



Hallandale Beach
PROGRESS. INNOVATION. OPPORTUNITY.

**INVITATION TO BID (ITB)
RE-BID # FY 2017-2018-004-001**

A1A BUS SHELTER IMPROVEMENTS

**EXHIBIT A – TECHNICAL SPECIFICATIONS AND
GENERAL REQUIREMENTS**

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EXHIBIT A – TECHNICAL SPECIFICATIONS**

01000. SPECIFICATIONS

CITY OF HALLANDALE BEACH

SPECIFICATIONS

S.R. A1A BUS STOP IMPROVEMENTS

SECTION 1: Scope of Work

The CONTRACTOR shall furnish all labor, materials, equipment, tools, incidentals and transportation which are necessary for the proper layout and completion of the work, as specified herein and shown on the design plans. The work includes:

- * Irrigation Repairs/Relocations
- * Construction of Bus Shelter Pads
- * Installation of Solar Powered Bus Shelters and Furnishings
- * Sodding of Disturbed Areas
- * Erosion and Sediment Control
- * Survey Work Required for Establishing Proper Layout, Elevations and Grades
- * Maintenance of Traffic
- * Mobilization

SECTION 2: Location of Work

All work under this contract is within permanent easements obtained by the City of Hallandale Beach along S.R. A1A (South Ocean Drive) between East Hallandale Beach Boulevard and County Line Road or within City owned property. The addresses for the 2 proposed shelter locations are: 2030 S. Ocean Drive and 1850 S. Ocean Drive.

SECTION 3: General Notes

- 3.1 The following listed documents are incorporated by reference and the applicable portions thereof are made a part of this contract as supplemented and amended by the provision of this contract.
- a) Florida Department of Transportation STANDARD SPECIFICATION for Road and Bridge Construction 2017, hereinafter called FDOT Standard Specifications.
 - b) Manual on Uniform Traffic Control Devices, current edition, including Part VI, Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident

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Management Operations, (current Edition of MUTCD, Millennium Edition).

- c) Florida Department of Transportation Roadway and Traffic Design Standards, 2017-2018, hereinafter called FDOT Design Standards.
- 3.2 The CONTRACTOR shall perform removal and disposal of all materials in a manner consistent with all local, state and federal regulations, and to the satisfaction of the CITY ENGINEER. No materials shall be disposed of at the job site.
- 3.3 Where FDOT Standard Specifications are referenced, it is to be understood that these specifications are to be used only as applicable and the applicability of any specification shall be determined by the CITY ENGINEER.
- 3.4 Where specific materials or manufacturers are referenced, alternatives will be considered upon written request, but it shall remain the prerogative of the CITY ENGINEER to approve or disapprove any materials or manufacturer without explanation. All materials approved by the CITY ENGINEER are to be used per manufacturer's instructions and requirements. This includes any required training and supervision, typically on the first installation.
- 3.5 For each task described in these specifications there may be materials listed. These materials are intended to be the major material items, and do not necessarily constitute a complete listing. The CONTRACTOR shall be responsible for including in his bid all the items which the CONTRACTOR can reasonably be expected to have recognized the need for. No change in the bid price shall be claimed due to absence of reference to such material from this document.
- 3.6 Quantities shown in bid documents are estimated. The CITY does not guarantee any maximum or minimum quantity, any range of quantities, or the exact quantities shown for each item to be bid. The actual reimbursement to the CONTRACTOR is based on the unit bid prices of the actual amount of work authorized for completion and approved by the CITY ENGINEER.

SECTION 4: Clearing and Grubbing

- 4.1 Perform clearing and grubbing within the project work limits and as indicated in the Plans in accordance with the FDOT Standard Specifications (Section 110).

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4.2 Measurement and Payment

The CONTRACTOR shall determine the cost for clearing and grubbing for the entire project and include his price in the lump sum item listed in the proposal. Price and payment will be full compensation for all clearing and grubbing required.

SECTION 5: Regular Excavation

5.1 Perform minor excavation for the construction of concrete bus shelter pads in accordance with the FDOT Standard Specifications (Section 120).

5.2 Measurement and Payment

Payment for excavation shall be included in the unit cost listed in the proposal for concrete bus shelter pads and shall be full compensation for the excavation, hauling and disposal of materials.

SECTION 6: Bus Shelter Pads

6.1 Construct 10” thick concrete bus shelter pads in accordance with FDOT Standard Specifications (Sections 522 and 415) and as shown on the Plans or as directed by the CITY ENGINEER. All concrete shall be minimum 3,000 psi. Concrete shall be integral colored concrete with broom finish. Color shall match Scofield Chromix #5130 (Spring Beige). An expansion joint shall be constructed at the interface of the shelter pads and existing sidewalk to remain. Pad elevations shall match existing grades as closely as possible and existing sidewalk at connection points except that a maximum slope of 2% toward the existing sidewalk must be maintained.

The Contractor shall be aware that existing irrigation lines and appurtenances will require relocation in some locations and that all work related to the necessary irrigation relocations shall be included in the cost of the shelter pad construction. Existing landscaping adjacent to work areas shall be protected during construction. Any damaged landscaping shall be replaced or restored to its original condition at no additional cost to the City.

6.2 Measurement and Payment

Payment shall include all labor, materials and equipment necessary for construction of bus shelter pads including reinforcement and any necessary relocation of irrigation lines, and shall be made at the unit price listed in the proposal for the in place shelter pads as measured in the field.

The CONTRACTOR shall be responsible for survey work required for establishing proper layout, elevations and grades as noted on the design

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plans and shall provide the City with a set of certified as-built plans. The survey work and certified as-built plans shall be considered incidental to pay item work.

SECTION 7: Concrete Sidewalk

- 7.1 Construct 4” thick concrete sidewalk in accordance with FDOT Standard Specifications (Sections 522) and as shown on the Plans or as directed by the CITY ENGINEER. All concrete shall be minimum 3,000 psi. Concrete shall be integral colored concrete with broom finish. Color shall match Scofield Chromix #5130 (Spring Beige). An expansion joint shall be constructed at the interface of the proposed sidewalk and existing sidewalk to remain. Sidewalk elevations shall match existing sidewalk at connection points.

7.2 Measurement and Payment

Payment shall include all labor, materials and equipment necessary for construction of sidewalk and shall be made at the unit price listed in the proposal for the in place sidewalk as measured in the field.

The CONTRACTOR shall be responsible for survey work required for establishing proper layout, elevations and grades as noted on the design plans and shall provide the City with a set of certified as-built plans. The survey work and certified as-built plans shall be considered incidental to pay item work.

SECTION 8: Concrete Retaining Wall

- 8.1 Construct 5” thick concrete retaining wall along the back and sides of new shelter pads were indicated in the plans and in accordance with FDOT Standard Specifications (Sections 520 and 415) and as shown on the Plans or as directed by the CITY ENGINEER. All concrete shall be minimum 3,000 psi. Concrete shall be integral colored concrete with broom finish. Color shall match Scofield Chromix #5130 (Spring Beige). Height of walls shall be adjusted to match existing grades. Ensure positive drainage from adjacent finished grades is maintained.

8.2 Measurement and Payment

Payment shall include all labor, materials and equipment necessary for construction of concrete retaining walls including reinforcement and shall be made at the unit price listed in the proposal for the in place retaining wall as measured in the field.

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The CONTRACTOR shall be responsible for survey work required for establishing proper layout, elevations and grades as noted on the design plans and shall provide the City with a set of certified as-built plans. The survey work and certified as-built plans shall be considered incidental to pay item work.

SECTION 9: Bus Shelters

9.1 Install solar powered bus shelters in accordance with all manufacturer recommendations and specifications and as shown on the Plans or as directed by the CITY ENGINEER. Bus Shelters shall be 3 sided Brasco Eclipse (Model ECO512-AR-AL-125) 5' x 12' with solar powered lighting and 24"x36" map side panel. Shelter finish shall be powder coated aluminum. Safety glass shall be 3/8" clear tempered. City "H" logo shall be etched into back glass panel as directed by the CITY ENGINEER. Roof shall be arched aluminum with blade rafters. Lighting shall be Brasco Standard Solar Lighting (Model 1P3B1L). Proper grounding per manufacturer specifications including pull boxes shall be included.

9.2 **Measurement and Payment**

Payment shall include all transport, labor, materials and equipment necessary for installation of lighted bus shelters and shall be made at the unit price listed in the proposal for 5' x 12' Brasco Eclipse Bus Shelter (F&I).

SECTION 10: Benches

10.1 Install one bench at each shelter location in accordance with all manufacturer recommendations and as shown on the Plans or as directed by the CITY ENGINEER. Benches shall be Brasco Eclipse (Model EC-BE-6-2S) 6' long with dividers. Bench finish shall be powder coated aluminum.

10.2 **Measurement and Payment**

Payment shall include all labor, materials and equipment necessary for installation of benches and shall be made at the unit price listed in the proposal for 6' Brasco Eclipse Bench (F&I).

SECTION 11: Signage

11.1 Relocate existing single post signs as indicated in the Plans or as directed by the CITY ENGINEER in accordance with FDOT Standard Specifications (Section 700). Existing signs, poles and hardware shall be kept secure for reinstallation. Contractor shall replace damaged or lost materials at no expense to the City.

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11.2 Measurement and Payment

Payment shall include all labor, materials and equipment necessary for the relocation of signage and shall be made at the unit prices listed in the proposal for the type of signage being installed or relocated.

SECTION 12: Sodding

- 12.1 Establish growing, healthy sod over all disturbed areas as indicated and specified in the Plans or as directed by the CITY ENGINEER in accordance with FDOT Standard Specifications (Section 570). Sod material shall be strongly rooted St. Augustine Floratan grass of good quality and free from weeds.

Finished elevation of new sod along edges of sidewalks and shelter pads must be such to allow rainwater to flow freely toward the roadway, with finished top of new sod to be one (1) inch below the surface of adjoining pavement. Finished elevation of new sod along edges of existing sod must match the elevation of the existing sod. Completed sod surface shall be even and firm and shall be flush with top of abutting walks, paving, concrete borders, catch basins, and the like.

12.2 Measurement and Payment

Payment shall include all labor, materials and equipment necessary for the satisfactory establishment of the sod and shall be made at the unit prices listed in the proposal for each square yard of sodding, measured in place.

SECTION 13: Maintenance of Traffic

13.1 Maintain traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. Construct and maintain detours. Provide facilities for access to residences, businesses, etc., along the project. Furnish, install and maintain traffic control and safety devices during construction. Furnish and install work zone pavement markings for maintenance of traffic (MOT) in construction areas. Provide any other special requirements for safe and expeditious movement of traffic specified in the Plans. MOT includes all facilities, devices and operations as required for safety and convenience of the public within the work zone.

Do not maintain traffic over those portions of the project where no work is to be accomplished or where construction operations will not affect existing roads. Do not obstruct or any traffic during the performance of the work, and repair any damage to existing pavement open to traffic.

SECTION 14: Mobilization

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14.1 Mobilization (Includes all preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, and sanitary and other facilities. Include the costs of bonds and any required insurance and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials.)

SECTION 15: Responsibility of Contractor

15.1 It shall be the responsibility of the CONTRACTOR to remove from the job site, and properly dispose of, all residue at the end of each and every workday. No materials, equipment and/or debris shall be left in street right-of-way overnight without the permission of the CITY ENGINEER or his designee, or on private property without property owner's permission.

15.2 The CONTRACTOR shall be responsible for survey work required for establishing proper layout, elevations and grades as noted on the design plans and shall provide the CITY with a set of certified as-built plans. The survey work and certified as-built plans shall be considered incidental to pay item works.

15.3 Dust Control

It shall be the CONTRACTOR'S responsibility to control dust by watering and sweeping at the end of each and every workday or as directed by the CITY ENGINEER or his designee. The water used shall be paid for by the CONTRACTOR. Should the CONTRACTOR fail to control dust to the satisfaction of the CITY ENGINEER or his designee, the CITY will control the dust by whatever means the CITY deems necessary and the CONTRACTOR shall pay all expenses incurred by the CITY associated with the control of the dust.

15.4 Notification to Residents

It shall be the CONTRACTOR'S responsibility to notify residents, in writing, 48 hours prior to performing any work. Notification must include type of work to be done, date work will start, and estimated time to complete work. In the event CONTRACTOR changes schedule or duration of work, CONTRACTOR must notify resident, in writing, of such changes. CONTRACTOR must provide a copy of all written notification to the CITY ENGINEER.

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15.5 The CONTRACTOR shall perform the job in a professional manner so as not to discredit or reflect poorly on the image of the City of Hallandale Beach (i.e., use of foul language, alcohol or improper conduct shall not be permitted).

15.6 Extreme care shall be taken to safeguard all existing facilities, site amenities, sprinkler systems, underground utilities and vehicles on or around the job site. Damage to public and/or private property shall be the responsibility of the CONTRACTOR and shall be replaced or repaired in a timely manner to the owner's satisfaction by the CONTRACTOR at no additional cost to the CITY.

Some underground utilities are indicated on the design plans as accurately as possible. The CITY does not represent that their location as shown on the design plans is accurate or that all underground utilities and services are shown on the design plans. It is the CONTRACTOR'S responsibility to locate and protect all underground utilities or services when excavating or constructing the proposed improvements.

15.7 The CONTRACTOR shall protect from sediment and debris any existing catch basin with gravel sediment trap or other means acceptable to the CITY ENGINEER while work is in progress. Filter fabric shall be removed after completion of work or sod has established. Filter fabric must be cleaned periodically to avoid excessive accumulation of sediment and debris. Extreme care shall be taken when removing filter fabric to avoid sediments and debris entering catch basin.

15.8 Traffic Control and Safety

Traffic shall be directed through the project with such signs, barricades, devices, flagmen, as are necessary to provide maximum safety for the public and workmen with minimum interruption to the traffic flow and in accordance with Florida DOT's Manual on Uniform Traffic Control for construction and maintenance work zones.

The CONTRACTOR shall have adequate manpower to provide the necessary traffic control at all times. The CITY will not provide any assistance to this end.

15.9 Field Engineering

Incidental to the Bidder's Proposal costs submitted, the CONTRACTOR shall retain the services of the registered land surveyor licensed in the State of Florida to identify existing control points and property lines indicated on the drawings as required.

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The CONTRACTOR shall also provide engineering services required for survey work in execution of the project and civil, structural or other professional engineering services specified, or required to execute the CONTRACTOR'S construction methods and requirements.

Qualified engineers or registered land surveyors shall be acceptable to the CITY ENGINEER.

15.10 Resources

The CONTRACTOR shall furnish personnel and equipment which will be efficient, appropriate and large enough to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time stipulated in the Proposal. If at any time such personnel and/or equipment appears to the City Engineer to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, he may order the CONTRACTOR to increase the efficiency, change the character or increase the personnel and equipment, and the CONTRACTOR shall conform to such order. Failure of the City Engineer to give such order shall in no way relieve the CONTRACTOR of his obligations to secure the quality of the work and rate of progress required.

15.11 Private Land

The CONTRACTOR shall not enter or occupy private land outside of easements, except by permission of the owner.

15.12 Cooperation Within this contract

The CONTRACTOR shall cooperate with the CITY and with other contractors on the work to avoid inconvenience and delay and to facilitate completion of the entire work in a satisfactory manner.

15.13 TEMPORARY SITE FACILITIES

Temporary Toilets

The CONTRACTOR shall provide in the vicinity of the work, at locations satisfactory to the CITY and maintain in a sanitary condition, suitable temporary toilets for the use of the workmen. Upon completion of the work, the temporary toilets shall be removed and the premises left in a sanitary condition.

The temporary toilets shall be satisfactory to the Department of Health.

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Power and Telephone Service

The CONTRACTOR shall arrange and pay for all power and telephone service required for construction purposes.

Water Use during Construction

All CITY potable water used during this project shall be metered through a hydrant meter or meters obtained from the City Water Department. **There is a \$650 deposit required for the use of a hydrant meter.**