



RESOLUTION NO. U-11371

1 A RESOLUTION related to Tacoma Water, authorizing participation in City of
2 Tacoma, Department of Environmental Services' contract for the Manitou
District Green Infrastructure Project, for water main replacement.

3 WHEREAS the City of Tacoma, Department of Public Utilities, Water
4 Division (d.b.a. "Tacoma Water"), requests authorization to participate in the
5 City of Tacoma, Department of Environmental Services ("ES") contract for the
6 water main replacement for the Manitou District Green Infrastructure Project
7 ("Project"), and
8

9 WHEREAS Tacoma Water is partnering with ES to reconstruct the
10 existing roadway and replace approximately 5,900 feet of 12-inch, 8-inch, and
11 6-inch water main, constructed circa 1955, along the following streets:

- 12 • S. Ferdinand St., between S. 64th St. and S. 66th St.
- 13 • S. Cheyenne St., between S. 64th St. and S. American Lake Blvd.
- 14 • S. Verde St., between S. 64th St. and S. Cheyenne St.
- 15 • S. Grove Pl., between S. 66th St. and S. Cheyenne St.
- 16 • S. Stevens St., between S. 64th St. and S. 66th St.
- 17 • S. Mason Ave., between S. 62nd St. and S. 66th St., and

18 WHEREAS the overall ES Project will cost \$6,425,167.70, and will
19 minimize long-term road maintenance by improving roadway surface with
20 pervious pavement, upgrade underground utilities, and bring ramps into ADA
21 compliance, and

22 WHEREAS project partner contributions are referenced in the
23 "Secondary Agreement for Joint Project" in the materials on file with the Clerk of
24 the Board, and

25 WHEREAS Tacoma Water's water-related project construction costs in
26 the ES Project are \$1,137,087.10, plus a contract administration cost of



\$32,312.61, for a cumulative total of \$1,169,399.71, plus applicable taxes and contingencies, and

WHEREAS a 15 percent contingency is included which brings the total amount for Tacoma Water to \$1,344,809.67, and

WHEREAS Tacoma Water believes it is in the best interests of the utility and its customers to include the water main work in the ES Project as it will improve project delivery, reduce project costs, improve system reliability, and consolidate construction disturbance to adjacent businesses and the general public; Now, Therefore,

BE IT RESOLVED BY THE PUBLIC UTILITY BOARD OF THE CITY OF TACOMA:

That Tacoma Water is authorized to participate in the Environmental Services, Manitou District Green Infrastructure Project, to replace water main as referenced above, with Tacoma Water's contribution of \$1,169,399.71, plus a 15 percent contingency, for a cumulative total of \$1,344,809.67, plus applicable taxes, and the proper officers of the Department of Public Utilities and Tacoma Water are authorized to execute the proposed Agreement substantially in the form as approved by the City Attorney.

Approved as to form:

/s/
Chief Deputy City Attorney

Clerk

Chair

Secretary

Adopted



Board Action Memorandum

TO: Jackie Flowers, Director of Utilities ^{DS} *JF*
COPY: Charleen Jacobs, Director and Board Offices
FROM: Scott Dewhirst, Utilities Dir Dep. Water Superintendent, Tacoma Water ^{DS} *SD*
Troy Saghafi, Professional Engineer, Tacoma Water ^{DS} *TS*
MEETING DATE: February 8, 2023
DATE: January 24, 2023

STRATEGIC DIRECTIVE ALIGNMENT (select as many that apply):

Please indicate which of the Public Utility Board's Strategic Directives is supported by this action.

- | | |
|--|---|
| <input type="checkbox"/> SD1 – Equity & Inclusion | <input type="checkbox"/> SD8 – Telecom |
| <input type="checkbox"/> SD2 – Financial Sustainability | <input type="checkbox"/> SD9 – Economic Development |
| <input type="checkbox"/> SD3 – Rates | <input type="checkbox"/> SD10 – Government Relations |
| <input type="checkbox"/> SD4 – Stakeholder Engagement | <input type="checkbox"/> SD11 – Decarbonization/Electric Vehicles |
| <input type="checkbox"/> SD5 – Environmental Leadership | <input type="checkbox"/> SD12 – Employee Relations |
| <input type="checkbox"/> SD6 – Innovation | <input type="checkbox"/> SD13 – Customer Service |
| <input checked="" type="checkbox"/> SD7 – Reliability & Resiliency | <input type="checkbox"/> SD14 – Resource Planning |

SUMMARY:

Authorize Tacoma Water to participate in the City of Tacoma, Department of Environmental Services, Manitou District Green Infrastructure Project. Tacoma Water proposes to replace approximately 5,900 feet of 12-inch, 8-inch, and 6-inch water main along the following streets:

- S. Ferdinand Street, between S. 64th St. and S. 66th Street.
- S. Cheyenne Street, between S. 64th St. and S. American Lake Boulevard.
- S. Verde Street, between S. 64th St. and S. Cheyenne Street.
- S. Grove Place, between S. 66th St. and S. Cheyenne Street.
- S. Stevens Street, between S. 64th St. and S. 66th Street.
- S. Mason Avenue, between S. 62nd St. and S. 66th Street.

Total project cost is \$1,169,399.71, plus a 15 percent contingency, for a cumulative total of \$1,344,809.67 plus applicable taxes.

Tacoma Water believes it is in the best interest of the utility and its customers to include the water main work in the Environmental Services project. This project partnership will improve project delivery, reduce project costs, improve system reliability, and consolidate construction disturbance to residents and businesses.

BACKGROUND:

Tacoma Water is partnering with the Environmental Services Department to reconstruct the existing roadway and replace approximately 5,900 feet of existing water main, constructed circa 1955 along the said streets.



Board Action Memorandum

The overall project will minimize long-term road maintenance by improving roadway surface with pervious pavement, upgrade underground utilities, and bring ramps into ADA compliance.

Project partner contributions are summarized in the attachment “Secondary Agreement for Joint Project Environmental Services - Tacoma Water”.

ISSUE: The existing water main in this area is approximately 70 years old, with sections near the end of its operational life.

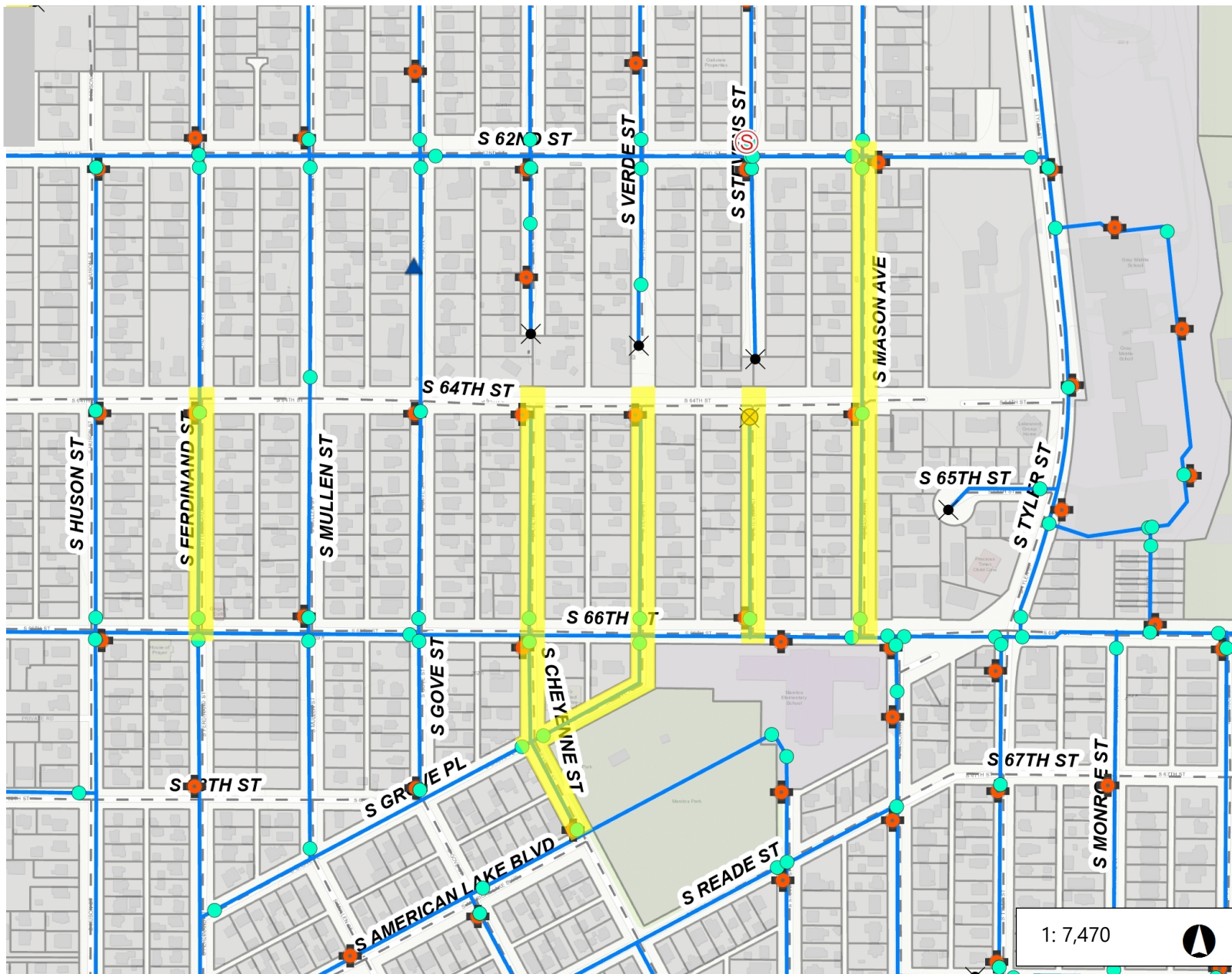
ALTERNATIVES: Rehabilitating the existing water main is cost prohibitive. It is more cost effective to mitigate the risk of future water main breaks under a new roadway by replacing the water main now.

ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED? Yes

IF THE ACTION REQUESTED IS APPROVAL OF A CONTRACT, INCLUDE LANGUAGE IN RESOLUTION AUTHORIZING \$200,000 INCREASE IN ADMINISTRATIVE AUTHORITY TO DIRECTOR? Yes.

ATTACHMENTS: Project Map
Contract and Award Letter
Secondary Agreement for Joint Project Environmental Services - Tacoma Water

CONTACT: Troy Saghafi, Professional Engineer, 253-345-8445
Ali Polda, Principal Engineer, 206-687-8602



Legend

- Cathodic Protection**
 - Test Station
 - Rectifier
 - Anode
- Sample Stations**
 - Sample Stand
 - Chart Box
 - Sample Stand/Chart Box
- Manways**
- Pumps**
- System Valves**
 - Open
 - Closed
 - Unknown
- Control Valves**
 - Air Control
 - Check
 - Pressure Reducing
 - Pressure Relief
 - All Other Control Valves
- Hydrants**
 - Blue Hydrants
 - Design (Not Constructed)
 - In-Service
- Process Valves**
 - Blowoff

1: 7,470



Notes

1,245.0 0 622.49 1,245.0 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
Tacoma Water Maps

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION



City of Tacoma

Resolution No.: _____

Meeting Date: _____

**Contract and Award Letter
Purchase Resolution —Exhibit "A"**

TO: Board of Contracts and Awards
FROM: Michael P. Slevin III, P.E., Director, Environmental Services
John Burk, P.E., Division Manager, Science and Engineering
COPY: City Council, City Manager, City Clerk, EIC Coordinator, LEAP Coordinator, Erik Ward, P.E., Principal Engineer, Kirk Myklestad, P.E., Project Manager, and Dawn Dejarlais, Finance/Purchasing
SUBJECT: SW & WW Manitou District Green Infrastructure Project
Request for Bids Specification No. ES21-0629F – 1/31/2023
DATE: 1/4/2023

RECOMMENDATION SUMMARY:

The Environmental Services Department recommends a contract be awarded to Pacific Civil and Infrastructure in the amount of \$5,587,102.35 plus a 15 percent contingency, for a projected contract amount of \$6,425,167.70, plus applicable taxes, budgeted from various departmental funds, for the replacement of stormwater, wastewater, and potable water mains, roadways, and curb ramps, in the Manitou neighborhood of South Tacoma.

STRATEGIC POLICY PRIORITY:

- Strengthen and support a safe city with healthy residents.
- Assure outstanding stewardship of the natural and built environment.

A reduced risk of wastewater overflows and surface water flooding represents an improvement to human health and the environment. This work supports a safe city with healthy residents and assures outstanding stewardship of the natural and built environment of these neighborhoods.

BACKGROUND:

This project will replace stormwater, wastewater and potable water mains as well as associated street and landscape restoration. The project will install a portion of the reconstructed streets as permeable pavement, providing a water quality benefit to the Flett Creek Watershed. The work will generally occur along S. Ferdinand Street, S. Cheyenne Street, S. Verde Street, S. Stevens Street and S. Mason Street, between S. 64th and S. 66th, as well as along S. Cheyenne Street and S. Grove Street, between S. 66th and S. American Lake Blvd.

ISSUE: The underground stormwater, wastewater, and water mains within the project extent are reaching the end of their design life and are at risk of failure. An opportunity to partner with the Department of Ecology was utilized to provide a cost savings to the project and a water quality benefit to the sub-basin through the installation of permeable pavement.

ALTERNATIVES: One alternative is taking no action and accepting the risk of continued pipe failures, which could result in untreated wastewater overflowing in the Puget Sound, increased stormwater flooding, and impacts to the supply of drinking water.

COMPETITIVE SOLICITATION: Request for Bids Specification No. ES21-0629F was opened on December 27th, 2022. Twelve submittals were received. The table below reflects the amount of the base award.



Pacific Civil and Infrastructure submitted a bid that resulted in the lowest evaluated submittal after consideration of EIC participation goals. The table below reflects the amount of the base award.

| <u>Respondent</u> | <u>Location (City, State)</u> | <u>Submittal Amount</u> |
|---|-------------------------------|-------------------------|
| Pacific Civil and Infrastructure | Tacoma, WA | \$5,587,102.35 |
| Northwest Cascade | Puyallup, WA | \$6,052,052.00 |
| Reed Trucking & Excavating, Inc | Puyallup, WA | \$6,270,851.50 |
| R. L. Alia Company | Renton, WA | \$6,224,325.75 |
| Olson Brothers Excavating | Puyallup, WA | \$6,974,072.65 |
| Rodarte Construction Inc | Auburn, WA | \$7,076,299.25 |
| Miles Resources, LLC | Puyallup, WA | \$7,104,875.90 |
| Tucci & Sons, Inc. | Tacoma, WA | \$7,166,190.00 |
| Johansen Construction Inc. | Buckley, WA | \$7,291,875.18 |
| Laser Underground & Earthworks | Snohomish, WA | \$7,330,114.00 |
| Ceccanti Inc. | Tacoma, WA | \$7,486,181.50 |
| Active Construction Inc. | Tacoma, WA | \$9,927,383.05 |

Pre-bid Estimate: \$6,825,000 (not including sales tax)

The recommended award is 18.14 percent below the pre-bid estimate.

CONTRACT HISTORY: New Contract

SUSTAINABILITY: Replacement of these pipes will reduce the risk of failure, thereby reducing the potential for discharge of untreated wastewater in the Puget Sound, reducing stormwater flooding, and maintaining potable water supply to the neighborhood.

EQUITY IN CONTRACTING (EIC) COMPLIANCE: The recommended contractor is in compliance with the EIC requirements per memorandum dated 1/4/23. The EIC requirements for this project are 4 percent Minority Business Enterprise (MBE) , 2 percent Women's Business Enterprise (WBE) and 6 percent Small Business Enterprise (SBE). The EIC utilization levels of the recommended contractor are 4.76 percent MBE, 2.04 percent WBE, and 6.55 percent SBE.

LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP)

COMLIANCE: The LEAP requirements for this project are 15 percent of the project labor hours must be worked by Local Employees and an additional 15 percent of the labor hours must be worked by Apprentices, per TMC 1.90.040.



FISCAL IMPACT:

EXPENDITURES:

| FUND NUMBER & FUND NAME | COST OBJECT (CC/WBS/ORDER) | COST ELEMENT | TOTAL AMOUNT |
|--|-------------------------------|-----------------|-----------------------------|
| 4300 ES Wastewater Fund | ENV-04023-11-04 | 5330100 | \$1,940,312.77 |
| 4301 ES Surface Water Fund | ENV-03031-20-04 | 5330100 | \$2,628,310.91 |
| 1085 PW Street Initiative Fund | PWK-0438-08-03 | 5330100 | \$548,893.85 |
| 4600 Tacoma Water Capital Reserve Fund | WTR-00604-01-12-03 | 5330100 | \$1,307,650.17 |
| TOTAL | | | Up to \$6,425,167.70 |

REVENUES:

| FUNDING SOURCE | COST OBJECT (CC/WBS/ORDER) | COST ELEMENT | TOTAL AMOUNT |
|--|-------------------------------|-----------------|-----------------------|
| 4300 ES Wastewater Fund | 524700 | 6310010 | \$1,940,312.77 |
| 4301 ES Surface Water Fund | 529700 | 6310010 | \$2,628,310.91 |
| 1085 PW Street Initiative Fund | 663020 | 6311139 | \$548,893.85 |
| 4600 Tacoma Water Capital Reserve Fund | 587501 | 6311170 | \$1,307,650.17 |
| TOTAL | | | \$6,425,167.70 |


FISCAL IMPACT TO CURRENT BIENNIAL BUDGET: \$6,425,167.70


ARE THE EXPENDITURES AND REVENUES PLANNED AND BUDGETED? Yes


IF EXPENSE IS NOT BUDGETED, PLEASE EXPLAIN HOW THEY ARE TO BE COVERED. N/A



TO: John Burk, P.E., Division Manager, Science & Engineering Division, Environmental Services

FROM:  Terry Forslund, P.E., Assistant Division Manager, Planning & Engineering, Tacoma Water

FROM:  Kirk Myklestad, P.E., Science & Engineering Division, Environmental Services

FROM:  Troy Saghabi, P.E., Professional Engineer, Planning & Engineering, Tacoma Water

SUBJECT: Secondary Agreement for Joint Project ES-TW for Manitou District Green Infrastructure ES21-0629F / MRP 2020-07

DATE: January 18, 2023

City of Tacoma Science & Engineering Division and City of Tacoma Water, Planning & Engineering Division is collaborating to add water related infrastructure to the Manitou District Green Infrastructure Project.

The following summarizes the construction cost allocations for the project and other commitments.

1. The project is located along the following streets:
 - o S. Ferdinand Street, between S. 64th St. and S. 66th St.
 - o S. Cheyenne Street, between S. 64th St. and S. American Lake Blvd.
 - o S. Verde Street, between S. 64th St. and S. Cheyenne St.
 - o S. Grove Place, between S. 66th St. and S. Cheyenne St.
 - o S. Stevens Street, between S. 64th St. and S. 66th St.
 - o S. Mason Avenue, between S. 62nd St. and S. 66th St.

Water infrastructure improvements include installing new 12-inch, 8-inch, and 6-inch water main and associated appurtenances along the project extents.

2. The project has been combined into a single Environmental Services construction contract. Environmental Services has the responsibility to lead and coordinate the compilation of contract plans & specifications and advertise & award the construction contract.
3. Tacoma Water will be responsible for the cost of water distribution main work, valves, hydrants, trench excavation, trench backfill and compaction to subgrade elevation, mobilization, traffic control, and other appurtenant items directly related to the installation of new water main. These costs have been segregated within "Schedule D" of the contract bid proposal. The estimated cost of "Schedule D" plus force account is \$918,687.10 plus taxes.
4. Tacoma Water will share pavement restoration costs with Environmental Services along S. Cheyenne Street, between S. 66th St. and S. American Lake Blvd. The pavement restoration costs will be reflected in the Project Breakdown Estimate worksheet (see exhibit A) Schedule A-Roadway bid items.
5. Tacoma Water will be responsible for selected Roadway bid items depicted in the Project Breakdown Estimate worksheet (see exhibit A). Tacoma Water's portion of the shared cost is based on actual bid pricing and is estimated to be approximately \$218,400.00 plus taxes. As quantities on the Project Breakdown Estimate worksheet are contractor bid prices, the



Departmental actual bid quantities and costs will be separated by the same percentage, as the per bid item estimate reflected on the Project Breakdown Estimate worksheet.

6. The Department of Environmental Services will administer the construction contract and provide construction management (contract administration and construction inspection assistance). Environmental Services Department will charge Tacoma Water for the additional incremental contract administration time associated with Tacoma Water's scope of work. Tacoma Water will compensate the Environmental Services Department in the amount of 3% of the lowest responsible bidder's water base bid plus the shared item costs less force account bid items and sales tax. The estimated cost for the Tacoma Water portion of contract administration is \$32,312.61. This amount will be transferred to the Department of Environmental Services via journal entry at the completion of the project. This method is consistent with how construction management and overhead costs were addressed on previous projects.
7. Tacoma Water will be responsible for the daily inspection and surveying of the water main construction. Tacoma Water, Public Works and Environmental Services inspections will be a cooperative and coordinated effort.
8. Tacoma Water has provided the following WBSE for charging these construction costs:
 - o WTR-00604-01-12-03 Construction Payments
9. Project participation is subject to Public Utility Board Approval.

We look forward to continuing our spirit of coordination and cooperation to accomplish this and future projects of mutual benefit to the citizens of Tacoma, the Department of Environmental Services, and Tacoma Water. Tacoma Water's water-related project construction costs is \$1,137,087.10 plus a contract administration cost of \$32,312.61 for a cumulative total of \$1,169,399.71 plus applicable taxes and contingencies. Payment by Tacoma Water will be made for the actual quantities and costs incurred during project closeout. By signature, please indicate your approval to proceed with this joint project.


DocuSigned by:

2216E938E9314B6...

Terry Forslund, P.E.
Planning & Engineering Assistant Division Manager
Tacoma Water

01/18/2023

Date

DocuSigned by:

163D06D201E54EB...

John Burk, P.E.
Science & Engineering Division
Environmental Services

01/18/2023

Date

Attachment: Exhibit-A Project Breakdown Estimate

Cc: Geff Yotter, Construction Inspector Manager, Planning & Engineering, Tacoma Water
Phill Ringrose, Construction Manager, Planning & Engineering, Tacoma Water
Julie Louviere, Water Budget and Financial Analysis, Tacoma Water

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05

Description: Manitou District Green Infrastructure Project

Specification No.: ES21-0629F

Bid Opening: 12/27/2022

| | | | | ENGINEER'S ESTIMATE | | Low Bidder Pacific Civil & Infrastructure, Inc. | | Water Department Responsibility | | |
|---|---|------|--------|------------------------|--------------|--|--------------|------------------------------------|--------|-------------|
| Item | Description | Unit | QTY | Unit Price | Amount | Unit Price | Amount | QTY | (%) | Amount |
| Schedule A: Roadway Improvements Bid Items R-1 through R-56 | | | | | | | | | | |
| R1* | Project Red Line Drawings | LS | 1 | \$2,000.00 | \$2,000.00 | \$1,000.00 | \$1,000.00 | - | - | - |
| R2* | SPCC Plan | LS | 1 | \$10,000.00 | \$10,000.00 | \$2,500.00 | \$2,500.00 | - | 20.00% | \$500.00 |
| R3* | Mobilization | LS | 1 | \$618,480.99 | \$618,480.99 | \$431,900.00 | \$431,900.00 | - | 20.00% | \$86,380.00 |
| R4* | Project Temporary Traffic Control | LS | 1 | \$250,000.00 | \$250,000.00 | \$398,700.00 | \$398,700.00 | - | 20.00% | \$79,740.00 |
| R5* | Clearing and Grubbing | LS | 1 | \$30,000.00 | \$30,000.00 | \$10,000.00 | \$10,000.00 | - | 20.00% | \$2,000.00 |
| R6 | Special Tree Protection | EA | 4 | \$3,000.00 | \$12,000.00 | \$320.00 | \$1,280.00 | - | - | - |
| R7* | Removal of Structures and Obstructions | LS | 1 | \$10,000.00 | \$10,000.00 | \$19,200.00 | \$19,200.00 | - | 20.00% | \$3,840.00 |
| R8 | Pothole Existing Utility | EA | 2 | \$750.00 | \$1,500.00 | \$1,050.00 | \$2,100.00 | - | - | - |
| R9* | Roadway Excavation, Incl. Haul | CY | 5,005 | \$35.00 | \$175,175.00 | \$57.00 | \$285,285.00 | 115 | - | \$6,555.00 |
| R10* | Unsuitable Foundation Excavation, Incl. Haul | CY | 486 | \$45.00 | \$21,870.00 | \$20.00 | \$9,720.00 | 12 | - | \$240.00 |
| R11 | Construction Geotextile for separation | SY | 7,225 | \$4.00 | \$28,900.00 | \$4.00 | \$28,900.00 | - | - | - |
| R12 | Remove Tree, Class I | EA | 2 | \$1,000.00 | \$2,000.00 | \$600.00 | \$1,200.00 | - | - | - |
| R13* | Remove Tree, Class II | EA | 2 | \$1,500.00 | \$3,000.00 | \$1,200.00 | \$2,400.00 | - | - | - |
| R14* | Remove Existing Pavement, Type I, Class A4 | SY | 15,120 | \$10.00 | \$151,200.00 | \$4.70 | \$71,064.00 | - | - | - |
| R15 | Remove Existing Pavement, Type I, Class C6 | SY | 665 | \$15.00 | \$9,975.00 | \$22.00 | \$14,630.00 | - | - | - |
| R16* | Remove Existing Pavement, Type II, Class A4 | SY | 2,700 | \$10.00 | \$27,000.00 | \$1.75 | \$4,725.00 | - | - | - |
| R17 | Remove Curb and Gutter | LF | 1,425 | \$5.00 | \$7,125.00 | \$6.70 | \$9,547.50 | - | - | - |
| R18* | Crushed Surfacing Base Course | TN | 1,825 | \$40.00 | \$73,000.00 | \$44.00 | \$80,300.00 | 200 | - | \$8,800.00 |
| R19* | Crushed Surfacing Top Course | TN | 320 | \$55.00 | \$17,600.00 | \$109.00 | \$34,880.00 | - | - | - |
| R20 | Permeable Ballast | TN | 1,875 | \$50.00 | \$93,750.00 | \$51.80 | \$97,125.00 | - | - | - |
| R21 | Filter Sand | TN | 2,000 | \$40.00 | \$80,000.00 | \$42.00 | \$84,000.00 | - | - | - |
| R22 | Asphalt Treated Permeable Base, PG 58V-22 | TN | 1,350 | \$20.00 | \$27,000.00 | \$120.00 | \$162,000.00 | - | - | - |
| R23 | PHMA Cl. ½" PG 58V-22 | TN | 900 | \$145.00 | \$130,500.00 | \$175.00 | \$157,500.00 | - | - | - |
| R24* | Fiber Reinforced HMA Cl. 1/2", PG 58H-22 for Pavement Patch | TN | 25 | \$130.00 | \$3,250.00 | \$175.00 | \$4,375.00 | - | - | - |
| R25* | Fiber Reinforced HMA Cl. 1/2", PG 58H-22 | TN | 1,190 | \$135.00 | \$160,650.00 | \$140.00 | \$166,600.00 | 150 | - | \$21,000.00 |
| R26 | HMA for Approach Cl. 1/2" PG, 58H-22 | SY | 25 | \$100.00 | \$2,500.00 | \$100.00 | \$2,500.00 | - | - | - |
| R27* | Cold Plant Mix for Temporary Pavement Patch | TN | 300 | \$175.00 | \$52,500.00 | \$100.00 | \$30,000.00 | - | - | - |
| R28* | Adjust Existing Utility to Grade | EA | 9 | \$750.00 | \$6,750.00 | \$930.00 | \$8,370.00 | 0.5 | - | \$465.00 |
| R29 | Erosion/Water Pollution Control | EST | 1 | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$20,000.00 | - | 20.00% | \$4,000.00 |
| R30 | Topsoil Type A | CY | 740 | \$65.00 | \$48,100.00 | \$72.00 | \$53,280.00 | - | - | - |
| R31* | Landscape Restoration | LS | 1 | \$20,000.00 | \$20,000.00 | \$7,800.00 | \$7,800.00 | - | 20.00% | \$1,560.00 |
| R32 | PSIPE, Cockspur Hawthorn | EA | 19 | \$450.00 | \$8,550.00 | \$585.00 | \$11,115.00 | - | - | - |
| R33 | PSIPE, Wireless Zelkova | EA | 14 | \$450.00 | \$6,300.00 | \$668.00 | \$9,352.00 | - | - | - |
| R34 | PSIPE, Hinoki Cypress | EA | 18 | \$450.00 | \$8,100.00 | \$584.00 | \$10,512.00 | - | - | - |
| R35 | PSIPE, Black Tupelo | EA | 20.0 | \$550.00 | \$11,000.00 | \$637.00 | \$12,740.00 | - | - | - |
| R36 | PSIPE, Zelkova | EA | 5 | \$550.00 | \$2,750.00 | \$590.00 | \$2,950.00 | - | - | - |
| R37 | PSIPE, Vanderwolf's Pyramid Pine | EA | 5 | \$550.00 | \$2,750.00 | \$584.00 | \$2,920.00 | - | - | - |
| R38 | PSIPE, American Elm | EA | 22 | \$650.00 | \$14,300.00 | \$584.00 | \$12,848.00 | - | - | - |
| R39 | PSIPE, Ponderosa Pine | EA | 8 | \$650.00 | \$5,200.00 | \$615.00 | \$4,920.00 | - | - | - |

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05

Description: Manitou District Green Infrastructure Project

Specification No.: ES21-0629F

Bid Opening: 12/27/2022

| | | | | ENGINEER'S ESTIMATE | | Low Bidder Pacific Civil & Infrastructure, Inc. | | Water Department Responsibility | | |
|--|--|------|-------|------------------------|----------------|--|----------------|------------------------------------|--------|--------------|
| Item | Description | Unit | QTY | Unit Price | Amount | Unit Price | Amount | QTY | (%) | Amount |
| R40 | PSIPE, Italian Oak | EA | 13 | \$650.00 | \$8,450.00 | \$668.00 | \$8,684.00 | - | - | - |
| R41 | Bark or Wood Chip Mulch | CY | 38 | \$60.00 | \$2,280.00 | \$112.00 | \$4,256.00 | - | - | - |
| R42 | Root Barrier – 18 in. | LF | 2,480 | \$14.00 | \$34,720.00 | \$10.00 | \$24,800.00 | - | - | - |
| R43 | Tree Watering Bag | EA | 124 | \$40.00 | \$4,960.00 | \$31.00 | \$3,844.00 | - | - | - |
| R44* | Cement Conc. Traffic Curb and Gutter | LF | 715 | \$40.00 | \$28,600.00 | \$26.00 | \$18,590.00 | 70 | - | \$1,820.00 |
| R45* | Cement Conc. Traffic Curb | LF | 4,715 | \$35.00 | \$165,025.00 | \$27.00 | \$127,305.00 | - | - | - |
| R46 | Mountable Cement Conc. Traffic Curb | LF | 185 | \$45.00 | \$8,325.00 | \$48.00 | \$8,880.00 | - | - | - |
| R47 | Cement Conc. Driveway Entrance Type I | SY | 625 | \$90.00 | \$56,250.00 | \$78.00 | \$48,750.00 | - | - | - |
| R48* | Poured Monument | EA | 7 | \$775.00 | \$5,425.00 | \$680.00 | \$4,760.00 | - | - | - |
| R49 | Cement Conc. Sidewalk | SY | 200 | \$60.00 | \$12,000.00 | \$80.00 | \$16,000.00 | - | - | - |
| R50 | Cement Conc. Curb Ramp Type Single Direction | EA | 24 | \$2,500.00 | \$60,000.00 | \$2,220.00 | \$53,280.00 | - | - | - |
| R51 | Cement Conc. Curb Ramp Type Parallel A | EA | 3 | \$2,750.00 | \$8,250.00 | \$2,220.00 | \$6,660.00 | - | - | - |
| R52 | Cement Conc. Curb Ramp Type Perpendicular A | EA | 3 | \$3,000.00 | \$9,000.00 | \$1,720.00 | \$5,160.00 | - | - | - |
| R53 | Bus Stop Boarding Pad | SY | 12 | \$100.00 | \$1,200.00 | \$120.00 | \$1,440.00 | - | - | - |
| R54* | Permanent Signing | LS | 1 | \$10,000.00 | \$10,000.00 | \$2,800.00 | \$2,800.00 | - | 25.00% | \$700.00 |
| R55 | Paint Line | LF | 50 | \$3.00 | \$150.00 | \$30.00 | \$1,500.00 | - | - | - |
| R56 | Hand Railing | LF | 80 | \$200.00 | \$16,000.00 | \$95.00 | \$7,600.00 | - | - | - |
| SubTotal, Schedule A Unit Bid Item Nos. R-1 through R-56 | | | | | \$2,585,410.99 | | \$2,614,547.50 | | | \$217,600.00 |

| Schedule B: Storm Sewer Improvements Bid Items S-57 through S-81 | | | | | | | | | | |
|--|--|----|--------|-------------|--------------|-------------|--------------|---|---|---|
| S57 | Structure Excavation Class B | CY | 4,185 | \$20.00 | \$83,700.00 | \$3.00 | \$12,555.00 | - | - | - |
| S58 | Shoring or Extra Excavation Class B | SF | 32,275 | \$0.50 | \$16,137.50 | \$0.75 | \$24,206.25 | - | - | - |
| S59 | Remove Catch Basin | EA | 25 | \$500.00 | \$12,500.00 | \$332.00 | \$8,300.00 | - | - | - |
| S60 | Abandon Manhole | EA | 1 | \$1,750.00 | \$1,750.00 | \$520.00 | \$520.00 | - | - | - |
| S61 | Catch Basin Type 1 | EA | 26 | \$2,000.00 | \$52,000.00 | \$2,200.00 | \$57,200.00 | - | - | - |
| S62 | Combination Inlet | EA | 18 | \$2,250.00 | \$40,500.00 | \$2,600.00 | \$46,800.00 | - | - | - |
| S63 | Catch Basin Type 2 48-In. Diam | EA | 1 | \$5,500.00 | \$5,500.00 | \$3,300.00 | \$3,300.00 | - | - | - |
| S64 | Manhole 48-In. Diam. Type 1 | EA | 18 | \$7,000.00 | \$126,000.00 | \$4,970.00 | \$89,460.00 | - | - | - |
| S65 | Manhole 54-In. Diam. Type 1 | EA | 1 | \$8,000.00 | \$8,000.00 | \$5,630.00 | \$5,630.00 | - | - | - |
| S66 | Manhole Additional Height 48-In. Diam. Type I | LF | 3 | \$200.00 | \$600.00 | \$1.00 | \$3.00 | - | - | - |
| S67 | Connect New Sewer Pipe 12-In. Diam to Existing Structure | EA | 4 | \$2,250.00 | \$9,000.00 | \$12,300.00 | \$49,200.00 | - | - | - |
| S68 | Reconnect Existing Sewer Pipe 8-In. Diam. to New Structure | EA | 10 | \$2,000.00 | \$20,000.00 | \$445.00 | \$4,450.00 | - | - | - |
| S69 | Adjust Existing Manhole, Furnish New Frame and Cover | EA | 4 | \$1,000.00 | \$4,000.00 | \$1,340.00 | \$5,360.00 | - | - | - |
| S70 | Adjust Existing Catch Basin Furnish New Frame and Grate | EA | 1 | \$750.00 | \$750.00 | \$865.00 | \$865.00 | - | - | - |
| S71 | Temporary Storm Sewer Bypass Plan | LS | 1 | \$1,000.00 | \$1,000.00 | \$1,500.00 | \$1,500.00 | - | - | - |
| S72 | Temporary Storm Sewer Bypass | LS | 1 | \$20,000.00 | \$20,000.00 | \$3,500.00 | \$3,500.00 | - | - | - |
| S73 | Plugging Existing Pipe | EA | 4 | \$500.00 | \$2,000.00 | \$20.00 | \$80.00 | - | - | - |
| S74 | CDF for Pipe Abandonment | CY | 2 | \$1,000.00 | \$2,000.00 | \$500.00 | \$1,000.00 | - | - | - |
| S75 | Removal and Replacement of Unsuitable Materials | CY | 3,090 | \$60.00 | \$185,400.00 | \$0.10 | \$309.00 | - | - | - |
| S76 | PVC Storm Sewer Pipe 12-In. Diam. | LF | 4,165 | \$120.00 | \$499,800.00 | \$89.00 | \$370,685.00 | - | - | - |

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05

Description: Manitou District Green Infrastructure Project

Specification No.: ES21-0629F

Bid Opening: 12/27/2022

| | | | | ENGINEER'S ESTIMATE | | Low Bidder Pacific Civil & Infrastructure, Inc. | | Water Department Responsibility | | |
|------|---|------|-------|---------------------|----------------|--|--------------|---------------------------------|--------|----------|
| Item | Description | Unit | QTY | Unit Price | Amount | Unit Price | Amount | QTY | (%) | Amount |
| S77 | Ductile Iron Storm Sewer Pipe 12-in. Diam. | LF | 90 | \$150.00 | \$13,500.00 | \$126.00 | \$11,340.00 | - | - | - |
| S78 | Testing Sewer Pipe | LF | 4,255 | \$4.00 | \$17,020.00 | \$8.00 | \$34,040.00 | - | - | - |
| S79 | Inlet Protection | EA | 69 | \$100.00 | \$6,900.00 | \$65.00 | \$4,485.00 | - | - | - |
| S80* | Stormwater Pollution Prevention Plan (SWPPP) | LS | 1 | \$750.00 | \$750.00 | \$2,500.00 | \$2,500.00 | - | 20.00% | \$500.00 |
| S81* | NPDES Construction Stormwater General Permit | LS | 1 | \$2,000.00 | \$2,000.00 | \$1,500.00 | \$1,500.00 | - | 20.00% | \$300.00 |
| | SubTotal, Schedule B Unit Bid Item Nos. S-57 through S-81 | | | | \$1,130,807.50 | | \$738,788.25 | | | \$800.00 |

| Schedule C: Wastewater Sewer Improvements Bid Items WW-82 through WW-98 | | | | | | | | | | |
|---|--|----|-------|-------------|----------------|-------------|----------------|---|---|--------|
| WW82 | Structure Excavation Class B | CY | 8500 | \$20.00 | \$170,000.00 | \$3.00 | \$25,500.00 | - | - | - |
| WW83 | Shoring or Extra Excavation Class B | SF | 78000 | \$0.50 | \$39,000.00 | \$0.10 | \$7,800.00 | - | - | - |
| WW84 | Remove Manhole | EA | 18 | \$1,250.00 | \$22,500.00 | \$2,450.00 | \$44,100.00 | - | - | - |
| WW85 | Manhole 48-In. Diam. Type 1 | EA | 19 | \$8,000.00 | \$152,000.00 | \$8,860.00 | \$168,340.00 | - | - | - |
| WW86 | Manhole Additional Height 48-In. Diam. Type I | LF | 60 | \$200.00 | \$12,000.00 | \$1.00 | \$60.00 | - | - | - |
| WW87 | Reconnect Existing Sewer Pipe 8- In. Diam. to New Structure | EA | 8 | \$2,000.00 | \$16,000.00 | \$1,685.00 | \$13,480.00 | - | - | - |
| WW88 | Reconnect Existing Sewer Pipe 12- In. Diam. to New Structure | EA | 2 | \$2,500.00 | \$5,000.00 | \$3,000.00 | \$6,000.00 | - | - | - |
| WW89 | Temporary Sanitary Sewer Bypass Plan | LS | 1 | \$1,000.00 | \$1,000.00 | \$1,500.00 | \$1,500.00 | - | - | - |
| WW90 | Temporary Sanitary Sewer Bypass | LS | 1 | \$30,000.00 | \$30,000.00 | \$72,650.00 | \$72,650.00 | - | - | - |
| WW91 | Plugging Existing Pipe | EA | 1 | \$750.00 | \$750.00 | \$207.00 | \$207.00 | - | - | - |
| WW92 | CDF for Pipe Abandonment | CY | 5 | \$1,000.00 | \$5,000.00 | \$550.00 | \$2,750.00 | - | - | - |
| WW93 | Removal and Replacement of Unsuitable Material | CY | 7300 | \$60.00 | \$438,000.00 | \$0.10 | \$730.00 | - | - | - |
| WW94 | PVC Sanitary Sewer Pipe 6-In. Diam. | LF | 1780 | \$110.00 | \$195,800.00 | \$90.00 | \$160,200.00 | - | - | - |
| WW95 | AWWA C900/C905, DR-25 Sanitary Sewer Pipe, 6-In. Diam. | LF | 760 | \$130.00 | \$98,800.00 | \$105.00 | \$79,800.00 | - | - | - |
| WW96 | PVC Sanitary Sewer Pipe 8-In. Diam. | LF | 4025 | \$115.00 | \$462,875.00 | \$161.00 | \$648,025.00 | - | - | - |
| WW97 | Testing Sewer Pipe | LF | 6565 | \$4.00 | \$26,260.00 | \$3.50 | \$22,977.50 | - | - | - |
| WW98 | Sewer Cleanout | EA | 127 | \$1,250.00 | \$158,750.00 | \$480.00 | \$60,960.00 | - | - | - |
| | SubTotal, Schedule C Unit Bid Item Nos. WW-82 through WW-98 | | | | \$1,833,735.00 | | \$1,315,079.50 | | | \$0.00 |

| Schedule D: Water Main Improvements Bid Items W-99 through W-147 | | | | | | | | | | |
|--|--|----|------|------------|--------------|----------|--------------|--|---------|--------------|
| W99 | Removal/Disposal of existing asphalt, concrete sidewalk/curbing & concrete pavement. Includes all thicknesses and combinations (2-02.3(3)) | SY | 1986 | \$30.00 | \$59,580.00 | \$1.50 | \$2,979.00 | | 100.00% | \$2,979.00 |
| W100 | Temporary HMA Class ½” PG58-22, 2-inch minimum depth, installed & removed (5-04 & 9-03.8) | SY | 1986 | \$35.00 | \$69,510.00 | \$8.10 | \$16,086.60 | | 100.00% | \$16,086.60 |
| W101 | HMA CI ½” PG58-22 pavement for permanent trench patch (5-04 & 9-03.8)-6" in Depth | TN | 66 | \$200.00 | \$13,200.00 | \$200.00 | \$13,200.00 | | 100.00% | \$13,200.00 |
| W102 | Crushed Surfacing Top Course for trench backfill (7-09.5 & 9-03.9(3)) | TN | 5199 | \$35.00 | \$181,965.00 | \$26.50 | \$137,773.50 | | 100.00% | \$137,773.50 |
| W103 | Sand for Pipe Zone Bedding of Polyethylene encased pipe (7-09.1(1)C) | TN | 827 | \$25.00 | \$20,675.00 | \$22.00 | \$18,194.00 | | 100.00% | \$18,194.00 |
| W104 | 8 mil. V-Bio Enhanced Polyethylene Encasement Installed on various sizes of ductile iron pipe and fittings (7-09.3(17)) | LF | 2783 | \$10.00 | \$27,830.00 | \$1.00 | \$2,783.00 | | 100.00% | \$2,783.00 |
| W105 | Storm, Sanitary, Side Sewer Restoration (7-04,7-09.5, 7-17, & 7-18) | EA | 35 | \$1,500.00 | \$52,500.00 | \$975.00 | \$34,125.00 | | 100.00% | \$34,125.00 |

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05

Description: Manitou District Green Infrastructure Project

Specification No.: ES21-0629F

Bid Opening: 12/27/2022

| | | | | ENGINEER'S ESTIMATE | | Low Bidder Pacific Civil & Infrastructure, Inc. | | Water Department Responsibility | | |
|------|--|------|------|------------------------|--------------|--|--------------|------------------------------------|---------|--------------|
| Item | Description | Unit | QTY | Unit Price | Amount | Unit Price | Amount | QTY | (%) | Amount |
| W106 | Trench Excavation & Disposal (7-09.3(7) & 7-09.5) | CY | 2988 | \$35.00 | \$104,580.00 | \$23.00 | \$68,724.00 | | 100.00% | \$68,724.00 |
| W107 | Trench Shoring (7-09.3(7) & 7-09.5) | LF | 5416 | \$1.00 | \$5,416.00 | \$0.50 | \$2,708.00 | | 100.00% | \$2,708.00 |
| W108 | 12-inch Ductile Iron Pipe, Push-On Joint, ANSI/AWWA, C151, Special Class Thickness No. 52, to furnish, lay and test, (7-09.3(15)A, 7-09.5 & 9-30.1(1)) | LF | 268 | \$150.00 | \$40,200.00 | \$151.00 | \$40,468.00 | | 100.00% | \$40,468.00 |
| W109 | 8-inch Ductile Iron Pipe, Push-On Joint, ANSI/AWWA, C151, Special Class Thickness No. 52, to furnish, lay and test, (7-09.3(15)A, 7-09.5 & 9-30.1(1)) | LF | 60 | \$100.00 | \$6,000.00 | \$47.00 | \$2,820.00 | | 100.00% | \$2,820.00 |
| W110 | 6-inch Ductile Iron Pipe, Push-On Joint, ANSI/AWWA, C151, Special Class Thickness No. 52, to furnish, lay and test, (7-09.3(15)A, 7-09.5 & 9-30.1(1)) | LF | 5557 | \$80.00 | \$444,560.00 | \$56.00 | \$311,192.00 | | 100.00% | \$311,192.00 |
| W111 | 6-inch Ductile Iron Tee, 3-B, M.J., installed (9-30.2(1)) | EA | 5 | \$275.00 | \$1,375.00 | \$228.00 | \$1,140.00 | | 100.00% | \$1,140.00 |
| W112 | 12-inch x 6-inch Ductile Iron Tee, M.J., installed (9-30.2(1)) | EA | 2 | \$450.00 | \$900.00 | \$331.00 | \$662.00 | | 100.00% | \$662.00 |
| W113 | 8-inch x 6-inch Ductile Iron Tee, 3-B, M.J., installed (9-30.2(1)) | EA | 2 | \$350.00 | \$700.00 | \$203.00 | \$406.00 | | 100.00% | \$406.00 |
| W114 | 12-inch x 6-inch Ductile Iron Cross, 4-B, M.J., installed (9-30.2(1)) | EA | 2 | \$675.00 | \$1,350.00 | \$482.00 | \$964.00 | | 100.00% | \$964.00 |
| W115 | 6-inch Ductile Iron Cross, 4-B, M.J., installed (9-30.2(1)) | EA | 1 | \$400.00 | \$400.00 | \$320.00 | \$320.00 | | 100.00% | \$320.00 |
| W116 | 12-inch Ductile Iron Ell, M.J., 22 1/2°, installed. (7-09, & 9-30.2(1)) | EA | 16 | \$450.00 | \$7,200.00 | \$254.00 | \$4,064.00 | | 100.00% | \$4,064.00 |
| W117 | 8-inch Ductile Iron Ell, M.J., 22 1/2°, installed. (7-09, & 9-30.2(1)) | EA | 4 | \$250.00 | \$1,000.00 | \$132.00 | \$528.00 | | 100.00% | \$528.00 |
| W118 | 6-inch Ductile Iron Ell, M.J., 45°, installed. (7-09, & 9-30.2(1)) | EA | 5 | \$175.00 | \$875.00 | \$174.00 | \$870.00 | | 100.00% | \$870.00 |
| W119 | 6-inch Ductile Iron Ell, M.J., 22 1/2°, installed. (7-09, & 9-30.2(1)) | EA | 13 | \$150.00 | \$1,950.00 | \$122.00 | \$1,586.00 | | 100.00% | \$1,586.00 |
| W120 | 6-inch Ductile Iron Ell, M.J., 11 1/4°, installed. (7-09, & 9-30.2(1)) | EA | 8 | \$150.00 | \$1,200.00 | \$139.00 | \$1,112.00 | | 100.00% | \$1,112.00 |
| W121 | 12-inch Transition Coupling with 7-inch center ring, epoxy coating, and stainless steel bolts, A.C. to D.I., installed (7-09.3(19)A, 7-09.5 & 9-30.2(7)) | EA | 8 | \$1,700.00 | \$13,600.00 | \$4,235.00 | \$33,880.00 | | 100.00% | \$33,880.00 |
| W122 | 8-inch Transition Coupling with 7-inch center ring, epoxy coating, and stainless steel bolts, A.C. to D.I., installed (7-09.3(19)A, 7-09.5 & 9-30.2(7)) | EA | 2 | \$800.00 | \$1,600.00 | \$4,005.00 | \$8,010.00 | | 100.00% | \$8,010.00 |
| W123 | 6-inch Transition Coupling with 7-inch center ring, epoxy coating, and stainless steel bolts, A.C. to D.I., installed (7-09.3(19)A, 7-09.5 & 9-30.2(7)) | EA | 4 | \$750.00 | \$3,000.00 | \$3,950.00 | \$15,800.00 | | 100.00% | \$15,800.00 |
| W124 | 12-inch Ductile Iron Cap, M.J., tapped 2", installed and removed (9-30.2(1) & 7- | EA | 8 | \$300.00 | \$2,400.00 | \$252.00 | \$2,016.00 | | 100.00% | \$2,016.00 |
| W125 | 8-inch Ductile Iron Cap, M.J., tapped 2", installed and removed (9-30.2(1) & 7- | EA | 2 | \$175.00 | \$350.00 | \$155.00 | \$310.00 | | 100.00% | \$310.00 |
| W126 | 6-inch Ductile Iron Cap, M.J., tapped 2", installed and removed (9-30.2(1) & 7- | EA | 6 | \$150.00 | \$900.00 | \$116.00 | \$696.00 | | 100.00% | \$696.00 |
| W127 | 6-inch Ductile Iron Cap, M.J., tapped 2", installed (9-30.2(1) & 7-09.5) | EA | 1 | \$150.00 | \$150.00 | \$116.00 | \$116.00 | | 100.00% | \$116.00 |
| W128 | 6-inch Ductile Iron Plug, M.J., installed (7-09.5 & 9-30.2(1)) | EA | 3 | \$100.00 | \$300.00 | \$265.00 | \$795.00 | | 100.00% | \$795.00 |
| W129 | 2-inch Blow-Off Assembly, installed (Dwg. 17-56-1) (7-09.3(22) & 7-09.5) | EA | 1 | \$2,000.00 | \$2,000.00 | \$2,492.00 | \$2,492.00 | | 100.00% | \$2,492.00 |
| W130 | Temporary 2-inch Blow-Off Assembly, installed and removed (Dwg. 17-56-1) (7-09.3(22) & 7-09.5) | EA | 16 | \$1,000.00 | \$16,000.00 | \$296.00 | \$4,736.00 | | 100.00% | \$4,736.00 |
| W131 | 12-inch Mechanical Joint Restraining Glands (7-14, 7-09.5 & 9-30.2(6)) | EA | 66 | \$250.00 | \$16,500.00 | \$145.00 | \$9,570.00 | | 100.00% | \$9,570.00 |
| W132 | 8-inch Mechanical Joint Restraining Glands (7-14, 7-09.5 & 9-30.2(6)) | EA | 10 | \$150.00 | \$1,500.00 | \$75.00 | \$750.00 | | 100.00% | \$750.00 |
| W133 | 6-inch Mechanical Joint Restraining Glands (7-14, 7-09.5 & 9-30.2(6)) | EA | 69 | \$100.00 | \$6,900.00 | \$60.00 | \$4,140.00 | | 100.00% | \$4,140.00 |
| W134 | 6-inch Push on Joint Restraining Gasket, installed | EA | 3 | \$100.00 | \$300.00 | \$157.00 | \$471.00 | | 100.00% | \$471.00 |
| W135 | Concrete Thrust Anchor, installed. (7-09.3(21) & 7-09.5) | EA | 52 | \$1,000.00 | \$52,000.00 | \$99.00 | \$5,148.00 | | 100.00% | \$5,148.00 |
| W136 | Temporary Concrete Thrust Anchor, installed and removed (7-09.3(21) & 7- | EA | 16 | \$750.00 | \$12,000.00 | \$110.00 | \$1,760.00 | | 100.00% | \$1,760.00 |
| W137 | Trench Compaction Test (as directed by the Inspector) (7-09.3(11) & 7-09.5) | EA | 108 | \$150.00 | \$16,200.00 | \$45.00 | \$4,860.00 | | 100.00% | \$4,860.00 |
| W138 | Test Holes (See Special Provisions). (7-09.3(6) & 7-09.5) | LS | 1 | \$5,000.00 | \$5,000.00 | \$8,830.00 | \$8,830.00 | | 100.00% | \$8,830.00 |

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05

Description: Manitou District Green Infrastructure Project

Specification No.: ES21-0629F

Bid Opening: 12/27/2022

| | | | | ENGINEER'S ESTIMATE | | Low Bidder Pacific Civil & Infrastructure, Inc. | | Water Department Responsibility | | |
|--|--|------|-----|------------------------|----------------|--|----------------|------------------------------------|---------|----------------|
| Item | Description | Unit | QTY | Unit Price | Amount | Unit Price | Amount | QTY | (%) | Amount |
| W139 | 12-inch Butterfly valve, M.J., ANSI/AWWA, C504, with C.I. valve box (7-12 & 9- | EA | 5 | \$2,100.00 | \$10,500.00 | \$2,696.00 | \$13,480.00 | | 100.00% | \$13,480.00 |
| W140 | 6-inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box (7-12 & | EA | 18 | \$1,250.00 | \$22,500.00 | \$1,858.00 | \$33,444.00 | | 100.00% | \$33,444.00 |
| W141 | 6-inch Hydrant, M.J., 4.0-ft bury, with 4-inch Tacoma Standard Threads & 4- | EA | 2 | \$4,000.00 | \$8,000.00 | \$5,276.00 | \$10,552.00 | | 100.00% | \$10,552.00 |
| W142 | 6-inch Hydrant, M.J., 4.5-ft bury, with 4-inch Tacoma Standard Threads & 4- | EA | 1 | \$4,250.00 | \$4,250.00 | \$5,345.00 | \$5,345.00 | | 100.00% | \$5,345.00 |
| W143 | 6-inch Hydrant, M.J., 5.0-ft bury, with 4-inch Tacoma Standard Threads & 4- | EA | 1 | \$4,500.00 | \$4,500.00 | \$5,420.00 | \$5,420.00 | | 100.00% | \$5,420.00 |
| W144 | 6-inch Hydrant, M.J., 5.5-ft bury, with 4-inch Tacoma Standard Threads & 4- | EA | 1 | \$4,850.00 | \$4,850.00 | \$5,486.00 | \$5,486.00 | | 100.00% | \$5,486.00 |
| W145 | 6-inch Hydrant, M.J., 6.5-ft bury, with 4-inch Tacoma Standard Threads & 4- | EA | 1 | \$6,000.00 | \$6,000.00 | \$5,625.00 | \$5,625.00 | | 100.00% | \$5,625.00 |
| W146 | Street cleaning with Self-propelled Pickup and Vacuum Street Sweeper | HR | 70 | \$200.00 | \$14,000.00 | \$175.00 | \$12,250.00 | | 100.00% | \$12,250.00 |
| W147 | Equipment. (8-01.3(8)) | | | | | | | | | |
| | Force Account (1-09.6) | EST | 1 | \$60,000.00 | \$60,000.00 | \$60,000.00 | \$60,000.00 | | 100.00% | \$60,000.00 |
| | SubTotal, Schedule D Unit Bid Item Nos. W-99 through W-147 | | | | \$1,328,266.00 | | \$918,687.10 | | | \$918,687.10 |
| | 10.3% Sales Tax on Water Main Bid Items | | | | \$136,811.40 | | \$94,624.77 | | | \$94,624.77 |
| | TOTAL of BID Schedule D | | | | \$1,465,077.40 | | \$1,013,311.87 | | | \$1,013,311.87 |
| | | | | | | | | | | |
| Schedule A: Roadway Improvements Bid Items TOTAL | | | | | \$2,585,410.99 | | \$2,614,547.50 | | | \$217,600.00 |
| | | | | | | | | | | |
| Schedule B: Storm Sewer Improvements Bid Items TOTAL | | | | | \$1,130,807.50 | | \$738,788.25 | | | \$800.00 |
| | | | | | | | | | | |
| Schedule C: Wastewater Sewer Improvements Bid Items TOTAL | | | | | \$1,833,735.00 | | \$1,315,079.50 | | | \$0.00 |
| | | | | | | | | | | |
| Schedule D: Water Main Improvements Bid Items TOTAL (less tax) | | | | | \$1,328,266.00 | | \$918,687.10 | | | \$918,687.10 |
| | | | | | | | | | | |
| TOTAL BASE BID (SCHEDULE A, B, C & D) | | | | | 6,878,219.49 | | 5,587,102.35 | | | |

EXHIBIT A

PROJECT BREAKDOWN ESTIMATE

MRP 2020-05

Description: Manitou District Green Infrastructure Project

Specification No.: ES21-0629F

Bid Opening: 12/27/2022

| Tacoma Water Cost Share Summary | |
|---------------------------------|---|
| Item | Description |
| A | Bid Group W-SubTotal |
| B | Tax (10.3%) |
| C | Bid Group W-Total |
| | |
| D | Total Shared Roadway & Storm Bid Items |
| E | Total Construction Costs |
| | (A + D) |
| F | Total Construction Costs with 15 Contingency (C&A Document Water Total) |
| | (E x 1.15) |
| G | Admin Costs (3%) |
| | (A + D - \$60,000) x 3% |

| Amount |
|----------------|
| \$918,687.10 |
| \$94,624.77 |
| \$1,013,311.87 |
| |
| \$218,400.00 |
| \$1,137,087.10 |
| |
| \$1,307,650.17 |
| |
| \$32,312.61 |
| |

| | | |
|---|---|----------------|
| I | Cumulative Total (less tax, less contingency) | \$1,169,399.71 |
| | (E + G) | |