



**TASK WORK ORDER #01**  
**Southernmost Point Plaza Streetscape Project**  
**City of Key West**  
**RFQ 22-006**

**November 3, 2023**

At the request of the City of Key West (the Client), BCC Engineering, LLC (the Consultant) has prepared this scope of work for professional engineering service for the design of overall corridor improvements along Whitehead Street from United Street to South Street and along South Street from Whitehead Street to Duval Street.

For these services, BCC Engineering will perform the following:

**SCOPE OF SERVICES**

**Task 1 - Data Gathering/Review**

As part of this task, BCC will perform the following:

- Coordinate with City of Key West and any other relevant entities to gather available existing data to be evaluated as part of the design of the improvements, including as-built plans, right of way maps, drainage maps, etc.
- Prepare for and attend meetings including a project kick-off.

**Task 2 - Project Management Scope**

- Prepare for and attend project meetings as defined in the staff hour estimate.
- Coordination of digital delivery documents.
- Coordination of project schedule.
- Coordination with Structural Engineer designing seawall within project limits.

**Task 3 - Public Involvement Scope**

- Preparation of renderings for two (2) separate public meetings.
- Preparation of a PowerPoint to present design plans at public meetings.
- Coordinate, schedule, and attend two (2) public meetings and prepare necessary materials.

**Task 4 - Design Scope**

• **Roadway**

The main tasks to be performed as part of the Roadway scope of work are as follows:

- Develop typical sections.
- Horizontal geometry and vertical geometry.
- Cross sections every 50' along roadway alignment.
- Prepare and submit necessary design variation (anticipating one (1) design

variation for clear zone).

- Prepare and submit Master Plan concept.
- Prepare and submit design plans at 60% and 100%.
- Quantities to be provided at 60% and 100% submittals.
- Cost estimates to be provided at 60% and 100% submittals.
- Temporary traffic control analysis includes:
  - TTCP general notes for construction.
  - TTCP typical sections and phasing notes.
  - Vehicular and pedestrian detours.

- **Drainage**

The main tasks to be performed as part of the drainage scope of work are as follows:

- Collect available data on existing drainage system conditions. No topographic information will be collected for the existing drainage system.
- Review survey and utility information collected for the project.
- Evaluate that the Proposed Roadway design is consistent with the current City's Stormwater Masterplan.
- Summarize the applicable drainage design criteria for this project.
- Meet with SFWMD to discuss the required criteria to confirm that no permitting will be required for the proposed improvements. It is assumed that no permits will be required due to the impervious areas being reduced, and no new lanes will be added.
- Prepare drainage design based on the design criteria established.
- Prepare drainage design plans.

- **Signing and Pavement Marking**

The signing and pavement marking will be designed to meet the Florida Greenbook Standards and MUTCD. Proposed scope includes:

- All existing signs and pavement markings within the project limits will be removed.
- New signing and markings will be provided for the new one-way traffic flow pattern on Whitehead Street southbound from United Street and South Street eastbound to Duval Street.
- Replace/remove existing signs and propose new signs for the new one-way traffic flow pattern at all the approaches of the intersection of Whitehead St at United St and the intersection of South St and Duval St.

- **Roadway Lighting**

The roadway lighting will be designed to meet the Florida Green book Chapter 6 Lighting, The MUTCD standards and the National Electric Code (NEC).

- The Existing Keys Energy Services streetlighting will be removed.
- New 20ft or below, decorative dual arm post top LED Acorn type lights will provide street lighting and pedestrian zones lighting. These lights will be operated at 120V.

- Acorn light fixtures will have house side shields to limit light spill into private properties.
- Special cable splicing design will account the full submersion of pull boxes during flooding events.
- One new metered load center will serve the streetlights and landscape decorative lights and outlets. This load center will be detailed in the roadway lighting plans.
- Special reinforced grounding to protect pedestrians touching the light poles. Assumption will be made that each pole underground electrical pull box is flooded.

- **Decorative Lighting and Electrical Outlets**

The decorative lighting and outlets system will be designed to meet the Florida Green book Chapter 6 Lighting, The MUTCD standards and the National Electric Code (NEC).

- New tree lighting and flood lighting for entrances monument.
- New Planter and Selected trees GFCI 120V outlets for use with special seasonal tree/planter lighting, and kiosks during special road parties or special other events.
- The 120Vac and low voltage DC circuits will be fed from the roadway lighting load center. This load center will be depicted in the roadway lighting plans. Special lighting /electrical schedules remain in the decorative lighting plans set.
- The decorative lights and outlets system will be independently protected from roadway lights.
- Special reinforced grounding to protect pedestrians touching the decorative lights. Coordination for the installation of 120VAC outlets in coordination with the City's concerns about their usage.
- Decorative lighting includes in-ground lights safe for pedestrian's touch and walk over.

- **Landscape/Hardscape**

The main tasks to be performed as part of the landscape/hardscape scope of work are as follows:

- **Site Assessment** – Curtis + Rogers (C+R) will review the survey information provided and an arborist shall assess any trees within the project area for removal or relocation.
- **Site Modeling** – Using LIDAR and other remote sensing technologies, C+R will investigate the site's vulnerabilities and natural systems, including wind fetch, topography, hydrology, and vegetation. This will be ground-truthed and adjusted during site visits and community input and will form the basis of an analysis of the potential for interventions within the project area and the immediate surroundings to mitigate environmental, economic and social vulnerabilities. C+R will use this model to identify critical vulnerabilities, including but not limited to: freshwater and flash flooding; wave run-up, sea surge, potential breaches and other sources of saltwater flooding and destruction.

C+R will adopt projections provided by Monroe County Office of Resiliency and/or the Unified Sea Level Rise Projections published by the Southeast Florida Regional Compact on Climate Change. Due to the uncertainty in projections and variation in service life between different park components, various projections will be assessed. Published tidal and recent king tide data will be adopted to provide water levels and extreme tide water levels.

- **Inundation Modeling** – The Consultant will assess potential inundation for various scenarios related to the sea level rise and tidal events (i.e. “king tides”) based on available topographic data.
- **Master Plan Concept** – develop a concept for the public space and landscaping which will include the hardscape areas, sidewalks, plaza and general site landscaping. We will present options for seating, lighting and shade structures for the client to review. We will then review with the client to finalize the layout and furnishings selections. C+R will produce a color site plan and three renderings of the proposed improvements. C+R shall attend one public meeting in person to review the plans. The deliverables for this phase are as follows:
  - A layout of proposed hardscape materials, including paving, site furnishings and lighting. A layout of proposed planting areas with a list of species to be used. A plan showing the disposition of existing trees/palms in the project area. A rendered color plan of the project site. Three color renderings (perspectives or sections) to convey the concept to the public.
- **Construction Documents:**
  - A Hardscape Plan showing all paving materials with details and finishes & colors specified (base materials to be detailed by BCC).
  - An Amenity Plan showing all proposed site furnishings and lighting with details and selections of materials and colors.
  - A Planting Plan. The plan will indicate location, species, and specifications of all plant materials. Details of planting installation will be provided.
  - An Irrigation Plan, Notes & Details. A new system shall be specified if needed. A fully developed Irrigation plan, notes and details will be provided showing the locations and specifications of all heads, piping and valves and the estimated water use. The system will be designed with zones according to water use and include a rain sensor for water conservation.
  - Attendance to one (1) Public meeting if needed.
- **Utilities**

The utility coordination scope of work includes:

  - Review Utility Plans and Data.
    - Client will provide a recent Sunshine 811 design ticket identifying all utility owners within and adjacent to the project limits.
    - Client will provide survey information with all existing underground and above-ground utilities. Survey shall include all locations for existing utility valves, manholes, related utility appurtenances, and power poles. Survey of pipe inverts for existing sanitary gravity sewer lines shall also be included in survey.

- Client will provide as-builts and other available records depicting the existing utilities.
  - Make Utility Contacts – one contact will be made to utility owners.
  - Review Utility Markups & Work Schedules.
  - Utility Coordination/Follow-up.
  - Utility Constructability Review.
  - Transmit final construction contract plans to UAOs.
  - Transmit final utility files to the PM/EOR and prepare the Utility Certification Package.
  - Coordinate certification reviews with PM/EORs.
  
- **Survey**  
(To be provided by The City of Key West and to include existing utilities.)
  
- **Geotechnical**  
(To be provided by The City of Key West)

**Task 5 - Optional Services (To be negotiated later)**

- Design of custom sign at Southernmost Point Plaza.

**Task 6 – Post Bid Assistance**

- **Clarifications and Interpretations.** When requested by the CLIENT, CONSULTANT shall provide Contractor with necessary clarifications and interpretations of the drawings and specifications as appropriate to the orderly completion of their respective portions of the construction. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the drawings and specifications.
- **Review and Respond to Requests for Information (RFIs).** The CONSULTANT will review and respond to requests for information (RFIs) as provided by the CLIENT, through Substantial Completion. Responses will be provided immediately, when required, or within a maximum of (5) working days from receipt of RFIs.
- **Shop Drawings and Samples.** When requested by the CLIENT, CONSULTANT shall review and approve (or take other appropriate action in respect of) shop drawings and samples which Contractor is required to submit, but only for conformance with the information given in the drawings and specifications and compatibility with the design concept of the completed Project as a functioning whole. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.
- **Substitutes.** When requested by CLIENT, CONSULTANT shall evaluate and determine the acceptability of a reasonable number of substitute or "or-equal" materials and equipment proposed to Contractor by Subcontractors or Suppliers, and make revisions to drawings and specifications occasioned by the acceptance of substitute or "or-equal" materials and equipment.

**Assumptions and Exclusions**

- **Assumptions:**
  - Community outreach to be provided by the City of Key West.
  - Parking meters to be coordinated and relocated by others.
  - Permit fees shall be paid directly by the City of Key West.
  - No custom sign panel design anticipated.
  - Parking signs and non-standard MUTCD signs to be provided by the City of Key West.
  
- **Exclusions:**
  - Surveying, geotechnical investigations, wind studies, vibration studies, site specific seismic analysis or testing, and environmental assessments.
  - Any services required to obtain construction permits that are obtained by a licensed contractor that does not specifically relate to civil engineering.
  - Any services required due to the realization or disclosure that the proposed project site contains an environmental contamination.
  - Any permit coordination services not related to the required civil permits.
  - Any other services not specifically included in the Scope of Services

**Schedule**

BCC shall submit the Deliverables identified under Tasks 1 through 4 as depicted in the table below.

<b>Deliverable</b>	<b>Task Duration</b>
Master Plan Concept	2.5 Months
60% Design Plans	2.5 Months
100% Design Plans	2 Months

**Fee and Billing**

BCC will perform all services described under Tasks 1 through 4 for a lump sum fee of **\$281,135.94**. See Exhibit A for fee estimate backup.

BCC will perform all services under Task 6 for a time and material fee based on agreed upon hourly labor rates reflected in EXHIBIT A not to exceed a total contract amount of **\$10,000.00**.

Billing for services performed under Tasks 1 through 4 will be monthly based on the percentage of services completed.

Billing for services performed under Task 6 will be monthly based on hours contributed to the

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Project at the agreed upon hourly labor rates reflected in EXHIBIT A.

**Attachments**

- Exhibit A: Fee Estimate Backup

We appreciate this opportunity to provide these services to you. Please contact us if you have any questions.

Sincerely,

BCC ENGINEERING, LLC



Andrew List, PE,  
Project Manager

**WORK AUTHORIZATION**

**The City of Key West** agrees with the above scope. **BCC Engineering, LLC** is hereby authorized to proceed.

City of Key West

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

*RR*

Title: \_\_\_\_\_

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

BCC ENGINEERING, LLC

\_\_\_\_\_

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

Title: \_\_\_\_\_

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



**EXHIBIT A**  
**Fee Estimate Backup**

11/2/2023

Task No.	Task Name	BCC Negotiated Rates														Staff Hours By Activity	Staff Cost By Activity	Average Rate Per Task	Explanation Notes (Assumptions)	
		Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	Engineering Intern	Senior Design Technician	Design Technician	Senior CADD/Computer Technician	Utility Coordinator	Principal	Design Principal	Project Manager - Landscape Architect	Project Landscape Architect	Technical Landscape Architect/Drafting					
		Rates	\$265.00	\$213.13	\$186.30	\$163.94	\$107.31	\$201.20	\$136.68	\$110.00	\$183.79	\$250.00	\$215.00	\$175.00	\$100.00	\$85.00				
1	Southernmost Point Plaza Streetscape																			
	A. Project Management/Public Involvement		0	90	0	45	27	0	18	0	0	0	0	0	0	0	180	\$31,916.61	\$177.31	- Attend public meetings. - Public meeting renderings. - Project Management (Project setup, maintenance of files, project schedule, compilation and submittal of project documentation, invoicing) - Attend progress meetings & coordination meetings. - FAA coordination.
	B. Roadway Analysis		0	55	41	55	41	28	55	0	0	0	0	0	0	0	275	\$45,927.86	\$167.01	- Typical Section analysis. - Pavement design. - Design Variation (1 for clear zone) - Horizontal & Vertical geometry. - TTCF phasing analysis. - Quantities and cost estimate. - Technical meetings
	C. Roadway Plans		0	24	18	24	18	12	24	0	0	0	0	0	0	0	120	\$20,029.38	\$166.91	- Master Plan, 60%, 90%, 100%. - Typical Sections. - Cross sections. - Plan and Profile sheets. - Special Details (Intersection layout at plaza). - TTCF plan sheets. - Pedestrian detours.
	D. Drainage Analysis		16	0	8	99	0	20	13	8	0	0	0	0	0	0	164	\$28,641.30	\$174.64	- Base clearance analysis. - Utility conflict matrix. - Storm drain designs. - Replace existing trench drain. - Quantities and cost estimate. - Assume no permits required.
	E. Drainage Plans		2	0	0	12	0	10	0	16	0	0	0	0	0	0	40	\$6,269.28	\$156.73	- Drainage map. - Drainage structures sheets. - Back flow preventors.
	F. Utility Coordination		0	0	0	0	0	0	0	0	55	0	0	0	0	0	55	\$10,108.45	\$183.79	- Make utility contacts. - Design meetings. - Utility coordination followup. - Utility constructability review. - Contract plans to UAO(s). - Certification/close-out.
	G. Signing & Pavement Marking Analysis		4	0	0	28	0	6	2	0	0	0	0	0	0	0	40	\$7,130.88	\$178.27	- Review typical section and geometric design. - Develop Master Design file. - Quantities and cost estimate. - Technical meetings.
	H. Signing & Pavement Marking Plans		1	0	0	11	0	5	3	0	0	0	0	0	0	0	20	\$3,484.38	\$174.22	- General notes and pay item notes. - S&PM plan sheets.
	I. Lighting Analysis		0	0	35	69	0	0	6	6	0	0	0	0	0	0	116	\$19,312.44	\$166.49	- Voltage drop calcs. - FDEP coordination. - Quantities and cost estimate.
	J. Lighting Plans		0	0	4	20	0	0	4	9	0	0	0	0	0	0	37	\$5,560.72	\$150.29	- Lighting plan sheets. - Special detail for decorative pole and waterproof splices/special pull boxes for flood mitigation. - Assume one single load center.

11/2/2023

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			Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	Engineering Intern	Senior Design Technician	Design Technician	Senior CADD/Computer Technician	Utility Coordinator	Principal	Design Principal	Project Manager - Landscape Architect	Project Landscape Architect					Technical Landscape Architect/Drafting
	K. Decorative Lighting and Electrical Outlets		0	0	58	78	0	0	19	39	0	0	0	0	0	0	194	\$30,479.64	\$157.11	- New tree lighting and flood lighting for entrances monument. - New planter and select trees GFCI 120V outlets. - Special reinforced grounding for pedestrian protection.
	L. Landscape/Hardscape		0	0	0	0	0	0	0	0	0	39	0	101	185	310	635	\$72,275.00	\$113.82	- Arborist Assessment - EEP Analysis - Site modeling for hydrology - Inundation modeling - Layout of amenities and trees - Renderings for and attendance at public meetings - Hardscape Plan - Amenity Plan - Planting Plan - Irrigation Head Layout
	<b>Subtotal</b>		<b>23</b>	<b>169</b>	<b>164</b>	<b>441</b>	<b>86</b>	<b>81</b>	<b>144</b>	<b>78</b>	<b>55</b>	<b>39</b>	<b>0</b>	<b>101</b>	<b>185</b>	<b>310</b>	<b>1876</b>	<b>\$281,135.94</b>	<b>\$149.86</b>	
	<b>Total Staff Cost (Loaded)</b>		<b>\$6,095.00</b>	<b>\$36,018.97</b>	<b>\$30,553.20</b>	<b>\$72,297.54</b>	<b>\$9,228.66</b>	<b>\$16,297.20</b>	<b>\$19,681.92</b>	<b>\$8,580.00</b>	<b>\$10,108.45</b>	<b>\$9,750.00</b>	<b>\$0.00</b>	<b>\$17,675.00</b>	<b>\$18,500.00</b>	<b>\$26,350.00</b>	<b>-</b>	<b>\$281,135.94</b>	<b>\$149.86</b>	