

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

Cover Page

1a. CPMS Contract No.: 8741 **1b.** AC Contract No.: 29075

2. Approved Service Order No. 9

3. Consultant's Name: Wood Rodgers ("Consultant")

4. Project Name: Citywide Storm Sewer Master Plan ("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 unencumbered amount in Master Agreement: | \$ | 406,176 |
| b. Maximum Service Order Compensation for this Approved Service Order: | \$ | 79,981 |
| c. New unencumbered balance in Master Agreement (7.a – 7.b): | \$ | 326,195 |

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: 413 | Appn: 5252 | RC: 198719 | Amount: \$79,981 |
| Fund: _____ | Appn: _____ | RC: _____ | Amount: \$ _____ |
| Fund: _____ | Appn: _____ | RC: _____ | Amount: \$ _____ |

Authorized Signature:  Date: _____
Email: suzanne.mcpherson@sanjoseca.gov
Date: 03/09/2023 GMT

8. Division Analyst Approval:  Date: _____
Email: uyen.le@sanjoseca.gov
Date: 03/06/2023 GMT

9. Consultant Approval:  Date: _____
Email: csoa@woodrogers.com
Date: 03/03/2023 GMT

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: _____

11. City Director Approval:  Date: _____
Email: mathew.nguyen@sanjoseca.gov
Date: 03/10/2023 GMT

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.

General Description of Project for which Consultant will Provide Services: The Consultant shall quality control and refine the City's hydrologic and hydraulic models for the Alamitos Creek Drainage Area as shown in the figure below (cross hatch). The drainage area will be quality checked for model construction, calibration, deficiency analysis, and capital improvement programs that were previously developed by City staff. The drainage area includes hydromodification, and LID facilities. The Consultant shall document the drainage area in the Master Plan Report. The Consultant shall also provide engineering support to City staff as requested.

Task No. 1: Project Management and Training

A. Services:

Task 1.1 – Project Management and Meetings

The Consultant will conduct 14 video conference meetings with the City and provide project status updates.

The Consultant will prepare monthly progress reports and invoices for the duration of this Project.

Task 1.2 – Coordination/Training

The Consultant will provide up to 14 video conference meetings for training or equal effort of database development, modeling, engineering analysis and quality checks as requested by the City.

B. Deliverable: training videos, work plan, and monthly progress reports

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: June 30, 2023.

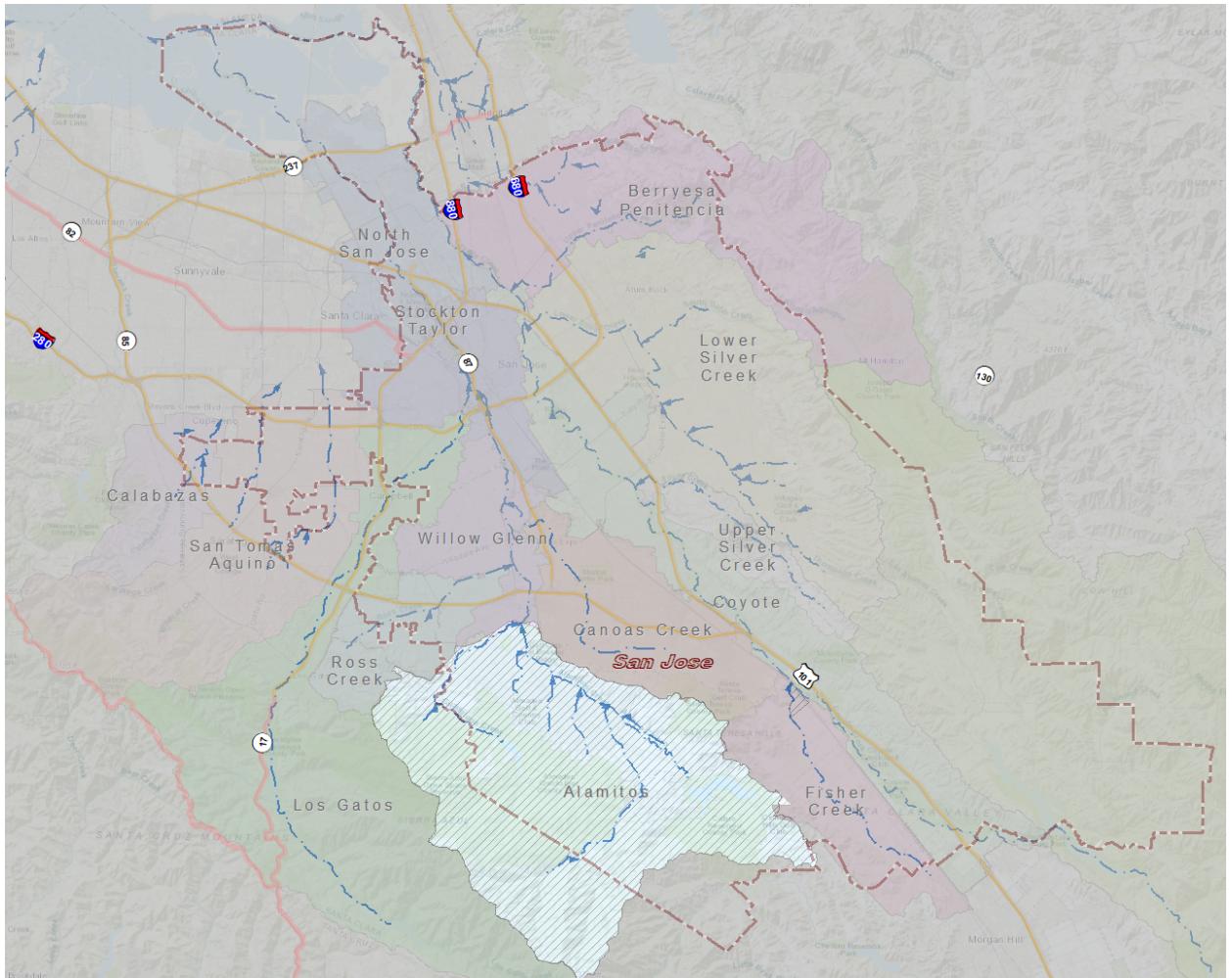
On or before ____ Business Days from _____.

Task No. 2: Refine H&H Model

A. Services:

Task 2.1 – ICM Model Refinement

The Consultant will quality check and refine the InfoWorks ICM (ICM) models in the SO9 work area (Alamitos) originally assigned to the City, as shown in the following figure. The Consultant will build upon the work already completed by the City, and perform quality checks, modeling methodologies, and design criteria checks. The Consultant will then refine the existing City ICM model for any identified inconsistencies. The Consultant will focus the refinement effort on the storm drain system 24" and larger plus the smaller connecting storm drain systems for the facilities described in Task 2.4 (LTC, HM and LID facilities).



Task 2.3 – Assessment of the Existing City System (Deficiencies)

The Consultant will then run the calibrated models with the design storms, analyze the flooding extents from the model results, and define the level of service (storm frequencies before storm drains surcharge above streets, and before street flooding encroaches properties) for each major storm drain system. The Consultant will then identify whether each storm drain has sufficient or deficient capacity for the 10-year peak flows, and also whether each combined storm drain and street network (at each location), detention basin, and pump station has sufficient or deficient capacity.

Task 2.4 – Existing & General Plan 2040 Regional LTC/LID/HM Facility

The Consultant will use the City's General Plan 2040 (GP 2040) to calculate a future condition imperviousness for the work area's watersheds. With the update GP 2040 imperviousness, the model will be ran using the 10-year design storm to assess any (if at all) additional deficiencies in the storm sewer system occur within the work area. In addition, the consultant will model the GP 2040 imperviousness with the proposed CIP projects developed in Task 3.1. Using the 3-, 10-, and 100-year design storms, the consultant will assess any differences in the CIP's ability to remove flooding from the watershed when compared to results from Task 3.1.

The Consultant will convert the existing LTCs, LIDs and HMs to the refined geodatabase and model in the refined ICM model to determine any negative impacts to the hydraulic performance of the

existing storm drain system with the consideration of debris clogging. The existing facilities will be modeled and adjusted with a debris clogging factor and reduced performance efficiency to match the DOT maintenance records.

The Consultant will identify and construct low impact development facilities (LID) in the work areas that will have greater than 5% peak flow reduction benefit to the storm drain systems, and then expand the City ICM model to include the hydraulic features that connect these facilities to the existing 24" or larger storm drain network. The Consultant will quality check the ICM model channel systems and any connections to the storm drain systems.

The Consultant will model these facilities in the refined ICM model and run with 1-, 3-, and 10-year design storms.

B. Deliverable: Quality checked, refined, calibrated and connected storm drain and 2D ICM models; facility deficiencies; refined geodatabase.

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: May 30, 2023.

On or before ____ Business Days from _____.

Task No. 3: Recommend A Prioritized CIP

Task 3.1 - Develop Feasibility Analysis

The Consultant will use the quality checked, refined, and calibrated ICM models in the work areas to develop existing flood risk (floodplain maps) for each deficient system in the SO9 work areas.

The Consultant will work with the City to quality check and revise previously developed alternatives, and develop up to 3 conceptual alternatives for the deficiencies at each major reach (categorized by major outfall locations along channels). The number of conceptual alternatives will be determined based on-site constraints, and will vary site by site. Alternatives will depend upon the circumstances, and could include but are not limited to new or upsized storm drainage pipes, diversions, detention basins, and pump station improvements.

The Consultant will finalize the CIP alternatives and estimate the most cost effective and feasible storm drain improvements based on site constraints. The Consultant may propose storm drain upsizing for the system with limited undersized pipes. For deficient storm drain systems located near a system with extra capacity, the Consultant may propose a bypass system. For deficient storm drain systems requiring extensive pipe upsizing, the Consultant will seek potential regional detention ponds or HM facilities. For deficient storm drain systems subject to high channel tailwater conditions, the Consultant may propose flap gates or/and pump stations. Due to unique site constraints, some deficient systems will require a combination of the improvements above. The Consultant will model the improvements and determine the hydraulic impacts to the existing system.

The Consultant will develop proposed floodplain maps and profiles for each alternative, and then develop engineering costs. The Consultant will document all the information for each major system for the entire City.

Task 3.2 - Develop Report

The Consultant will revise the master plan report to include the work areas in this SO (SO9), summarize all analyses and results for the citywide work areas, and reprioritize improvement

projects within the entire City. The Consultant will document general analysis approaches, results, and capacity comparison between different pipe systems in the master plan report and previously scoped Appendices.

B. Deliverable: Draft and final citywide master plan reports; workflow and protocol documentation; final calibrated ICM models including all improvement and alternative scenarios;

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: June 30, 2023

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: Casey Hirasaki | Phone No.: 408-535-6834 |
| Department: Public Works | E-mail: casey.hirasaki@sanjoseca.gov |
| Address: 200 E. Santa Clara St., Tower 5, 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."*

| | | <u>Required to File Form 700?</u> | | |
|--|--------------------------------------|---|---------------------------------|-----------|
| | | Yes Already Filed (Date Filed) | Yes Need to File | No |
| <u>Consultant's Contract Manager</u> | | | | |
| Name: Dan Matthies | Phone No.: 510-208-2400 | 2/21/2023 | | |
| Address: 180 Grand Ave Suite 775 Oakland, CA 94612 | E-mail: dmatthies@woodrodgers.com | | | |
| <u>Other Staffing</u> | | | | |
| <u>Name:</u> | <u>Assignment:</u> | | | |
| 1. Cheng Soo | Project Manager | 2/2/2023 | | |
| 2. Andrew Augustine | | | | X |
| 3. Camila Correa | | | | X |
| 4. Azin Sharaf | | | | X |
| 5. Emily Straley | | | | X |
| 6. Catherine Showley | | | | 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. | |
| 2. | |
| 3. | |

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 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 |
| Task 1.1 | <input type="checkbox"/> Time & Materials | <input checked="" type="checkbox"/> Fixed Fee | <input checked="" type="checkbox"/> Monthly | <input type="checkbox"/> Completion of Task(s) Work | <input type="checkbox"/> Completion of | \$ 9,455 |
| Task 1.2 | <input type="checkbox"/> Time & Materials | <input checked="" type="checkbox"/> Fixed Fee | <input checked="" type="checkbox"/> Monthly | <input type="checkbox"/> Completion of Task(s) Work | <input type="checkbox"/> Completion of | \$ 16,499 |
| Task 2.1 | <input type="checkbox"/> Time & Materials | <input checked="" type="checkbox"/> Fixed Fee | <input type="checkbox"/> Monthly | <input checked="" type="checkbox"/> Completion of Task(s) Work | <input type="checkbox"/> Completion of | \$ 5,598 |
| Task 2.3 | <input type="checkbox"/> Time & Materials | <input checked="" type="checkbox"/> Fixed Fee | <input type="checkbox"/> Monthly | <input checked="" type="checkbox"/> Completion of Task(s) Work | <input type="checkbox"/> Completion of | \$ 3,625 |
| Task 2.4 | <input type="checkbox"/> Time & Materials | <input checked="" type="checkbox"/> Fixed Fee | <input type="checkbox"/> Monthly | <input checked="" type="checkbox"/> Completion of Task(s) Work | <input type="checkbox"/> Completion of | \$ 6,136 |
| Task 3.1 | <input type="checkbox"/> Time & Materials | <input checked="" type="checkbox"/> Fixed Fee | <input checked="" type="checkbox"/> Monthly | <input type="checkbox"/> Completion of Task(s) Work | <input type="checkbox"/> Completion of | \$ 10,192 |
| Task 3.2 | <input type="checkbox"/> Time & Materials | <input checked="" type="checkbox"/> Fixed Fee | <input checked="" type="checkbox"/> Monthly | <input type="checkbox"/> Completion of Task(s) Work | <input type="checkbox"/> Completion of | \$ 28,275 |
| Part 2 – Reimbursable Expenses | | | | | | |
| <input type="checkbox"/> No expenses are separately reimbursable. The amount(s) in Column 4 of Part 1 include(s) payment for all expenses. | | | <input checked="" type="checkbox"/> Expenses are separately reimbursable in the maximum amount of: | | | \$ 200 |
| Part 3 – Subconsultant Costs | | | | | | |

| | | |
|--|---|-----------|
| <input checked="" type="checkbox"/> Subconsultant costs are not separately compensable. The amount(s) in Column 4 of Part 1 include(s) sub costs. | <input type="checkbox"/> Subconsultant costs are separately compensable in the maximum amount of: | \$0 |
| Maximum Service Order Compensation (sum of Parts 1 through 3): | | \$ 79,981 |