Request for Proposal (RFP)

JR-SW Transmission Pipeline
Leak Detection Services

August 5, 2020
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1. Background

1.1. Purpose

The Public Utility District No. 1 of Skagit County, Washington (District) issues this Request for Proposal (RFP) from qualified leak detection firms (Assessment Company) to provide leak detection services for one continuous segment of the Judy Reservoir to Sedro-Woolley Transmission Pipeline. The leak detection survey will be performed by an in-line, free-swimming acoustic sensing device.

1.2. Overview of Public Utility District No. 1 of Skagit County

The District is a municipal corporation of the State of Washington, established in 1936 to provide water service to the residents of Skagit County. The District's Judy Water System is the largest in Skagit County, providing an average of nine million gallons of piped water to approximately 65,000 people every day. The area served by the Judy Water Treatment Plant includes the cities of Mount Vernon, Burlington, Sedro-Woolley, and the surrounding rural areas.

The District takes great pride in meeting the utility needs of Skagit County's residential and commercial customers, and holds the following Mission, Vision, and Values:

MISSION

Our Mission is to provide our customers with high-quality water services at an affordable price.

VISION

Our Vision is to be an outstanding regional leader and innovative utility provider.

CORE VALUES

- Quality
- Environmental Stewardship
- Financial Prudence

1.3. Performance Period

The District desires to complete this project design within our (4) months from the signing of an agreement. The District may request additional services from the Assessment Company in support of the project; however, no future work is guaranteed.

1.4. Professional Services Contract

Upon selection, the District staff will coordinate with the selected firm to develop a detailed Scope of Work, Assessment Company fee, and project schedule. Upon agreement, the District and
Assessment Company will execute the District's Professional Services Contract for this work. The contract terms and conditions are included in Appendix A.

1.5. Project Overview

The District owns and operates the Judy Water Treatment Plant [WTP], which is adjacent to Judy Reservoir. From the WTP, treated water is transported to the distribution system through two transmission pipelines. The first transmission pipeline, called the JR-MV Transmission Pipeline, conveys water to the City of Mount Vernon and surrounding communities. The second transmission pipeline, called the JR-SW Transmission Pipeline, conveys water to the City of Sedro-Woolley. It is this second transmission pipeline that the District desires to conduct a leak detection evaluation to further its asset management efforts.

The segment of the JR-SW Transmission Pipeline to be assessed and evaluated is approximately 22,000 LF. The pipeline size ranges from 20-inch to 36-inch in diameter. Pipeline materials consist of a combination of ductile iron, welded steel, and concrete cylinder pipe.

1.6. Available Pipeline Information

The District has compiled and prepared information regarding the JR-SW Transmission Pipeline, which includes post-construction drawings of the pipeline asset and potential access points for insertion, extraction, and tracking. The transmission pipeline is segmented into four distinct sections based on their size, material, and installation date. The following is a brief description of these project-related documents.

1.6.1. Section 1: 30-inch CCP, CO 2159, 1970

A set of conformed drawings prepared by R.W. Beck and Associates for a 30-inch concrete cylinder pipe [CCP] is provided in Appendix B. The pipeline was installed in 1970 and has a total length of 6,319 LF. The upstream end of this pipeline is the Sedro-Woolley meter, which is enclosed in a 6-ft diameter by 10-ft deep, below-grade manhole structure. This meter will be the insertion point for the acoustic sensor. The District will provide an insertion appurtenance per the Assessment Company’s requirements within the meter structure.

1.6.2. Section 2: 36-inch Welded Steel, CO 4890, 2015

In 2015, a 30-in pipe segment on a steep hillside ruptured, damaging or compromising several hundred lineal feet of the transmission pipeline. To facilitate effective repairs, a new 36-inch welded steel pipeline was constructed around the compromised pipeline segment. The total length of the pipeline was 1,225 LF. The conformed drawings prepared by HDR is provided in Appendix B.
1.6.3. Section 3: 20-inch Welded Steel Aerial, CO 1330, 1958

The transmission pipeline crosses the Skagit River using a pipe suspension bridge, which was installed in 1958. R.W. Beck and Associates designed the 20-inch welded steel pipeline. The total length, including horizontal crossing, vertical risers, and underground connections, is 1,982 LF. Two drawings are provided in Appendix B; Sheet 101: General Layout and Sheet 105: Steel Water Line.

1.6.4. Section 4: 24-inch Ductile Iron, CO 2609, 1977

A set of construction drawings prepared by R.W. Beck and Associates for a 24-inch ductile iron pipe [DIP] is provided in Appendix B. The pipeline was installed in 1977 and has a total length of 12,495 LF. The downstream end of this pipeline corresponds with the Nelson St. PRV Station, which is enclosed in a 14-ft by 14-ft below-grade vault. This PRV station will be the extraction point for the acoustic sensor. The District will provide an extraction appurtenance per the Assessment Company’s requirements within the PRV vault.

1.6.5. Pipeline Access Points

There are several potential access points for the installation of tracking sensors along the pipeline. A list of these possible access points is provided in Table 1.

The insertion and extraction taps will be installed by the District’s crew based on specifications and details provided by the Assessment Company.

Tracking sensor locations will be selected by the Assessment Company. The District crew will provide access to the chosen tracking location. The Assessment Company will install, test, and monitor the tracking sensors.

There are a few isolation valves along the transmission pipeline that the acoustic sensor will need to negotiate. The smallest isolation valves are 16-inch butterfly valves.

There are also several taps along the transmission pipeline which provide water supply to the distribution system. During the leak detection survey, the District crew will close these valves to retain the acoustic sensor in the transmission pipeline.
2. Assessment Company's Scope of Services

The Assessment Company will prepare a proposed Scope of Services for the project. The Work Plan will provide a specific approach to the leak detection assessment. The following are some elements to consider; however, it is expected that the Assessment Company will provide recommendations for changes and additions that might enhance the project. The Assessment Company is also encouraged to recommend activities to be eliminated that will reduce project costs or schedule.

2.1. Provide Project Management

The Assessment Company will present a project management framework that will achieve project success by managing the Assessment Company's resources, costs, and schedule within the project's scope, timeframe, and budget.

<table>
<thead>
<tr>
<th>Location Description</th>
<th>Facility Description</th>
<th>Project No. &amp; Description</th>
<th>Project Stationing</th>
<th>Distance Between</th>
<th>Cumulative Distance</th>
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</thead>
<tbody>
<tr>
<td>Insertion Tap</td>
<td>Meter Vault</td>
<td>Section 1: C.O. 2159 JR-SW Transmission Line</td>
<td>5+44</td>
<td>506 LF</td>
<td>0.10 miles</td>
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<tr>
<td></td>
<td>4&quot; Air / Vacuum Valve</td>
<td>Blow-Off Section 2: C.O. 4890 JR-SW Transmission Line Replacement - Phase 1</td>
<td>10+50</td>
<td>2,120 LF</td>
<td>0.50 miles</td>
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<tr>
<td></td>
<td>4&quot; Air / Vacuum Valve</td>
<td>31+70</td>
<td>780 LF</td>
<td>0.65 miles</td>
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<tr>
<td></td>
<td>20&quot; Butterfly Valve</td>
<td>39+50</td>
<td>1,897 LF</td>
<td>1.00 miles</td>
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<td>1.20 miles</td>
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<tr>
<td></td>
<td>18&quot; Butterfly Valve</td>
<td>12+15.0</td>
<td>1,210 LF</td>
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</tr>
<tr>
<td></td>
<td>6&quot; Air / Vacuum Valve</td>
<td>11+69.2</td>
<td>46 LF</td>
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<tr>
<td></td>
<td>24&quot; Manway</td>
<td>6+99.2</td>
<td>470 LF</td>
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<td></td>
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<tr>
<td></td>
<td>24&quot; Manway</td>
<td>2+29.2</td>
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<tr>
<td></td>
<td>Above-Grade Coupling</td>
<td>Section 3: C.O. 1330 Skagit River Crossing</td>
<td>No Project Stationing</td>
<td>239 LF</td>
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<td>2&quot; Air Release</td>
<td>Above-Grade Coupling</td>
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<td>454 LF</td>
<td>1.89 miles</td>
<td></td>
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<td></td>
<td>2&quot; Air / Vacuum Valve</td>
<td>32+05.7</td>
<td>2,020 LF</td>
<td>2.27 miles</td>
<td></td>
</tr>
<tr>
<td></td>
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<td>9+40.0</td>
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<td></td>
</tr>
<tr>
<td>Extraction Tap</td>
<td>PRV Station</td>
<td>Section 4: C.O. 2609 JR-SW Transmission Line</td>
<td>13+08.6</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>7+45.6</td>
<td>563 LF</td>
<td>4.04 miles</td>
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</table>
2.2. **Collect and Review Available Information**

The Assessment Company will gather and review existing drawings and available information to aid in understanding the Project environment and identify impediments that might affect the usefulness of the leak detection survey.

2.3. **Attend Kick-off Meeting and Site Visit**

The Assessment Company will meet with District staff for a kick-off meeting at the District’s office or the project site. The meeting agenda will be prepared by the Assessment Company, which will also facilitate the meeting with key individuals attending.

Following the kick-off meeting, the Assessment Company will accompany District staff to perform a site visit to key locations along the transmission pipeline alignment. This site visit will include insertion and extraction points, tracking points, isolation valves, and distribution taps. The Assessment Company team and District staff will discuss requirements at each site for the leak detection survey, including expected responsibilities and equipment.

2.4. **Provide Project Planning**

The Assessment Company will prepare a Work Plan that provides a specific approach for the leak detection survey. Specific elements to be address include:

- Roles, responsibilities, and required equipment.
- Requirements for installation of the insertion and extraction ports, including parts and sizes.
- Disinfection procedures.
- Procedures for insertion and extraction of the acoustic sensor.
- Access to and pipeline or appurtenance modifications for the tracking sensors.
- Excavation and shoring, vault access, and confined-space requirements.
- Valve operation by District staff.
- Traffic control.

Additional support work deemed necessary for the performance of the condition assessment shall be included in the Work Plan.

The Work Plan shall also include a schedule identifying dates and milestones for the condition assessment.

2.5. **Perform Leak Detection Survey**

The Assessment Company shall provide the leak detection survey with the acoustic sensor and tracking sensors as outlined in the Work Plan. The District staff will assist with valve operations and flow control.
2.6. Prepare Condition Assessment Report

The Assessment Company shall prepare a pipeline condition assessment detailing the location and size of any leaks detected within the accuracy stated for the acoustic sensor technology. A draft report shall be provided within four weeks of the survey. The Assessment Company will facilitate a virtual meeting with District Staff to present and discuss the results of the leak detection assessment. The District will have two weeks to review and provide written comments regarding the draft report.

The Assessment Company shall review and incorporate comments into the final report and submit two bound copies and one electronic copy of the report to the District.

3. Submittal Format

3.1. General Submittal Requirements

The Proposal shall be a single volume of double-sided pages, bound such that they lay flat when opened and shall be no longer than 25 pages (8.5x11 letter size format). Sections shall be indexed and tabbed for easy reference to the material contained within. The front cover, back cover, introductory letter, table of contents, and the District's Submittal Signature Page are not included in the page limit. Assessment Company must submit:

- Four (4) hard copies; and
- One (1) digital copy

The Proposal shall be signed in ink by an authorized representative of the Assessment Company. Signature on a submittal certifies that it is made without connection with any other person, firm, or corporation making a submittal for the same goods or services and is in all respects fair and made without collusion or fraud. Signature on a submittal also certifies that the Assessment Company has read, fully understands, and agrees to all solicitation requirements, terms, and conditions. No consideration will be given to any claim resulting from submittal without fully comprehending all requirements of the RFP.

The District reserves the right to request any Assessment Company submitting a Proposal to clarify its submittal and to supply additional information deemed necessary to assist in the selection of an Assessment Company. The District also reserves the right to clarify, modify, or alter any of the requirements herein. In the event of a material modification of the submittal requirements by the District, the Assessment Company may modify their Proposal in the specific areas that are impacted.

The District may cancel, reject in whole or in part any submittal, without liability incurred at any time if it is in the District's best interest to do so. The Assessment Company responding to this RFP is responsible for all costs incurred in connection with submitting the Proposal, which
includes, but is not limited to: submittal preparation, pre-submittal conferences, if any, document submittal, travel, expenses, interviews, presentations, or evaluation of any related documents.

3.2. Submittal Delivery/Closing Date

Proposals with all required information must be submitted to Catherine Price, Contract Coordinator, either by hand delivery to the drive-thru window at 1415 Freeway Drive, Mount Vernon, WA 98273 or by mail to the same address by Friday, August 28, 2020. All submittals shall be stamped by the District or postmarked by 3:00 pm Pacific Daylight Time. Submissions received by the District after the closing date and time will not be considered.

3.3. Questions Regarding the Request for Proposal

There will only be one point of contact for inquiries during the RFP process. The contact point is the District's Contracts Coordinator Catherine Price, (360) 848-4472, or by email at price@skagitpud.org. Any questions or issues that may arise regarding the scope, the RFP process, or the award process shall be directed to Catherine Price. Responses to such inquiries shall be given in writing via an addendum to all parties.

3.4. Organization of Submittal

Submissions should be prepared and organized clearly and concisely and must include all information required by this RFP. Headers, titles, or tabs should be used to identify the required information. The submittal shall include the following at a minimum:

INTRODUCTION

• An introductory letter indicating the Assessment Company's interest in offering these services and highlighting its qualifications to perform this work. Also, include the availability to complete all components of the project.
• Company name, authorized contact person, address, and telephone number.
• Table of Contents of the Proposal.

EXPERIENCE AND WORKLOAD

• Describe the Assessment Company's background and leak detection experience.
• Provide details regarding the capabilities of the leak detection technology. The technology shall distinguish between leak sizes, be able to detect leaks less than or equal to 0.15 gpm, and accurately locate the suspected leak within 10 feet.
• Provide a listing of at least three (3) projects the firm has completed that are similar to the project described in this RFP. For each project, provide:
  - Name, address, and telephone number of the client.
Name of the Assessment Company's project manager and personnel who worked on the project, with a description of their roles.

The elements of the projects that are similar to the project described in this RFP.

**PROJECT TEAM EXPERIENCE**

- Provide an organization chart showing all proposed team members, including subconsultants, and describing their responsibilities with this project. Include brief professional qualifications/resumes for members of the core project team.

**PROJECT APPROACH AND SCHEDULE**

- Provide a write-up on the specific tasks listed in the Scope of Services and your approach on how you will complete these, given the District's project objectives. Include proposed dates of project milestones.
- Suggest additional services that may benefit the District.
- Describe the Assessment Company's project management and communications approach for this project.

**PROPOSED ASSESSMENT FEE**

- Provide a proposed cost of services provided, including a breakdown of the fee components, direct costs, indirect costs, and billing schedule with hourly rates.

**4. Evaluation of Submittal**

**4.1. Method of Evaluation**

A panel of District staff members will review the submission based on the criteria listed below and make a Recommendation for Award. The Proposal shall be evaluated based on the following criteria:

1. **Assessment Company Experience and Workload** (24 points maximum)
   - Experience and qualifications of the Assessment Company with leak detection and assessment for public sector clients. Describe success with similar projects. (12 points)
   - The Assessment Company's ability to incorporate this contract into its present workload. (6 points)
   - The Assessment Company's project management methodology. (6 points)

2. **Experience of the Personnel Assigned to the Team** (18 points maximum)
Significant consideration will be given to the individual qualifications of the team members identified in the SOQ, including years of experience, years with the firm, and experience with similar projects.

3. **Project Approach and Schedule** (21 points maximum)

   - This discussion includes a demonstrated understanding of the objectives, scope, and purpose of the contract, with a specific explanation of how the Assessment Company proposes to achieve the District's goals.

4. **Fee** (21 points maximum)

   - The Assessment Company will provide the proposed fee estimate for the assessment, including a cost breakdown by task, direct costs, indirect costs, and billing schedule with hourly rates.

5. **Interview** (16 points maximum)

   - The Assessment Company will be requested to take part in an interview to answer questions from the District's review panel. The Assessment Company will not make a presentation to the District. This interview will be held virtually using the Microsoft Teams platform and will be facilitated by the District.

The panel will make a Recommendation of Award to the District's Commission.

### 4.2. Tentative Evaluation Schedule

The schedule of events set out herein represents the District's best estimate of the schedule that will be followed.

- **Release of RFP**August 7, 2020
- **Last Date for Request for Clarifications**August 21, 2020
- **Submit Proposal**August 28, 2020 @ 3:00 pm
- **Conduct Interviews**TBD
- **Complete Proposal Evaluation**September 10, 2020
- **Complete Negotiation of the Scope of Work, Assessment Company Fee, and Project Schedule**September 17, 2020
- **Present Recommendation of Award to Commission**September 22, 2020
- **Execution Contract and Issue Notice to Proceed**September 30, 2020
SUBMITTAL SIGNATURE PAGE

Name of Assessment Company ________________________________________________________________
Mailing Address ________________________________________________________________
City/State/Zip Code _____________________________________________________________

Receipt is hereby acknowledged of addendum(s) No(s). _____, _____, and _____

Individual designated as the point of contact for any questions or concerns related to the
evaluation of this Proposal:

Name of Representative _____________________________________________________________
Telephone ___________________________ Email ________________________________
Federal Employee Tax Identification Number ______________________________________

Person authorized to bind the corporation to the Terms and Conditions of this response:

Authorized Person ________________________________________________________________
Title ___________________________ Telephone ________________________________
Email ________________________________
Authorized Signature ____________________________________________________________
APPENDIX A

Professional Services Contract
CONTRACT NO. (insert here)

THIS CONTRACT is made and entered into by and between PUBLIC UTILITY DISTRICT NO. 1 OF SKAGIT COUNTY (Owner/District) and (enter consultant name) (Consultant) whose names are subscribed hereto.

WITNESSETH:

WHEREAS the Owner has caused the preparation of certain Contract Documents entitled (insert project name).

WHEREAS the Owner has developed a scope of work, requested a proposal, has received and analyzed said proposals, and has duly given notice of Acceptance of Proposal to the Consultant all of which are made a part hereof and which constitute the whole Contract between the Owner and the Consultant.

NOW, THEREFORE, it is hereby agreed that:

1. The Consultant shall furnish the work, pay all costs, and perform all requirements of this Contract in the manner specified in the attached proposal dated (insert date).

2. The Proposal calls for unit prices and lump sums or time and material pricing set forth in #1 above with a not to exceed price without Owner written approval. The Owner shall pay to the Consultant a total contract amount computed from the unit prices in said Proposal and the actual quantities of units furnished. Based upon the unit prices in the Consultant's Proposal the estimated Total Contract Amount is (spell out dollar amount/100) Dollars (capitalize each word of the dollar amount)($ insert numeric dollar amount).

3. Invoices will be paid by the District to the Consultant within 30 days of receiving monthly invoices based on actual quantities of work performed.

4. The attached Indemnification Agreement is hereby made part of this Contract.

5. Either party hereto may terminate this Contract upon thirty (30) days written notice either personally delivered or mailed postage-prepaid by certified mail, return receipt requested, to the party’s last known address for the purposes of giving notice under this paragraph. If this Contract is so terminated, the parties shall be liable only for performance rendered or costs incurred in accordance with the terms of this Contract prior to the effective date of termination.

IN WITNESS WHEREOF, this Contract and properly transmitted copies, which shall for all purposes be deemed an original hereof, have been duly executed by the parties hereto.

(enter CONSULTANT name)    PUBLIC UTILITY DISTRICT NO. 1
                              OF SKAGIT COUNTY

Name, Title
Mailing Address

Date ________________________ Date ________________________

-------------------
George Sidhu, P.E., General Manager
Post Office Box 1436, 1415 Freeway Drive
Mount Vernon WA 98273
INDEMNIFICATION AGREEMENT

The Consultant agrees to defend, indemnify, and hold the District harmless from any and all claims, demands, losses, and liabilities to or by third parties arising from, resulting from, or connected with work performed or to be performed under this Contract by the Consultant, its agents, employees, and subconsultants, even though such claims may prove to be false, groundless or fraudulent, to the fullest extent permitted by law and subject to the limitations provided below.

The Consultant's duty to indemnify the District shall not apply to liability for damages arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of the District or the District's agents or employees. The Consultant's duty to indemnify the District for damages arising out of bodily injury to persons or damage to property caused by or resulting from the concurrent negligence of Consultant, its agents, employees, or subconsultants and/or the District or the District's agents or employees, shall apply only to the extent of negligence of Consultant, its agents, employees, or subconsultants.

With respect to claims against Consultant by the District pursuant to this Contract only, Consultant expressly waives any immunity that may be granted it under the Workers' Compensation, Industrial Insurance or like statutes and/or any administrative regulations issued pursuant thereto. This waiver does not include or extend to any claims by Consultant's employees directly against Consultant.

Further, Consultant's defense and indemnification obligations under this Contract shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable to or for any third party under Workers' Compensation, Industrial Insurance or like statutes and/or any administrative regulations issued pursuant thereto.

Consultant's duty to indemnify the District for liabilities or losses, other than for bodily injury to persons or damage to property caused by or resulting from negligence, shall apply only to the extent of the fault of Consultant, its agents, employees, or subconsultants, except in situations where fault is not a requirement for liability, in which case indemnity will be provided to the extent the liability or loss was caused by Consultant or its agents, employees, or subconsultants.

Consultant's duty to defend, indemnify and hold the District harmless shall include, as to all claims, demands, losses and liabilities to which it applies, the District's actual attorneys' fees and costs incurred in connection with defending such claim(s) including, without limitation, consultant and expert witness fees and expenses and personnel-related costs in addition to costs otherwise recoverable by statute or court rule.

THE UNDERSIGNED HEREBY CERTIFY THAT THIS AGREEMENT WAS MUTUALLY NEGOTIATED.

CONSULTANT

By: ________________________________

Name, Title

Dated: ______________________________

PUBLIC UTILITY DISTRICT NO. 1
OF SKAGIT COUNTY, WASHINGTON

By: ________________________________

George Sidhu, P.E., General Manager

Dated: ______________________________

The Consultant shall cause each of its subconsultants (and suppliers to the extent any perform any work on the Project site) to execute an Indemnification Contract substantially in the form of the foregoing by which each such entity or person assumes to the District all obligations Consultant assumes to the District as set forth above.
APPENDIX B

Judy Reservoir to Sedro-Woolley Transmission Pipeline Drawings

SECTION 1: 30-INCH CCP, CO 2159, 1970
Sheets 309-C-1.1 through 309-C-6.1 (6 sheets)

SECTION 2: 36-INCH WELDED STEEL, CO 4890, 2015
Sheets 1 through 10 (10 sheets)
Sheets 17 through 27 (11 sheets)

SECTION 3: 20-INCH WELDED STEEL AERIAL, CO 1330, 1958
Sheet 122-S-101 (1 sheet)
Sheet 122-S-105 (1 sheet)

SECTION 4: 24-INCH DUCTILE IRON, CO 2609, 1977
Cover Sheet through Sheet 456-G-1.1 (2 sheets)
Sheets 456-C-1.1 through 456-C-16.1 (18 sheets)
Sheet 456-S-1.1 (1 sheet)
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SECTION 32 & 39, T.35 N., R.5 E., W.M.

NOTE: PLAN & PROFILE DETAILS OF PIPE Line see shop drawings.

R. W. BECK and ASSOCIATES
Surveying and Engineering Services
Seattle, Washington

PLATE 3 OF 3
Public Utility District No.1 of Skagit County

JUDY WTP TO SEDRO WOOLLEY TRANSMISSION LINE-PHASE 1

W.O. #15-03590
C.O. #4890

District Officials
All. Engrs.
James Cox
C. Engrs.
Robbi Robertson
Pres.
Mike Prentice
Vice Pres.
Secretary
Robert Powell
George Benu, P.E.
Dominic Vinit

HDR Project No.
255062

Sedro-Woolley, WA
May 2015

Sheet Index

1. COVER PAGE, LOCATION AND WOOLLEY MAPS, SHEET INDEX
2. GENERAL SYMBOLS, ABBREVIATIONS, AND LISTING
3. GENERAL NOTES: CONSTRUCTION NOTES
4. SURVEY CONTROL MAP
5. ACCESS AND UTILITIES PLAN
6. HYDRAULIC PROFILE
7. PLAN AND PROFILE STA 0+00 TO 9+00
8. PLAN AND PROFILE STA 9+00 TO 13+40
9. PLAN AND PROFILE STA 13+40 TO 18+60
10. ENSURE PLAN AND UTILITIES LOCATIONS
11. ESD AND RESTORATION STA 0+00 TO 9+00
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13. ESD AND RESTORATION STA 13+40 TO 18+60
14. FIRE TRENCHES
15. OPEN VIEW SOUTH SKAGIT HAY ROAD Closure
16. DETAIL 1 BRIDGE & B. SKAGIT HAY
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18. TRENCHING AND SURFACE RESTORATION DETAILS
19. TRENCH PLUGS AND DRAIN DETAILS
20. PIPES, JOINT DETAILS
21. STEEL PIPE CONNECTION DETAILS
22. SADDLE DETAILS
23. AIR VALVE AND AIR RELIEF VALVE TYPE 1
24. AIR RELIEF VALVE TYPE 2
25. SLOW-OFF DRAIN DETAILS
26. WATER VALVES DETAILS
27. NORTH AND SOUTH CONNECTION DETAILS
28. ESD AND RESTORATION DETAILS
29. STANDARD ESD AND RESTORATION NOTES
30. STANDARD ESD DETAILS
31. STANDARD ESD DETAILS
32. STANDARD WATER VALVE DETAILS
33. STANDARD PROTECTION DETAILS
34. TRENCH PROTECTION DETAILS

CONFORMED DRAWINGS
1. The purpose of the sheet is to show the project plan including access and staging areas.

2. Access from the north end of the project will be via West Skagit Highway 204 and Seattle City Light Corridor. The north end of the project will be in Sedro Woolley.

3. Access to the north end of the project will be by using a county-erected road. All temporary roads will be removed during construction.

4. The access plans shall be in accordance with the approved plans and specifications.

5. As the completion of the project approaches, the access shall be closed to public.
ENLARGED PLAN AND UTILITY RELOCATES
JUDY WTP TO SEDRO WOOLLEY
TRANSMISSION LINE
PHASE 1
15-03590
4890
10 34
1"=20' H; 1"=10' V

RJC

5/21/2015

ISSUE

DSGN BY:

DWN BY:

APPVD BY:

DATUM:

HOR: NAD 83

VERT: NAVD 88

DATE PRINTED:

PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

SOUTH SKAGIT HIGHWAY
(LOOKING NORTH)
SCALE 1:500

EXITING WTP

PT

0 50 100
SCALE = 1" = 100'
AIR VALVE DETAIL STATION 11468

1. Use for ductile iron or cast iron only.

2. Air valve should be provided with cover and gasket.

3. Coupling size shall be marked corresponding to valve size.

4. Provide two holes in flange plates and 1/8" wire mesh grommet between flanges.
WATER TRANSMISSION LINE
WEST SEDRO WOOLLEY TO SKAGIT RIVER CROSSING
PUBLIC UTILITY DISTRICT No.1 OF SKAGIT COUNTY, WASHINGTON

R.W. BECK AND ASSOCIATES ENGINEERS AND CONSULTANTS SEATTLE, WASHINGTON