

CITY OF HOBOKEN

ADDENDUM TO BID DOCUMENTS

**Bid 20 - 09
Smart Waste and Recycling Receptacles**

This Addendum # 1, dated September 28, 2020 is issued to modify the above mentioned Bid and is hereby made part of the Bid documents. Please attach this Addendum #1 to the original documents in your possession, and ensure same is included in your proposal.

A. Questions and Answers

Q1. Does the City want all costs related to parts and service labor required to complete any necessary repairs during standard maintenance events to be included in pricing provided by the bidder? (e.g. a cost per unit to cover all routine service and maintenance required during the life of the contract?)

A1. Yes

Q2. Does the City want each of the 'up to three (3) additional maintenance visits per year' to include a 'comprehensive station cleaning' or is the intention that there will be one (1) 'annual maintenance visit including comprehensive cleaning' and then three (3) additional visits that are for maintenance purposes only and do not include a 'comprehensive cleaning'?

A2. Only (1) comprehensive cleaning is anticipated per year at the (1) annual maintenance visit. However, the three (3) additional maintenance visits should include "spot cleaning" of any major sanitary issues with the receptacles.

B. Revised specification is being issued to remove proprietary language, use this version to put together your bid proposal including the bid proposal page.

C. The City will not accept questions/RFI at this time. Submission deadline remains the same: October 8, 2020 at 2:00 pm prevailing time.

This addendum will be published in the newspaper and posted on the City of Hoboken website to ensure compliance.

There are no other changes to this Bid documents as part of this addendum.

ATTEST:

Date: September 28, 2020

AL B. Dineros, QPA
Purchasing Agent

CITY OF HOBOKEN

ADDENDUM TO BID DOCUMENTS

**Bid 20 - 09
Smart Waste and Recycling Receptacles**

ACKNOWLEDGMENT OF RECEIPT OF ADDENDA

The undersigned Bidder hereby acknowledges receipt of the following Addenda:

| Addendum Number | Dated | Acknowledge Receipt (initial) |
|-------------------|---------------------------|----------------------------------|
| Addendum 1 | September 28, 2020 | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Acknowledged for: _____
(Name of Bidder)

By: _____ Date: _____
(Signature of Authorized Representative)

Name: _____ Title/Position: _____
(Print or Type)

Addendum 1 – Bid 20 – 09 – (revised 9/28/2020)

BID SPECIFICATIONS Bid 20 - 09 Smart Waste and Recycling Receptacles

The City of Hoboken is soliciting bid proposals in accordance with N.J.A.C. 7:26H-6 et seq. to purchase and install solar powered compacting smart waste receptacles, non-compacting smart waste receptacles, and non-compacting smart recycling receptacles.

The City's goals in purchasing smart waste and recycling receptacles include:

- Improve efficiency and effectiveness of waste collection operations with GPS cloud based monitoring of waste levels, automated real-time collection notifications, analytics and reporting, and increased capacity of waste receptacles to reduce collection frequency.
- Ensure public health and safety through infection prevention and mitigation of pathogen transfer, as well as total waste containment to reduce waste overflows, wind-blown litter, odors, rodents, and insects.
- Mitigate greenhouse gas emissions through more efficient waste collection operations, increased recycling diversion rates, reduced pollution, and solar powered waste receptacles.
- Enhance cleanliness and aesthetics along Hoboken roadways by replacing aging and deteriorating waste receptacles with uniform smart waste receptacles that have anti-graffiti wraps and message panels for public education.
- Provide well maintained smart waste and recycling receptacles with routine maintenance provided by the vendor.
- Enable future smart city applications with potential incorporation into an internet of things (IoT) platform.

Each smart waste receptacle shall be equipped with the following COVID-19 protection features to mitigate transfer of pathogens:

- Hands free hopper and foot pedal and/or open aperture that does not require manual contact for waste disposal.
- Two (2) message panels per receptacle, where the City will insert custom designed posters directing the public on where to properly dispose of personal protective equipment ("PPE") including masks and gloves. This public service message aims to help control the amount of PPE litter along sidewalks and roadways.

SCOPE OF WORK

These detailed specifications are for the purchase and installation of smart waste and recycling receptacles in the City of Hoboken, New Jersey. The contract and scope of work included herein shall be carried out in conformance with the City of Hoboken municipal code and these detailed specifications, in effect on the date of notice to bidders.

The bidder shall furnish all labor, supervision, supplies, tools, hardware, equipment and other means necessary or proper for performing and completing the scope of work. Failure to supply enough labor or materials to complete the work in a timely fashion shall result in a breach of contract and subject to the loss thereof. This applies to all phases of the work performed by the bidder.

The bidder shall be able to supply, install, and activate the total number of each smart waste and recycling receptacle listed on the bid proposal form by December 15, 2020.

Task 1. Supply Smart Waste and Recycling Receptacles

The bidder shall supply solar-powered compacting waste receptacles, non-compacting waste receptacles, and non-compacting recycling receptacles for bottles/cans.

All receptacles shall be field tested and proven to function at scale and over time in an urban market, with similar weather and solar conditions to the northeast United States. All receptacles shall be durable, made of sheet metal steel interior and exterior construction. Solar-powered receptacles shall have polycarbonate protection of the solar panel.

Features of each smart waste and recycling receptacle shall include:

- Hands free hopper and foot pedal or flap door or open aperture that requires no manual contact for waste disposal
 - Hands free hopper and foot pedal shall be able to be locked to manage security during special events
 - Flap door shall be able to be locked to manage security during special events
 - Open aperture shall be able to be fully sealed with a security plate to manage security during special events
- Custom anti-graffiti wrap on the front and back
- Message panels on both sides
- Safety interlocks on all access doors complete with master key and/or digital access control system with keycard access
- Outside LED lights for status notifications
- No electricity required
- Wireless data transmission
- GPS location tracking

The bidder shall deliver all receptacles new and ready for installation, with no wear from transport.

Proposed locations of receptacles are listed in the table below and map available at <https://arcq.is/TTC0m>. These locations are not finalized and exact quantities/number of receptacles are not known at this time. This will be an open-ended contract, defined as a contract for which price bids were solicited on a unit basis because exact quantities needed were not known at the time bids were sought. The City shall order the number of receptacles as needed to complete the project in accordance with the funds allocated.

| North-South Street | East-West Street | Corner | Compacting Waste Receptacle | Non-compacting Waste Receptacle | Non-Compacting Recycling Receptacle |
|---------------------------|-------------------------|---------------|------------------------------------|--|--|
| River St | Hudson Pl | SE | 1 | | 1 |
| Hudson St | Hudson Pl | SE | 1 | | 1 |
| Hudson St | Newark St | SW | 1 | | 1 |
| Washington St | Newark St | NE | 1 | | 1 |
| Washington St | Newark St | SE | 1 | | 1 |
| Washington St | 1st St | NW | 1 | | 1 |
| Washington St | 1st St | SE | 1 | | 1 |
| Washington St | 2nd St | SW | 1 | | 1 |
| Washington St | 2nd St | NE | 1 | | 1 |
| Washington St | 3rd St | SW | 1 | | 1 |
| Washington St | 3rd St | NE | 1 | | 1 |
| Washington St | 4th St | SW | 1 | | 1 |
| Washington St | 4th St | NE | 1 | | 1 |

| North-South Street | East-West Street | Corner | Compacting Waste Receptacle | Non-compacting Waste Receptacle | Non-Compacting Recycling Receptacle |
|--------------------|------------------|--------|-----------------------------|---------------------------------|-------------------------------------|
| Washington St | 5th St | SW | 1 | | 1 |
| Washington St | 5th St | NE | 1 | | 1 |
| Washington St | 6th St | SW | 1 | | 1 |
| Washington St | 6th St | NE | 1 | | 1 |
| Washington St | 7th St | NW | | 1 | 1 |
| Washington St | 8th St | NW | | 1 | 1 |
| Washington St | 9th St | NE | | 1 | 1 |
| Washington St | 10th St | NW | | 1 | 1 |
| Washington St | 11th St | SW | | 1 | 1 |
| Washington St | 11th St | NE | | 1 | 1 |
| Washington St | 12th St | SW | | 1 | 1 |
| Washington St | 13th St | NE | | 1 | 1 |
| Washington St | 14th St | SE | 1 | | 1 |
| Washington St | 14th St | NW | 1 | | 1 |
| Willow Ave | 7th St | NW | | 1 | |
| Willow Ave | 7th St | SE | | 1 | |
| Madison Ave | 10th St | SW | | 1 | |
| Willow Ave | 1st St | SE | | 1 | |
| Jackson St | 4th St | NW | | 1 | |
| Jackson St | 1st St | SW | | 1 | |
| Willow Ave | 4th St | SW | | 1 | |
| Jackson St | 7th St | NE | | 1 | |
| Willow Ave | 11th St | NE | | 1 | |
| Willow Ave | 14th St | SW | | 1 | |
| Jefferson St | 14th St | NE | | 1 | |
| Sinatra Dr | 5th St | SW | 1 | | 1 |
| TOTAL | | | 20 | 19 | 28 |

Compacting Smart Waste Receptacles

The bidder shall supply solar-powered compacting waste receptacles.

Each receptacle shall have a hands free hopper and foot pedal that requires no manual contact for waste disposal. The hands free hopper and foot pedal shall be able to locked to manage security during special events. The hopper for the compacting smart waste receptacles shall be for landfill waste.

In addition to the features above, compacting smart waste receptacles shall include an ash tray and stub-out plate for cigarette butts.

The built-in compactor system shall ensure that a physical barrier prevents access to the compaction ram at all times during use. It shall have redundant failsafe mechanisms (e.g. no single fault failure) on all safety critical system elements. The compactor emergency stop shall operate independent of software or hardware based controls.

The solar-powered compactor shall manage solar energy efficiently without intervention and achieve desired system performance across a range of receptacle locations and sunlight.

Non-compacting Smart Waste and Recycling Receptacles

The bidder shall supply non-compacting waste and recycling receptacles.

Each receptacle shall have a flap door or open aperture that requires no manual contact for waste disposal. The flap door or open aperture shall be able to be fully sealed by either locking or with a security plate to manage security during special events. The aperture for the non-compacting smart waste receptacles shall be for landfill waste, while the aperture for the non-compacting smart recycling receptacles shall be for bottles and cans only; no paper.

In addition to the features above, non-compacting smart waste receptacles shall include a stub-out plate for cigarette butts.

Task 2. Install Smart Waste and Recycling Receptacles

The bidder shall deliver, install, and set up each smart waste and recycling receptacle.

Project Schedule

The bidder shall propose an installation schedule for review and approval by the City, at least seven (7) days prior to the first proposed installation date.

The estimated project schedule is as follows:

| Task | Estimated Date |
|--|-----------------------|
| Notice to Bidders | September 22, 2020 |
| Addendum 1 | September 28, 2020 |
| Bid Opening | October 8, 2020 |
| City Council Authorization to Award Contract | October 21, 2020 |
| Execution of Contract and Notice to Proceed | October 23, 2020 |
| Installation Complete | December 15, 2020 |
| Submission of Invoices and Certified Payroll | December 15, 2020 |
| Final Payment | December 31, 2020 |

Due to project funding requirements, the smart waste and recycling receptacles must be installed in good working order and payment rendered to the vendor by December 31, 2020. Therefore, all smart waste and recycling receptacles shall be installed and all invoices submitted with certified payroll (if applicable) by December 15, 2020.

Permits and Approvals

The bidder shall secure all necessary permits and approvals for the project, including a sidewalk permit from the City of Hoboken Engineering Division for the installation of smart waste and recycling receptacles on sidewalks.

The bidder shall plan for a one-day site visit prior to installation to verify site conditions with the Department of Environmental Services and Division of Engineering, and review installation logistics with the Department of Environmental Services, Hoboken Parking Utility, and Hoboken Police Department.

Parking

The project schedule is critical for the Hoboken Parking Utility to post temporary no parking signs for the vendor adjacent to each location. No fee will be charged for temporary no parking signs. The bidder is solely responsible for removing the temporary no parking signs at each location immediately upon completion of the work. Failure to remove temporary no parking signs shall result in a fine of \$45 per sign to be paid by the bidder.

Maintenance and Protection of Traffic

The bidder shall hire the Hoboken Police Department outside employment police (OEP) for maintenance and protection of traffic for the times during which the work will be completed. The bid tabulation form includes a set allowance for this cost.

Materials and Equipment Staging

If materials and equipment storage in the City of Hoboken is necessary, the bidder shall propose a materials and equipment staging plan for review and approval by the City. The plan must include a site map showing equipment traffic routes and material storage areas. Due to limited storage space in the City, Bidders are highly encouraged to bring all materials and equipment into the City at the beginning of the work day to avoid the need for storage.

Site Restoration

The bidder shall repair or restore all structures and property that may be damaged or disturbed during performance of the work. Each location where a smart waste and recycling receptacle was installed shall be left in a clean and safe condition.

Task 3. Activate Smart Waste and Recycling Receptacles

The bidder shall activate each smart waste and recycling receptacle including all hardware and software.

The bidder shall provide an in-person training and onboarding, socially distant with appropriate PPE, for personnel of the Department of Environmental Services about all hardware and software.

The bidder shall provide ongoing customer support for the useful life of the receptacles. Customer service shall be available by phone, email, and website.

Task 4. Provide Cloud-Based Software for Smart Waste and Recycling Receptacles

The bidder shall provide cloud-based software for all smart waste and recycling receptacles for 5-years after installation.

Features of the cloud-based software shall include:

- Secure web-based management dashboard showing real time data from each receptacle and the network with map visualization
- Automated monitoring and alerts via text message, email, and web-based dashboard
- Report generation for real-time and historical data analysis of each receptacle and the network
- Insights to reduce unnecessary collections and optimize waste collection operations
- Accessible from any internet browser with both Android and iOS apps
- Available in multiple languages
- Ability to support enhanced, additional functionality and technology over time including but not limited to future smart city applications and potential incorporation into an internet of things (IoT) platform

Real-time data illustrated in the cloud-based software shall include, at a minimum:

- Fullness level in each receptacle
- Age of waste (days since last collection) in each receptacle
- Maintenance needs of each receptacle

The software shall not require additional electricity or telecommunications infrastructure beyond the smart waste and recycling receptacle (e.g., no external router, wi-fi network, wiring, etc.).

The software shall include a support portal with self-help documentation including system installation guide, operations manual, maintenance guide and tips, and troubleshooting.

The bidder shall provide ongoing customer support for the cloud-based software for the useful life of the receptacles. Customer service shall be available by phone, email, and website.

All licenses for the cloud-based software must be provided for five (5) years from the date of installation.

Alternate Task A. Maintain Smart Waste and Recycling Receptacles

The bidder shall maintain all smart waste and recycling receptacles for 5-years after installation.

The bidder shall provide one (1) annual maintenance visit for each receptacle. The annual maintenance visit shall include:

- Multi-point inspection to maintain receptacles in good working order
- Comprehensive station cleaning of interior and exterior, including wiping down the polycarbonate cover and removing gum spots or graffiti as feasible

The maintenance visit shall be scheduled with the Department of Environmental Services, preferably in spring.

The bidder shall provide up to three (3) additional maintenance visits per year for any receptacles identified as in need of maintenance by the Department of Environmental Services.

Alternate Task B. Supply Fill-Level Sensors for Existing Waste and Recycling Receptacles

The bidder shall supply wireless ultrasonic fill-level sensors that securely monitor a container's fill-level and send real-time data to the same cloud-based software as the smart waste and recycling receptacles. The fill-level sensors shall be able to be easily attached to any type of container to monitor any type of waste, including solids and liquids.

Features of each fill-level sensor shall include:

- Monitors solids and liquids
- Attachable to any type of container (e.g., waste or recycling receptacle, dumpster, tank)
- Wireless data transmission
- Replaceable battery
- GPS location tracking
- Temperature and tilt sensors

The locations and exact quantities/number of fill-level sensors to be supplied are not known at this time. This will be an open-ended contract, defined as a contract for which price bids were solicited on a unit basis because exact quantities needed were not known at the time bids were sought. The City shall order the number of fill-level sensors as needed to complete the project in accordance with the funds allocated.

Alternate Task C. Annual Cloud-Based Software per Fill-Level Sensor for Existing Waste and Recycling Receptacles

The bidder shall provide cloud-based software for all fill level-sensors for 5-years after installation. Requirements of the cloud-based software and real-time data shall be as stated in Task 4.

WARRANTY

All smart waste and recycling receptacles shall be guaranteed for 1-year after installation, to be in satisfactory condition and good working order at the end of the warranty period. The warranty shall cover all hardware, parts, and labor.

FINAL INSPECTION, ACCEPTANCE, AND PAYMENT

Prior to a request for payment, the Bidder shall schedule a site visit with a representative of the City of Hoboken to verify proper installation.

QUALIFICATIONS OF VENDOR

The bidder shall have a proven track record and demonstrate local service provider coverage with knowledge of the receptacle features, functions and ongoing requirements.

The bidder shall confirm that all products can function at scale and over time in an urban market with seasons similar to the northeast United States.

The bidder shall have zero reported safety incidents from receptacles and a fail rate less than .1% throughout all networks of current generation products, including failure due to vandalism, and operator error.

It is preferred that the bidder have receptacles/networks deployed in at least 40 countries, and in at least five (5) states in the United States.

The bidder shall provide at least five (5) references from networks of at least 30 receptacles. Two (2) references shall be from network in the United States. References should be able to discuss:

- Durability and lifespan of receptacles, confirming that products can function at scale and over time
- Maintenance of receptacles, parts supply, and service reliability
- User experience for cloud based software, training, and technical support
-

TERMS OF THE CONTRACT

This will be an open-ended contract, defined as a contract for which price bids were solicited on a unit basis because exact quantities needed were not known at the time bids were sought. Open-ended contracts, when advertised and awarded, must include a minimum and a maximum number of units that can be ordered for each item under the contract. Zero is an acceptable minimum. Orders placed under such open-end contracts shall not be considered as change orders.

Exact quantities/number of receptacles are not known at this time. The City shall order the number of receptacles as needed to complete the project in accordance with the funds allocated. The minimum number for each bid item is zero (0).

| BID ITEM | | QUANTITY* (Estimate) | |
|----------|---|-------------------------|---------|
| | | MINIMUM | MAXIMUM |
| 1 | Supply, Install, and Activate Compacting Smart Waste Receptacle | 0 | 20 |
| 2 | Supply, Install, and Activate Non-compacting Smart Waste Receptacle | 0 | 20 |
| 3 | Supply, Install, and Activate Non-compacting Smart Recycling Receptacle | 0 | 30 |
| 4 | Allowance for Maintenance and Protection of Traffic | N/A – Allowance | |
| 5 | Annual Cloud-Based Software per Receptacle (2021-2025) | 0 | 70 |
| Alt A | Annual Maintenance Service per Receptacle (2021-2025) | 0 | 70 |
| Alt B | Supply Fill-Level Sensor for Existing Waste Receptacle | 0 | 20 |
| Alt C | Annual Cloud-Based Software per Fill-Level Sensor for Existing Waste Receptacle (2021-2025) | 0 | 20 |

NOTE: These estimates are provided as informational only and the City shall not be obligated to purchase any minimum or maximum number of smart waste and recycling receptacles/services installed/rendered as herein described. Vendor will be paid for the actual quantity of receptacles/services installed/rendered.

BID PROPOSAL FORM

Bid 20 - 09 Smart Waste and Recycling Receptacles

Bidder shall be familiar with the local conditions affecting the cost of the work and the site of the work. Bidder shall furnish all of the labor, materials, necessary tools, fees, permits and equipment including transportation services necessary to perform the whole of the work and submit to all conditions of the specifications, as they apply to the contract resulting from this bid, on the following form.

| BID ITEM | | UNIT PRICE |
|---|---|------------|
| 1 | Supply, Install, and Activate Compacting Smart Waste Receptacle | \$ _____ |
| 2 | Supply, Install, and Activate Non-compacting Smart Waste Receptacle | \$ _____ |
| 3 | Supply, Install, and Activate Non-compacting Smart Recycling Receptacle | \$ _____ |
| 4 | Allowance for Maintenance and Protection of Traffic | \$1,600.00 |
| 5 | Annual Cloud-Based Software per Receptacle (per year cost, 2021-2025) | \$ _____ |
| Base Bid Total Lump Sum Price | | \$ _____ |
| Alt A | Annual Maintenance Service per Receptacle (per year cost, 2021-2025) | \$ _____ |
| Alt B | Supply Fill-Level Sensor for Existing Waste Receptacle | \$ _____ |
| Alt C | Annual Cloud-Based Software per Fill-Level Sensor for Existing Waste Receptacle (2021-2025) | \$ _____ |
| Base Bid Total Lump Sum Price + Alternates | | \$ _____ |

Base Bid Total Lump Sum Price (Amount in Words)

Base Bid Total Lump Sum Price + Alternates (Amount in Words)

NOTE: The City shall not be obligated to purchase any minimum or maximum number of smart waste and recycling receptacles/services installed/rendered as herein described. Vendor will be paid for the actual quantity of receptacles/services installed/rendered

SIGNATURE PAGE

**Bid 20 - 09
Smart Waste and Recycling Receptacles**

Signature

Date

Print Name

Title/Position

Bidder/Company

Company Address

Telephone #

Fax #

Email Address

PO Email Address

NOTE: The above individual must be authorized to sign on behalf of the company submitting this bid response.