

**Master City of San José Consultant Agreement  
Approved Service Order  
(Capital Projects)**

**Cover Page**

**1a.** CPMS Contract No.: 9654 **1b.** AC Contract No.: 32235

**2.** Approved Service Order No. 1

**3.** Consultant's Name: V&A Consulting Engineers

**4.** Project Name: Master Agreement for Citywide Storm and Sanitary Sewer Flow Monitoring Services ("Project")

**5.** Project Location: Citywide

**6.** The Consultant and the City will implement this Approved Service Order in accordance with the Master Agreement, this cover page and Attachments "A" (Tasks), "B" (Terms and Conditions) and "C" (Compensation Table), which are incorporated herein by references.

**7.** Budget/Fiscal:

a. Current <b>unencumbered</b> amount in Master Agreement:	\$	500,000
b. <b>Maximum Service Order Compensation for this Approved Service Order:</b>	\$	100,000
c. New unencumbered balance in Master Agreement (7.a – 7.b):	\$	400,000

d. **Appropriation Certification:** I certify that an unexpended appropriation in the amount of the Maximum Service Order Compensation is available in the following fund(s) and that such fund(s) will be encumbered to pay for this Approved Service Order.

Fund: 540 Appn: 4696 RC: 047523 Amount: \$ 100,000

Fund: \_\_\_\_\_ Appn: \_\_\_\_\_ RC: \_\_\_\_\_ Amount: \$ \_\_\_\_\_

Fund: \_\_\_\_\_ Ap Suzanne McPherson \_\_\_\_\_ Amount: \$ \_\_\_\_\_

**Authorized Signature:** \_\_\_\_\_ Suzanne McPherson (10/21/2021)  
Email: suzanne.mcpherson@sanjoseca.gov \_\_\_\_\_ **Date:** \_\_\_\_\_

**8. Division Analyst Approval:** Uyen Le \_\_\_\_\_ **Date:** \_\_\_\_\_  
Uyen Le (10/21/2021)  
Email: uyen.le@sanjoseca.gov

**9. Consultant Approval:** Glenn H. Willson \_\_\_\_\_ **Date:** \_\_\_\_\_  
gwillson@vaengineering.com (10/21/2021)  
Email: gwillson@vaengineering.com

**10. Approval as to Form (City Attorney):**

Service Order Form Approved by the Office of the City Attorney  
(Maximum Service Order Compensation is \$100,000 or less, and the provisions of the service order form are not altered.)

Approved as to Form: \_\_\_\_\_ **Date:** \_\_\_\_\_  
(Sr.) Dept. City Attorney

**11. City Director Approval:** Mathew Nguyen \_\_\_\_\_ **Date:** \_\_\_\_\_  
Mathew Nguyen (10/26/2021)  
Email: mathew.nguyen@sanjoseca.gov

## Attachment A: Tasks

The Consultant shall provide the services and deliverables set forth in this **Attachment A**. The Consultant shall provide all services and deliverables required by this **Attachment A** to the satisfaction of the City's contract manager.

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**General Description of Project for which Consultant will Provide Services:** Consultant will provide flow data collection and monitoring services for selected sanitary flow monitoring sites.

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### Task No. 1: Temporary Flow Monitoring Services

**A. Services:** Consultant shall provide flow monitoring services for temporary sanitary flow monitoring sites as specified by the City. The City shall issue written Notices to Proceed (NTP) to specify site locations and durations, and Consultant shall perform flow monitoring services at locations specified in said NTP.

In the event that an encroachment permit is required by other agencies for flow monitoring activities outside of City's jurisdiction, Consultant shall acquire such permit and City will reimburse Consultant for the cost of the permit, if any.

The scope of work for Task 1 includes the following:

#### **Site Investigation and Installation:**

Consultant shall, at the direction of City staff, install flow meters at locations specified by the City. Consultant shall conduct a site inspection of each location prior to installation of the flow meter to determine if the existing flow characteristics are acceptable to provide reliable data. If a site is determined to be not suitable, then Consultant shall immediately notify the City and identify an alternative location to be approved by the City by the close of the next business day. No additional fee shall be paid for identifying and inspecting the alternative meter site.

Consultant shall field calibrate and verify the accuracy of each flow meter upon time of installation. Consultant shall take actual field velocity and depth reading in order to confirm that the flow meter is collecting accurate data based on the actual existing hydraulic conditions at each site. Consultant shall review data immediately upon each field data collection to determine the need for any additional calibration or other actions necessary to provide accurate data. Consultant shall notify the City within 48 hours of any observed irregularities, identify the cause of the irregularities, and recommend actions of correction. Initial calibration results including meter readings and field measurements shall be documented in the Final Report.

#### **Maintenance and Operation:**

Consultant shall operate and maintain the meters in good working order for the duration of the flow monitoring period. Consultant shall perform weekly remote diagnostic inspection for all meters and perform repair and preventive maintenance services, including battery replacement, necessary to keep the equipment operating in accordance with the manufacturer's design specifications. Consultant shall maintain an adequate supply of sensors and monitors for immediate use in servicing any problem to the flow monitoring equipment.

Consultant shall notify the City via emails in case of any equipment problems that may affect data quality/reliability. Consultant shall document problems that affected or may affect meter uptime and reliability in the final report submittal.

Consultant shall respond to a malfunction within two (2) business days and perform repairs within two (2) business days thereafter. Consultant shall inform the City of malfunctions and repairs

immediately and prepare a statement of repair service whenever service or diagnostic functions are performed. These forms shall be submitted to the City each month as described above and shall be documented in the final report submittal.

Consultant will be responsible for the moving, removal, and disposal of all broken equipment as part of any repair or replacement process. Consultant shall remove and replace the flow meter as directed by the City for manhole cleaning purposes.

Consultant shall be responsible for payment and activation of the cellular phone carrier account for all wireless flow meters.

**Flow Meter Uninstallation:**

Consultant shall, at the direction of City staff, remove any of the temporary flow meters from the current site permanently. Consultant shall remove the flow meter and all associated equipment from the current site and return the site to its original condition.

**Data Analysis, Alarming, and Reporting Services:**

Flow monitoring data shall be collected at 15-minute intervals. Consultant shall upload raw data from the flow meters every 24 hours to an online platform (FlowWorks or Clipper View) for City to review. In addition, Consultant shall review and analyze all data twice weekly at a minimum (more often during storm periods) to verify that equipment is in working order, and shall dispatch field crews to perform equipment repair or hydraulic confirmations as necessary to ensure accurate data collection.

The uptime percentage for individual flow monitoring site shall be ninety percent (90%) or greater. Uptime is defined as the number of valid 15-minute flow data points divided by total number of 15-minute intervals in the monitoring period. If the flow monitoring site uptime requirements are not met, then the payment due shall be calculated as follows:

Percent of individual meter uptime	Percent of Normal Amount Payment
<b>90 to 100%</b>	<b>100%</b>
<b>Less than 90%</b>	<b>Same percent as uptime</b>

Consultant shall calculate and plot the flow using the continuity equation from recorded depth and average velocity data. The analyst shall utilize both scatter plots (depth vs. velocity readings) and field hydraulic confirmation to verify monitor accuracy.

Consultant shall submit to the City a monthly progress report summarizing the final data collected no later than 30 days after the end of each monthly monitoring period.

**Quality Control of Flow Data Collection:**

Consultant shall designate a Project Manager to be responsible for the effective administration and management of the entire project, and a Field Manager who shall be the primary contact for the resolution of any field issues.

Consultant shall review data daily for accuracy and perform quality control and quality assurance (QA/QC) analysis at least weekly throughout the flow monitoring period.

Consultant shall provide a brief summary regarding data quality of each meter site. For sites that fail to provide good quality data, Consultant shall recommend plans for correction.

Consultant shall provide a summary of QA/QC and maintenance activities in the monthly progress report, including any irregularities of data and possible causes and plans for correction,

as well as quality and reliability of data collected at each site. Such information shall also be documented in the Final Report.

**B. Deliverable:**

1. Consultant shall submit a Final Report in a template that is acceptable to the City at the end of each monitoring period. The content of the report shall include, but not limited to the following:

- Site reports with field observation data (in both PDF and Excel spreadsheet format)
- Summary of percent uptime, malfunction diagnostics, and repairs
- Continuity flow hydrograph, plotted with depth and velocity
- Depth versus velocity scattergraphs
- Report and data provided in electronic format (.pdf and .xlsx)

**C. Completion Time:** The Consultant must complete the services and deliverables for this task in accordance with whichever one of the following time is marked:

- On or before the following date: March 31, 2022.
- On or before \_\_\_ Business Days from \_\_\_\_\_.

## Attachment B: Terms and Conditions

1. **City's Contract Manager:** The City's contract manager for this Approved Service Order is:

Name: Winola Cheong	Phone No.: (408) 535-5660
Department: Public Works	E-mail: Winola.Cheong@SanJoseca.gov
Address: 5th Floor, 200 East Santa Clara St., San Jose, CA 95113	

2. **Consultant's Contract Manager and Other Staffing:** Identified below are the following: (a) the Consultant's contract manager for this Approved Service Order, and (b) the Consultant(s) and/or employee(s) of the Consultant who will be principally responsible for providing the services and deliverables. ***If an individual identified below does not have a current Form 700 on file with the City Clerk for a separate agreement with the City, and is required to file a Form 700, the Consultant must comply with the requirements of Subsection 17.2 of the Master Agreement, entitled "Filing Form 700."***

<b><u>Consultant's Contract Manager</u></b>		<b><u>Required to File Form 700?</u></b>		
		Yes Already Filed (Date Filed)	Yes Need to File	No
Name: Kim Costa	Phone No.: (510) 903-6600			<u>X</u>
Address: 1000 Broadway, Suite 230 Oakland, CA 94607	E-mail: kcosta@vaengineering.com			
<b><u>Other Staffing</u></b>				
<u>Name:</u>	<u>Assignment:</u>			
1. Kevin Krajewski	Project Management			X
2. Oliver Pohl	Project Engineer / Field Supervisor			X
3. Nicole Kwan	Data Manager			X

**3. Subconsultants:** Whichever of the following is marked applies to this Approved Service Order:

- The Consultant can **not** use any subconsultants.
- The Consultant can use the following subconsultants to assist in providing the required services and deliverables:

<u>Subconsultant's Name</u>	<u>Area of Work</u>
1. Total Flow, Inc.	Flow Monitoring, Field Services Support
2. ENFLOW Services	Flow Monitoring, Field Services Support
3. Traffic Management, Inc	Traffic Control
4. Bay Area Traffic Solutions, Inc,	Traffic Control

**4. Reimbursable Expenses:** If the Compensation Table set forth in **Attachment C** of this Approved Service Order states that the City will reimburse the Consultant for expenses, then only the expenses identified in Subsection 10.5.3 of the Master Agreement are Reimbursable Expenses unless the following box is marked and additional reimbursable expenses are set forth:

- In addition to the expenses identified in Subsection 10.5.3 of the Master Agreement, the following expenses are Reimbursable Expenses:

<u>Additional Reimbursable Expense(s)</u>	<u>Mark-up</u>
1. _____	_____
2. _____	_____
3. _____	_____

**Notwithstanding the foregoing, any additional reimbursable expense(s) set forth in the above table will be disregarded if the Compensation Table states that the City will *not* reimburse the Consultant for any expenses.**

## Attachment C: Compensation Table

The City will compensate the Consultant for providing the services and deliverables set forth in **Attachment A** in accordance with this Compensation Table. This Compensation Table is subject to the terms and conditions set forth in the Master Agreement, including without limitation Section 10 of the Master Agreement.

Part 1 – Compensation for Services and Deliverables			
Column 1	Column 2	Column 3	Column 4
Task Nos. from Attachment A	Basis of Compensation	Invoice Period	Compensation
1	<input type="checkbox"/> Time & Materials <input checked="" type="checkbox"/> Fixed Fee	<input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Completion of Task(s) <input type="checkbox"/> Completion of Work	\$ 100,000
	<input type="checkbox"/> Time & Materials <input type="checkbox"/> Fixed Fee	<input type="checkbox"/> Monthly <input type="checkbox"/> Completion of Task(s) <input type="checkbox"/> Completion of Work	\$
	<input type="checkbox"/> Time & Materials <input type="checkbox"/> Fixed Fee	<input type="checkbox"/> Monthly <input type="checkbox"/> Completion of Task(s) <input type="checkbox"/> Completion of Work	\$
	<input type="checkbox"/> Time & Materials <input type="checkbox"/> Fixed Fee	<input type="checkbox"/> Monthly <input type="checkbox"/> Completion of Task(s) <input type="checkbox"/> Completion of Work	\$
Part 2 – Reimbursable Expenses			
<input checked="" type="checkbox"/> No expenses are separately reimbursable. The amount(s) in Column 4 of Part 1 include(s) payment for all expenses.		<input type="checkbox"/> Expenses are separately reimbursable in the maximum amount of: \$	
Part 3 – Subconsultant Costs			
<input checked="" type="checkbox"/> Subconsultant costs are <i>not</i> separately compensable. The amount(s) in Column 4 of Part 1 include(s) subconsultant costs.		<input type="checkbox"/> Subconsultant costs are separately compensable in the maximum amount of: \$	
<b>Maximum Service Order Compensation (sum of Parts 1 through 3):</b>			
\$ 100,000			