Site    | \$1,100.00               |
| Construction Administration in House   | \$1,260.00               |
| <b>Total Fee:</b>                      | <b><u>\$7,325.00</u></b> |

Payments for services shall be made in full with-in 30 day of completed work as indicated above. Any unpaid statements after 30 days shall be subject to interest of 1.5% per month.

Either party shall have the right to terminate this agreement at any time upon (10) day's written notice to the other party. Upon such termination all monies due Delta G Consulting Engineers, Inc. shall be payable on the date of termination.

Your signed acceptance of this proposal and an initial payment in the sum \$950.00 shall constitute a binding agreement between us.

Accepted:

Keith & Associates

Delta G Consulting Engineers, Inc.  
George San Juan, P.E., LEED AP, Pres.

By \_\_\_\_\_

By *George San Juan*

Date \_\_\_\_\_

Date *11-16-2011*

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