

01 FIRM BACKGROUND



Legal Name

West Yost & Associates, Inc.

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Website

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Firm Established

1990

Type of Organization

California Corporation (No. C1956281),
private, employee-owned

West Yost is a consulting engineering firm founded in 1990. Our focus is exclusively infrastructure; water, including stormwater, groundwater, water supply, and recycled water; treatment; program and procurement management; and operations technology and cybersecurity. We have broad experience providing planning, design, construction management, and program management services in these areas. West Yost is headquartered in Davis, California, and has over 220 staff members in 11 offices.

West Yost is a California S-corporation governed by a board of directors and managed by a chief executive officer/president. The CEO is advised by a leadership team. Technical staff are assigned into business sectors and practice areas. Non-technical staff departments support technical teams.

West Yost has recently completed on-call contracts for dozens of clients over a wide range of service areas. Our experience includes numerous clients with whom our relationship has extended over many years and through many projects. West Yost works as an extension of staff and collaborates with our clients to meet the needs of each assignment, either in group settings or one-on-one. We respond quickly to on-call contract needs and create teams with the appropriate skills and experience to develop innovative project solutions. We are dedicated to exceptional client service and high-quality work products.

The following are the benefits that West Yost brings to this project:

- **Collaborative Process**
- **Time-tested project management methodology**
- **Experienced and Knowledgeable Staff**
- **Quick Start Approach and Expedited Schedule**
- **Dedication to Client Service and Quality**

Similar Work Performed and References (g)



Russian River CSD Force Main Condition Assessment

SONOMA COUNTY WATER AGENCY/RUSSIAN RIVER COUNTY SANITATION DISTRICT

REFERENCE: George Lincoln, SCWA, Agency Engineer - Operations, 707.547.1900, glincoln@scwa.ca.gov

TEAM: John Goodwin (Project Manager), Lindsey Olsen (Project Engineer)

An existing 16-inch force main is part of the Russian River County Sanitation District (RRCSD) facilities that experienced corrosion failures. Sonoma Water hired West Yost to determine the feasibility of performing a low-cost CCTV (closed-circuit television) as an alternative to a more costly approach and inspect portions of the pipeline that would be most at risk of corrosion. Sonoma Water asked that the portions of the force main anticipated to be inspected include high points near existing air release valves. Following the feasibility assessment, West Yost provided design services to install a permanent bypass pumping connection and replace approximately 100 linear feet of 16-inch force main between the new connection point and the existing lift station.



Don Julio/Watt Avenue Sewer Relief Project (ARD 4 and 5)

SACRAMENTO AREA SEWER DISTRICT (SASD)

REFERENCE: Ms. Anntonette Duncan, Associate Civil Engineer, 916.876.8474, duncana@sacsewer.com;

TEAM: John Goodwin (Principal-in-Charge), Tim Banyai (Technical Advisor, Pump Stations), Lindsey Olson (Staff Engineer)

West Yost is providing project development, design, and construction phase services for the Don Julio/Watt Sewer Relief Project. Our team is evaluating alternatives for providing additional capacity to the North Highlands area, known as the ARD 4 and 5 sewer sheds. The alternatives consist of various combinations of new sewer



mains, trunk pipelines and pump stations; upsizing existing sewer mains, force mains and pump stations; and replacing existing pump stations. The criteria used to evaluate the alternatives include SASD's interest, maintenance requirements, hydraulic performance of the collection system, impacts to the public, constructability, and overall project costs. After SASD's Project Authorization Committee selects an alternative, West Yost will prepare the final design.



Twin Force Main Relocation

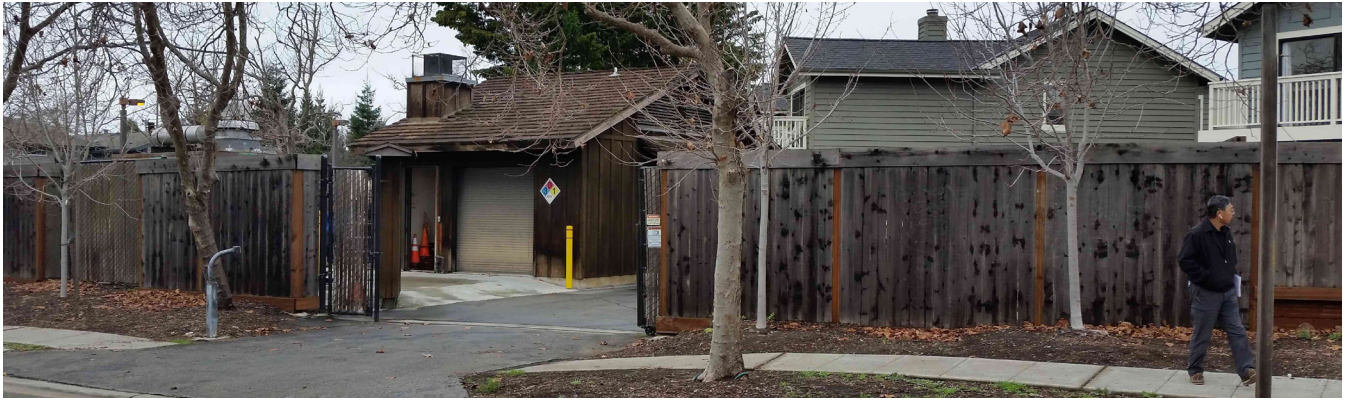
UNION SANITARY DISTRICT (USD)

REFERENCE: Mr. Rollie Arbolante, Senior Engineer, 510.477.7602, rolliea@unionsanitary.ca.gov

TEAM: John Goodwin (Project Manager)

West Yost is providing technical assistance to USD to relocate twin 33-inch diameter force mains to accommodate a proposed development. The existing force mains are a critical component to USD's conveyance system. The developer's engineer is developing drawings for the relocation of approximately 3,000 feet of force main and replacement with 36-inch HDPE force mains.

On behalf of USD, West Yost is providing technical review of the drawings and providing recommendations for design details, construction phasing, emergency repairs, and maintaining reliability of the force mains.



Pump Station M Rehabilitation and Forcemain Improvements

EAST BAY MUNICIPAL UTILITY DISTRICT

REFERENCE: James Wang, 510.287.1682, james.wang@ebmud.com;

TEAM: John Goodwin (Principal-in-Charge), Tim Banyai (Project Manager), V&A Consulting Engineers (Condition Assessment), ATEEM (Electrical)

DATE: 2018/2019

Pump Station M was originally built in 1978 for the developer of Bay Farm Island in Alameda, California. EBMUD took over ownership and operation of this pump station and related force mains in 1988. Performance of the station is no longer meeting EBMUD's requirements. The existing station is small with outdated egress and equipment is reaching the end of its useful life. West Yost was engaged to perform a condition assessment of all aspects of the existing pumping facilities and force main, make recommendations for design improvements, prepare construction bid documents and provide services during construction. The evaluation phase has been completed and detailed design has started with completion of the 50 percent level review in November 2019. The new design will add new personnel egress to the underground floors, provide improved bypass pumping capabilities and replace the existing pumps, bring ventilation in compliance with NFPA 820, provide a new, lower cost, less hazardous odor control system, provide a new control and instrumentation system and replace the electrical system. Force main work includes new inspection tool launch/access stations, new air relief valves and rehabilitation of pressure manholes. Design is expected to be complete in late 2020.

Cawston Lift Station Condition Assessment and Alternatives Analysis

EASTERN MUNICIPAL WATER DISTRICT

REFERENCE: Ms. Laura Barraza, Senior Civil Engineer, Planning, 951.928.3777, ext. 4, barrazal@emwd.org

TEAM: Polly Boissevain (Project Manager), Tim Banyai (Lead Project Engineer), Dmitriy Shimberg (Project Engineer), ATEEM (Electrical), V&A Consulting Engineers (Condition Assessment)

A multi-disciplinary comprehensive condition assessment of the Cawston Lift Station was performed. The purpose of the condition assessment was to identify improvements needed to bring the lift station back into service and identify constraints to upgrading the lift station. A major element of the project was assessing and identifying the limited maintenance access to the existing pumps and determining methods to improve pump access if the existing pump station is reused. A condition assessment work plan was developed to outline the parameters of the assessment and the responsibilities of the District during the assessment. Following the condition assessment, three alternatives were developed to upgrade the lift station including rehabilitation the existing lift station, constructing a new lift station onsite, or constructing a new lift station at another site.



4 EXPERIENCE

Lift Station and Pipeline Rehabilitation at Oakland International Airport

PORT OF OAKLAND, OAKLAND, CA

In 2018, the Port of Oakland and West Yost began a five-year program to improve the sanitary sewer collection system at the Oakland International Airport (OAK). Since that time, West Yost has evaluated several lift stations and the pipeline collection system, completed several designs, and supported the construction of improvements to comply with the Environmental Protection Agency's Consent Decree. This work includes addressing an emergency pipeline improvement that involved an exposed a gas pipeline. The following section presents three project highlights.

Collection System Condition Assessment

West Yost, Subtronic, and V&A performed CCTV inspection and flow monitoring of 30,000 feet of the collection system at OAK.

KEY ISSUES AND VALUE ADDED

ISSUE: Communication and coordination of work in sensitive and secure areas of the airport

VALUE: West Yost prepared detailed field work plans, prepared Construction Safety and Security Plans, provided support for notices to air operations, and dedicated West Yost staff to obtain security clearances to escort project staff in Air Operations Areas.

ISSUE: Pipe assessment escalation

VALUE: During the assessment, if a pipe was discovered to be in such poor condition that priority action was required, West Yost immediately notified the Port, confirmed the threat to the pipe and its service, and developed solutions specific to the particular threat.

ISSUE: Existing mapping of collection system

VALUE: The Port maintains a level 1 network configuration GIS database for its collection system. The GIS has not undergone field verification, and the spatial layout and attributes remained unconfirmed. As part of our condition assessment work, West Yost established a separate mapping system. This system documented survey data, including invert and rim elevation, pipe diameter, and other relevant information, which will be incorporated into the Port's GIS at a later stage. Additionally, unmapped segments were successfully added to the GIS.

CLIENT/OWNER

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DURATION AND STATUS

This five-year program ends in September 2023.

CONTRACT VALUE

\$3.2M

FIRM/TEAM ROLE

West Yost - Prime

- Jeff Pelz (PIC)
- Anne Girtz (PM, Pipeline Condition Assessment and Design)
- Michael Zacharia (QA/QC)
- Robert Reid (QA/QC)
- Tim Banyai (Pump Station Design)
- Dmitry Shimberg (Pump Station Design)
- Kiersten Miller (Pipeline Condition Assessment)
- Patrick Johnston (Collection System Capacity)
- Scott Greenwood (Pipeline Design)
- Chris O'Connor (Pipeline Design)
- Joe Bryant (GIS)

Subconsultants

- V&A (Flow Monitoring and Corrosion Inspection)
- TJCAA (Structural and Electrical Engineering)
- Subtronic (CCTV and Maintenance Hole Inspection)
- CE&G (Geotechnical Engineering)
- R.E.Y. Engineers (Survey)

Airport Drive, Earhart Road, Pipe 38, and 505 Pipeline Rehabilitation Design at Oakland International Airport

West Yost prepared basis of designs for four pipeline segments at OAK and completed the design packages in 2021. The construction technologies the team used include direct excavation and replacement, pipe bursting, and cured-in-place pipe lining. The team designed approximately 6,500 feet of pipeline rehabilitation.

KEY ISSUES AND VALUE ADDED

ISSUE: Poor soils and high groundwater

VALUE: OAK's geotechnical foundation is known for its poor quality, characterized by silts and highly-expansive clays in the shallow soil zone where pipelines are situated. Additionally, the groundwater level is high. West Yost and Cal Engineering and Geology developed construction shoring and dewatering solutions to mitigate potential trench instability. Additionally, the team specified trenchless construction where possible to minimize excavations.

ISSUE: Response time and flexibility

VALUE: During the initial assessment, West Yost encountered pipe conditions that required fast-track remediation. The most significant was a 15-inch trunk sewer with a hole exposing a live gas pipe. West Yost immediately notified the Port, developed a range of remediation alternatives, and is currently fast-tracking the design process to address the hole and restore the pipe to service.

Lift Station No. 1, Lift Station 6 and Lift Station 8, Condition Assessment and Rehabilitation Design at Oakland International Airport

Lift Stations 6 and 8 are small facilities with duplex pump configurations within circular wet wells. The lift stations have aged and are in disrepair, exhibiting issues such as corrosion and other maintenance requirements that require rehabilitation and replacement of specific components.

West Yost prepared a basis of design that included an assessment of the two facilities. The assessment involved evaluating pump performance, conducting visual and non-destructive testing of mechanical equipment and concrete, and providing recommendations for necessary improvements. In 2020, West Yost completed construction bid documents for both lift stations

West Yost completed a preliminary assessment of Lift Station 1, the largest pumping facility serving the collection system at the airport. This facility is aged with operational concerns. West Yost evaluated the facility to assist the Port in prioritizing specific improvements and developing construction schedules for Airport Road and Earhart Drive pipelines, as discussed earlier.

KEY ISSUES AND VALUE ADDED

ISSUE: FAA compliance

VALUE: Strict FAA controls strongly influenced the design and limited access for field work. West Yost worked closely with the Port to prepare detailed work plans and Construction Safety Security Plans for field work and supported the Port with its required filing and notifications for NOTAM announcements and FAA filings. West Yost also worked closely with the Port and its subconsultants to maximize flexibility to conform to the needed requirements.

Ben E. Nutter Terminal Sewer Rehabilitation and Design Services for Maritime Sanitary Sewer Collection System Rehabilitation

PORT OF OAKLAND, OAKLAND, CA

West Yost conducted condition assessment studies on the collection system pipelines and two lift stations at several shipping terminals at the Port of Oakland Seaport. The assessment included review of recently completed condition assessment studies, CCTV inspection the collection systems, development of four basis of design reports summarizing required improvements, and design services and construction support.

KEY ISSUES AND VALUE ADDED

ISSUE: Flat sewers and poor capacity

VALUE: The collection system at the Seaport is undersized. In some areas, the collection system is very flat, and in some cases, is with reverse grade. West Yost evaluated specific pipe segments for capacity and evaluated realignment alternatives to mitigate both poor hydraulics and utility conflicts associated with increased pipe size.

ISSUE: Unanticipated pipelines

VALUE: The collection system at the Seaport is old and, in some cases, poorly documented. West Yost created a pipeline register based on the scope of work to be used in the condition assessment evaluation. When new GIS mapping indicated the existence of additional pipelines that needed to be included in the evaluation, West Yost immediately notified the Port and assessed the impact to the project budget. Many pipelines lacked documentation and their connectivity was unknown. West Yost conducted many days of reconnaissance work with Subtronic, which included the addition of dye testing to identify potential maintenance hole connections and connectivity of the pipeline system.

CLIENT/OWNER - BENT

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DURATION AND STATUS

February 2021–In progress

CONTRACT VALUE

\$500,000

FIRM/TEAM ROLE

West Yost - Prime

- Jeff Pelz (PIC)
- Anne Girtz (Deputy PM/ Condition Assessment Lead)
- Michael Zacharia (PM)
- Robert Reid (Pipeline Design QA/QC)
- Kiersten Miller (Staff Engineer/Field Reconnaissance)
- Scott Greenwood (Pipeline Design)
- Kelsey Erkert (Pipeline Design)
- Chris O'Connor (Staff Engineer/Field Reconnaissance)

Subconsultants

- Subtronic (CCTV and Manhole Inspection)
- CE&G (Geotechnical)
- R.E.Y. Engineers (Survey)

CLIENT/OWNER - MARITIME

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DURATION AND STATUS

May 2021–In progress

CONTRACT VALUE

\$3.1M

FIRM/TEAM ROLE

West Yost - Prime

- Jeff Pelz (PIC)
- Anne Girtz (PM, Pipeline Condition Assessment and Design)
- Michael Zacharia (QA/QC and PM)
- Dmitriy Shimberg (Pump Station Design)
- Mary Young (Site/Civil Design)
- Tim Banyai (Pump Station Design)
- Chris O'Connor (Pipeline Design)
- Lexi Kercado (Pump Station Design)
- Robert Reid (Pipeline Design QA/QC)
- Austin Oerding (Pipeline Condition Assessment)
- Kiersten Miller (Pipeline Condition Assessment)
- Kelsey Erkert (Pipeline Design)
- Chris O'Connor (Staff Engineer/Field Reconnaissance)

Subconsultants

- V&A (Flow Monitoring and Corrosion Inspection)
- TJCAA (Structural and Electrical Engineering)
- Subtronic (CCTV and Maintenance Hole Inspection)
- CE&G (Geotechnical Engineering)
- R.E.Y. Engineers (Survey)