

STAFFING and COST PROPOSAL No. AI-04

AGREEMENT for Citywide Professional Consultant Services

between

The City of Cape Coral

and

AECOM Technical Services, Inc.

Collection System Inflow & Infiltration Action Plan

THIS DOCUMENT, executed this 4th day of September, 2025, is a Staffing and Cost Proposal (SCP) No. AI-04, following all terms and conditions per Citywide Professional Consultant Services Contract #CON-RFQ2323KR-A, executed between the **City of Cape Coral (CITY)** and **AECOM Technical Services, Inc. (FIRM)** on March 21, 2024, for a 3-year term, with a 3-year renewal option, (hereafter called "Agreement") shall be in effect for the time noted in this agreement, or as mutually agreeable to meet the requirements of the Staffing Cost Proposal.

A. GENERAL

The CITY and AECOM Technical Services, Inc. (FIRM) have entered into an Agreement to provide professional engineering services in connection with the CITY's Inflow and Infiltration (I/I) Action Plan for the collection systems that flow to the Everest and Southwest Water Reclamation Facilities (WRFs). The Agreement provides for services to be performed on the basis of a Staffing and Cost Proposal (SCP) to be prepared by AECOM Technical Services, Inc. The SCP will be executed once FIRM and CITY have a fully signed Staffing Cost Proposal and a Purchase Order has been provided to the FIRM by the CITY for services described in the Staffing Cost Proposal. The CITY's expectation is to work under this Staffing Cost Proposal to be self-performed by the PRIME FIRM, whenever possible.

B. DESCRIPTION OF ASSIGNMENT

The FIRM will prepare an I/I Action Plan to meet the requirements for Collection System Action Plans per Florida Department of Environmental Protection (FDEP) Rule 62-600.705(2)(a) for the Everest and Southwest Water Reclamation Facilities (WRFs) located in the CITY. The Action Plan will be completed and submitted to the FDEP ahead of the dates identified below.

- April 27, 2026, based on the expiration of the Domestic Wastewater Facility Permit for the Southwest Water Reclamation Facility, Permit No. FLA455458-009-DW1P, on October 24, 2026.
- May 24, 2027, based on the expiration of the Domestic Wastewater Facility Permit for the Everest Water Reclamation Facility, Permit No. FLA0030007-024-DW1P, on November 24, 2027.

C. PROJECT OVERVIEW:

The FIRM will perform services using the multi-phased approach summarized below.

- The FIRM will develop an Infiltration and Inflow Action Plan (Action Plan) for the Southwest and Everest WRFs. The Action Plan will reflect the status as of September 30, 2025 (i.e., through Fiscal Year 2025) of relevant I/I, leakage, and sanitary sewer overflow (SSO) data/activities and other information required by Rule 62-600.705(2)(a). The contents of the Action Plan are listed in Task 5 of the Scope of Services. During this phase, FIRM will collect data and conduct interviews with CITY staff. The data received will be used to support desktop volumetric I/I estimations described in Task 3 and to develop prioritized inspection and abatement schedules in Task 4. Based on findings and results from Tasks 2 – 4, FIRM will prepare the I/I Action Plan in Task 5.

D. SCOPE OF SERVICES

Task 1 - Project Management

For the entire duration of the project, the FIRM will coordinate the project management activities, including progress meetings and project invoices, to make sure that the project remains focused on the defined scope, schedule, and budget.

The task includes the following subtasks.

- 1.1 Coordinate and attend project kickoff meeting and bi-weekly hour-long progress meetings. Develop meeting agendas and prepare meeting summaries with action item lists.
- 1.2 Provide coordination with the FIRM and the CITY staff, and other stakeholders as necessary to meet the schedule and budget for the completion of the project.
- 1.3 Provide support for City Council meetings, as required, to update the City Council and the public (Public Outreach Services) regarding the status of the project schedule and budget, prepare and provide plans, graphics, maps, data, and associated presentation materials, as needed, for the project phases.

Task 2 - Data Review and Gap Analysis

The task includes the following subtasks.

- 2.1 Prepare and submit a Request for Information (RFI) to the CITY. Based on receipt of data, the FIRM may follow up with additional RFIs. Set up a FIRM-managed secure file-share link for the CITY to use to transfer requested data and manage incoming data. Information requested in the RFI(s) will include, but is not limited to:
 - CITY's Geographic Information System (GIS) geodatabase(s) for sanitary sewer collection and conveyance assets and service area boundaries for Everest and Southwest WRFs and their lift stations (LS) and master pump stations (MPS).
 - CITY's GIS geodatabase(s) for natural and constructed stormwater assets.
 - Resiliency studies previously conducted on the collection/transmission systems. The studies should consider sea-level rise and planned or completed

flood mitigation and stormwater control actions identified as reducing the potential for I/I into CITY's collection/transmission system.

- Historical wastewater Supervisory Control and Data Acquisition (SCADA) and water consumption data over a period of analysis (POA) to be identified in Task 3.
- List of satellite collection systems, their unique identifiers and common names, ownership type, population served, and the point of discharge into CITY's collection system.
- CITY-owned climatic and geologic GIS data determined by the FIRM to be necessary for identifying appropriate maintenance and repair actions, such as geologic and topographic information; hydrologic information including seasonal high water table information, regional rainfall data, and groundwater quality monitoring associated with the collection/transmission system (if monitoring is conducted). It is anticipated that some of this data will be collected from sources other than the CITY.
- CITY's I/I abatement continuing contracts: Cured In Place Pipe (CIPP) Lining with Insituform Construction Company; Manhole Rehabilitation with Restoration and Protective Solutions, LLC; and recent Lift Station Rehabilitation Contracts that address I/I issues.
- Previous work from the CITY's ongoing I/I Abatement Program.
- System inspection results, infrastructure condition data, I/I studies, leakage surveys, sanitary sewer evaluation surveys (SSES), SSO events, corrosion data, verified odor complaints, and corrosion/odor control programs.
- Information regarding the annual expenditures dedicated to the inflow and infiltration studies and the collection system action plan; expenditures dedicated to pipe assessment, repair, and replacement; and expenditures designed to limit the presence of fats, oils, grease, roots, wet wipes, sand, and grit in the facility's collection/transmission system.

2.2 Review and evaluate data for completeness and readiness/usefulness to support analyses in this Phase 1 Scope of Work. This evaluation does not include evaluating the accuracy of CITY-provided data or climatic data by others. FIRM's work does not include data cleaning or development or performing data analyses not explicitly stated in Task 4.

2.3 Interview CITY staff to obtain information needed to complete the Action Plan. The purpose of the interviews is to collect information that is not currently documented and to confirm FIRM's understanding of data and documents received in response to RFIs. Some interviews may be structured meetings with multiple CITY staff while other interviews may be brief, informal phone calls to a single person.

2.4 Prepare a Draft Data Review/Analysis and Gap Assessment Technical Memorandum (TM) and conduct a review meeting to discuss CITY's comments. The TM will:

- List data requested and received/reviewed.

- Describe the completeness of the data and how it will be used to support the remainder of the project. This includes otherwise undocumented information gathered during interviews.
- Identify data gaps that need to be filled to meet the requirements of FDEP Rule 62-600.705(2)(a) or that would be helpful in estimating I/I flows.
- Provide recommendations for filling data gaps.

2.5 Prepare the Final TM incorporating CITY's comments.

Task 3 - Desktop Volumetric I/I Estimation

The FIRM will conduct a desktop evaluation of wet weather-induced flows within the CITY's sanitary sewer system to identify areas where excessive stormwater-related inflow and RDII are suspected of entering the collection system. The evaluation will cover the Southwest and Everest WRF service areas, as well as areas served by Flex Stations. Findings will help identify potential problem areas and recommend strategies for prioritizing additional data collection to support further development of the CITY's I/I Abatement Program. It is the FIRM'S understanding that the CITY has already progressed on some of the subtasks listed below. The FIRM will utilize the data and analysis that has been performed by the CITY so far, and complete the Desktop Volumetric I/I Estimation as required by FDEP Rule 62-600.705(2)(a).

The task includes the following subtasks.

- 3.1 Analyze the most recent five years of influent flow meter data for the Southwest and Everest WRFs to perform a statistical evaluation comparing wet weather flows, dry weather flows, and annual average day flows (AADF).
 - Analyze water consumption data for the CITY's service areas to identify relationships between metered water use and wastewater discharges, supporting the estimation of expected baseline flows by service area.
 - Evaluate SCADA system data for a minimum of three significant rainfall events. This includes the September/October 2023 event compiled by the CITY, and two additional events to be identified by the FIRM through review of historical rainfall records. For each event, analyze influent flow to the WRFs (15-minute intervals), pump run times and ON/OFF status, rainfall data from CITY rain gauges, and any available flow metering data from lift stations or master pump stations.
- 3.2 Using data from the Periods of Analysis (POAs) established in Task 3.1, evaluate lift station pump run time and flow meter data (where available) to assess the relative wet weather impacts across service areas. This analysis will inform identification of sub-basins with elevated RDII response and support prioritization efforts for the CITY's I/I Abatement Program. It should be noted that most of this task has been completed by the CITY, and the data will be used for further analysis and summary as required in the Action Plan
- 3.3 There are a total of 29 sewersheds in the CITY's Everest and Southwest Collection Systems and Flex Station service areas. The CITY to provide the GIS information on the sewersheds that are already delineated. These service areas will be further subdivided into approximately 50 sewersheds for more detailed evaluation.

Historical pump run time data will be analyzed for up to 50 lift stations equipped with SCADA historians and/or CITY-maintained logs. RDII analysis will be performed to support prioritization of pump stations contributing higher volumes of wet weather flow.

3.4 Evaluation of dry weather and wet weather flows:

- Identification of Dry Weather Events: Dry weather flow (DWF) periods will be defined as two separate events, each consisting of seven consecutive days with no measurable rainfall. DWF measurements will be used to estimate baseline groundwater infiltration through structural defects and may also indicate potential hydraulic restrictions caused by O&M issues. For analysis purposes, 20% of observed dry weather flow will be assumed to represent groundwater infiltration.
- Night Flow Isolation: Flow data recorded between 1:00 AM and 5:00 AM, when wastewater contribution from customers are at a daily minimum, will be evaluated and assumed to primarily represent groundwater infiltration.
- Wet Weather Events: Wet weather flow events will be defined during the analysis based on review of rainfall data and system response characteristics. Common screening criteria (e.g., rainfall depth ≥ 0.10 inches, separation of 12 hours of dry weather, or peak intensities exceeding 0.25 inches/hour) may be applied to identify events that are likely to produce RDII. A 2-year, 24-hour design storm (4.5 inches) will be used as a benchmark for estimating RDII volumes, where appropriate.

3.5 Desktop Analysis: Perform frequency and geo-reference evaluations of available SSO data. Utilize available data sources and analytical results to identify correlations between wet weather conditions and increases in sanitary sewer flows to the two water reclamation facilities. Where supported by the data, further correlate wet-weather related flow increases to specific service area sub-basins. Conduct volume-based analyses of RDII at select stations using pump run times as a proxy for flow. The CITY's existing hydraulic model for wastewater conveyance and collection system will be utilized for desktop Analysis. It should be noted that the hydraulic model will not be updated or calibrated as part of this effort.

3.6 Based on the findings of the desktop evaluation, develop recommendations for targeted field investigations and phased wet weather I/I abatement efforts. This analysis will help inform the prioritization of additional data collection activities and define preliminary steps in a broader I/I reduction program. The desktop review will be limited to data provided by the CITY or readily extractable from the CITY's databases and SCADA system.

3.7 The FIRM will prepare a draft TM with a summary of desktop volumetric I/I estimation performed. The TM will summarize the results and findings and determine methods and approaches to prioritize and collect additional data to perform a more robust inflow and infiltration abatement program.

3.8 The FIRM will conduct a review meeting with City and finalize the TM on desktop volumetric I/I estimation.

Task 4 - Collection System Inspection and Abatement Plan Scheduling

4.1 Based upon findings from the previous tasks, FIRM will:

- Develop a schedule for field inspections of LSSAs, prioritized from highest to lowest suspected I/I volumes. The schedule will run from FY26 through FY30 and will include at least 25% of the Southwest WRF system and 25% of the Everest WRF system as required by Rule 62-600.705(2)(a). For cost estimating purposes, it will be assumed that system evaluations (based on inspection results) and I/I abatement activities will occur in the same year as the year the system segment was inspected.
- Develop planning-level costs for I/I field inspections and analyses, and an Engineer's Opinion of Probable Construction Cost (EOPCC) for I/I abatement. The I/I abatement EOPCC will be classified as a Class 5 estimate, consistent with AACE International Recommended Practice No. 18R-97. This level of estimate is appropriate for projects with 0% to 2% project definition and typically has an expected accuracy range of -50% to +100%. While the units of measure and unit prices will be consistent with CITY's current CIPP lining and manhole rehabilitation contracts, the accuracy of the EOPCCs will be commensurate with a Class 5 estimate because quantities will be largely unknown prior to field inspections, which will not be conducted until Phase 2.
- Compile schedules and cost estimates in an I/I Evaluation and Abatement Plan. The plan will also describe the methodology used to prioritize LSSAs for inspections/evaluations and abatement activities and identify the basis for cost estimates.
- The summary of field activities (including collection system smoke tests and manhole CCTV inspections) that are underway at the CITY will be included in the Abatement Plan.

4.2 Develop and deliver the Draft I/I Evaluation and Abatement Plan to CITY and conduct a deliverable review meeting.

4.3 After the review meeting, address CITY's comments on the deliverable and submit a Final I/I Evaluation and Abatement Plan to CITY.

Task 5 - Action Plan Preparation

5.1 Utilizing findings from the preceding tasks and in close coordination with CITY, FIRM will prepare an I/I Action Plan that meets the requirements of Rule 62-600.705(2), F.A.C for Collection System Action Plans. The Action Plan will be certified by a professional engineer registered in the State of Florida and will include the following contents.

- **Introduction:** Introducing the Action Plan, its purpose, and how the Plan is organized.
- **Wastewater System Description and Contact Information:** Providing an overview of each system and identifying their number of residential and non-residential customers, and an overview map of the systems. Contact information for the person(s) responsible for implementing the Plan will also be included.

- **Satellite Systems:** Listing satellite collection systems connected to CITY's Southwest and Everest WRF collection systems and including for each the unique identifier, system name, ownership type, population served, and whether the satellite system is under the control of the facility.
- **Inventory:** From CITY's existing GIS data and other data provided by CITY, providing tables summarizing manholes, lift stations (LS), and pipes, lengths, sizes, material(s), construction types, and age.
- **GIS and CMMS Data:** Describing CITY's GIS and CMMS electronic systems, providing summary descriptions of data contained in those systems such as inventory of collection system components, inspection and maintenance information, information on flows, SSOs, bypasses, verified odor complaints, corrosion data, results from previous I/I analyses and leakage surveys, and population and industries served. Also identifying Non-CITY climatic and geologic GIS data determined by FIRM to be necessary for identifying appropriate maintenance and repair actions, such as geologic and topographic information, hydrologic information including seasonal high water table information, regional rainfall data, and groundwater quality monitoring associated with the collection/transmission system (if monitoring is conducted).
- **Inflow and Infiltration and Leakage Surveys:** Describing previous I/I and leakage surveys and how their results were used to develop the I/I Evaluation and Abatement Plan. This will include FIRM's I/I estimates from the Desktop Volumetric I/I
- **I/I Evaluation and Abatement Plan:** Briefly describing the plan in the body of the Action Plan and providing the plan developed under Task 4 as an appendix.
- **Collection System Maintenance and Repair Plan:** Summarizing the frequency of routine maintenance and cleaning activities and their related protocols, and the protocol for emergency repairs.
- **Record Keeping:** Describing CITY's record keeping procedures for all components of the I/I Action Plan.
- **Fats, Oils, and Grease (FOG), Wet Wipes, Sand/Grit, and Root Control:** Describing/referencing programs and ordinances in place for limiting FOG, wet wipes and sand/grit in the collection system, including ordinances, public education, and customer notifications, and also describing CITY's existing root control program.
- **Additional I/I Measures:** Describing other measures taken by CITY, such as sewer ordinances or other programs intended to minimize I/I from individual service connections or sanitary sewer laterals, including for single-family residences, to the extent addressing such I/I is determined necessary to prevent SSOs and is redressable within CITY's authority.
- **Limiting I/I from Satellite Collection Systems:** Describing measures in place to require or encourage owners/operators of satellite systems to minimize I/I from their systems that cause or contribute to SSOs in CITY's collection system.

- **System Resiliency:** Summarizing the resiliency of the collection/transmission systems based on findings from previous studies and planned or completed flood mitigation and stormwater control actions identified as reducing the potential for I/I into CITY's collection/transmission system.
- **Plan Maintenance and Annual Reports:** Describing that the Action Plan must be reviewed and updated every five years, and that Annual Reports are due on June 30th, following the end of the previous FY. Summarizing information required to be included in the Annual Reports.

5.2 Finalize the Action Plan with input from the City and be certified by a professional engineer registered in the State of Florida.

E. PROJECT TASKS (DELIVERABLES BY TASK)

Task 1 Project Management

- Monthly invoices with attached progress reports
- Meeting summaries from bi-weekly progress meetings

Task 2 Data Review and Gap Analysis

- Request for Information (RFI)
- Draft and Final Gap Analysis Technical Memorandum

Task 3 Desktop Volumetric I/I Estimation

- Draft and Final Desktop Volumetric I/I Estimation TM

Task 4 System Inspection/Evaluation and Abatement Cost Estimation

- Draft and Final I/I Evaluation and Abatement Plan

Task 5 Action Plan Preparation

- Draft and Final I/I Action Plan

F. PROPOSED STAFFING

The following PRIME FIRM staff is proposed for performing the services authorized in this SCP. These position titles and fees should match those shown in the Master Agreement for Miscellaneous Professional Services.

Labor Classification	Assignment
Principal in Charge - \$345/H	Task 1 - 5
Senior Project Manager - \$315/H	Task 1 - 5
Senior Engineer 3 - \$284/H	Task 1 - 5

Labor Classification	Assignment
Senior Engineer 2 - \$249/H	Task 1 - 4
Project Engineer 2 - \$199/H	Task 2
Engineer 2 - \$176/H	Task 1 - 4
Senior GIS Analyst - \$173/H	Task 2 - 4
GIS Specialist II - \$145/H	Task 1 - 4
Engineer 1 - \$137/H	Task 1, 3
Project Administrator - \$114/H	Task 1, 3

G. TIMELINES by TASK

Labor Classification	Assignment
Task 1	270 Calendar Days
Task 2	90 Calendar Days
Task 3	180 Calendar Days
Task 4	60 Calendar Days
Task 5	90 Calendar Days
Completion	270 Calendar Days

H. CITY RESPONSIBILITIES

The CITY will designate Thomas McLean, as the CITY's project manager/representative and primary contact for the Firm. The FIRM will rely on the CITY'S designated project manager/representative for instructions and approval of FIRM's services.

I. COMPENSATION

Based on the scope of services and the schedule outlined above, FIRM has prepared a detailed labor disaggregation for the proposed tasks. Summarized in an Attachment A – SCP Summary Spreadsheet, that details the man-hours for each task for PRIME FIRM

personnel titles as shown in the contract and sub-consultants service fees will be included. All anticipated other direct expenses will be outlined in spreadsheet. Sub-consultant fees will also be shown on the spreadsheet and additional attachment on Sub-consultant's Letterhead as an attachment to the Staffing Cost Proposal. No Mark-up on Sub-consultant fees will be accepted. All fees will be shown as "Not to Exceed".

No LUMP SUM fees will be accepted.

For the professional services as set forth in this SCP, the CITY shall pay the FIRM a not-to-exceed fee in the amount of (\$439,420.00) as displayed in the attached price proposal. Payment is estimated to be distributed to the Firm in monthly progress payments based on work performed during each monthly billing period. Certain assumptions have been made in developing the fees for services. To the extent possible, all fees will be shown in the proposal. If changes to the work should result in changes in the level of effort presented in this proposal the scope of services and fee budget will be revised by mutual agreement and will follow CITY guidelines for authorization and approval.

All Other Direct Cost (ODC):

Include any other direct costs (Examples Include: Travel, Hotel, Mileage, Meals, Copies, Equipment Rental, etc.) will be shown at actual cost as shown in Master Agreement for miscellaneous professional services. No mark up on Sub-consultant Services or Other Direct Cost Expenses will be accepted.

(END OF SECTION)

IN WITNESS WHEREOF, the parties hereto have executed the STAFFING COST PROPOSAL No. AI-04 to be effective as of this day 4th of September (month) of 2025.

ATTEST:

FIRM NAME: AECOM TECHNICAL SERVICES, INC

Signature: Cherie C. Wolter

Signature: R. Cavalieri

Typed Name: Cherie C. Wolter

Typed Name: Ronald R. Cavalieri PE, BCEE

Date: 07/16/25

Date: 07/16/25

ATTEST:

CITY OF CAPE CORAL

By: Kimberly Bruns
Kimberly Bruns, CMC
City Clerk

Signature: Michael Ilczyszyn
Michael Ilczyszyn, City Manager
(if over \$50,000)

Wanda Roop, Procurement Manager or
Crystal Feast,
Financial Services Director
(if under \$50,000)

Date: 9-4-2025

Date: 9/4/2025

LEGAL REVIEW:

By: Aleksandr Boksner
Aleksandr Boksner, ESQ
City Attorney

Date: 8/5/2025

