



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Matt Cano

SUBJECT: SEE BELOW

DATE: November 23, 2020

Approved

Date

12/4/20

SUBJECT: MASTER AGREEMENTS WITH ADS CORP AND V&A CONSULTING ENGINEERS FOR CITYWIDE STORM AND SANITARY SEWER FLOW MONITORING SERVICES

RECOMMENDATION

Approve master agreements with the following firms for Citywide storm and sanitary sewer flow monitoring services:

- (1) ADS Corp. (ADS) from the date of execution to December 31, 2023 in an amount not to exceed \$1,500,000; and
- (2) V&A Consulting Engineers (V&A) from the date of execution to December 31, 2023, in an amount not to exceed \$500,000.

OUTCOME

Approval of the master agreements will enable the City to obtain consultant services to conduct long-term and temporary flow monitoring programs. These programs are an essential part of the City's sanitary and storm sewer system master planning effort. Flow and rainfall data collected from these programs are vital to updating and validating the sewer system models with accurate hydraulic conditions so that they can be used to assess system capacity and to identify capacity improvement projects to support the economic growth of the City.

BACKGROUND

The City's Storm and Sanitary Sewer Master Plan Program utilizes computerized hydraulic models to evaluate system capacity and recommend needed capacity improvement projects. These state-of-the-art models rely on robust flow monitoring programs to collect flow and

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rainfall data which is then used to calibrate model input parameters and to ensure the accuracy of model outputs.

Using these models, the City completed the *Sanitary Sewer Master Plan Capacity Assessment-Phase II and Update of Phase I* project in April 2013; the project evaluated the capacity performance of the sanitary sewer system's trunk network, which included sewer mains that are 10 inches and larger in diameter. The City then also completed the *North San José Area Sanitary Sewer Capacity Assessment* report in September 2013, which expanded the model to include pipes of 6 and 8 inches in diameter for the North San José area. Together, these two projects identified a total of 105 projects with an estimated \$190 million in capital improvement cost. Currently, the City is developing the *Master Plan Phase III* project, which would expand the all-pipe model of the North San Jose area to the entire City and increase the model coverage from approximately 480 miles to over 2,000 miles of pipes.

In addition to the modeling effort for the sanitary sewer system, the City's *Storm Sewer Master Plan* project is also currently underway and is expected to be completed by June 2021. The project would build a hydraulic model of the storm system's trunk network, which includes storm drains that are 24-inch and larger in diameter. The flow monitoring efforts to date represent only a small percentage of modeled conveyance systems and drainage areas; additional flow monitoring is necessary to complete model calibration, evaluate system performance, and develop capacity improvement projects.

As previously stated, modeling efforts for both sewer systems rely on data collected by the City's flow monitoring program. Past flow monitoring programs have been collecting flow and rain data at over 35 long-term meter locations in the City's sanitary sewer system since 2014. These flow meters collected valuable data during the statewide drought and the corresponding impact on sewer flows as a result of enhanced water conservation measures. The program also captured valuable data during the December 2014 storm and the 2016-2017 wet season that replenished the groundwater table and ended the drought of over 5 years in the San Jose area.

Staff plans to continue the long-term flow monitoring program to track wastewater flow and groundwater infiltration trends, monitor rain-dependent inflow and infiltration rates, quantify flows from tributary agencies, and use the data to refine the hydraulic models for both sewer systems. In addition, flow meters installed for the sanitary program will include a high-flow alarm device to alert City staff of potential sanitary sewer overflows. Long-term flow monitoring for the storm program will be used to verify and update design storms, analyze performance and hydraulic impacts of large-trash-capture devices, and continue to refine computer model and recommended CIP improvement projects.

Temporary flow monitoring is typically conducted for a duration of two weeks to six months on an as-needed basis for various purposes, such as capacity project confirmations and verifications, review for land use developments and capital improvement projects, sewer operation and maintenance activities, and ongoing model refinement.

ANALYSIS

On July 27, 2020, the Department of Public Works (DPW) advertised a Request for Qualifications (RFQ) to solicit professional firms to provide flow and rainfall monitoring consultant services to the City of San Jose. Procurement staff used Biddingo to outreach to local and small business enterprises. Chapter 4.12 of the San Jose Municipal Code defines a “local business enterprise” as one with a legitimate business presence in Santa Clara County and “small business enterprise” as a local business enterprise with 35 or fewer employees. Procurement staff sent bid invitations to 8,034 vendors. Documents were downloaded by 33 vendors, approximately 7 of which were located within Santa Clara County and therefore local. The City received Statement of Qualifications (SOQ) from 2 firms by the August 17, 2020 deadline.

DPW staff conducted a selection process in accordance with the Citywide Capital Program Consultant Procurement Supplemental Manual. A Technical Evaluation Panel (TEP) consisting of representatives from the Sanitary and Storm Sewer Master Plan Section reviewed and rated the submittals. Each TEP member evaluated the RFQ using a consistent scoring matrix based on the firm’s expertise, experience, approach, and its Local/Small Business Enterprise (LBE/SBE) status. Each firm’s total score comprised of their RFQ score and LBE/SBE status. Interviews were not conducted for this procurement. The scored categories were as follows:

Evaluation Categories	Possible Points
Technical Evaluation Criteria	
Proposal Responsiveness	Pass/Fail
Expertise	20
Experience	30
Approach	40
Non-Technical Criteria	
Local Business Enterprise	5
Small Business Enterprise	5
TOTAL	100

Both firms met the minimum qualifications and passed the proposal responsiveness requirement. Neither firm qualified for LBE or SBE status. On October 19, 2020, the Notification of Final Ranking was posted on Biddingo showing the following:

Rank	Company/Firm	Overall Score
1	ADS Corp (ADS)	80.13
2	V&A Consulting Engineers (V&A)	71.13

Service Orders will be project-specific with duration and scope depending on the size and complexity of the project. Assignment of the service order will be made on a rotation basis between the two firms with the first service order to be issued to the top-ranked firm. However, the City may elect to issue a service order out of the rotation for urgent work or other special

circumstances (e.g., certain expertise, the familiarity of a previous project, staff availability, etc.). The scope of services will be based on an integrated team approach between City staff and the consultant. For each project, staff will negotiate the scope of services, deliverables, schedule, and cost with the selected firm. The term of the agreement will be from execution date through December 31, 2023 unless terminated earlier according to its terms.

CONCLUSION

Previous experience with flow monitoring projects has demonstrated that the City benefits from utilizing flow monitoring services from multiple firms to ensure the ability to obtain time-sensitive flow data. As such, City staff recommends the approval to execute two master agreements with both ADS and V&A.

The two master agreements will be administered with individual service orders. Each service order will specify the scope of services that ADS and V&A must perform and the compensation to which the consultant would be entitled upon delivery of all specified services.

The two (2) master agreements will have a combined amount of \$2,000,000, and the not-to-exceed amount for each agreement was determined based on the projected needs for each consultant. ADS is a national firm with more staff and equipment resources, and will assist the City with its long-term flow monitoring program and conducting focused flow studies; whereas V&A is a small firm and will mainly assist the City with as-needed temporary programs.

The City's long-term flow monitoring program currently consists of thirty-six (36) meter sites in the sanitary sewer system and sixteen (16) rain gauge sites across the City. Staff has also recently selected five (5) new meter sites in the storm sewer system to monitor performance of storm pipes. These sites were strategically selected to provide a clear picture of local flow characteristics across the entire system. Flow monitoring services for these sites would require approximately \$1,200,000 over a period of three years, and staff budgeted an additional \$300,000 to maintain the flexibility of potentially adding new sites in key areas in the future. As such, the master agreement with ADS will have a not-to exceed amount of \$1,500,000.

For as-needed temporary flow monitoring programs, staff anticipates conducting one to two programs every winter season to analyze rain-dependent infiltration and inflow issues in focused areas. Staff has budgeted \$100,000 to \$150,000 per program depending on the size of the study, with a total of \$500,000 over a period of three years. Therefore, the master agreement with V&A will have a not-to-exceed amount of \$500,000.

EVALUATION AND FOLLOW-UP

These master agreements will provide staff with the ability to engage the services of professional flow monitoring firms, thereby enabling the collection and analysis of sewer flow and rain data. No additional follow up action with the City Council is expected at this time.

CLIMATE SMART SAN JOSE

The recommendation in this memorandum has no effect on Climate Smart San José energy, water, or mobility goals.

POLICY ALTERNATIVES

Alternative #1: Award one master consultant agreement to the top firm instead of two master agreements to the top two firms.

Pros: Administration would be simpler with only one agreement.

Cons: Consultant may not have enough resources to support the City's flow monitoring needs.

Reason for not recommending: Previous experience with flow monitoring projects has demonstrated that the City benefits from utilizing flow monitoring services from multiple firms to ensure the ability to obtain time-sensitive flow data for capacity studies, capital projects, infiltration reduction projects, and to project sewer flows from future land use development projects.

Alternative #2: Do not award the master consultant agreements and direct City staff to provide the required services with in-house resources.

Pros: This project would give staff an opportunity to gain flow monitoring experience.

Cons: Staff lacks the in-house capacity and expertise to perform the work. The City would need to purchase specialized equipment such as flow meters, sensors, and rain gauges; and train staff to operate and maintain the equipment.

Reason for not recommending: This project requires specialized experience and expertise in flow monitoring, calibration, and analysis. The work also requires the use of specialized equipment that the City does not own or maintain.

PUBLIC OUTREACH

The City advertised a RFQ to solicit professional firms for flow monitoring services. The RFQ was published on Biddingo from July 27, 2020 to August 17, 2020. In addition, this

memorandum will be posted on the City's website for the December 15, 2020, Council Meeting Agenda.

COORDINATION

These agreements and memorandum were coordinated with the Departments of Transportation and Planning, Building and Code Enforcement, the City Attorney's Office, and the City Manager's Budget Office.

COMMISSION RECOMMENDATION/INPUT

No commission recommendation or input is associated with this action.

FISCAL/POLICY ALIGNMENT

These agreements are consistent with the City Council-approved Budget Strategy for Economic Recovery in that the flow monitoring consultant retained under these agreements will assist storm and sanitary sewer master planning studies to identify capital improvement projects that will spur construction spending in our local economy.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT:

Agreement with ADS (not to exceed)	\$1,500,000
Agreement with V&A (not to exceed)	\$500,000
Project Delivery (Contract Administration)	\$150,000
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TOTAL	\$2,150,000

2. COST ELEMENTS OF AGREEMENT: The flow monitoring services are reimbursed on a per site per week basis. The price ranges from \$700 to \$4,000 per site per month depending on the duration of the monitoring.

3. SOURCE OF FUNDING: 545 – Sewer Service and Use Charge Capital Improvement Fund, 540 – Sanitary Sewer Connection Fee Fund, and 469 – Storm Sewer Capital Fund.

4. FISCAL IMPACT: The proposed operating and maintenance costs of this project have been reviewed, and staff has determined that the project will have no significant adverse impact on the Storm Sewer Operating Fund, Sewer Service and Use Charge Fund, and General Fund operating budgets.

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BUDGET REFERENCE

The table below identifies the fund and appropriations proposed to fund the contracts recommended as part of this memorandum and remaining project costs, including project delivery.

Fund #	Appn #	Appn. Name	Total Appn.	2020-2021 Adopted Capital Budget (Page)	Last Budget Action (Date, Ord. No.)
545	4696	Flow Monitoring Program (Master Planning)	\$800,000	V – 67	06/23/2020, Ord. No 30437
540	4696	Flow Monitoring Program (Master Planning)	\$100,000	V – 67	06/23/2020, Ord. No 30437
469	5867	Flow Monitoring Program	\$514,000	V – 107	10/20/2020, Ord. No 30494

Services performed by ADS and V&A under these Master Agreements will be authorized by service orders. While an appropriation is not required for the execution of Master Consultant Agreements, one is required for each service order authorized under these agreements. Expenditures and encumbrances will be charged to one or more of the capital appropriations identified above upon issuance of service orders under the Master Agreements. Included in the 2020-2021 Capital Budget is \$1,230,000 for this project that may be used for service orders issued in 2020-2021. Future funding is subject to appropriation and, if needed, will be included in the development of future year budgets during the annual budget process.

CEQA

CEQA: Not a Project, File No. PP17-003, Agreements/Contracts (New or Amended) resulting in no physical changes to the environment.

/s/
 MATT CANO
 Director, Public Works Department

For questions, please contact Michael O’Connell, Deputy Director, Public Works Department, at michael.oconnell@sanjoseca.gov