

CONSULTANT WORK ORDER

Date:	January 19, 2024
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1. PROJECT INFORMATION:

Project Title:	Solid Waste Truck Wash Replacement Design, Permitting and Construction Services
City Project Number:	23-0021-SW
City Plan Set Number:	2023019
Consultant Project Number:	0169-0047-2024-01

2. SCOPE OF SERVICES:

The City of Clearwater Solid Waste Department (City) operates a truck washing facility at its Solid Waste Complex at 1701 N. Hercules Avenue, which is used to manually clean collection vehicles, transfer trailers, roll-off containers, and commercial compactors. The facility consists roughly of a 70' x 20' block building and a 60' x 53' concrete pad with three uncovered truck lanes. Each lane is outfitted with hoses, scrub brushes and high-pressure wands. Detergent and deodorant chemicals are stored in the building in drums and are manually sprayed onto vehicles using wands mounted on the building exterior wall. The building also contains four abandoned gas-powered hot water heaters and other miscellaneous abandoned equipment and piping.

The City would like to upgrade the existing facility to provide new equipment and to provide adequate space for transfer trailers to be able to pull directly through the facility rather than pull in and back out of the cleaning bays, which is currently required. The proposed concept is to add one or two automated truck washing system and up to two manual washing bays with new equipment similar to the existing equipment including:

- A minimum of two gas-powered hot water heaters.
- High pressure hot water wands.
- A detergent pumping and dispensing system.
- A deodorant pumping and dispensing system.
- Water hoses with nozzles and high-pressure wands.

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- Manual scrub brushes. Options for detergent dispensing scrub brushes on hoses will be considered.
- One or two (depending on available turning radii) automated, pull-through truck washing systems with undercarriage washing systems. The intent is that the automated systems be turn-key systems designed, fabricated and installed by a truck wash manufacturer, such as InterClean, HydroSpray or equal, under contract with the project's general contractor. The system will be open (not enclosed in a building) with chemical storage tanks and other equipment either adjacent to the system on a covered concrete pad or inside the existing building if possible.

As part of the project, lighting, ventilation and electrical systems inside the existing building will also be upgraded to meet current code requirements.

The project will be executed using the Construction Manager at Risk (CMAR) delivery method, using one of the City's prequalified CMAR firms. The scope of work will be as follows:

I. PRE-DESIGN PHASE:

Task 1.1 Project Management, Data Collection and Meetings

1.1.1 Provide the following services, extending throughout the duration of design and bidding services:

- Coordinate the activities and communications of the Consultant's staff and subconsultants with those of the City.
- Develop monthly status reports and invoices.
- Administer a quality assurance program covering the technical work of the project team.

1.1.2 Attend a kickoff meeting with the City at the start of services to discuss.

1.1.3 Visit the site to observe actual operating conditions and take photographs.

1.1.4 Develop a list of required information and obtain and review information from the City.

1.1.5 Assemble, maintain and submit the Project Catalogue.

Task 1.2 Geotechnical Testing

Consultant will perform two (2) standard penetration test (SPT) borings to a depth of 20 feet in the location of the proposed concrete pad for the automated truck wash and perform laboratory testing to define existing soils and foundation requirements for the concrete pad.

Results of the geotechnical testing will be summarized in a signed and sealed

geotechnical report including a Boring Location Plan, borings logs with soil stratification based on visual soil classification, summarized laboratory data, observed groundwater levels, and geotechnical recommendations.

Task 1.3 Preliminary Engineering

1.3.1 Site Plan Development

Consultant will develop up to three alternative site plans for the proposed facility for evaluation with the City. The site plans will take into account traffic flow, turning radii and alternative operating procedures (manual washing stations before or after automated washing system).

1.3.2 Site Visit and Existing Facility Assessment

Consultant will visit the site to obtain information on and assess the condition of the existing building electrical, lighting, ventilation and plumbing systems. An assessment will be conducted to determine improvements required to meet current code requirements and to serve the new systems. Findings will be documented in a Technical Memorandum.

1.3.3 Equipment Selection

Consultant will work with the City and equipment suppliers to select proposed equipment and establish the Basis of Design for the project. Anticipated equipment includes:

- An automated truck washing facility.
- A minimum of two gas-powered hot water heaters.
- High pressure hot water wands.
- A detergent pumping and dispensing system.
- A deodorant pumping and dispensing system.
- Water hoses with nozzles and high-pressure wands.
- Manual scrub brushes. Options for detergent dispensing scrub brushes on hoses will be considered.

1.3.4 Utilities Assessment

Consultant will evaluate the existing potable water and sanitary sewer systems, including sand/oil separators and grease traps, to determine improvements required to serve the new system. As part of this effort, Consultant will hire a licensed septic system contractor to pump out the existing sand/oil separator and determine its volume. This information will

then be used to evaluate if the sand/oil separator has adequate volume for the new system or if a new, larger separator is required. Fees include a \$0.40/gallon disposal fee based on a maximum volume of 2,500 gallons.

II. DESIGN PHASE:

Task 2.1 Drawings

Consultant will develop design drawings for use in permitting. It is understood the city currently intends on utilizing one of its Construction Manager at Risk (CMAR) contractors to construct the project. Drawings sheets are anticipated to include:

General	
-	Cover
-	Index of Sheets, Abbreviations, Legend
-	General Notes
Civil	
-	Existing Site Plan
-	Civil Demolition Plan
-	Proposed Site Plan
-	Proposed Traffic Plan
-	Paving, Grading and Drainage Plans
-	Paving, Grading and Drainage Sections
-	Paving, Grading and Drainage Details
-	Water and Sewer Plans
-	Water and Sewer Details
-	Miscellaneous Details
Mechanical	
-	Existing Wash System Demolition Plan
-	Automated Wash System General Arrangement
-	Automated Wash System Sections
-	Automated Wash System Details
-	Wash Equipment Building General Arrangement
-	Wash Equipment Building Details
-	Manual Wash Equipment Details
Structural	
-	Structural Notes and Index
-	Automated Wash System Slab Plan and Sections
-	Structural Details
Electrical	
-	Electrical Notes and Index
-	Electrical Demolition Plan

-	Electrical Site Plan
-	Wash Equipment Building Electrical Plan
-	Single Line Diagram
-	Panel Schedule
-	Electrical Details
Plumbing	
-	Plumbing Notes and Index
-	Plumbing Demolition Plan
-	Wash Equipment Building Plumbing Plan
-	Riser Diagrams
-	Plumbing Details
HVAC	
-	HVAC Notes and Index
-	HVAC Demolition Plan
-	Wash Equipment Building HVAC Plan
-	HVAC Details

Task 2.2 Technical Specifications

Consultant will develop technical specifications for the project. The specifications will be Section IVA, Project Specific Specifications, with Sections I – III being the City's Standard Specifications.

Task 2.3 Review Submittals and Meetings

Drawings will be submitted for review by the City and CMAR at the 30%, 60% and 100% completion levels. Technical Specifications will be submitted for review at the 60% and 100% completion levels. A review meeting will be held with the City and CMAR after their review.

Cost estimating will be completed by the CMAR.

Task 2.4 Permitting

Consultant will prepare the following application packages with supporting information, and respond to Requests for Additional Information (RAI) to obtain the following permits:

- 2.4.1 FDEP Environmental Resource Permit/MS4 Letter of Exemption.
Stormwater from the project area currently sheet flows across the pavement into an inlet, which then discharges into the stormwater retention area in the northeast area of the site. Because this pattern is not anticipated to change, no additional impervious area is being created, and no wetlands are being affected, the project should be exempt from

requiring a modification to its existing stormwater permits. A Letter of Exemption will be submitted to the FDEP to obtain their concurrence.

2.4.2 City of Clearwater Development Review Committee Approvals.

- A. Attend one pre-application meeting with the City's Development Review Committee.
- B. Obtain a Development Order for the project through the Development Review Committee (DRC) Flexible Standard Application process with City Planning Department. Fees are based on electronic submittal of the Drawings and applications, and addressing the City's comments via two resubmittals, on the City's Accela system.

It is assumed that Ardurra will not be responsible for permit fees and that permit fees, if any, will be paid by internal transaction. The CMAR will be responsible for fees and for subsequently obtaining the Building Permit and complying with associated requirements.

2.4.3 City of Clearwater Industrial Discharge Permitting. The existing system discharges to the sanitary sewer system through a grease trap. Consultant will work with the City's Industrial Discharge Coordinator (Public Utilities Department) to determine required modifications to the system to address the City's Pretreatment Ordinance. Fees include submittal of drawings and discharge information (flows, proposed chemicals, available water quality), collaboration with the City's Industrial Discharge Coordinator, and modifying the design to include required sampling ports and pretreatment facilities. It is assumed that chemical pretreatment will not be required and that pretreatment will be limited to additional grease traps/sand-oil separators.

III. BIDDING PHASE:

Task 3.1 Guaranteed Maximum Price (GMP) Review

Consultant will review the CMAR's draft GMP, Terms and Conditions and Exclusions and will provide comments to the City.

Task 3.2 Issued for Construction Drawings

Consultant will develop Issued for Construction drawings compiling changes made during permitting and the GMP approval process.

IV. CONSTRUCTION PHASE:

Task 4.1 Construction Management

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Consultant will serve as Owner's Engineer during the construction of the project assisting with overseeing the CMAR's work over an assumed 9-month (39 week) construction duration. Specific services include:

- 4.1.1 Consultant will attend a Preconstruction Meeting with the CMAR and City. The CMAR will develop the agenda. Ardurra will prepare the meeting minutes.
- 4.1.2 Consultant will log and review up to forty (40) shop drawings from the CMAR including construction progress schedules and Shop Drawings and other miscellaneous submittals. Of these shop drawings, it is assumed that up to 25 will require a second review. The specifications will state that the cost of three or more reviews will be the responsibility of the CMAR.
- 4.1.3 Consultant will attend up to nine (9) construction progress meetings and site visits. The CMAR will prepare the meeting agenda. Ardurra will prepare the meeting minutes.
- 4.1.4 Consultant will log and reply to the CMAR's Requests for Information (RFIs). For the purposes of this Work Order, up to five (5) RFIs is assumed.
- 4.1.5 Consultant will review Owner Allowance Authorization requests submitted by the CMAR. For the purposes of this Work Order, up to three (3) Allowance Authorization requests is assumed.
- 4.1.6 Consultant will review quantities and sign the CMAR's applications for payment.
- 4.1.7 Consultant will provide assistance with final closeout including:
 - a. Witnessing startup of systems and equipment.
 - b. Coordinate, witness and document training by the system manufacturer.
 - c. Attending a Substantial Completion walkthrough.
 - d. Attending a final completion walkthrough and confirming that punchlist items have been completed.
 - e. Reviewing the CMAR's As-Built surveys/drawings and developing Record Drawings.

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- 4.1.8 Consultant will provide general Construction Management during an assumed 9-month (39 week) construction contract including:
- Maintaining routine contact and discussing construction progress and project developments with the CMAR.
 - Miscellaneous phone calls and emails and coordination with the City's Project Manager and other City staff, including assisting the City's Project Manager with miscellaneous minor project related questions and general consultation.
- 4.1.9 Consultant will visit the site to observe construction progress an average of up to four (4) hours per week over an active 6-month field construction period (total of 104 hours). Critical aspects of the work to be observed include concrete pours and underground utility work. Field Observation Reports and progress photographs will be provided to the City on a weekly basis.

3. PROJECT GOALS:

In addition to the documents required by project's permitting agencies to obtain permits, the following are Deliverables to the City:

- Existing Facility Assessment Technical Memorandum in PDF format.
- 30% Design Drawings in PDF format.
- 60% Design Drawings (5 sets - 22 x 34 printouts and PDF) and Technical Specifications in PDF format.
- 100% Design Drawings (5 sets - 22 x 34 printouts and PDF) and Technical Specifications in PDF format.
- Issued for Construction Documents: Two (2) signed and sealed copies of the project drawings and technical specifications; one (1) thumb drive containing the project drawings in AutoCAD and PDF format and the technical specifications in Word and PDF format.
- One (1) copy of each submitted permit application package and each RFI response will be provided to the City for its record.
- Meeting minutes in PDF format.
- Submittal review comments and RFI responses in PDF format.

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- Construction Field Observation Reports (PDF) and progress photographs (JPG).
- Record Drawings: One (1) signed and sealed copy of the Record Drawings and one (1) thumb drive containing the Record Drawings in AutoCAD and PDF format.

4. FEES:

See Attachment A. This price includes all labor and expenses anticipated to be incurred by Ardurra for the completion of these tasks in accordance with Professional Services Method "A" – Hourly Rate –for a fee not to exceed **Two Hundred Forty Seven Thousand, Five Hundred Forty Seven Dollars (\$247,547.00)**.

No Permit fees are anticipated.

5. SCHEDULE:

The project is to be completed in 6 months from issuance of notice-to-proceed. The project deliverables are to be phased as follows:

- | | |
|---------------------------|-------------------|
| • 30% Construction Plans: | 90 calendar days |
| • 60% Documents: | 140 calendar days |
| • 100% Documents: | 180 calendar days |

6. STAFF ASSIGNMENT:

The City's staff assignments to this project include:

Kervin St. Aime	Director, Solid Waste/General Services
Philopateer Hanna	Senior Engineering Specialist / Project Manager

The firm's staff assignments to this project include:

Chris Kuzler, P.E.	Principal
Lara Bartholomew, P.E.	Project Manager
Pallavi Kulkarni	Engineer

7. CORRESPONDENCE/REPORTING PROCEDURES:

Consultant's project correspondence shall be directed to Christopher F. Kuzler, P.E. (Consultant Principal) and Lara Bartholomew, PE (Consultant Project Manager).

All City project correspondence shall be directed to Philopateer Hanna (City Project Manager) and Jeremy Brown (Deputy City Engineer)

8. INVOICING/FUNDING PROCEDURES:

City Invoicing Code: 3247324-530100-C2302

For work performed, invoices shall be submitted monthly to:

**Attn: Jeffrey Kuhl
City of Clearwater Solid Waste
1701 N. Hercules Avenue
Clearwater, Florida 33765**

Contingency services will be billed as incurred only after written authorization provided by the City to proceed with those services.

9. INVOICING PROCEDURES:

At a minimum, in addition to the invoice amount(s) the following information shall be provided on all invoices submitted on the Work Order:

1. Purchase Order, Project and Invoice Numbers and Contract Amount.
2. The time period (begin and end date) covered by the invoice.
3. A short narrative summary of activities completed in the time period.
4. Contract billing method – Lump Sum or Hourly Rate.
5. If Lump Sum, the percent completion, amount due, previous amount earned and total earned to date for all tasks (direct costs, if any, shall be included in lump sum amount).
6. If Hourly Rate, hours, hourly rates, names of individuals being billed, amount due, previous amount earned, the percent completion, total earned to date for each task and other direct costs (receipts will be required for any single item with a cost of \$50 or greater or cumulative monthly expenses greater than \$100).
7. If the Work Order is funded by multiple funding codes, an itemization of tasks and invoice amounts by funding code.

10. CONSIDERATIONS:

Consultant acknowledges the following:

1. The Consultant named above is required to comply with Section 119.0701, Florida Statutes, where applicable.
2. All City directives shall be provided by the City Project Manager.
3. "Alternate equals" shall not be approved until City Project Manager agrees.
4. All submittals must be accompanied by evidence each has been internally checked for QA/QC before providing to City.
5. Consultants/Contractors are not permitted to use City-owned equipment (i.e. sampling equipment, etc.).
6. Documents posted on City website must ADA accessible.

11. ADDITIONAL CONSIDERATIONS:

All work orders should include considerations for the following:

1. Sea Level Rise and Flood Resilience, as applicable.
2. Submittal of a Critical Path Method (CPM) Schedule(s).
3. Submittal of a Project Catalog with the following items, as appropriate:
 - a. Data requests, assumptions, critical correspondence, meeting agenda, sign-in sheets, meeting minutes, document comment-response log(s), technical memorandum/reports, addenda, progress reports, regulatory correspondence, and other project-related documents.
 - b. If construction project, also include design plans, conformed plans, change orders, field orders, RFIs, work change directives, addenda, progress reports, shop drawing and progress submittals, as-builts, record drawings, and other project-related documents such as O&M manuals and warranty information.
 - c. At the conclusion of the project, Consultant will combine this information into a Project Catalog and submit to the City for review and comment.
4. Arc Flash labeling requirements:
 - a. All electrical designs and construction shall adhere to NFPA 70 E "Standard for Electrical Safety in the Workplace".

Updated calculations of Fault and Arc Flash, and provisions for new or updated Arc Flash equipment labeling shall be included in the contract documents.

12. SPECIAL CONSIDERATIONS:

- The City will provide additional topographic surveying.
- The City, working with the CMAR, will manage and administer Owner Direct Purchase and Buyback options.

13. SIGNATURES:

PREPARED BY:



Christopher F. Kuzler, P.E.
Managing Principal
Ardurra Group, Inc.

1/19/24

Date

APPROVED BY:

Tara Kivett, P.E.
City Engineer
City of Clearwater

Date

ATTACHMENT "A"**CONSULTANT WORK ORDER – PROJECT FEES TABLE**

Solid Waste Truck Wash Replacement Design, Permitting and Construction Services
 Ardurra Group, Inc. 23-0021-SW City of Clearwater

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PROJECT FEES TABLE

Task	Description	Subconsultant Services	Labor	Total
I	Pre-Design Phase			
1.1	Project Management, Data Collection and Meetings		\$15,428	\$15,428
1.2	Geotechnical Testing	4,100	462	4,562
1.3	Preliminary Engineering	5,770	24,368	30,138
Pre-Design Phase Total:				\$50,128
II	Design Phase			
2.1	Drawings	\$23,220	\$54,446	\$77,666
2.2	Technical Specifications	\$7,440	\$11,018	\$18,458
2.3	Review Submittals and Meetings		\$4,079	\$4,079
2.4	Permitting		\$19,222	\$19,222
Design Phase Total:				\$119,425
III	Bidding Phase			
3.1	GMP Review		\$2,828	\$2,828
3.2	Prepare Issued for Construction Documents		\$1,414	\$1,414
Bidding Phase Total:				\$4,242
IV	Construction Phase			
4.1	Construction Management	\$7,040	66,712	\$73,752
Construction Phase Total:				
GRAND TOTAL:				\$247,547
5.0	Permit Fees			
6.0	Other Direct Costs (prints, photocopies, postage, etc.) (Not applicable to lump sum Work Orders)			
GRAND TOTAL:				\$247,547

ATTACHMENT "B" (Include if applicable)

CONSULTANT WORK ORDER – CITY DELIVERABLES

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CONSULTANT WORK ORDER

CITY DELIVERABLES

1. FORMAT:

The design plans shall be compiled utilizing the following methods:

1. City of Clearwater CAD standards.
2. Datum: Horizontal and Vertical datum shall be referenced to North American Vertical Datum of 1988 (vertical) and North American Datum of 1983/90 (horizontal). The unit of measurement shall be the United States Foot. Any deviation from this datum will not be accepted unless reviewed by City of Clearwater Engineering/Geographic Technology Division.

2. DELIVERABLES:

The design plans shall be produced on bond material, 24" x 36" at a scale of 1" = 20' unless approved otherwise. Upon completion the consultant shall deliver all drawing files in digital format with all project data in Autodesk Civil 3D file format.

NOTE: If approved deviation from Clearwater CAD standards is used, the Consultant shall include all necessary information to aid in manipulating the drawings including either PCP, CTB file or pen schedule for plotting. The drawing file shall include only authorized fonts, shapes, line types or other attributes contained in the standard release of Autodesk software. All block references and other references contained within the drawing file shall be included. Please address any questions regarding format to Mr. Thomas Mahony, at (727) 562-4762 or email address Thomas.Mahony@myClearwater.com.

All electronic files (including CAD and Specification files) must be delivered upon completion of project or with 100% plan submittal to City of Clearwater.