Task Order No. 10

City of Sweet Home Water System Evaluation and Capital Improvement Plan

West Yost Job Number 936-60-21-10

In accordance with the Contract between the City of Sweet Home (Client) and West Yost Associates, Inc. (Consultant), dated September 2, 2020, Consultant is authorized to complete the work scope defined in this Task Order No. 10 according to the schedule and budget defined herein.

WORK SCOPE

The Scope of Services includes providing Engineering Services for the Preparation of a Water System Evaluation and Capital Improvement Plan Project in accordance with the Letter Proposal dated August 10, 2021 (Exhibit A).

COMPENSATION

Compensation shall be in accordance with the provisions of the Task Order Agreement between Client and Consultant.

The compensation limit for services performed under this task order shall not exceed $150,990. If additional funds are required to complete the services defined herein beyond this limit, Consultant shall notify Client in writing prior to reaching the authorized limit and will not proceed with work in excess of the limit without the prior written approval of Client.

SCHEDULE

Schedule shall be performed as shown in Exhibit A.

WEST YOST ASSOCIATES, INC.	CITY OF SWEET HOME
Signature	Signature
Robert Ward Printed Name	RAY TOWRY Printed Name
Vice President Title	City Manager Title
September 8, 2021 Date	28 SEPT 2021 Date

Exhibit A

WEST YOST
Water. Engineered.

5 Centerpointe Drive
Suite 130
Lake Oswego OR 97035

503.451.4500 phone
530.756.5991 fax
westyost.com

August 10, 2021

SENT VIA: EMAIL

Mr. Greg Springman
Public Works Director
City of Sweet Home
1400 24th Avenue
Sweet Home, OR 97386

SUBJECT: Proposal for Engineering Services for the Preparation of a Water System Evaluation and Capital Improvement Plan

Dear Greg:

West Yost appreciates the opportunity to provide this letter proposal to the City of Sweet Home (City) to prepare a Water System Evaluation and Capital Improvement Plan (Project) in accordance with Oregon Health Authority (OHA) requirements.

Project Background

The City owns and operates a public water system that relies on the Santiam River for its drinking water source. A flood control dam, the Foster Dam, constructed along the South Santiam River (a tributary of the Santiam River) creates the Foster Reservoir, which provides raw water to the City's water treatment plant by gravity. The water treatment plant has a capacity of 6.0 million gallons per day (MGD) and consists of three filter trains and three water pumps. Treated water is stored in five finished water reservoirs located on three separate sites, with a total capacity of 4.61 million gallons, and distributed to the City's residents.

West Yost proposes to prepare a Water System Evaluation and Capital Improvement Plan for the City consisting of the following key elements:

- Evaluation of historical water meter data to develop current and estimated future water system average and peak demands;
- Identification of design, operational, and performance criteria to guide water system evaluations;
- Update to and re-allocation of recent demands to the City's GIS-based water system hydraulic model to complete evaluations;
- Completion of distribution system analyses to evaluate the ability of the water system to meet current and future demands using the water system hydraulic model;
- Identification of system deficiencies and recommended upgrades to meet operational and performance criteria; and
- Preparation of a final report with Capital Improvement Program and Implementation Plan.

The City's existing water distribution system inventory will be developed using existing GIS water system mapping prepared by another consultant.

Following is our proposed Scope of Services, Budget, and Schedule for completing the project. The Scope of Services includes key assumptions that were used in preparing the project budget and schedule.

Scope of Services

The proposed Scope of Services for the Project is included as Attachment A. The Scope of Services contains the following tasks:

- Task 1. Project Management
- Task 2. Data Collection and Existing Water System
- Task 3. Water Demands
- Task 4. Hydraulic Model Update
- Task 5. Water System Analysis
- Task 6. Water Treatment Plant Evaluation and Upgrades
- Task 7. Water System Seismic Risk Assessment and Mitigation Plan
- Task 8. Water System Capital Improvement Plan Program Development
- Task 9. Water System Evaluation and Capital Improvement Plan

Project Budget

West Yost's proposed level of effort and budget for each of the tasks described above is shown in Table 1 below and in Attachment A. West Yost will perform the Scope of Services described above on a time-and-expenses basis, at the billing rates set forth in West Yost's attached 2021 Billing Rate Schedule, with a not-to-exceed budget of $150,990. Any additional services not included in this Scope of Services will be performed only after receiving written authorization and a corresponding budget augmentation.

Table 1. Proposed Budget

Task	Estimated Budget, dollars
Task 1. Project Management	12,070
Task 2. Data Collection and Existing Water System	7,486
Task 3. Water Demands	11,569
Task 4. Hydraulic Model Update	30,297
Task 5. Water System Analysis	19,593
Task 6. Water Treatment Plant Evaluation and Upgrades	19,982
Task 7. Water System Seismic Risk Assessment and Mitigation Plan	29,440
Task 8. Water System Capital Improvement Plan Program Development	9,610
Task 9. Water System Evaluation and Capital Improvement Plan	10,943
Total Project Hours and Budget	**$150,990**

Schedule

West Yost's team is ready to begin the project immediately following the execution of contracts and notice to proceed from the City. We anticipate completing the project by June 30, 2022 and will provide a detailed project schedule as part of the Project Kickoff Meeting.

Thank you again for the opportunity to assist the City with this important and time-critical project. Please contact Preston Van Meter at 503.784.9536 or pvanmeter@westyost.com if you have any questions about our proposal.

Sincerely,
WEST YOST

Preston Van Meter, PE
Principal Engineer
PE# 51615

Bob Ward, PE
Vice President
PE# 58810

Attachment(s): A – Scope of Services
B – West Yost Associates 2021 Billing Rate Schedule

Attachment A

Scope of Services

ATTACHMENT A

SCOPE OF SERVICES

The following scope of services describes the work to be completed in preparing a Water System Evaluation and Capital Improvement Plan for the City of Sweet Home. The scope of services complies with Oregon Health Authority (OHA) requirements for water master plans.

Task 1. Project Management

West Yost will use industry standard project management tools including systems for tracking work progress and expenditures to keep the Project on schedule and budget.

Task 1.1. Monthly Project Status Reports and Invoices

- Contract set-up and internal coordination with the Project team; and
- Preparation of monthly invoices and progress reports

The fee associated with this task is incorporated into the tasks described below and is based on an assumed project duration of twelve months.

Task 1.2. Monthly Project Check-in Conference Calls

West Yost Project Manager and key team members will conduct monthly project check-in conference calls with City staff to review progress compared with schedule milestones, confirm timing for upcoming meetings and site visits, review current budget status, discuss outstanding issues or requests for information, and related items related to overall project progress. For budgetary purposes, monthly check-in conference calls will be attended for West Yost's Project Manager and Project Engineer.

Task 1.3. Internal Team Coordination

West Yost's Project Manager will coordinate activities of key team members throughout the project to maintain the project schedule while maximizing team efficiency.

Task 1.4. Project Kickoff Meeting

West Yost will conduct a Project Kickoff Meeting with City staff to review the project scope and assumptions, discuss the project schedule and key project milestones/deadlines, review communications procedures and protocols and other key discussion topics related to the project. The meeting will be attended by West Yost's Project Manager and Project Engineer.

Task 1. Assumptions

- The anticipated duration of the project is 10 months; therefore, 10 monthly project progress reports and invoices are budgeted.
- Action items from monthly project check-in conference calls will be sent via email.
- No Water Conservation and Management Plan (WMCP) is required to be included in the City's Water Master Plan because the City's previous WMCP approved in September 2016 does not need to be updated until September 2026.

Task 1 Deliverables

- One electronic (PDF) copy of the monthly progress reports with invoices.
- One electronic (email) copy of action items from monthly project check-in conference calls with City and West Yost staff.

Task 2. Data Collection and Existing Water System

Under this task, West Yost will prepare an Existing Water System TM using relevant and available information on the City's water service area, water supply, water system facilities, and other information provided by the City as part of the background data collection.

Task 2.1. Background Data Collection

The following is a preliminary list of data and information anticipated to be collected prior to or shortly after the kickoff meeting:

- Distribution system maps and record drawings for key supply, pumping and reservoir facilities;
- All available GIS information (e.g., pipelines, meters, valves, tank, pumping facilities) for the water distribution system;
- Record drawings for the Water Treatment Plant, reservoirs, booster pump stations, valves, and other critical facilities;
- Annual water meter records (for annual average consumption) with account number, billing class, and service address, for the past 3 to 5 years;
- Monthly water use data aggregated by billing class;
- Monthly water production data for past 5 years (2016-2020) along with maximum day and peak hour deliveries;
- Hourly SCADA data for the time period selected for the model update (Task 4) for:
  - Flows from the water treatment plant and pump stations,
  - Flows through any zone pressure reducing valves (PRVs), and
  - Fluctuation in levels from the City's storage reservoirs;
- Drinking water quality compliance history; and
- Pump curves and nameplate data for existing pumps, including the raw water pump station and booster pumps in the system, and any available efficiency information.

West Yost will provide a formal Background Data Request prior to the Project Kickoff Meeting, which may contain additional items beyond those identified above.

Task 2.2. Existing Water System Description

West Yost will prepare an overview and description of the City's drinking water source, treatment, storage and distribution system, including but not limited to:

- Water system service area;
- Source of supply, water rights, and status;
- Historical and projected future water supplies;
- Drinking water quality and compliance history;
- O&M program overview and staffing summary; and
- Summary description of facility total and firm capacities.

The overview of the City's existing water system will be summarized in a draft Existing Water System Description technical memorandum (TM) submitted to the City for review.

Task 2 Assumptions

- City staff will provide background data in a reasonable amount of time (e.g., within two weeks).
- Tour of water system facilities is budgeted for under Task 6 (Water Treatment Plant).
- Existing water supply source information (i.e., number of permits, sources) and projected future supplies will be provided by the City.
- City staff will verify water system facility information provided in the draft report TM.
- O&M Program information will be summarized by City staff for inclusion in the draft TM.
- City will provide consolidated, written comments on draft TM within two weeks of submittal.
- City comments on the draft TM will be incorporated into the draft report.

Task 2 Deliverables

- One electronic (PDF) copy of the Project Kickoff Meeting Agenda and Minutes.
- One electronic (PDF) copy of the Background Data Request.
- One electronic (PDF) copy of the Draft Existing System Description TM. Comments on the Draft TM will be incorporated into the final draft Water Master Plan.

Task 3. Water Demands

Under this task, West Yost will work with the City to summarize historical water production and consumption (from 2016 to 2020) and project future water demand based on expected population growth. Per capita daily water use will be developed using the City's recent metered water consumption and population information.

Task 3.1. Historical Water Use

West Yost will summarize the City's recent historical population, water production and water consumption, including seasonal water usage patterns, and will recommend a baseline per capita daily demand for use in future demand projections under Task 3.2. West Yost will use monthly water production, maximum day, and peak hour water delivery data collected under Task 2 to determine the maximum day and peak hour demand peaking factors.

Task 3.2. Future Water Demand Projections

West Yost will develop population-based demand projections using the per capita daily baseline use recommended under Task 3.1. Future demands will be projected for the near-term (20-year) planning horizon and will be reviewed with the City. After approval from the City, the resulting demand projections will be used in the water system evaluations performed under Task 5, which will be used to develop the recommended Capital Improvement Program (CIP).

Task 3.3. Draft Water Demand TM

The demand analysis conducted under Task 3 will be summarized in a draft Water Demand TM.

Task 3 Assumptions

- Current water use will be developed using production records and historical maximum day and peak hour use for the past 3-5 years provided by the City.

- City to provide projected population growth information for the near-term (20-year) planning horizon.
- If City is unable to provide projected population growth information, publicly available population growth estimates will be used (i.e., Portland State University Population Research Center).
- City will provide written comments on draft TM within two weeks of submittal.
- City comments on the draft TM will be incorporated into the draft report.

Task 3 Deliverables

- One electronic (PDF) copy of the Draft Water Demand TM. Comments on the Draft TM will be incorporated into the final draft Water Master Plan.

Task 4. Hydraulic Model Update

Under this task, West Yost will review and update the City's existing InfoWater® hydraulic model to reflect existing network connectivity and demand conditions. A high-level model static calibration and spot-check of system pressures at facility locations will confirm that the hydraulic model can reasonably mimic system pressures for use as a planning tool. The hydraulic model will be used to evaluate future conditions under Task 5.

Task 4.1. Model Update

West Yost will review the City's existing InfoWater® hydraulic model to confirm the accuracy of the pipeline network and facility data. Data collected under Task 2 (e.g., facility record drawings and pump curves) will be used to confirm existing facility properties and update information in the model to accurately represent the City's water distribution system. Pipeline roughness factors in the existing model are substantially higher than industry-standard values and will be updated to roughness factors that are consistent with field-calibrated C-factors of similar material type and age, as provided in West Yost's C-factor database. West Yost will update the junction elevations with available elevation data.

Task 4.2. Demand Allocation

West Yost will use the City's existing water meter feature class to spatially-locate the City's metered consumption data collected under Task 2. Once the consumption data of the City's existing water demands is linked to the meter GIS file, West Yost will use the InfoWater® Demand Allocation Manager to allocate recent consumption data to junctions representing customer service locations in the hydraulic model.

Task 4.3. Hydrant Test Plan

West Yost will prepare a hydrant test plan and data collection log showing the location of planned testing and data collection locations. Hydrant testing will validate the pipeline C-factors updated in the model under Task 4.1.

Hydrant tests will consist of 'standard' fire flow tests to assess system capacity through flow and pressure measurements. No valves will be closed to isolate pipelines of a specified material and age. The City will conduct all field hydrant flow testing and data collection, including operating/monitoring hydrants, de-chlorination, and traffic control.

Task 4.4. Model Static Calibration

West Yost will conduct static calibration of the model, which will involve adjusting the model to match system pressures observed during stressed conditions. Discrepancies in the modeled versus SCADA pressures are expected due to differing demand conditions. Any discrepancies between the modeled versus SCADA pressures that are greater than the recommended range provided in the American Water Works Association M32 (2.2 to 4.3 psi) will be reviewed with the City. A full model calibration of system operations and pipeline roughness factors (through unidirectional flow-style hydrant tests) will not be completed.

If the City is interested in pursuing a full operational calibration of the hydraulic model, a separate request should be made for optional services to include unidirectional-style hydrant flow testing for steady state calibration and/or hydrant pressure recorder (HPR) placement and SCADA review for extended period simulation (EPS) operational model calibration.

Task 4.5. Draft Hydraulic Model Update TM

The hydraulic model update effort conducted under Task 4 will be summarized in a draft Hydraulic Model Update TM.

Task 4 Assumptions

- Ground elevations obtained by City staff or from digital sources (i.e., digital elevation model (DEM) data that is publicly available) will be adequate for updates to the hydraulic model, as needed.
- The City's existing hydraulic model has no large discrepancies in network connectivity from the GIS.
- Updates to the existing hydraulic model are assumed to be minor and will require no more than 20 hours of effort. If it is determined upon review of the hydraulic model and data received under Task 2 that additional hours will be required to complete the model update, West Yost will inform the City prior to beginning work.
- The City's metered consumption data can be reasonably (linking >90% of overall demand) joined to the City's existing meter GIS feature class using a common identifier field.
- West Yost will identify up to 10 hydrant flow test locations for the City to conduct.
- City staff will perform all field hydrant testing and data collection (3-4 City staff for one day).
- Prior to the hydrant testing field data collection, West Yost will hold one (1) conference call with the City to review the hydrant test plan, discuss necessary equipment, and answer any questions. It is assumed that this collaboration call will be no longer than 1-hour.
- Model static calibration will be limited to verifying existing system pressures under static and flowing conditions at monitored hydrants and system boundary conditions (i.e., system facilities) for the main pressure zone only.
- Some deviation in field-measured and modeled pressures may occur due to differing demand conditions, but the model will be considered calibrated if the hydraulic grade line (HGL) predicted by the model falls within 5-10 ft (2.2 to 4.3 psi) of the HGL measured in the field. It is assumed that no more than three (3) hydrant tests will exhibit modeled pressure results that deviate more than 4.3 psi from the field-measured static pressures.

Task 4 Deliverables

- One electronic (PDF) copy of the Hydrant Test Plan.
- One electronic copy of the City's calibrated water system hydraulic model.
- One electronic (PDF) copy of the Draft Hydraulic Model Update TM. Comments on the Draft TM will be incorporated into the final draft Water Master Plan.

Task 5. Water System Analysis

Under this task, West Yost will evaluate the ability of the City's existing water system to meet defined performance criteria for existing and future (20-year planning horizon) demand conditions.

Task 5.1. Water System Performance Criteria

West Yost will work with City staff to develop water system performance standards that will establish the City's level of service goals, guide the evaluation of system adequacy, and provide a framework for sizing of future improvements. Standards will be developed to address water quality goals, water supply and treatment capacity, system pressures, system storage, fire flow availability, and other important water supply and distribution system considerations.

Water system performance criteria will be summarized in a draft TM submitted to the City for review. The contents of this draft TM will provide the basis for development of the resulting CIP.

Task 5.2. Water Facility Capacity Analysis

West Yost will evaluate the capacity of the City's existing water system to meet existing and future (20-year planning horizon) demands. Capacity evaluations will assess the adequacy of the following to meet the system performance criteria:

- Water supply
- Storage
- Pumping

The facility capacity evaluations conducted under Task 5.2 will be summarized in a draft Water System Analysis TM.

Task 5.3. Water System Analysis

To evaluate the water system, West Yost will conduct a distribution system performance analysis under future demand conditions (representative of the 20-year planning horizon) to identify areas in the City's existing water system that do not meet the minimum system performance standards defined in Task 5.1. West Yost will use the hydraulic model updated under Task 4 to evaluate the maximum day demand plus fire flow and static peak hour demand conditions. Improvements will be recommended to meet the system performance criteria under future demand conditions.

Hydraulic evaluations conducted under Task 5.3 will be summarized in a draft Water System Analysis TM.

Task 5 Assumptions

- Projected growth of the City under near-term and buildout will be established under Task 3.
- Land use will not vary significantly between the near-term and buildout future planning horizons.
- City will provide written comments on the draft TM within 2 weeks of submittal.
- City comments on the draft TM(s) will be incorporated into the draft report.

Task 5 Deliverables

- One electronic (PDF) copy of the Draft Water System Design and Performance Criteria TM. Comments on the Draft TM will be incorporated into the final draft Water Master Plan.

Task 6. Water Treatment Plant Evaluation and Upgrades

West Yost will evaluate the existing WTP to identify capacity upgrades to support growth as well as for Operations and Maintenance (O&M) projects needed to address operating issues identified by City staff.

To document WTP O&M projects, West Yost will conduct a one-day field evaluation of the WTP with City staff to document operating issues and identify a list of O&M-related projects to be included in the master plan. Following the site visit, West Yost will prepare planning level cost estimates for each of the identified O&M projects, which will be presented to City staff for review.

WTP capacity upgrades will be identified through the planning process based on population growth and water system demands. A project list for WTP capacity upgrades will be prepared along with planning-level cost estimates. The WTP capacity upgrades project list will be presented to City staff for review.

Task 6 Assumptions

- Field work for the WTP condition assessment will be limited to one-day facility tour with City staff to document WTP deficiencies attended by three West Yost staff.
- More detailed WTP condition assessment activities will be identified a part of the initial WTP evaluation and incorporated into the Recommended Plan and CIP.
- A WTP project list will be developed to be included in the Recommended Plan and CIP.

Task 6 Deliverables

- One electronic (PDF) copy of the Draft WTP Evaluation and Upgrades TM. Comments on the Draft TM will be incorporated into the final draft Water Master Plan.

Task 7. Water System Seismic Risk Assessment and Mitigation Plan

In addition to the water system analysis completed in Task 5, West Yost will prepare a Seismic Risk Assessment and Mitigation Plan in accordance with Oregon Health Authority (OHA) requirements. The plan will identify the City's critical water system infrastructure capable of supplying key community needs, including fire suppression, health and emergency response and community drinking water supply points. Following are the key elements of the plan:

- Overview of the Oregon Resilience Plan (ORP) and associated requirements;
- Identification of the City's critical "backbone" water system infrastructure and facilities;
- Seismic hazard mapping to identify local concerns with soil liquefaction, lateral spreading, landslides and ground deflection;
- Identification of the likelihood and consequences of seismic failure associated with critical "backbone" water system infrastructure and facilities;
- Mitigation plan to minimize water loss from critical "backbone" water system infrastructure and meet ORP requirements for water systems following a major seismic event over a 50-year planning horizon; and
- Recommended system upgrades and follow-up investigations.

Task 7.1 Seismic Hazards Evaluation

West Yost's team will complete a seismic hazards evaluation, which is required to be included in all Water Master Plans by the Oregon Health Authority.

Task 7.1.1: Background Information Review and Site Reconnaissance

McMillen-Jacobs will compile and review existing geologic/geotechnical and seismic data in the Sweet Home Water Districts area to develop preliminary understanding of subsurface conditions and potential seismic hazards. Information sources will include:

- Local and regional geologic publications and maps,
- DOGAMI Seismic Hazard Maps,
- Oregon Department of Water Resources well logs,
- Available County's geotechnical boring information and reports, and
- Foundation design drawings of the critical facilities of the District's water system.

Task 7.1.2: Seismic Hazards Evaluation

West Yost's team will assess the general seismic hazards from a Cascadia Subduction Zone event and potential foundation performances at the critical facilities. The seismic hazard maps (for ground shaking, liquefaction, lateral spreading, and seismic landslide hazards) in the vicinity of the water system areas will be updated and revised. In the maps, potential strong ground shaking zones, liquefaction zones, seismic landslide zones, lateral spreading zones, and critical transition zones between non-liquefiable and liquefiable soils/rock will be identified. The seismic hazards evaluations conducted under Task 7.1 will be summarized in a draft Seismic Risk Assessment and Mitigation Plan TM.

Task 7.1.3: Seismic Structural Evaluation

West Yost's team will complete a structural evaluation of the existing facilities:

- Review of existing structural documentation and drawings for the thirteen (13) existing water distribution system structures for their ability o resist gravity and lateral load in accordance with the 2019 Oregon Structural Specialty Code.
- One site visit to observe the general condition of the thirteen (13) existing structures of the water distribution system.
- Abbreviated description of the thirteen (13) existing structures to be incorporated into the Master Plan.
- Abbreviated summary of the findings from the review and identification of any shortcomings of the thirteen (13) existing structures. The summary shall be incorporated into the Master Plan.

Task 7.1.4: Seismic Hazards and Mitigation Plan TM

West Yost will compile a seismic mitigation plan based on the seismic risk assessment and seismic performance of the structures identified under Subtasks 7.1.2 and 7.1.3. Recommendations for mitigation measures to be implemented over the planning horizon will be incorporated into the overall Capital Improvement Program to be developed in Task 8.

Task 7 Assumptions

- The Seismic Risk Assessment and Mitigation Plan will be a high-level effort to identify the critical "backbone" system elements and mitigation measures to provide drinking water as fast as possible following a major seismic event.
- For sites do not have available geotechnical data, the hazard assessment will be based on available geologic and seismic mapping and adjacent available information (i.e. well logs).
- It is assumed that thirteen (13) existing facilities will be included in the structural evaluation.
- It is assumed that up to four (4) virtual meetings will be anticipated to discuss the structural portion of the project.
- City will provide written comments on the technical memorandum within 2 weeks of submittal.
- City comments on the technical memorandum will be incorporated into the draft report.

Task 7 Deliverables

- One electronic (PDF) copy of the Draft Seismic Risk Assessment and Mitigation Plan TM.

Task 8. Water System Capital Improvement Program Development

Under this task, West Yost will develop a prioritized water system CIP. Recommendations for capital improvements will address system deficiencies identified throughout the planning process.

West Yost will compile a water system CIP based on the improvements identified under the water distribution system evaluations (Task 5), the water treatment plan evaluation and upgrades (Task 6), the seismic risk assessment (Task 7), and any additional projects identified by the City. The CIP will prioritize projects based on need and will be grouped by project identification, including information such as project type, pipeline diameter, pipeline length, unit cost, total cost (including engineering, construction, and other soft costs), and other pertinent information. Priorities for distribution system pipeline replacements and upsizing will be developed based degree of deficiency and consultations with City staff.

The City's recommended water system CIP will be summarized in a draft Capital Improvement Program TM.

Task 8 Assumptions

- Cost estimates for CIP projects will be estimated in current (2022) dollars.
- All capital improvement costs will be provided as Class 5 estimates, consistent with the classification system established by the Association for the Advancement of Cost Estimating International (AACE International).
- City will provide consolidated, written comments on TM within 2 to 3 weeks of submittal.
- City comments on the TM will be incorporated into the final report.

Task 8 Deliverables

- One electronic (PDF) copy of the Draft Capital Improvement Program TM.

Task 9. Water System Evaluation and Capital Improvement Plan

West Yost will prepare a Draft Water System Evaluation and Capital Improvement Plan report after incorporating comments from the City review of draft TMs (Tasks 2-6 and 9). Requested updates will be made in tracked changes for City review.

West Yost will prepare a screen-check Final Water System Evaluation and Capital Improvement Plan report, incorporating comments from City review of the Draft report in tracked changes. Once the City approves the screen-check Final report, West Yost will produce a Final Report.

Task 9 Assumptions

- Draft TMs prepared under Tasks 2-8 will be compiled in one document as the Draft Water System Evaluation and Capital Improvement Plan report for City review.
- City will provide written comments on Draft Water System Evaluation and Capital Improvement Plan within 2 weeks of submittal.
- Written comments on the Draft Water System Evaluation and Capital Improvement Plan will be done in Track Changes.

Task 9 Deliverables

- One electronic (PDF) copy of the Draft Water System Evaluation and Capital Improvement Plan.
- Three (3) hard copies and one electronic (PDF) copy of the Final Water System Evaluation and Capital Improvement Plan.

Attachment B

West Yost's 2021 Billing Rate Schedule

2021 Billing Rate Schedule

(Effective January 1, 2021 through December 31, 2021)*

WEST YOST
Water. Engineered.

POSITIONS	LABOR CHARGES (DOLLARS PER HOUR)
ENGINEERING	
Principal/Vice President	$290
Engineering/Scientist/Geologist Manager I / II	$275 / $287
Principal Engineer/Scientist/Geologist I / II	$248 / $263
Senior Engineer/Scientist/Geologist I / II	$222 / $233
Associate Engineer/Scientist/Geologist I / II	$191 / $204
Engineer/Scientist/Geologist I / II	$153 / $178
Engineering Aide	$89
Administrative I / II / III / IV	$78 / $99 / $119 / $131
ENGINEERING TECHNOLOGY	
Engineering Tech Manager I / II	$284 / $287
Principal Tech Specialist I / II	$261 / $271
Senior Tech Specialist I / II	$239 / $251
Senior GIS Analyst	$216
GIS Analyst	$205
Technical Specialist I / II / III / IV	$153 / $175 / $197 / $219
Technical Analyst I / II	$110 / $131
Technical Analyst Intern	$88
Cross-Connection Control Specialist I / II / III / IV	$113 / $124 / $139 / $155
CAD Manager	$173
CAD Designer I / II	$134 / $150
CONSTRUCTION MANAGEMENT	
Senior Construction Manager	$278
Construction Manager I / II / III / IV	$169 / $181 / $193 / $243
Resident Inspector (Prevailing Wage Groups 4 / 3 / 2 / 1)	$148 / $165 / $183 / $190
Apprentice Inspector	$134
CM Administrative I / II	$72 / $97
Field Services	$191

- Technology and Communication charges including general and CAD computer, software, telephone, routine in-house copies/prints, postage, miscellaneous supplies, and other incidental project expenses will be billed at 6% of West Yost labor.
- Outside Services such as vendor reproductions, prints, shipping, and major West Yost reproduction efforts, as well as Engineering Supplies, etc. will be billed at actual cost plus 15%.
- Mileage will be billed at the current Federal Rate and Travel will be billed at cost.
- Subconsultants will be billed at actual cost plus 10%.
- Expert witness, research, technical review, analysis, preparation and meetings billed at 150% of standard hourly rates. Expert witness testimony and depositions billed at 200% of standard hourly rates.
- A Finance Charge of 1.5% per month (an Annual Rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.

* This schedule is updated annually

2021 Billing Rate Schedule

(Effective January 1, 2021 through December 31, 2021)*

WEST YOST
Water. Engineered.

Equipment Charges

EQUIPMENT	BILLING RATES
Gas Detector	$80 / day
Hydrant Pressure Gauge	$10 / day
Hydrant Pressure Recorder, Standard	$40 / day
Hydrant Pressure Recorder, Impulse (Transient)	$55 / day
Trimble GPS – Geo 7x	$220 / day
Vehicle	$10 / day
Water Flow Probe Meter	$20 / day
Water Quality Multimeter	$185 / day
Well Sounder	$30 / day

* This schedule is updated annually