



**CENTURY WEST**  
ENGINEERING CORPORATION

6650 SW Redwood Lane, Suite 350 • Portland, Oregon 97224

City of Springfield  
Financial Department  
Attn: Jayne MacMahan  
225 Fifth Street  
Springfield, Or. 97477

RFP: Engineering Services for Scoping, Design,  
And Installation of the 58<sup>th</sup> Street Relief Sanitary Sewer  
Line and Bypass Manhole  
P21046

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2/22/2011



**REQUEST FOR PROPOSAL**

**ENGINEERING SERVICES  
FOR**

**SCOPING, DESIGN, AND INSTALLATION OF THE 58TH STREET  
RELIEF SANITARY SEWER LINE & BYPASS MANHOLE  
PROJECT P21046**

**FEBRUARY 28, 2011**





LEADING THROUGH EFFECTIVE SOLUTIONS

February 28, 2011

City of Springfield  
Finance Department  
Attn: Jayne McMahan, Management Analyst  
225 Fifth Street  
Springfield, OR 97477

**SUBJECT: RFP: ENGINEERING SERVICES FOR SCOPING, DESIGN, AND INSTALLATION OF THE 58TH STREET RELIEF SANITARY SEWER LINE & BYPASS MANHOLE P21046**

Dear Ms. McMahan and Selection Committee Members:

Century West Engineering Corporation (Century West) appreciates the opportunity to express our interest in providing the City of Springfield with *Professional Engineering Services* for the scoping, design, and installation of the 58th Street Relief Sanitary Sewer Line & Bypass Manhole P21046 as described in your Request for Proposals (RFP). Enclosed are six copies and one original copy of our proposal for your review and consideration.

We are certain we have the knowledge and understanding of sewer collection systems that will make this project successful and are excited about the opportunity to work with the City of Springfield on your bypass relief project. Century West understands the importance of this project and is prepared to focus our full efforts in delivering a quality project to the City of Springfield. Century West has the staff availability to effectively meet the needs of this project. Mr. Ron Weigel, PE, the proposed Project Manager for your project has over 30 years of experience working with municipal clients and has the necessary skills and a qualified support staff to deliver this project on schedule and under budget. He is authorized to negotiate contracts on behalf of Century West.

Century West will work with the City of Springfield from our Portland office located at 6650 SW Redwood Lane, Portland, Oregon. Our location at the south end of Portland on the I-5 corridor gives us a easy commute to your offices. Our understanding of the region and our wastewater expertise will provide the City with a strong technical and community oriented team.

Century West acknowledges that all aspects of the work as outlined will be completed within the time schedule indicated in this RFP.

Century West also acknowledges that ADDENDUM #'s 1-3 have been received and have been addressed as appropriate in this proposal. The addendums have been included in the "supporting information" section.

Please contact me if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Weigel".

Ron Weigel, PE  
Senior Project Manager  
rweigel@centurywest.com

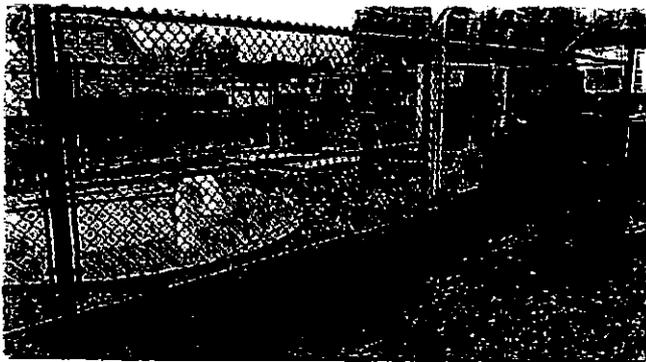
A handwritten signature in black ink, appearing to read "Matt MacRostie".

Matt MacRostie  
Project Engineer  
mmacrostie@centurywest.com

## SECTION 1 - RECENT EXPERIENCE

We are confident that the Century West team is your best choice to complete this sanitary sewer relief line and bypass manhole project. This highly qualified team will respond to specific technical niches in order to complete the conceptual design, preliminary design, and final design within your required time frame. Our firm was founded in 1969 in Bend, Oregon and is a Pacific Northwest regional consulting firm, with 35 professionals and support staff among three locations. Our Subconsultants, GeoDesign, Branch Engineering, and Universal Field Services, Inc. will be responsible for all Geotechnical Studies, topographic design surveying and Right of Way Acquisition efforts respectively for this project. The Century West team will serve as an extension of the City of Springfield staff, using the combined expertise and skills to complete the project on time and within the budget allocated. The team provides expertise in all aspects of the project as specifically shown by the following similar projects.

### EXPERIENCE ON SIMILAR COLLECTION SYSTEMS PROJECTS



#### **Northeast Milwaukie Sewer Extension Project; City of Milwaukie Oregon**

Century West completed final design efforts for approximately 15,000 lineal feet of 8" and 12" sanitary sewer pipe across public right-of-way and nearly 30 private easements within an area directly adjacent to the easterly boundary of the current City of Milwaukie limits. This project was funded by a \$4,000,000 grant/loan as part of the American Recovery and Reinvestment Act of 2009. Additional improvements included a 0.30 MGD submersible pumping station to serve a portion of the new area to be serviced. The remainder of the flows will be transferred through an existing collection system within the City of Milwaukie.

Extensive coordination efforts with City of Portland Bureau of Environmental Services, City of Portland Parks and Recreation along with both public and private utility companies were necessary to room to install the pipe and permission to work adjacent to their facilities. The project involved conceptual design followed by preliminary design and final design. Construction was completed in 2010.

#### **North Clackamas Revitalization Area-Phase I/II/III; Water Environment Services**

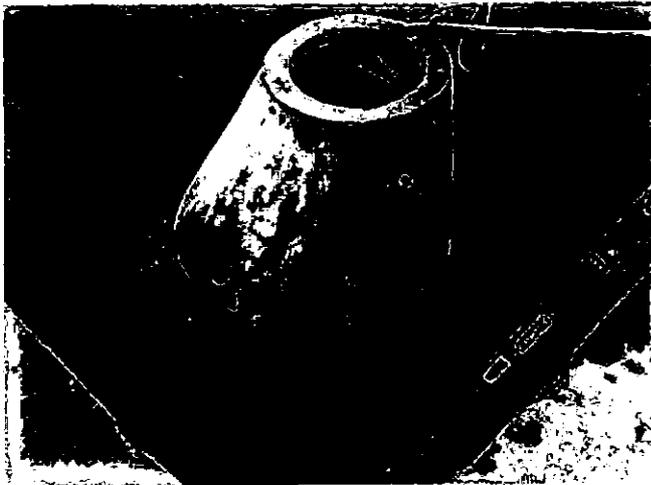
Century West was hired to complete a multi-year project to provide sanitary sewer service to approximately 1,000 homes within an area west of I-205 bisected by Johnson Creek Boulevard for a total estimated project cost of \$12,500,000. This project was funded by a combination of sources including the Clean Water State Revolving Loan Fund for the State of Oregon and a \$4,000,000 grant/loan as part of the American Recovery and Reinvestment Act of 2009. The first phase included approximately 250 services and construction of 14,000 lineal feet of 8", 10" and 12" sanitary sewer pipe across public right-of-way and nearly 20 private easements. Other facets in the first phase included trenchless construction techniques such as horizontal direction drilling and pipe ramming a steel casing to install the new sanitary sewer pipe beneath Johnson Creek. The project involved conceptual design followed by preliminary design and final design. Completion of construction occurred in mid-2010 when Phase II design efforts for an additional 20,000 lineal feet of 8" sanitary sewer pipe were ready for bid. Phase III design efforts for the remaining 15,000 lineal feet of 8" sanitary sewer pipe will be completed by early 2011.

#### **Happy Valley Sewer Improvements – Phase I-III; Water Environment Services**

The projects have included over 70,000 lineal feet of 8" sanitary sewer pipe across public right-of-way and required acquisition of over 250 easements across private property. Extensive coordination efforts were necessary to ensure the topographic survey information over this large area was delivered on schedule to maintain the aggressive project schedule for each phase. Approval of drafting review by WES staff standards, and sheet layout was achieved in the preliminary design phase's facilitation. Century West staff attended negotiations with property owners over alignment and other miscellaneous issues with WES staff. Our hands-on approach to the design kept the project on schedule throughout each phase.

**Rock Creek Wastewater Conveyance Project; Water Environment Services**

This project included approximately 7,700 linear feet of 24" to 30" gravity sanitary sewer pipe installed within an undeveloped section of the Rock Creek corridor in Clackamas County. Work included all efforts from conceptual design for the location of the improvements, preliminary and final design and finally supplemental construction administration with the District Project Manager. The final route required three trenchless sections of pipe each at least 500 feet in length due to the prohibitive depth for open cutting (i.e. 40 - 50 feet deep). The project team included five (5) subconsultants with expertise in environmental permitting, archeological investigations, geotechnical services, trenchless construction techniques and topographic surveying. The \$5,500,000 project was completed during the summer of 2007 with only one \$30,000 change order by the Contractor.



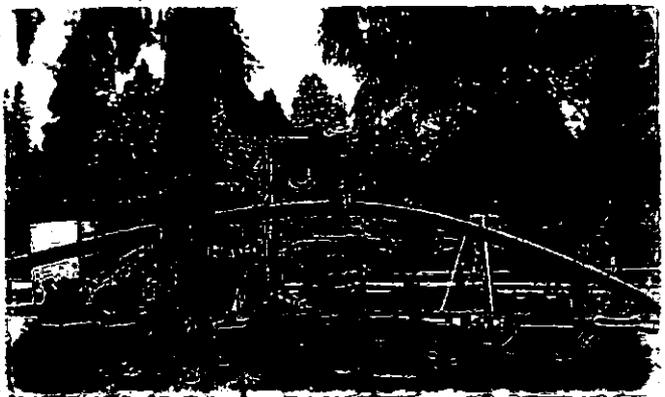
**Veneta Territorial Highway Sanitary Sewer Improvements; City of Veneta**

Century West recently completed construction documents for the replacement of approximately 3000 LF of 8" sewer pipe with new 10" and 15" sewer along Territorial Highway in Veneta, Oregon. The design also included approximately 30 sewer service replacements along the length of the main. The intent of this design was to eliminate a bottleneck in the current sewer configuration and improve overall flow and capacity of the system. Century West provided the City with a design that would allow the new sewer main to be installed by either open cutting or pipe bursting, allowing the potential for construction cost savings. Based on the existing conditions and locations of the sewer service laterals, it was determined that the new service laterals would be installed only by pipe bursting, eliminating additional open cutting of

the existing ODOT highway and lowering overall project costs. The project is being funded by the City of Veneta's Capital Improvement Program. Extensive coordination was necessary with ODOT and the City of Veneta to complete the design and conform to each jurisdiction's standards.

**RV Park of Portland Sanitary Sewer Improvements; City of Tualatin**

Century West recently completed construction documents for the replacement of approximately 1300 LF of 8" sewer pipe with new 8" HDPE by means of pipe bursting within the RV Park of Portland in Tualatin, Oregon. The design includes pipe bursting plus the replacement of 12 sewer service laterals from the new sewer main to the edge of the public sewer easement within the RV Park. Coordination efforts for this project included close communication with Clean Water Services to ensure compliance with all sensitive area requirements associated with the Tualatin River, which borders the project site to the North. Regular coordination was also necessary with the RV Park to accommodate their peak traffic season and to minimize the revenue effects construction activities will have on the park. Century West successfully delivered the City of Tualatin's first pipe bursting project design on time and under budget.





### **152nd Drive Sanitary Sewer Improvements; Water Environment Services**

This project included approximately 5,500 lineal feet of 12" and 15" sanitary sewer pipe. Preliminary design included coordination with Clackamas County DTD to incorporate the improvements into a roadway improvement project within a short section of 152nd Drive. The design also required a plan for construction sequencing to change over sanitary flows with minimal temporary bypassing required.

### **Carver Sanitary Sewers; Water Environment Services**

Preliminary design included updating a previously completed engineering study for the project to satisfy DEQ requirements to construct a new pump station and sanitary sewer pipe within either public right-of-way or across private property. Final design elements included a 2.20 mgd pump station with a 55-foot deep wetwell, 1,200 feet of 12" force main and a 400-foot long section of 8" pipe utilizing Horizontal Direction Drilling construction methods. Extensive applications to obtain permits and approvals from ODOT, Corps of Engineers/Division of State Lands, Clackamas County and DEQ were needed to construct the improvements on vacant property adjacent to the Clackamas River. Coordination with individual property owners was carried out over the nearly two-year design period with final negotiations completed by WES staff and County Council.

### **Comprehensive Sewer Plan; City of Tekoa Washington**

Century West prepared the City of Tekoa's Comprehensive Sewer Plan. This work included development of an improvement schedule for the existing collection system. As part of this plan, Century West developed a computer model of the collection system using the HYDRA software to determine the current capacity of the collection system and the impact of proposed developments. Additional tasks included preparing an updated system map using AutoCAD, developing cost estimates for the capital improvements in the six-year improvement schedule and performing a rate analysis to determine the possible impact of the projects in the improvement schedule to the City's sewer rate structure.

### **Comprehensive Sewer Plan and Update; Liberty Lake Sewer & Water District**

This project included developing a new collection system model, evaluation of the existing collection system for capacity and condition and determination of its ability to meet future flow requirements. Flow projections and a six year improvement schedule were also included. Century West provided an update to the Liberty Lake Sewer & Water District's Comprehensive Sewer Plan, through investigation of the alternatives for system expansion within the District's boundary. As a part of the plan, the HYDRA based collection system model was updated to ascertain adequacy of the system for various development scenarios.

Capital improvement cost estimates and detailed six-year improvement schedule were produced. Overall system maps were generated using AutoCAD, providing extensive information regarding system layout, pipe size, elevations, and materials.

### **Wastewater Collection System Improvements; Reardan Washington**

Century West provided design and construction period services for improvements to the Town's collection system. These improvements included replacement of a sewage lift station and identification and replacement of deteriorated sewer mains contributing to a high level of infiltration and inflow to the system. Portions of old sewer mains were rehabilitated through pipe bursting. This project was funded under the WSDOE self-help program and Town staff completed a majority of the construction.

## SECTION 2 - KEY PERSONNEL

Century West offers the City of Springfield a team of engineers, designers, permitting professionals, and technical staff uniquely qualified to provide consulting services for the 58th Street Relief Sanitary Sewer Line and Bypass Manhole project as requested in the Request for Proposal (RFP). The Century West team provides a depth of staffing to quickly respond to the City of Springfield's project specific schedule requirements.

We pride ourselves on our ability to take a team approach to projects requiring special expertise. We focus our human resources to define client challenges and identify innovative solutions. Project managers coordinate carefully with the client, bringing engineering solutions into reality. The results are increased efficiency and maximum coordination with an economical project cost.

### CENTURY WEST ENGINEERING STAFF

Below we list the key employees working on your project. Please see the resumes in our Supporting Information section for further qualifications of Century West Staff

#### RON WEIGEL, PE, SENIOR PROJECT MANAGER

Ron Weigel, PE, the Century West team project manager, has 31 years of extensive design and management experience in the municipal engineering field and will be responsible for the overall efforts of the design and construction administration team. He will serve as the main contact with the City of Springfield staff and is prepared to devote the necessary time required between March 2011 and January 2012 to ensure the project is completed on time. A list of major projects completed under his direction during the last 10 years include the following:

City of Milwaukie  
Northeast Milwaukie Sanitary Sewers  
15,000 lf - 8" to 12" sanitary sewer  
Water Environment Services  
Happy Valley Phase I-III  
65,000 lf - 8" sanitary sewer  
Water Environment Services  
Rock Creek Sewer Phase I-II  
10,500 lf - 24" to 30" sanitary sewer

Water Environment Services  
152nd Ave Sanitary Sewer  
5,500 lf - 12' to 15' sanitary sewer  
Water Environment Services  
Kellogg Pump Station Decommission  
5,000 lf - 10" sanitary sewer  
Water Environment Services  
NCRA Phase I-III  
50,000 lf - 8" sanitary sewer

#### MATT MACROSTIE, PE, PROJECT ENGINEER

Matt has over 8 years of experience in municipal engineering design and will be responsible for assisting in the design of the gravity main. Recent projects that Matt has been working on are the Territorial Highway Sanitary Sewer Improvements project in Veneta, OR, and the RV Park of Portland Sanitary Sewer Improvements in Tualatin, OR. Matt's expertise in the design and construction of municipal sewer projects will offer great value to the project team and will help deliver this project on time and within budget. Matt will lead the design efforts for this project and will be responsible for the coordination and implementation of the project technical details.

#### BILL OBLEY, PE, PROJECT INSPECTOR

Bill has over 30 year of construction experience in municipal engineering design and construction. Since retiring, he has provided construction observation services when needed for durations of 3 to 9 months. He will be responsible for the daily observation requirements necessary to insure the work is completed in a workmanlike manner meeting the requirements of the contract documents. The most recent project that Bill has been working on is the Northeast Milwaukie Sewer Improvements for the City of Milwaukie.

**JOE ROSHAK, PE, QUALITY CONTROL COORDINATOR**

Joe will serve as an independent evaluator to ensure that any oversights are discovered before the project goes out to bid. He has more than 15 years of experience on municipal engineering projects and will be responsible for reviewing the project at key milestones to ensure the plans are being prepared using sound and proven engineering principles. Projects include City of Newberg, Dayton Avenue Pump Station; City of Gresham, East Trunk Parallel Sewer; Port of Portland, Ramsey Blvd. Storm Sewer; City of Vernonia, Sewer Facilities Rehabilitation and Upgrading; City of Bend, Highway 20 Local Improvement District.

**SUBCONSULTANTS****GEOTECHNICAL - GEODESIGN INC.**

Employee-owned and founded in 1997, GeoDesign offers integrated geotechnical engineering and environmental services. With offices in Salem and Portland, Oregon; Vancouver and Seattle, Washington; and Anaheim, California, GeoDesign specializes in providing geotechnical services throughout the design process—from preliminary studies that assist in site selection, alignment alternative studies, and facility layout, to comprehensive geotechnical investigations that support permitting, design, and construction.

The firm's experience covers infrastructure and transportation; commercial, industrial, and residential developments; and educational and institutional facilities. GeoDesign offers geotechnical support for a range of utility projects, including new alignments and the rehabilitation of existing ones. Projects have involved water supply, storm and sewer lines, pipelines, reservoirs, water tanks, dams, pump stations, and wastewater treatment plants. GeoDesign's experience includes providing design data and recommendations for creek and river crossings, as well as crossings under freeways and city roadways.

GeoDesign has worked on a range of projects in the Salem area, including providing geotechnical, environmental, and pavement engineering services for improvements to McGilchrist Street SE (12th to 25th) and Brush College Road NW. GeoDesign has other recent local experience, including geotechnical and pavement engineering services for all public and private roadway and building improvements at the Keizer Station Village Center development in Keizer, as well as several projects for Willamette University.

**SURVEYING - BRANCH ENGINEERING INC.**

Branch Engineering, Inc. was founded in 1977 to provide professional engineering, planning and surveying services to public agencies and private clients. Branch has established a reputation for quality work, responsiveness and client satisfaction. As a medium sized firm with a staff of over 20 including ten professional engineers, we have the resources to deliver your projects with a personalized approach. Our clients get the full attention of experienced-high level engineers that are conveniently available on short notice to discuss your project needs. We are a full-service engineering, surveying and design firm.

Branch Engineering's Survey Department consists of four licensed surveyors, two technicians (including a construction inspector) and CAD support. The department is lead by two principals and a survey department manager. Branch Engineering has been performing surveys throughout the state of Oregon since 1977.

- Flood Elevation Certificates
- Boundary
- ALTA
- Topographic/Existing Conditions
- Platting - Partitioning & Subdividing
- Construction Staking
- Legal Description & Exhibit Map Preparation
- Legal Lot Determination & Validation
- Search for Existing Monumentation
- Property Line Adjustments

## Section 2 - Key Personnel

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### **REAL ESTATE - UNIVERSAL FIELD SERVICES INC**

Universal Field Services, Inc., has been providing Acquisition and Relocation Services throughout the United States since 1958. Incorporated in the State of Oklahoma, our general offices are located in Tulsa, Oklahoma, with additional offices in Sacramento, California; Phoenix, Arizona; Seattle, Washington; Salem, Oregon; Colorado Springs, Colorado; Dallas and Houston, Texas; Cherry Hill, New Jersey; and Atlanta, Georgia. In addition to the above administrative offices, they have numerous project offices located throughout the United States.

Universal has over 350 employees on its professional staff including Project Managers, Appraisers, Acquisition and Relocation Specialists and others. A large number of our personnel are members of the International Right of Way Association (IRWA) and various appraisal organizations including the Society of Real Estate Appraisers and the American Society of Appraisers.

In more than 50 years of offering services, they have never had to decline or not complete a project on time and within budget due to lack of qualified personnel resources. Many of our staff have specialist certifications from the International Right of Way Association in Negotiations and Relocation Assistance.

Although every project has a style, character and structure of its own, it must rest on a solid base of organizational skills, experienced staff and rigid project controls. Universal's Project Team and commitment to quality will allow you to proceed with confidence, knowing that an experienced project team is working on your behalf.

Initial preparation is critical to the successful completion of any project. Early identification and resolution of problem areas through the use of partnering workshops and community involvement are just the first steps in the process. An Quality Control Program distinguishes their commitment to excellence and sets Universal Field Services apart from the rest of the industry.

Universal is proud of its commitment to minority and women owned businesses and provides assistance whenever sub-contracting opportunities arise. Universal is an Equal Opportunity

## **SECTION 3 - ESTIMATED STAFF HOURS AND COST**

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### **PROJECT DESCRIPTION:**

This Project will provide design and construction engineering services for a new relief sewer sanitary sewer pipe approximately 5,000 feet in length within the area of East Main and 58th Streets. Specific tasks involved in the Sanitary Sewer Project are as follows:

### **SPECIFIC TASKS INVOLVED IN THE SEWER PROJECT ARE AS FOLLOWS:**

#### **Task 1: Project Management**

This task includes the overall planning, monitoring, and control of the bypass sewer Project to meet the technical, cost, schedule, and communication objectives. The work will be accomplished under the following subtasks:

#### **120 Kickoff Meeting/Data Collection**

Kickoff meeting for the project will accomplish the following:

- Establish clear lines of communication and procedures to be followed.
- Confirm understanding of project scope and schedule.
- Obtain all available underground utility mapping, property and tax lot maps, as-constructed drawings from the City of Springfield, available soil condition information and any other pertinent information that will be used in the design efforts.

## 140 Project Management

Overall management of the project including:

- Monthly invoices
- Monthly status reports
- Monthly schedule updates and revisions
- Brief weekly project status updates via email to City Project Manager

## Task 2: Predesign Investigative Efforts

### 200 Routing Analysis/Cost Estimate

Develop two alternative routes to divert the sanitary sewer from a manhole approximately 9 feet deep at the intersection of 58th/Thurston Road south to an existing manhole approximately 18 feet deep at the intersection of 54th/East Main Street. Figure 1, 2, and 3 identify prospective alignments for the sewer that were reviewed during preparation of this proposal. Based upon a review of the Sewer Infrastructure maps covering the entire alignment corridor, there is only 6 feet of available fall between the Thurston Trunk and the Main Street Trunk. The analysis will include the following general investigative efforts based upon guidance provided by the industry standard manual published by the American Society of Civil Engineers' - "Pipeline Route Selection".

- Route Selection
- Safety of Pipeline
- Regulatory and Political Issues
- Environmental Considerations
- Acquisition of Land Rights
- Construction, Maintenance and Operation
- Economic Considerations

Based upon the information gathered by these efforts, a Feasibility Report will be completed that includes clear defensible information that will satisfy public scrutiny for the recommended route selection.

### 210 Geotechnical Investigation

Conduct a geotechnical reconnaissance along the two alternative routes with a more detailed geotechnical investigative effort to be completed on the proposed alignment. Major items to accomplish this include:

- Walk length of alignment and to identify geologic units present and identify areas suspected of having adverse geotechnical conditions, such as shallow bedrock; areas subject to accelerated erosion rates, groundwater and surface water.
- Review groundwater records from any wells in the area to determine depth to groundwater which could be expected to be encountered.
- Conduct soil borings along proposed alignment. The maximum depth of the sewer is assumed on the order of 20 feet deep. Borings will be drilled to a depth of 5 feet below the invert of the proposed pipeline. Ten (10) borings will be completed within the confines of the alternative routes in order to obtain a reliable cross section of stratum that could be expected to be encountered. This includes use of a piezometer in one of the borings.
- Provide two observation wells consisting of ½-inch field-slotted PVC piezometers with a locking monument box. Borings will be drilled to a depth of about 2 feet below the invert of the proposed sewer line. At each end of the project. Abandoning each monitoring well will be part of the construction contract.

- Analyze results of the any additional recommended field testing and provide conclusions and recommendations on:
- Soil and groundwater conditions expected during construction.
- Contour map of elevation of top of gravel unit (approximate)
- Dewatering
- Existing pavements, depth, type, and base
- Other items directly related to construction and earthwork
- Locate boring logs on plan and profile sheets where appropriate
- Prepare a geotechnical data report that contains boring logs and discusses the work accomplished

### 220 Preliminary Topographic Survey

- Within the anticipated alignment options to be investigated during Predesign, efforts will be made to locate and tie out any significant features that could represent a fatal flaw preventing the pipe to be located within that corridor. For instance, this will include dipping existing manholes along each alignment to verify vertical elevations using the approved City datum. It is not our intent to establish horizontal control along each alignment at this stage. Vertical control will be established in order to determine any major conflicts that would have an impact on the overall alignment choice.

### Task 3: Field Data Collection

#### 300 Topographic Survey

Land surveying tasks required to map the final route will include:

- Establish temporary benchmarks at 500 foot spacing along the proposed route using a control traverse for future location and construction staking of the improvements.
- Incorporate horizontal and vertical control based upon City-approved data.
- Field verify previously completed topographic information using common points to insure accuracy and the same datum for improvements. This would specifically include elevations of piping within manholes at each end of the project to insure proper grades are shown on the drawings.
- Locating underground utilities and obtain record mapping of existing utilities
- Conduct topographic survey making ties to all utilities, pavement edges, street centerline, trees, shrubs and landscape features within the right-of-way of the selected route.
- Searching and tying sufficient property corner monuments to establish rights-of way along the route. This does not include property surveys to reestablish property corners if they are missing or are not easily found.
- Preconstruction survey of monuments if required by Lane County is not included.

#### 310 Prepare CAD base mapping

CAD base mapping tasks will include:

- Prepare 1" = 20' Civil 3D base mapping including appropriate features such as houses, driveways, trees and shrubs, pavement and permanent structures, and underground utilities.
- Plan views are to be plotted above the profile.
- Profiles will be plotted at 1" = 5' vertical scale.
- Coordinate with City regarding Civil 3D Pipes standards and sewer design standards.



#### **Task 4: Design**

##### **400 Preliminary Design**

Prepare a preliminary design and an engineer's estimate of the probable cost of construction with a targeted level of accuracy of +/- 20 %. The preliminary design will size the sewer based upon anticipated flow contributions, determine the location and profile of the sewer, determine the size and location of all connections, locate manholes, and identify any easements or permits which are required to construct the project.

Preliminary design will include the following:

- Prepare 1" = 20' horizontal base mapping including topographic features, approximate property lines, and underground utilities. Plan views will be plotted above profiles.
- Review preliminary design with the City prior to final plotting
- Provide staking of selected route with line stakes every 200 feet along with each manhole.
- Plot preliminary design on 11X17 bond sheets suitable for reproduction.
- All drawings will be done in accordance with City drafting standards, and as approved.
- Manhole and lateral numbering schemes will be in accordance with City standards, as approved.
- Sizing of the gravity main (15") is based upon most recent Wastewater Master Plan. Due to the severely limited amount of fall between the diversion and discharge manholes there are limited benefits to over analyzing the final pipe size. It is more likely that conflicts with existing sanitary sewer service laterals may result in the proposed 15" pipe being the "maximum" considered.
- Insure Contract Documents clearly identify the presence of Thurston High School and any special coordination issues with hours of operation. During preparation of the proposal it was evident that a significant number of cars use the entrances off 58th Street before school and at the close in the afternoon each day.
- Follow up initial discussions with Lane County and ODOT officials during Predesign efforts to begin finalizing surface restoration/trenchless efforts on Bob Straub Parkway and Highway 26.

##### **410 Final Design and Cost Estimate**

Prepare the final design and engineer's construction cost estimate.

- Incorporate any review comments received on the preliminary design, include the necessary QA/QC processes, as well as bidability and constructability reviews
- Prepare final engineer's construction cost estimate
- Submit complete permit package to Lane County and ODOT for work within the right-of-way on US 26 and/or Bob Straub Parkway.

##### **420 Easement Acquisitions**

Provide the City with the necessary easement information for their negotiations.

- Ordering and payment of preliminary title reports as needed. Escrow will be set up for each acquisition file.
- Acquisition subconsultant shall use Duncan and Brown Appraisal Services for appraisal work unless directed otherwise by the City. One real estate appraisal is assumed for each ownership from which a property interest is to be acquired. Real estate appraisals shall conform to the Uniform Standards of Professional Appraisal Practice (USPAP) and Oregon State Law. The appraiser shall provide not fewer than fifteen (15) days written notice to owners of a planned appraisal inspection and shall provide the property owner or designated representative, if any, an invitation to accompany the appraiser on any inspection of the property for appraisal purposes.
- Conduct negotiations, on behalf of City, for right-of-way acquisition in accordance with the applicable State law.

- Assist the City in closing these parcels through a local escrow company and will provide the City with the completed recorded documents.
- Show all easements on the construction drawings
- For estimating purposes, assume one(1) easement (i.e. Temporary and Permanent on same parcel count as one easement).
- Prepare separate legal descriptions and 8-1/2" X 11" easement sketches for each easement required
- Provide legal description and easement sketch.

City will be responsible for payment of approved negotiated compensations to individual property owners.

#### **430 Prepare Construction Bidding Documents**

Prepare technical specifications with Special Conditions to the latest version of the City of Springfield Standard Construction Specifications.

Prepare contract drawings using Civil 3D, including: cover sheet showing the location of the project's plan and profile sheets (1"=20'); detail sheets; and prepare bid form including quantities for unit pricing by the contractors.

Furnish 20 sets of GBC bound contract documents to the City for distribution to bidders. Drawings will be full size and bound separate from the specifications. Assume 20 sheets of drawings including cover, plan/profile and details.

#### **Task 5: Construction Administration**

##### **510 Advertisement for Bid**

- Prepare notice of advertisement. City will pay of advertisement for bids.
- Respond to contractor's requests for information during the bid period.
- Prepare any necessary addenda.
- Setup and attend a prebid meeting if requested by City. (This project does not appear to require a meeting)

##### **520 Bid Opening/Recommendation**

- Attend the bid opening
- Tabulate bids received and review for compliance with contract documents
- Make recommendation for award

##### **530 Construction Management**

- Respond to contractor questions
- Receive, log and track submittals
- Review submittals (shop drawings, materials, etc.)
- Monitor activities of construction observer
- Attend bi-weekly construction project meetings
- Preparation of Change orders
- Review monthly pay requests with construction observer

##### **540 Construction Observation**

Engineer shall not be responsible for the means, methods, technique sequences, or procedures of construction selected by the contractor, or the safety precautions and programs incident to the work of the contractor. Engineer's efforts will



be directed toward providing a greater degree of confidence for the City that the completed work will conform to the drawings and specifications, but Engineer will not be responsible for the failure of the contractor to perform work in accordance with such drawings and technical specifications. On the basis of site observations, Engineer shall keep the City informed of the progress of the work and shall endeavor to guard the City against defects and deficiencies in such work and may approve or reject work failing to conform to the contract documents.

¾ time onsite inspection of construction activities include:

- Filming a pre-construction video of the construction site
- Daily reports of all construction activities
- Weekly progress meetings with contractor
- Review of construction schedules
- Review of traffic routing
- Ordering and monitor construction material testing
- Checking of unit quantities.
- Review of contractor's requests for payment.
- Maintaining project files/document control.
- Recording of as-built information.
- Public information – keeping public informed of construction activities and addressing any complaints.

#### 550 Construction Survey

Construction surveys will include the following:

- Stake clearing or easement limits for work east of Kirk Avenues
- Stake offset lines to control the location of new pipe
- Calculate and mark up cuts to the invert line for the new pipe

#### 560 Close Out

Closing out the project includes:

- Preparing preliminary and final "punch lists".
- Conducting the final walk through with City representatives to verify completion of any "punch list" items by the contractor.
- Preparing the final Certificate of Completion.
- Preparing the final payment request and release of contractor's retention.
- Perform record location surveys on manholes and inverts to assist the project inspector in preparing the red-line set of record drawings.
- Provide record drawings incorporating all changes made during construction including information gathered from Task 550 above.
- Submit record drawings in electronic file format compatible with City's electronic system in an AutoCAD format.
- Certified laboratory and field test reports.
- Construction observation diaries

**Section 3 - Estimated Staff Hours and Cost**

**SCHEDULE**

Preliminary schedule for the design and construction of the sanitary sewer is shown below with major milestones are based upon a Notice to Proceed dated March 21, 2011.

TASK	COMPLETION DATES
Task 1 Project Management	Mar. 21, 2011 - Jan. 6, 2012
Task 2 Predesign	Mar. 21, 2011 - May 12, 2011
Task 3 Field Data Collection	Apr. 18, 2011 - Jun. 9, 2011
Task 4 Final Design	Jun. 10, 2011 - Jan. 6, 2012
Task 5 Construction Administration	Jan. 20, 2012 - Nov. 1, 2012





## SECTION 4 - PROJECT APPROACH

Century West Engineering Corporation (Century West) understands this project consists of engineering consulting services to design and construct a 15" relief sewer line and bypass manhole for the Thurston Trunk Sewer. The existing trunk sewer has been analyzed for future flow and capacity potential and has been found to be inadequate for future needs. The trunk sewer has also been exhibiting periods of surcharge for current high sewage flows. Century West understands the City has prepared a preliminary sewer route for the new relief sewer, which utilizes 58th St. and Main St. starting at Thurston Rd., and ending at 54th St. per information obtained from the RFP. The 21" Thurston Trunk sewer is approximately 10' deep at the intersection of 58th St. and flows West along Thurston Rd. The existing 21" PVC sewer within Main street flows West and is approximately 20' deep at the intersection of 54th St. Based on invert elevations identified in the City utility maps, it is anticipated that the relief sewer will run at or below the minimum slopes for sewer piping with only 6 feet of vertical fall over the nearly 5,000 foot long diversion. The City has indicated that the relief sewer will not include service lateral connections from either residential or commercial properties along the finalized relief route.

Century West understands that the City may include provisions for replacing approximately 1000 LF of sewer main located within 58th St, that connects into the Thurston Trunk sewer at the intersection of 58th and Thurston Rd. This sewer line replacement would include lateral reconnections for each residential property served. The existing main is concrete and ranges from 8" to 10".

Century West understands the necessity for the City to provide the new relief main for the Thurston trunk sewer and has the capabilities to provide all consulting services required to make this project successful and functional for the City of Springfield. Our recent planning/design/construction experience for similar sanitary sewer improvements will be utilized to make your project a success. There are several design parameters the team has identified that will contribute to the success of this project. While this list is not exhaustive, it does include major items that are described in detail, followed by our approach to successfully provide solutions and/or meet a specific need. Century West has also identified two alternative relief sewer routes that may be considered in the design report prepared for the City. Discussions for these alternative routes are described following the summary of design parameters listed below:

### ***Obtain Preliminary Topographic Survey and Utility Locate Information for Critical Areas:***

An important step in determining the final routing of the relief sewer is to first identify any major surface and underground features that may present challenges for construction of the relief main. Existing sanitary and storm sewer mains and services along with underground franchise utilities are located within the vicinity and may present conflicts with proposed routing options. Additionally, surface features including utility poles, vaults, trees, and pedestals will need to be identified in order to safely coordinate possible relocations or avoidances for the construction of the relief main. Century West will carefully identify critical areas that will require preliminary topographic survey and will utilize this information to aid in finalizing a relief sewer routing option. Depending on the information currently available from the City, Century West may recommend limited sections be videoed by the City in order to confirm or identify service laterals that may conflict with the possible routing of the relief sewer along 58th St. and Main St. For example, the parallel sewer mains along 58th St. between Thurston Rd. and E St. appear to separate the east and west sewer services. If the relief sewer routing is placed between the two parallel mains, there may be no conflicts with the existing service laterals, however, this information will need to be confirmed prior to finalizing a route.

### ***Sanitary Sewer Alignment:***

In order to make this sanitary sewer a true bypass pipe, the existing sanitary services located along the final alignment will not be connected. Therefore based upon the limited grade (6 foot of fall between diversion and connection) available, careful consideration must be made for any parallel installations. Record drawings of the existing sanitary sewers within each alternative alignment will be reviewed to determine end depths at the property lines. The information will be used to find the point where there will be available space beneath the service lateral to install the new 15" bypass line. That distance will be one of the parameters used to determine the alignment within sections where there will be two parallel sewers (15" new and existing).

### ***Review Geotechnical Study for Soil Conditions:***

Century West will closely review the geotechnical study with our subconsultant GeoDesign and the City to determine any potential challenges associated with relief sewer routing and construction. Based on our knowledge of the surrounding area, the soils we will encounter are anticipated to be gravelly sandy loam to gravelly sand, with a high water table. With this type of soil condition, there will be concerns of potential sloughing with open trench construction, especially with the 10' to 20' depths needed to construct the relief sewer. Dewatering will play a large role in maintaining a constructable open trench, while protecting the downstream sewer system from groundwater inflow. Borings will need to be made along the desired relief sewer routing in order to fully understand the effects the soil will have on construction activities including bedrock and groundwater depth. Additionally, the geotechnical investigation will need to identify any potential issues associated with boring across the Eugene-Springfield highway. Any relief sewer route option chosen will likely require a boring beneath the highway to connect to the existing sewer at the intersection of Main and 54th St. Century West will analyze the geotechnical information provided and utilize the information to propose functional sewer routing options and construction techniques for the highway sewer crossing and overall sewer routing.

### ***Identify Easements Required for Construction:***

The City has indicated that easements may be required to construct the new relief sewer main within the current proposed routing (58th St. and Main St.). Century West, together with our team member Universal Field Services, Inc. will review and identify any easements that will be required for the construction of the relief main. Several options for sewer routing will be presented to the City for review. We will provide easement analyses for each routing option so the City may understand the impacts associated with each routing option. Century West has provided easement acquisition support on numerous municipal projects and will bring our experience to this project in order obtain any necessary easements as quickly and smoothly as possible.

### ***Public Awareness:***

Public awareness and involvement will be a key element in the construction of the relief sewer. Century West has conducted numerous public meetings in order to familiarize the public with the proposed project and the impacts it will bring, including design, survey, potential easement acquisition, construction, and the final product. Century West will provide clear and accurate information to the public so they know exactly what to expect from the construction of the relief sewer. In addition to conducting public meetings, Century West will work with the individual home-owners to identify any special requirements needed during construction and to fully coordinate all easement conditions.

### ***Coordination with ODOT and Lane County Transportation:***

Early project coordination with ODOT and Lane County Transportation Department will be essential to this project's success. Our team will work closely with each agency and coordinate the proposed relief sewer alignments with ODOT and the County and determine all associated requirements for each sewer route. In our experience, it is anticipated that any open trench work within a state or county road will require surface restoration. ODOT typically requires at least a full lane width restoration in addition to their standard T-cut trench restoration. We are also anticipating that boring beneath the Eugene-Springfield highway will be required in order to eliminate the need for open trench construction and the associated traffic impacts. Any open trench work within Main Street will require significant ODOT coordination in order to identify alignment and surface restoration requirements. Work within Thurston Rd. will require Lane County coordination associated with the bypass manhole work at the connection point to the Thurston Trunk sewer. We will research all ODOT and County as-builts in conjunction with all City mapping in order to accurately identify all utilities within the project area.

If the relief sewer alignment is determined to cross the Eugene-Springfield highway along Main Street, there will be need to be coordination involving both ODOT and Lane County since Bob Straub parkway is within County jurisdiction. We will need to review any additional requirements from either agency in order to successfully cross this intersection.

Century West will coordinate with ODOT and the County to determine all required permitting for the relief sewer project. At minimum, a permit to occupy or perform operations upon a state highway will be required for the new sewer construction within Main St. and the Eugene-Springfield highway.

**Sewer Modeling:**

Based upon the severely limited amount of fall between diversion/connection manholes, there will not be the need to conduct any extensive sewer modeling of the system. The proposed 15" bypass size in the 2008 Sanitary Sewer Master plan will be used as the basis for design. The plan identified numerous manholes on the Thurston Trunk Sewer that currently surcharge to within 2-5 feet of the ground surface during peak flows and this new line will increase the available freeboard following installation. Depending upon the amount of flows that are actually diverted south, it may be possible to simply install the new line approximately 1 foot higher in the upstream manhole, thus providing the necessary relief and increasing available fall from 6 feet to 7 feet across that distance. The additional foot could be used to provide 0.05 foot drop across the manholes.

**Scheduling:**

The City has indicated that construction scheduling will be a crucial component to the success of this project. Elements that may affect schedule include the seasonal ground water table, Thurston elementary school schedules, William S Fort Memorial Park schedules, and high traffic volume forecasts along Main street and the Eugene-Springfield highway. Additional elements affecting schedule include appropriate weather conditions for asphalt paving and concrete work. Based on these elements and information from City staff, it is anticipated that the majority of construction will occur in the summer months of 2012. Century West will present the City will scheduling impacts for each relief sewer configuration proposed to the City and identify the positive and negative impacts of the corresponding schedule.

**Review of Potential Relief Sewer Routing Alternatives:**

Century West has reviewed the preliminary information provided by the City and the RFP and has identified three possible routing options for the new 15" relief sewer. These options are preliminary and will require in depth analysis to determine their validity for construction. See Figures 1, 2, and 3 for routing information.

1. Primary Route (58th Street and Main Street):

Based on information obtained from City staff, the primary route identified for the new sewer main runs from the intersection of Thurston Rd. and 58th St. at the connection to the Thurston Trunk Sewer and continues south along 58th St. to Main St. At Main St. the route then runs west along Main St. and crosses the Eugene-Springfield Highway (Bob Straub Parkway) and ends at 54th St. connecting to the existing 21" sewer.

Century West has determined that construction within 58th St. will not be avoided for this project. Routing within 58th Street will include construction at least to D Street, where one alternative option exists. School, Park, and residential impacts will be present with any routing alternative presented. The key to reviewing this primary route is to determine the impacts of construction within Main St.

- a Based on preliminary information obtained from City mapping, it appears that no service lateral connections exist along the existing 21" sewer main from 58th St. to 54th St. along Main St. This would prove beneficial for this project due to the limiting slope and depth of the existing and proposed relief sewer. The relief sewer will need to be constructed at or near the same inverts as the existing sewer. If any sewer service laterals existing along the proposed routing, they will conflict with the new relief sewer.
- b Traffic Control will be a major issue for construction within Main St. With an average annual daily traffic of approximately 13,000, including routing near the intersection of the Eugene-Springfield Highway, traffic control will require a highly detailed and functional plan to ensure success.
- c Alignment within Main St. will need to be carefully coordinated due to the large amount of various utilities within the street including storm sewer on both the north and south sides of the street.
- d Surface restoration requirements will need to be coordinated with ODOT as described above. Surface restoration will likely include at least a full lane width of construction dependent upon the alignment. Additionally,

crossing or boring beneath the Eugene-Springfield highway will need to be carefully coordinated in order to minimize impacts to traffic and neighboring businesses.

## 2. Alternative 1 (Memorial Park/A Street):

Century West has identified an alternative sewer route that utilizes local city streets that may reduce construction impacts significantly. Alternative 1 begins with the connection to the existing Thurston Trunk sewer at the intersection of Thurston Rd. and 58th St and continues south along 58th St. to approximately 380' feet south of D St. At this location, the relief sewer route runs west along the south edge of the St. Paul Center and north edge of the memorial park to 57th St. At this intersection, the proposed routing may either utilize C St. or, if possible, run parallel with the existing storm sewer that runs within an existing easement south of the properties on the south side of C St. In either case, the sewer route then runs south along 56th St until it intersects with A street. The route then continues west beneath the Eugene-Springfield highway and continues along A St. to 54th St, then runs south along 54th St. to the connection to the existing sewer within Main St. Below is a summary of key issues associated with this route:

- a This alignment eliminates the need to construct within Main St, with the exception of the tie-in to the existing sewer within Main St.
- b The boring beneath the Eugene-Springfield highway can be accomplished from A St. rather than Main St. Since A street dead ends on either side of the highway, there will be minimal traffic impacts with this boring.
- c Sewer service lateral conflicts may be a limiting factor with this alignment. The City has indicated that the new relief sewer would not be utilized for services, however, a trade-off for minimizing construction impacts may be that this configuration would require a minimal number of services to be connected. The flat nature of all sewer mains within the vicinity limits the vertical envelope for sewer design.
- d The extent of surface restoration will primarily be at the City's discretion rather than ODOT and the County.
- e Additional home-owner coordination will be necessary in comparison to construction within Main St. including potential additional easement acquisition.
- f A significant cost savings may be realized by reducing the extent and level of traffic control that would otherwise be required for construction within Main St.

## 3. Alternative 2 (A Street):

Alternative 2 utilizes much of the same routing as Alternative 1, however, Alternative 2 maintains the routing within 58th St. south to A St. The relief sewer would then run west along A St. parallel to the existing sanitary sewer mains within the street. The proposed routing then runs beneath the Eugene-Springfield highway and connects in to the existing sewer within Main street as described above in Alternative 1. Below is a summary of key issues associated with this route (all key issues addressed within Alternative 1 apply to Alternative 2):

- a This alignment utilizes street construction rather than within the park, however, more potential utility conflicts exist with this alignment along with more time of construction within 58th St.

## SECTION 5 - REFERENCES

CONTACT	PROJECT NAME	PROJECT TYPE
Kyle Schauer City of Veneta 88184 Eighth St Veneta, Oregon Phone: 541.935.2191 kschauer@ci.veneta.or.us	Veneta Territorial Highway Sanitary Sewer Improvements	3,000 lf 10" gravity
Jason Rice, P.E. City of Milwaukie 6101 SE Johnson Creek Blvd. Milwaukie, Oregon 97206 Phone: 503.786.7605 Ricej@ci.milwaukie.or.us	Northeast Milwaukie Sewer Improvements (Collection Sanitary Sewer)*	15,000 lf 8" and 12" gravity
Dewayne Kliewer, P.E. Water Environment Services Clackamas County 150 Beaver Creek Road Oregon City, Oregon 97045 Phone: 503.742.4572 dewaynek@co.clackamas.or.us	Carver Community Sewer Project (Collection Sanitary Sewer)*	2,200 lf 12" force main, 3,500 lf 10" gravity
	Happy Valley Sewer Project -Phase I and II (Collection Sanitary Sewer)	65,000 lf 8" gravity
	Rock Creek Sewer - Phase I, II and III (Trunk Sanitary Sewer)*	2,500 lf 30" gravity, 8,000 lf 24" gravity
	North Clackamas Revitalization Area Phase I, II and III (Collection Sanitary Sewer)	50,000 lf 8" gravity
*Route Analysis/Cost Estimate Completed		



**SUPPORTING INFORMATION**



February 8, 2011

**REQUEST FOR PROPOSAL**  
**Public Works**  
**P21045 58<sup>th</sup> Street By Pass**

**ADDENDUM #1**

The City of Springfield is hereby amending or clarifying the above mentioned Request for Proposal (RFP). The original document can be found on the City's website at [www.springfield-or.gov](http://www.springfield-or.gov) by selecting the hyperlink *Purchasing/Contracts* from the menu on the left side of the home page, interested parties will be linked to the RFP/ITB page.

1. **Question:** We would like to receive PDF copies of proposals from Murray Smith and Associates and Harper Houf Peterson Righellis for the Jasper Trunk Sewer project, project # P20353

**City's Response:** The two RFP responses have been posted to the following URL's

[Http://springfield-or.gov\RFP\P20353 Murrary, Smith and Asso. Bid Proposal Received.pdf](http://springfield-or.gov\RFP\P20353 Murrary, Smith and Asso. Bid Proposal Received.pdf)

[Http://springfield-or.gov\RFP\P20353 Harper Houf Peterson Righellis Bid Proposal Received.pdf](http://springfield-or.gov\RFP\P20353 Harper Houf Peterson Righellis Bid Proposal Received.pdf)

In the event that it is necessary to further amend, revise or supplement any part this RFP, additional addenda will be posted on the City's website at <http://www.springfield-or.gov> (select the *Purchase Contracts* hyperlink and Addendum 1 P21046 58<sup>th</sup> Street By Pass). As stated in the original solicitation, City will make a reasonable effort to provide the addenda to all Proposers to whom City provided the initial Request for Proposal. This addendum shall be considered part of the specification of the Request for Proposal. The City is not responsible for any explanation, clarification, interpretation or approval made or given in any manner except by written addenda issued by City.

**ALL BIDDERS SHOULD ACKNOWLEDGE AND INCLUDE THIS ADDENDA #1 AS PART OF THEIR SUBMITTAL PACKAGE.**



February 16, 2011

**REQUEST FOR PROPOSAL**  
**Public Works**  
**P21045 58<sup>th</sup> Street By Pass**

**ADDENDUM #2**

The City of Springfield is hereby amending or clarifying the above mentioned Request for Proposal (RFP). The original document can be found on the City's website at [www.springfield-or.gov](http://www.springfield-or.gov) by selecting the hyperlink *Purchasing/Contracts* from the menu on the left side of the home page, interested parties will be linked to the RFP/ITB page.

1. **Question:** Where is the URL for the project in the Sanitary Sewer Master Plan?

**City's Response:** The URL for the Master Plan is [http://www.springfield-or.gov/Pubworks/Projects/Waste Water MP Internet Posting.pdf](http://www.springfield-or.gov/Pubworks/Projects/Waste_Water_MP_Internet_Posting.pdf), as it appears in the RFP. Page 3, Paragraph 3 is hereby amended as follows: Strike "Page 53 and Figure 5.5" and replace with "Figure ES-1 and Table ES-1".

2. **Question:** Page 16 of the RFP appears to have duplicate information.

**City's Response:** Page 16 is hereby amended to read as follows (eliminating #'s 4- 6).

**AMOUNT AND METHOD OF PAYMENT**

1. The City shall compensate the Consultant for testing, design and construction management engineering and inspection services, as outlined in Sub-sections 1 through 8 above and in their proposal dated \_\_\_\_\_, in the amount not to exceed \$ \_\_\_\_\_.
2. The compensation for engineering services shall be payable for billed services performed on a monthly basis, in accordance with the agreed fee schedule. To request a progress payment, a certified billing for the Consultant shall be submitted to the City Engineer ten (10) days prior to the first Monday of the month following the billing period. In case of termination, the Consultant shall be paid for the actual acceptable work performed to date in accordance with the agreed fee schedule.
3. Total compensation to the Consultant, listed in Sub-section 1 above, shall be full compensation for all services necessary to fulfill the Consultant's obligations, including,

but not limited to, sub-contractors, the expense of printing, equipment, material, personnel, telephone, travel and per diem.

In addition to the foregoing being performed, the following additional services will be provided upon prior written authorization of the City.

Redesigns ordered by the City after final plans have been accepted by the City.

Appearance before courts or boards on matters of litigation or hearings related to the project.

Other services as requested by the City.

~~4. The City shall compensate the Consultant for testing, design and construction management engineering and inspection services, as outlined in 1 through 3 above and in their proposal dated \_\_\_\_\_, in the amount not to exceed \$\_\_\_\_\_.~~

~~5. The compensation for consultant services shall be payable for billed services performed on a monthly basis, in accordance with the agreed fee schedule. To request a progress payment, a certified billing for the Consultant shall be submitted to the City Engineer ten (10) days prior to the first Monday of the month following the billing period. In case of termination, the Consultant shall be paid for the actual acceptable work performed to date in accordance with the agreed fee schedule.~~

~~6. Total compensation to the Consultant, listed in Sub-section 1 above, shall be full compensation for all services necessary to fulfill the Consultant's obligations, including, but not limited to, sub-consultants, the expense of printing, equipment, material, personnel, telephone, travel and per diem.~~

In addition to the foregoing being performed, the following additional services will be provided upon prior written authorization of the City, other services as requested by the City.

3. **Question:** What Vertical Datum does the City use?

**City's Response:** NAVD '88

4. **Question:** Can we have copies of the sign in sheets from the Project Information Meeting Feb. 16, 2011?

**City's Response:** The sign in sheets for the meeting can be downloaded at:

<http://springfield-or.gov/rfp/RFP P21046 58th St. Sewer By Pass Project info meeting sign in.pdf>

In the event that it is necessary to further amend, revise or supplement any part this RFP, additional addenda will be posted on the City's website at <http://www.springfield-or.gov> (select the *Purchase Contracts* hyperlink and Addendum 2 P21046 58<sup>th</sup> Street By Pass). As stated in the original solicitation, City will make a reasonable effort to provide the addenda to all Proposers to whom City provided the initial Request for Proposal. This addendum shall be considered part of the specification of the Request for Proposal. The City is not responsible for any explanation, clarification, interpretation or approval made or given in any manner except by written addenda issued by City.

**ALL BIDDERS SHOULD ACKNOWLEDGE AND INCLUDE THIS ADDENDA #2 AS PART OF THEIR SUBMITTAL PACKAGE.**



February 23, 2011

**REQUEST FOR PROPOSAL**  
**Public Works**  
**P21045 58<sup>th</sup> Street By Pass**

**ADDENDUM #3**

The City of Springfield is hereby amending or clarifying the above mentioned Request for Proposal (RFP). The original document can be found on the City's website at [www.springfield-or.gov](http://www.springfield-or.gov) by selecting the hyperlink *Purchasing/Contracts* from the menu on the left side of the home page, interested parties will be linked to the RFP/ITB page.

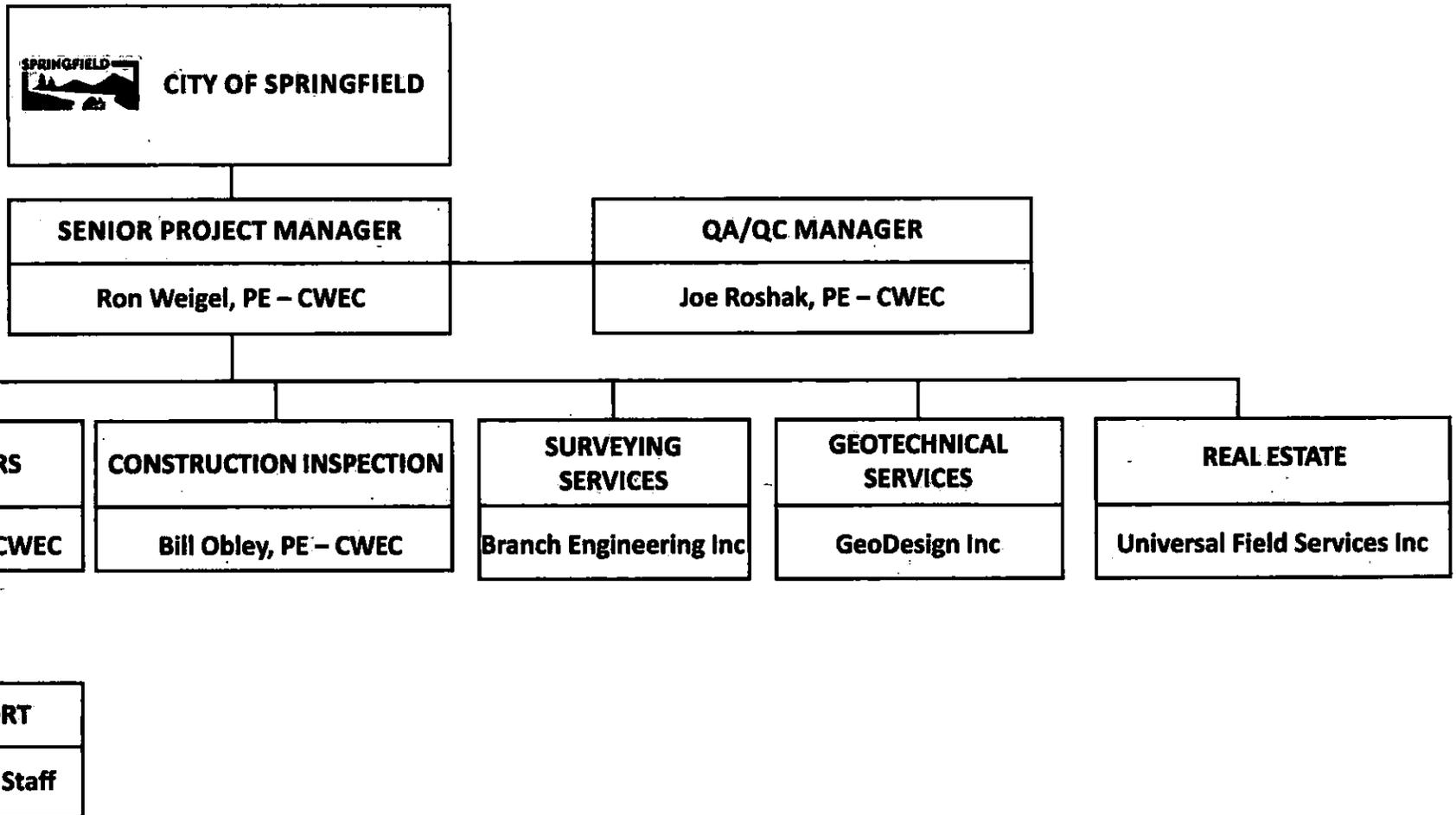
- 1. Question:** During our mandatory project meeting, the question was asked about easement acquisition for businesses on the original routing for the 58th St. Relief Sewer. The answer was that the City had already acquired the easements. In reviewing the requirements for easement acquisition, I would like to make certain that these easements have been obtained. Is this correct?

**City's Response:** The City has not acquired the possible easements for routing of the Relief Sewer. The selected Consultant is required to provide a design report with a minimum of two Sewer Line routings. The City will select the design Sewer Line route from the design report. Until then, it is unknown if easement acquisitions will be required.

In the event that it is necessary to further amend, revise or supplement any part this RFP, additional addenda will be posted on the City's website at <http://www.springfield-or.gov> (select the *Purchase Contracts* hyperlink and Addendum 3 P21046 58<sup>th</sup> Street By Pass). As stated in the original solicitation, City will make a reasonable effort to provide the addenda to all Proposers to whom City provided the initial Request for Proposal. This addendum shall be considered part of the specification of the Request for Proposal. The City is not responsible for any explanation, clarification, interpretation or approval made or given in any manner except by written addenda issued by City.

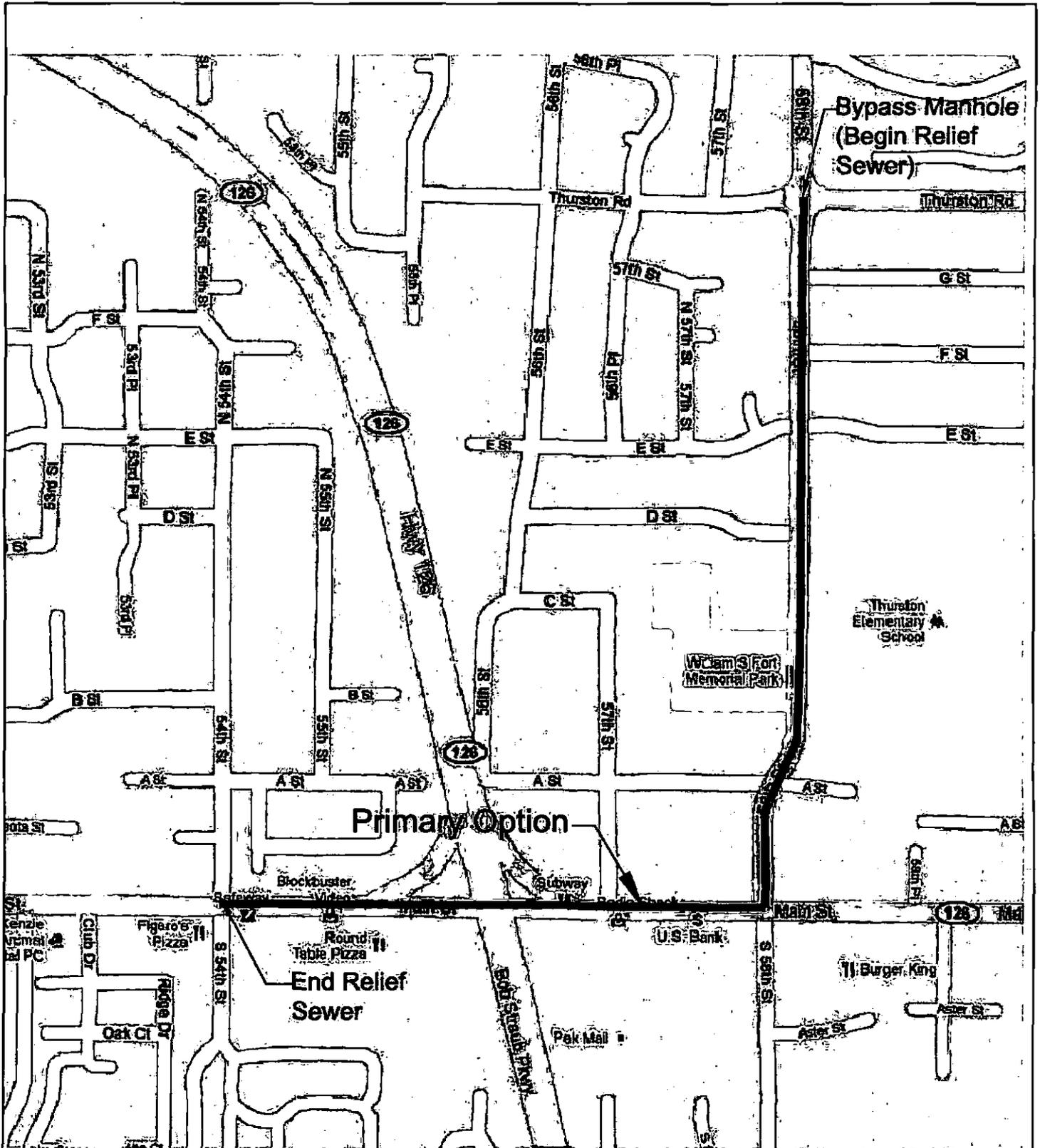
**ALL BIDDERS SHOULD ACKNOWLEDGE AND INCLUDE THIS ADDENDA #3 AS PART OF THEIR SUBMITTAL PACKAGE.**

# CENTURY WEST ENGINEERING DESIGN/CONSTRUCTION SERVICES ORGANIZATIONAL CHART





**FIGURES**

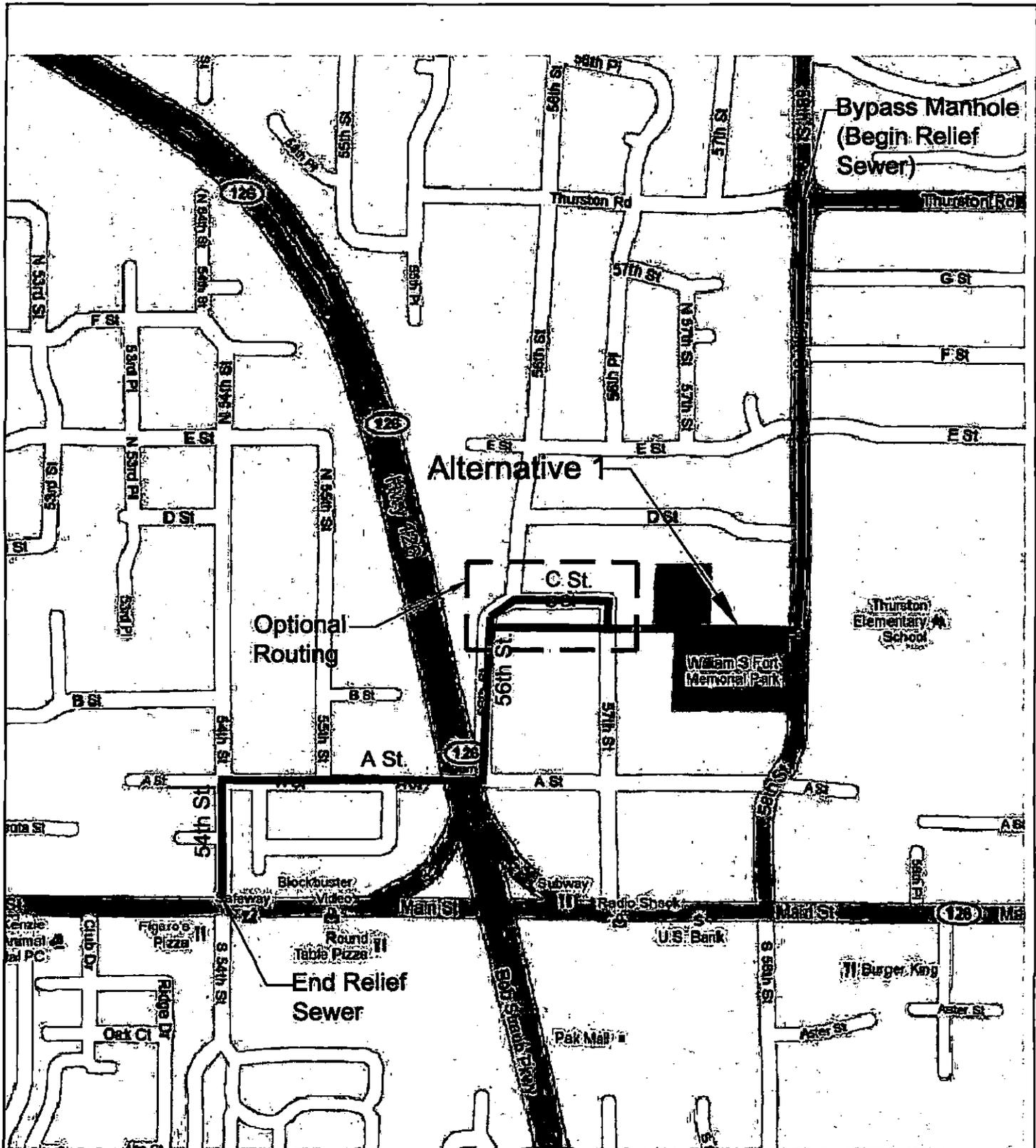


PRIMARY ROUTE

**58TH ST. RELIEF SANITARY SEWER  
LINE & BYPASS MANHOLE**

FIGURE

1

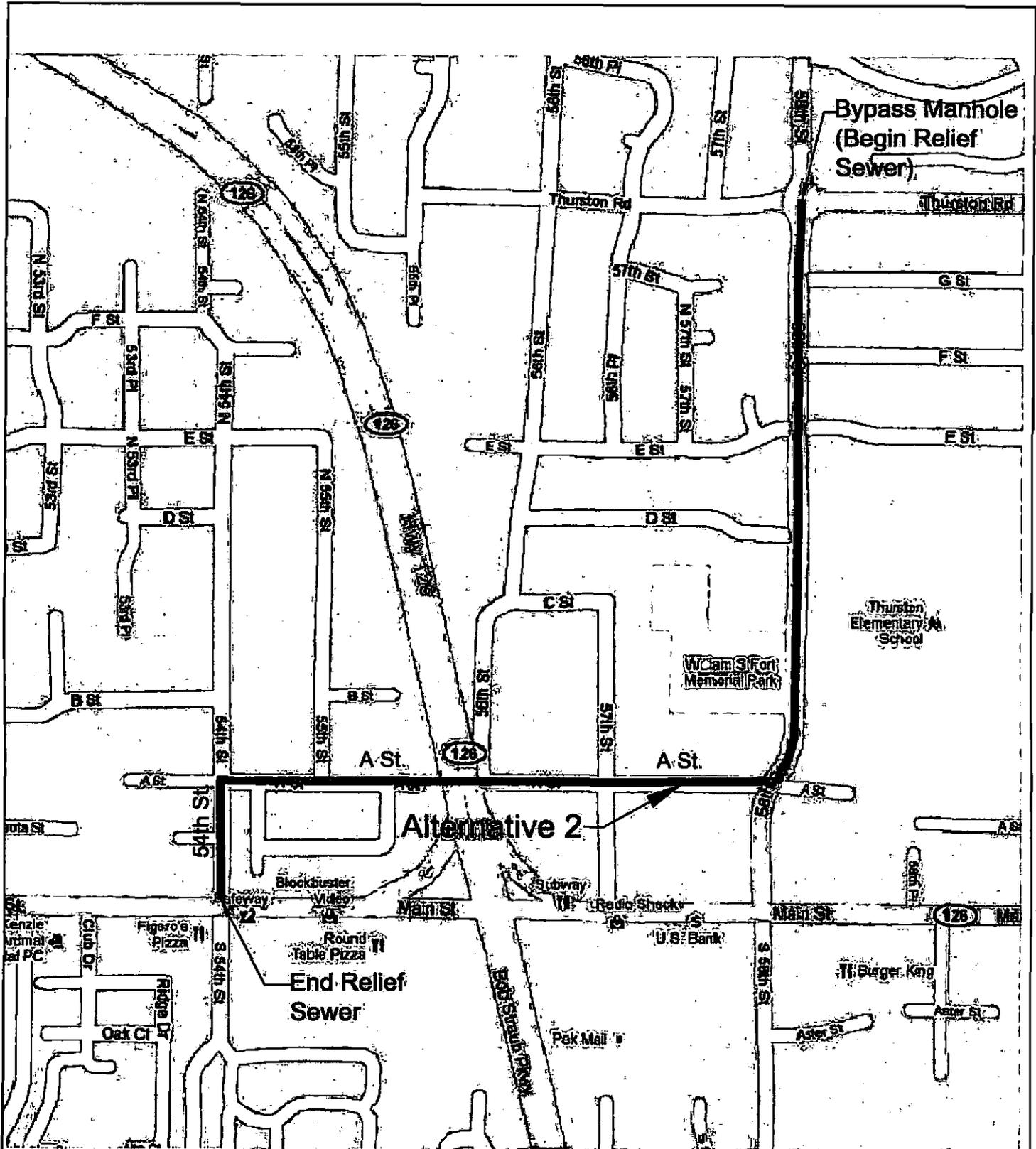


ALTERNATIVE 1

FIGURE



**58TH ST. RELIEF SANITARY SEWER  
LINE & BYPASS MANHOLE**



ALTERNATIVE 2

**58TH ST. RELIEF SANITARY SEWER  
LINE & BYPASS MANHOLE**

FIGURE

**3**



**WORK SAMPLES**

\_\_\_\_\_ PROPOSED  
 \_\_\_\_\_ PIPE  
 \_\_\_\_\_ ALIGNMENT  
 \_\_\_\_\_ R/W &  
 \_\_\_\_\_ PROPERTY  
 \_\_\_\_\_ LINES  
 \_\_\_\_\_ EXISTING  
 \_\_\_\_\_ ROCK CREEK  
 \_\_\_\_\_ INTERCEPTOR

INDEX SHEET



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 SCALE: 1" = 100'

VERIFY SCALES  
 BUT IS ONE INCH ON  
 ORIGINAL DRAWING.  
 IF NOT ONE INCH ON  
 THIS SHEET, ADJUST  
 SCALES ACCORDINGLY.


**CENTURY WEST**  
 ENGINEERING CORPORATION  
 4400 E. of Industrial Loop, Suite 200  
 Portland, Oregon 97224  
 503-419-2120 phone • 503-438-7718 fax  
[www.cweng.com](http://www.cweng.com)

DATE:

NOVEMBER 2004

PROJECT NO.:

40748025.01

ROCK CREEK INTERCEPTOR  
 PRELIMINARY ROUTING ANALYSIS

- TASK 3 -  
 EAST EXTENSION

DRAWING NO.:

SHEET NO.:

1-0

PROPOSED  
 PIPE  
 ALIGNMENT  
 R/W &  
 PROPERTY  
 LINES  
 EXISTING  
 ROCK CREEK  
 INTERCEPTOR



INDEX SHEET

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 SCALE 1" = 100'

<p><b>VERIFY SCALES</b>          BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.</p>	<p>  <b>CENTURY WEST</b>  <b>ENGINEERING CORPORATION</b>  <small>2400 E. 92nd Street, Suite 200          Portland, Oregon 97225          503-414-2120 phone • 503-435-2776 fax  <a href="http://www.centurywest.com">www.centurywest.com</a></small> </p>	<p> <b>ROCK CREEK INTERCEPTOR          PRELIMINARY ROUTING ANALYSIS</b>          - TASK 2 -  <b>NORTH EXTENSION</b> </p>	<p>         DRAWING NO.          SHEET NO.  <b>1-0</b> </p>
<p>DATE: NOVEMBER 2008</p>	<p>PROJECT NO.: 40748023.01</p>		



**RESUMES**

# RON WEIGEL

SENIOR PROJECT MANAGER

Mr. Weigel has over 30 years of experience in a variety of municipal engineering projects including design of streets, water systems and sanitary sewer systems. He brings experience in all phases of the project from initial conception to final completion. Some of his representative experience is summarized below:

## EDUCATION

B.S., Civil Engineering  
Oregon State University 1980

## REGISTRATION

Professional Engineer  
State of Oregon-12677  
State of Washington-28402  
State of California-37389

## PROFESSIONAL AFFILIATIONS

American Public  
Works Association

American Society of  
Civil Engineers

## SELECT PROJECT EXPERIENCE

### NORTH CLACKAMAS REVITALIZATION AREA SEWER IMPROVEMENTS - PHASE I; CLACKAMAS COUNTY WATER ENVIRONMENTAL SERVICES.

Project Manager overseeing the design of collection system improvements to service a large area of unsewered homes in northern Clackamas County. The multi-year project with an overall construction budget of approximately \$10 million is being funded by monies from the Oregon DEQ - Clean Water State Revolving Loan Fund and the Federal American Recovery and Reinvestment Act of 2009. Extensive environmental documentation was required to move the project through the state and federal funding process. Approximately 50,000 feet of gravity sewer varying in diameter from 8" through 12" plus over 800 individual service laterals will be installed to each home and vacant lot within the service boundaries. Phase I improvements are set to be completed by the Fall of 2010 with entire construction completed by the summer of 2012.

### NORTHEAST MILWAUKIE SEWER EXPANSION PROJECT; CITY OF MILWAUKIE.

Project Manager for design of collection system improvements to service approximately 250 homes in northern Clackamas County with an approximate \$4 million price tag which also includes a new 0.30 mgd sanitary sewer pump station utilizing submersible pumps. The project is being funded by monies from the Oregon DEQ - Clean Water State Revolving Loan Fund and the Federal American Recovery and Reinvestment Act of 2009. Extensive environmental documentation was required to move the project through the state and federal funding process. Approximately 12,000 feet of gravity sewer varying in diameter from 8" through 12" plus over 250 individual service laterals will be installed to each home and vacant lot within the service boundaries. Improvements are set to be completed by the Fall of 2010.

### SUNNYSIDE ROAD - ROCK CREEK WASTEWATER CONVEYANCE PROJECT; CLACKAMAS COUNTY WATER ENVIRONMENTAL SERVICES.

Project Manager for recently completed multi-phased interceptor project which resulting in the completion of a single gravity sewer pipe varying from 24" to 30" in diameter approximately 12,000 feet in length parallel to the Rock Creek canyon in east Clackamas County. The project was completed over a three year period from 2005 through 2008 and involved planning, preliminary design and final design services. A team of specialized subconsultants were utilized to insure the successful completion including topographic surveys, environmental permitting and geotechnical investigations. Specialized trenchless construction techniques required by terrain limitations included the need to install four(4) 48-inch diameter steel casings with lengths of 500 feet, 550 feet, 580 feet and 175 feet respectively. Total construction costs for all three phases was approximately \$8.50 million including two change orders for less than \$40,000.

## **SELECT PROJECT EXPERIENCE CONTINUED**

### **HAPPY VALLEY SEWER IMPROVEMENTS - PHASE I-III; CLACKAMAS COUNTY WATER ENVIRONMENTAL SERVICES.**

Project Manager for completed design of a multi-year project from 2000 through 2003 to design over 65,000 lineal feet of 8" sanitary sewer pipe across public right-of-way and easements. Over 200 easements were necessary to be obtained from private properties to install the pipes due to the varied terrain in order to provide public gravity sewers to over 98% of the adjacent properties served. Extensive coordination efforts were necessary to insure the topographic survey information over this large area was delivered on schedule to maintain the aggressive project schedule. Other work completed at the beginning to facilitate the design for review by WES staff included approval of the drafting standards, format and layout of sheets so that major changes were not required from the initial 50% submittal. Negotiations with property owners over alignment and other miscellaneous issues were attended whenever requested. Final construction costs were approximately \$4.0 million.

### **KELLOGG SANITARY PUMP STATION DECOMMISSIONING; CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES.**

Project Manager for approximately 1,900 lineal feet of 10" sanitary sewer pipe. Preliminary design included review of a previously completed alignment study and selection of a final route through negotiations with private property owners and Oregon Department of Transportation (ODOT). The alignment crosses sensitive areas on the west side of I-205 within the Kellogg Creek Wetland National Resource Area requiring a joint DSL/COE permit with mitigation measures and construction limitations. The crossing of I-205 required a 42" diameter boring approximately 550 feet long

### **CAPPS ROAD PUMP STATION SANITARY SEWER DIVERSION; CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES.**

Project Manager for the preliminary planning and design of a new gravity sanitary sewer approximately 1,000 feet long to divert industrial flows into the Capps Road Pump Station. In addition, approximately 200 feet of the force main was modified to discharge into a separate basin. Extensive coordination with Fred Meyer Inc. was necessary to determine the least disruptive location to install the new sewer across their property.

### **HAYDEN ISLAND FORCE MAIN, CITY OF PORTLAND, OREGON.**

Project manager for the design to replace the Safeway Pump Station Force Main on Hayden Island. The existing asbestos-cement pipe was replaced with PVC. Multiple utility conflicts including gas, water, electrical and the existing force main required careful consideration in determining the final vertical and horizontal location of the new force main. The project involving approximately 2,000 feet of pipe was completed during a four week time period. The existing main had broken several times during the previous six months. The need to have plans and specifications for a contractor as soon as possible was critical to the success of this project.

### **ALDER BASIN SEWER RECONSTRUCTION - PHASE 2, UNIT 2 AND PHASE 2, UNIT 3; CITY OF PORTLAND, OREGON.**

Project Manager for the design of pipes and a concrete diversion structure to collect and transport combined sewer flows in southeast Portland along SE Hawthorne Boulevard, SE 14th Avenue and SE Taylor Streets. The project included over 2000 feet of concrete pipe ranging in size from 36-inches to 96-inches in diameter and 2000 feet of 48-inch Cured-in-Place pipe with a total construction price of over \$3.0 million. Extensive coordination was necessary with US West to facilitate the movement of multiple transmissions conduits within SE 12th Avenue to provide sufficient vertical and horizontal space for installation of the large diameter sewer pipe.

# MATT MACROSTIE

PROJECT MANAGER/PROJECT ENGINEER

Mr. MacRostie has over eight years of experience providing civil consulting services in both the Public and Private sectors, this gives him a broad range of experience and capability. His understanding of sewer systems, flow-rate, wastewater treatment processes, and construction processes provides value to our team. He is known for his ability to lead a design team and ensure the client's needs are met on time and within budget.

## EDUCATION

B.S., Civil Engineering  
M.S. Engineering Systems  
Colorado School of Mines, 2002

## REGISTRATION

Professional Engineer  
State of Oregon and California

## PROFESSIONAL AFFILIATIONS

American Society of  
Civil Engineers

## SELECT PROJECT EXPERIENCE

### RV PARK OF PORTLAND SANITARY SEWER IMPROVEMENTS, TUALATIN, OR.

Currently serving as Project Engineer and task leader for the City of Tualatin sanitary sewer improvement project. The project includes replacing approximately 1200LF of sanitary sewer servicing an adjacent RV park and apartment complex by pipe bursting methods. Mr. MacRostie oversees all design work and coordinates directly with the client and sub consultants. Responsibilities also include overseeing the schedule and budget as these are two critical items being met to make this project a success.

### TERRITORIAL HWY SANITARY SEWER IMPROVEMENTS, VENETA OREGON.

Currently serving as project engineer and task leader for the City of Veneta sanitary sewer improvement project. The project includes replacing approximately 3000LF of sanitary sewer servicing public, commercial, and residential properties along Territorial Hwy. Mr. MacRostie oversees all design work and hydraulic analysis for this project and coordinates directly with the client and sub consultants. Responsibilities also include overseeing the schedule and budget and coordination with the City, Oregon Department of Transportation, and DEQ.

### COOS BAY WASTEWATER TREATMENT PLANT NO.2, COOS BAY, OREGON

Currently serving as a Project Engineer for the Coos Bay Waste Water Treatment Plant No.2 upgrade. The project includes the design and upgrade of the treatment plant in order to meet current standards required by Oregon DEQ and future demand from population growth. Mr. MacRostie will be responsible for aiding in the successful design of the facility upgrade and coordination with the City as well as the treatment plan operations team. Schedule and budget considerations will be critical for this project to meet all goals and requirements set by the City.

### PDX TRAFFIC CIRCLE REHABILITATION, PORTLAND OREGON

Serving as Task Leader and Project Engineer responsible for the design of a concrete roadway as part of the rehabilitation of the economy lot traffic circle and parking entrances for the Portland International Airport. The project includes removal of existing asphalt within the traffic circle and parking entrances and exits for the economy lots and construction of new concrete pavement within the existing roadway area. Coordination with Port departments has been essential to the design and construction schedule for meeting the needs of holiday travel. Through efficient design and communication with the entire project team, all current deadlines and budget constraints for this project have been met.

## **GEODESIGN**

**Julio Vela, PhD, PE, GE - Principal Engineer**

***Project role: Principal-in-Charge/Geotechnical Engineer***

During his 17-year career, Julio Vela has provided geotechnical design recommendations and earthwork specifications, and managed construction observation for infrastructure systems, public works facilities, high-rise structures, and commercial and industrial developments. His professional expertise includes infrastructure improvement projects such as city lift and pump stations, reservoir supply line realignment projects, and dam safety and rehabilitation studies. Julio also has extensive experience with retaining wall design and cost estimating, particularly soil nail and mechanically stabilized earth (MSE) retaining walls. His project work includes:

- **City of Portland, Bull Run Conduit Trestle Vulnerability Reduction Study, Portland, Oregon.** As project manager, Julio oversaw geotechnical engineering services for reducing the vulnerability of Portland's three large-diameter water conduits, from Bull Run Headworks to city reservoirs on Powell Butte and Mt. Tabor. Work included geologic and geotechnical hazards evaluation for landslides, seismic vulnerability, groundwater, scour potential, pipe bedding, and constructability.
- **Vine Street Wastewater Treatment Plant - Seismic Upgrades, Albany, Oregon.** Julio provided senior geotechnical review of geotechnical services for seismic upgrades to the City's Vine Street Wastewater Treatment Plant. Plans call for seismic upgrades to be conducted on the Raw Water Pumping Plant, High Pressure Pumping Plant, Chemical Building, Large Filter Building, and Maple Reservoir connections. (The Chemical Building retrofit has been required by the City of Albany building official, and also incorporates a tenant upgrade and one-story, wood-frame lean-to addition.)
- **Bandon Marsh National Wildlife Refuge - Transmission Line Relocation, Bandon, Oregon.** As principal-in-charge, Julio led GeoDesign's geotechnical design and construction observation services in support of this proposed transmission line relocation, which involved relocating the transmission line across sensitive marshland areas and an HDD crossing under the Coquille River. Post-construction support has included supplemental oversight of pressure grouting in the utility corridor in upslope-inclined areas of the HDD alignment, and continued monitoring of inclinometers of the upslope portion of the utility corridor south of the river.
- **City of Amity, Wastewater Treatment Plant Improvements - Phase II, Amity, Oregon.** Julio was principal-in-charge of geotechnical engineering services for these treatment plant improvements. Plans call for construction of a new headworks facility and tertiary facility, and expansion of the existing chlorine contact facility. Work included a site-specific seismic hazard evaluation.

- **Dale Road Storm Sewer Realignment, Beaverton, Oregon.\*** Julio was project engineer for geotechnical evaluations and design of improvements, extension, and utility realignment along a suburban surface road with a proposed crossing at a main arterial. He coordinated and conducted field explorations and laboratory analyses; prepared a geotechnical design report that included quantity and cost analyses for project earthwork, as well as design parameters for 15- to 20-foot-deep excavations for inlet and outlet stormline junctions. Portions of the project crossed through existing utility rights-of-way, which required stabilization and special excavation measures.
- **Stormwater Conveyance Crossing, Beaverton, Oregon.\*** Julio was geotechnical engineer for a stormwater conveyance system crossing of the Beaverton-Hillsdale Highway. He designed confined disposal facility (CDF) containment areas and provided oversight of geotechnical issues in the public right-of-way for the private developer conducting the utility expansion. Project included limiting transport of existing contaminants through the re-configured utility corridor.
- **City of Oregon City, Mountain View Reservoir Improvements, Oregon City, Oregon.** Julio was the senior technical engineer for this project, overseeing the geotechnical recommendations for replacing Reservoir No. 1 and a seismic retrofit of Reservoir No. 2. Reservoir No. 1 was below grade with floor elevations at approximately 462 feet above main sea level. A new two-million-gallon reservoir was constructed over the footprint of the existing reservoir. Reservoir No. 2 was retrofitted to meet current levels of seismic design.

*\* Previous experience*

**Credentials/Affiliations**

PhD, Civil Engineering, Washington State University, 2000

MS, Civil Engineering, Washington State University, 1994

BS, Civil Engineering, Washington State University, 1992

Geotechnical Engineer, Oregon

Professional Engineer, Oregon, Washington, and Nevada

American Society of Civil Engineers

Earthquake Engineering Research Institute

Seismological Society of America



**STEVE PALMER, PHD, CEG - Principal Engineering Geologist**

***Role: Engineering Geologist***

Steve Palmer has nearly 30 years of experience in the earth sciences, including oil and gas exploration, nuclear waste disposal, geophysical applications in geotechnical and environmental projects, and engineering geology. At GeoDesign, Steve's projects involve landslide mitigation, underground utilities, stream bank erosion stabilization, surface mine reclamation, and aggregate resource evaluation. He is also the company's technical lead on the use of geophysical applications for engineering projects, including investigation of soil and rock conditions for evaluation of underground utility alignments and building foundations. His project work includes:

- **Clean Water Services, SW Locust Street /City of Portland, Ash Creek Sewer Alignment, Portland, Oregon.** Steve was the project manager of a geophysical investigation to characterize bedrock properties for construction of a new sewer alignment in southwest Portland. Seismic refraction profiling was performed along 3,500 linear feet of the sewer alignment. Depth-to-bedrock and P-wave velocities, used in estimating rock rippability for trenching, were determined along each profile. These results were compared to bedrock depths determined from test pit and drilling information. Laboratory testing and logging of rock core obtained in the borings was used to provide information necessary for the directional drilling proposed for portions of the alignment.
- **City of Lake Oswego, Water Supply System/Pipeline Expansion, Lake Oswego, Oregon.** GeoDesign is providing geotechnical investigation services for a water supply pipeline, which will upgrade, upsize, and expand six existing essential facilities that provide drinking water to the cities of Lake Oswego and Tigard. Steve is responsible for developing seismic refraction profiles along the proposed alignment to extend limited subsurface information and to provide an estimate to the depth and rippability of shallow basalt bedrock. His team has completed 6,200 feet of continuous series of seismic refraction profiles. The results of these investigations are being used to develop preliminary design and construction bid specifications.
- **City of Portland Bureau of Environmental Services (BES), Burlingame Sewer Trunk Line, Portland, Oregon.** As project manager, Steve led GeoDesign's engineering geology and geotechnical engineering support to the Burlingame Sewer Trunk design and construction. This project involved replacing an existing sewer trunk line that had been aligned along Burlingame Creek. The new 36-inch-diameter pipe is offset from the old sewer line, which is being abandoned. Steve's team provided consultation and recommendations to BES regarding abandonment of the old sewer line that factored in stream bank stability and the desirability of pipeline removal. Steve's team also

evaluated grading and reshaping of stream banks and adjacent slopes in areas where the old sewer line was removed, and provided design recommendations for mitigating a landslide on an embankment of I-5, which was related to installing the adjacent sewer trunk line.

- **City of Portland BES, Ash Creek Sewer Alignment, Portland, Oregon.** Steve was the project lead on an investigation of rock rippability for construction of a new sewer alignment in southwest Portland. Overlapping P wave refraction profiling was performed along 2,300 linear feet of the sewer alignment. Depth to bedrock and P wave velocities were determined along each profile and compared to refusal depths of a limited number of test pits and GeoProbe explorations. The bedrock profile developed from the seismic profiling provided a much better estimate of rock excavation volumes than could be provided from the limited subsurface explorations.

#### **Credentials/Affiliations**

**PhD, Engineering Science, University of California, Berkley, 1982**

**MS, Engineering Science, University of California, Berkley, 1978**

**BA, Geology, University of California, Berkley, 1974**

**Certified Engineering Geologist, Oregon**

**Registered Geologist, Oregon**

**Licensed Engineering Geologist, Washington**

**Professional Geologist, Idaho**

**Association of Engineering Geologists**

**Seismological Society of America**



**KREY YOUNGER, PE, GE - Associate Engineer**

***Role: Pavement Engineer***

Krey Younger has 15 years of experience with geotechnical engineering and pavement design projects throughout the Pacific Northwest. As GeoDesign's senior pavement engineer, Krey coordinates GeoDesign's pavement design activities, which include in-house laboratory resilient modulus testing, falling weight deflectometer (FWD) testing, and data acquisition. In recent years, he has forged strong relationships with personnel in Washington County and the cities of Portland and Eugene through ongoing service contracts. He has also provided pavement services for Marion and Clackamas counties, the cities of Beaverton and Gresham, and ODOT. His project work includes:

- **City of Salem, Market Street NE/Swegle Road NE Corridor Improvements, Salem, Oregon.** Krey is project manager for GeoDesign's ongoing role for the improvements to the Market Street and Swegle Street Corridor. The project includes pavement rehabilitation design and geotechnical support for widening the current roadway to a 46 foot minor arterial. Specific project details include pavement design and geotechnical support for widening, intersection design, and culvert improvements.
- **City of Salem, McGilchrist Street SE - 12th Street SE to 25th Street SE, Salem, Oregon.** Krey was project manager, overseeing GeoDesign's pavement services for the future roadway widening and improvement of McGilchrist Street. The project consisted of widening and rehabilitating approximately 8,600 feet of roadway along McGilchrist Street SE from 12th Street SE to 25th Street SE.
- **North Marion Street - Pavement Engineering Services, Albany, Oregon.** Krey provided pavement engineering services for a section of North Marion Street, which is approximately 600 feet long from the intersection with Lochner Road to the south. The work was done in response to a request from the City for supplemental design information, and provides the final design section in accordance with projected City requirements.
- **City of Woodburn, North Front Street Improvements, Woodburn, Oregon.** Krey was project manager of GeoDesign's geotechnical engineering and pavement design services for improvements to North Front Street. Plans called for the widening and improvement of this street between Highway 214 and Hardcastle Street.
- **Washington County, NW Cornell Road from NW 179th/NW Evergreen, Beaverton, Oregon.** Krey was GeoDesign's project manager for pavement engineering services for proposed improvements to NW Cornell Road (From NW 179th/NW Evergreen Parkway to Bethany Boulevard). Krey led our scope of work, which included subsurface explorations and

laboratory testing, FWD testing, pavement design, and construction recommendations for road widening, rehabilitation, pavement materials, site preparation, and structural fill.

- **City of Tigard and Washington County, Highway 99W between SW Hall Boulevard and SW Greenburg Road/SW Main Street, Tigard/Washington County, Oregon.** Krey was project manager of pavement engineering services for these projects to modify intersections along Highway 99W at SW Hall Boulevard and SW Greenburg Road/Main Street.
- **City of Portland Department of Transportation, On-Call Engineering Services, Portland, Oregon.** Krey is the project manager for GeoDesign's on-call contract with the City of Portland, which involves more than 20 roadway projects. Services include FWD testing, subsurface explorations, and rehabilitation and design recommendations for pavement overlay and reconstruction options.

**Credentials/Affiliations**

MS, Civil Engineering, Oregon State University, 1994

BS, Civil Engineering, Oregon State University, 1992

Professional Engineer, Oregon, Washington

Geotechnical Engineer, Oregon

American Concrete Institute

American Society of Civil Engineers

American Public Works Association



## Branch Engineering, Inc.

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**ROBERT M. ANDREASEN**  
**Inspector**

After obtaining an Associates Degree in Technical Drafting (1968), Mr. Andreasen has enjoyed a wide experience in public and private sector engineering. For the last 10 years he has worked for Branch Engineering as construction inspector as well as involved in construction staking and project design. He also oversees preparation of as-built drawings.

His past experience includes five years working for the Metropolitan Wastewater Commission as a Field Representative and Construction Inspector throughout their construction phase, and six years with the City of Springfield as an Engineering Technician 2, where he was responsible for public improvement design and inspection.

### **EDUCATION**

*Lane Community College,  
Eugene, Oregon*

*Associates Degree in  
Technical Drafting*

### **City of Toledo, Oregon**

Provided construction inspection for sanitary and storm sewer rehabilitation along Main Street. Also provided field calculations for change orders and contractor pay requests.

### **Filbert Lane, Springfield, Oregon**

Provided construction inspection of 1000 foot reconstruction and 500 foot extension of roadway near new elementary school. Involved storm sewer, sanitary sewer, street, sidewalks, street lights and traffic control. Project required contractor to comply with City of Springfield Standard Specifications and inspector coordination with private property owners for placement of improvements. Project also included writing change orders, calculating quantities for pay requests and as-builts.

### **International Way, Springfield, Oregon**

Provided construction inspection requiring contractor to comply with City of Springfield Standard Specifications. Project included 60 inch+ storm sewer, 10 inch sanitary sewer, 500 lf of 48 foot wide concrete street, sidewalks, street lights, traffic control and a biofiltration pond. Responsible for writing change orders, calculating quantities for pay requests and as-builts.

### **Sports Way, Springfield, Oregon**

Provided construction inspection requiring contractor to comply with City of Springfield Standard Specifications. Project included 48 inch cast-in-place storm sewer, sanitary sewer, street, sidewalks, street lights, traffic control and a drainage ditch. Also responsible for writing change orders, calculating quantities for pay requests and as-builts.

**Hayden Gardens, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Additions (private subdivision), Springfield, Oregon**

Provided construction inspection requiring contractor to comply with City of Springfield Standard Specifications. Project included storm sewer, sanitary sewer with pump station, street, sidewalks, street lights, and traffic control. Also responsible for writing change orders, calculating quantities for pay requests and as-builts.

**River Glen, 1<sup>st</sup> and 2<sup>nd</sup> Additions (private subdivision) Springfield, Oregon**

Provided construction inspection requiring contractor to comply with City of Springfield Standard Specifications. Project included storm sewer, sanitary sewer with pump station, street, sidewalks, street lights and traffic control. Also responsible for writing change orders, calculating quantities for pay requests and as-builts.

**PERFORMED CONSTRUCTION INSPECTION** for the following projects which involved some or all of the following:

*Paving                      Curb and Gutter*  
*Sidewalks                 Storm Sewer*  
*Sanitary Sewer         Street Lights*

**Marvin Manor Subdivision, Springfield, Oregon**  
**Coburg Estates Subdivision, Coburg, Oregon**  
**Aster Street, Springfield, Oregon**  
**Northwood Christian Church / Harvest Lane, Springfield, Oregon**  
**CSK Auto, 42<sup>nd</sup> and Main, Springfield, Oregon**  
**Rivergate Subdivision, Springfield, Oregon**



# Branch Engineering, Inc.

**REX A. BETZ, P.L.S., C.W.R.E.  
Survey Manager**

Mr. Betz, Branch Engineering Survey Manager, is a registered professional with over 30 years of surveying experience. His background includes construction, property, and ALTA surveying, road right-of-way determination, mapping, and preparation of legal descriptions, easements, concurrences and partition and subdivision plats. As survey manager, Mr. Betz is Branch Engineering's point of contact with clients and jurisdictional agencies and he is responsible for preparing cost estimates and scheduling crews and other staff.

## **CERTIFICATIONS AND REGISTRATIONS**

*Professional Land Surveyor,  
Oregon - #2606*

*Professional Land Surveyor,  
California - #5251*

*Certified Water Rights  
Examiner, Oregon - #400*

## **AFFILIATIONS**

*Professional Land Surveyors of  
Oregon  
Current Secretary/Treasurer,  
Midwest Chapter*

## **EXAMPLE PROJECTS**

- **Seven (7) Salem-Keizer Public Schools, Salem, Oregon**  
Project Manager for topographic surveying and subsequent construction staking of improvements at seven elementary schools.
- **River Glen Subdivision, Springfield, Oregon**  
Project Surveyor for a 50 acre/177 lot residential subdivision. Work involves an extensive boundary survey, subdivision planning, construction staking of private and public improvements, and overall project management. Project is in phases and is still in progress.
- **Kendra Park Cluster Townhouses, Eugene, Oregon**  
Construction Staking of 37 lot subdivision.
- **Coburg Estates, 2<sup>nd</sup> Addition, Coburg, Oregon**  
Topographic survey, preparation of tentative and final plats and construction staking of 14 lot subdivision.
- **Marvin Manor Subdivision, Springfield, Oregon**  
Topographic survey, preparation of tentative and final plats and construction staking of 16 lot subdivision.
- **Sweetbriar Villa, Springfield, Oregon**  
Topographic survey and construction staking for addition to residential care facility.
- **Elmira Estates, Eugene, Oregon**  
Topographic survey and preparation of tentative and final plats for six lot manufactured home subdivision.
- **Lane Community College, Eugene, Oregon**  
Topographic survey to support engineering design of parking lot and waterline at welding building.
- **Elmira High School - Fern Ridge School District 28J, Elmira, Oregon**  
Partial boundary and topographic survey for engineering design of a proposed drainage system.
- **Westridge Intermediate School - Oakridge School District No. 76, Westfir, Oregon**

Partial boundary and topographic survey for planned expansion of facilities.

- **Gas Lateral Survey, East Alton Baker Park, Springfield, Oregon**  
Project Surveyor for a 12" gas lateral and meter station for Northwest Pipeline Corporation. Work involved extensive topographic survey and as-built survey for a gas lateral that passed beneath Interstate 5 from an existing main on the west side to a meter station lying on the east side.
- **EcoSort Materials Recovery Facility, Eugene, Oregon**  
Project Surveyor for refuse reclamation facility. Work included boundary survey, topographic survey for design, ALTA survey, and construction staking for facility, parking lots, sanitary and storm sewer.
- **Sanipac, Inc., Eugene, Oregon**  
Boundary and topographic surveying for planned expansion of office/maintenance facility for refuse and recycling firm.
- **Hayden Gardens Subdivision, Springfield, Oregon**  
Project Surveyor for a 30 acre / 150 lot residential subdivision. Work involved an extensive boundary survey, subdivision planning, construction staking of private and public improvements, and overall project management.

**Leslie Finnigan, SR/WA | Corporate Oversight**

Universal Field Services, Inc.

Leslie has over 24 years experience in the Right of Way field. She currently is involved in all phases of the land acquisition and relocation process in a management capacity. She is responsible for business development, staffing and contracting with subcontractors, periodic quality assurance reviews to verify compliance with Federal regulations and Universal's internal audit requirements in Oregon, SW Washington and Idaho and overall corporate project oversight of Universal's projects in the Region.

**A Few Examples of Right of Way Services Projects:**

Leslie has managed a variety of projects in Oregon and Washington, including projects in Douglas County, Clackamas County, Washington County, Deschutes and Clark County, Washington and for such agencies as Tri-Met in Portland and Lane Transit District in Eugene. Examples include:

- **City of Portland NE 102<sup>nd</sup> and SE 152<sup>nd</sup> Street** – Leslie was the project manager for two road improvement projects for the City of Portland. These projects involved right of way negotiations only for 24 parcels on the 102<sup>nd</sup> Avenue project and ten parcels on the 152<sup>nd</sup> Street project.
- **City of Redmond - Odem Medo Road & SW 27<sup>th</sup> Street** – This project involved five commercial properties for the improvement of Odem Medo Road in Redmond. Leslie provided project oversight for this City project, which included obtaining appraisals as well as the negotiations.
- **City of Lake Oswego - Oswego Lake Interceptor Sewer Upgrade** – Leslie provided consultant services for the City of Lake Oswego in acquiring property for the new interceptor line for Oswego Lake. The project includes assisting the City with contacting property owners for a suitable location for the new pipe as well as providing acquisition and relocation services.
- **Joint Water Commission and City of Hillsboro – Raw Water Pipe Project** This project involved easement acquisitions for a 96" raw water pipeline in rural Washington County. Leslie was the project manager for this project and Universal's role is not only obtaining appraisals, appraisal reviews, and handling the acquisitions, but also involves hiring an engineering firm to handle the survey and description modifications if necessary. Most of the properties are agricultural.
- **City of Sherwood - Pine Street Improvements Project** – This project involved acquiring property from 55 ownerships. The city street was narrow and had no sidewalks. This project will widen the street and put sidewalks in on both sides of the street.

**Benefits:**

Thorough understanding of the acquisition and relocation assistance processes in accordance with laws and regulations; Excellent communication skills, both written and oral; Detail oriented; Diligent to project success needs

Years with Company: 12

Total years of experience: 24

**Education:**

Education, Western Oregon University, 1973

**Professional registration:**

Senior Member, International Right of Way Association;  
Oregon Real Estate Broker License #981000095

**Personal Skill / Experience Summary:**

- Knowledgeable in Oregon real estate agency laws and regulations
- Knowledge and understanding of engineering, utility and survey drawings
- Thorough understanding of the acquisition and relocation assistance process



**Seth Hemelstrand | Project Manager / Senior Right of Way Agent**

Universal Field Services, Inc.

Seth has eight years experience in the right of way field. Seth worked two years of his right of way career with the City of Salem as a Project Manager and has been with Universal for six year. As a Project Manager he is responsible for assigning and reviewing agent work, contracting with appraisers, keeping the project on schedule and maintaining the budget. Seth does some acquisition work on occasion and is also an experienced relocation agent. He is detail oriented with excellent problem-solving and multi-tasking abilities. Seth is an adept communicator with strong negotiation and client relations skills. He is committed to quality service, performance and accuracy. Seth is able to effectively interact and build rapport with a diverse clientele.

**A Few Examples of Right of Way Services Projects:**

Seth is or was the Project Manager on the following projects:

**City of Salem** – Seth has been involved in a number of projects for the City of Salem in a Project Manager capacity. Two of the most recent City projects are the Market Street and Lancaster widening which has 18 parcels and also the Hyacinth and Hawthorne Project with 26 parcels.

**City of Washougal, WA** – Universal provided administrative valuations, before and after appraisals, damage appraisals, cost to cure estimates, appraisal review, preliminary title reports and acquisition support regarding the E Street improvement project. Seth was the Project Manager on this fast-paced project. The project had a total of 50 parcels, including those that need rights of entry. There was one (1) business relocation.

**Joint Water Commission and City of Hillsboro** – This project involved easement acquisitions for a 96" raw water pipeline in rural Washington County. Universal's role was not only obtaining appraisals, appraisal reviews, and handling the acquisitions, but also involved hiring an engineering firm to handle the survey and description modifications as needed. Most of the properties are agricultural. Seth has been involved as a Senior Right of Way Agent, assisting in the acquisition process.

**City of Oregon City, Mollala Avenue-Beaver Creek Road** - Universal is acquiring three (3) fee areas on this intersection project. Seth has been the Project Manager for this project. The properties are commercial in a busy location of Oregon City. Universal has obtained the appraisals and appraisal review has begun the acquisition process. Prior to this project, Seth managed another intersection project for the City. The **Warner-Milne Intersection** project had three (3) parcels that Seth was able to acquire through donations and completed the project in record time.

**Personal Skill / Experience Summary:**

- Thorough understanding of the acquisition and relocation assistance process
- Prepared documents for the successful completion of transactions
- Negotiated and acquired parcels from commercial and private landowners

**Benefits:**

Thorough understanding of the acquisition and relocation assistance processes; Excellent communication skills, both written and oral; Detail oriented

Years with Company: 6

Total years of experience: 8

**Education:**

Attended Oregon State University

Professional registration:



## **Bob Finnigan | Right of Way Agent**

Universal Field Services, Inc.

Bob joined the Universal staff after a highly successful career in journalism. After obtaining his real estate associate broker license, he joined the staff at Universal as an acquisition agent. His background is communications and after 30 years as a newspaper reporter, he brings his skills in working with people to Universal. His abilities to work with individuals and develop a rapport has been a good transition from the reporting business to right of way work. Bob has real estate licenses in both Oregon and Washington.

### **A Few Examples of Right of Way Services Projects:**

**Oregon LNG – Warrenton to Mollalla** – This project involved properties along a 117 mile corridor. Universal acquired rights of entry for field testing and survey work. Bob obtained these rights of access, attended public meetings and meeting with the engineers and property owners on site.

**City of Oregon City – Mollala Avenue-Beavercreek Road** – This project is an intersection improvement project for the City and involves acquiring right of way from three businesses in Oregon City. The acquisitions involve minor strip takes with no impacts to the structures. Bob is in the process of completing the acquisitions on this project.

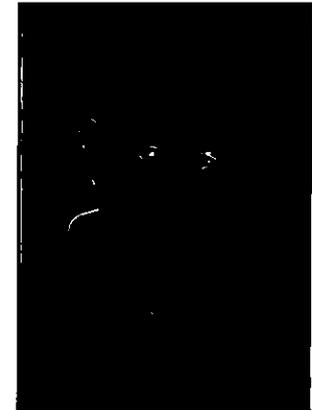
**Columbia Co-op - Pilot Rock-Ukiah and Fossil Service Creek Projects** – This transmission line project was a rebuild of an existing 50 plus year old facility in north central Oregon. Bob acquired easements and agreements on over 50 miles of this transmission line project.

**Joint Water Commission & City of Hillsboro – Raw Water Pipe Project** – This project involved acquiring permanent easements and rights of entry for a 96" raw water pipe in rural Washington County. The project involved 13 property owners, acquiring permanent easements and agreements for future temporary construction easements. Bob acquired the easements for the proposed project. We were asked to acquire rights of entry for archeological testing which Bob handled as well.

**City of Sherwood – Pine Street Project** – The City of Sherwood, Oregon acquired property for the improvement of Pine Street in Sherwood. This project involved acquiring property from 55 ownerships. The city street was narrow and had no sidewalks. This project will widen the street and put sidewalks in on both sides of the street. Bob was one of two agents that worked on this project to complete the acquisitions.

### **Personal Skill / Experience Summary:**

- Prepared documents needed for the successful completion of transactions
- Knowledge of fee acquisition, permanent easements and temporary construction easement documents
- Thorough understanding of the acquisition and relocation assistance process



#### **Benefits:**

Thorough understanding of the acquisition and relocation assistance processes in accordance with laws and regulations; Excellent communication skills, both written and oral; Detail oriented; Diligent to project success needs

Years with Company: 4

Total years of experience: 4

#### **Education:**

BA, Journalism,  
Northeastern University

#### **Professional registration:**

Oregon Real Estate Broker  
License #200710287

