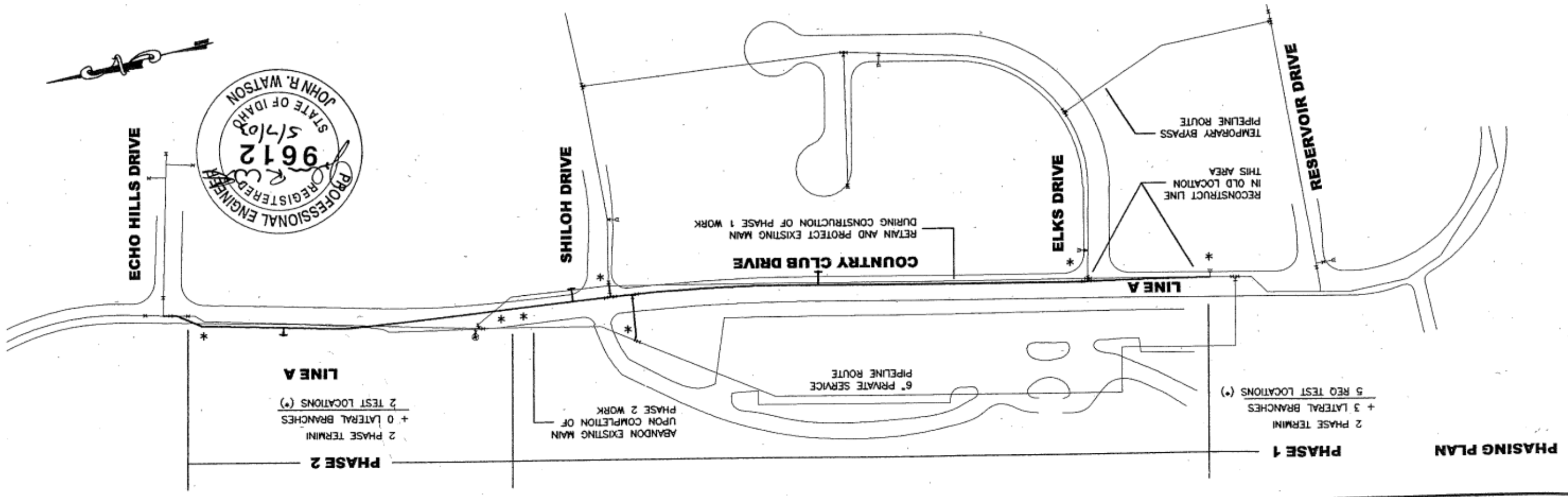




REVISIONS	DESIGNED BY	DRAWN BY	CHECKED BY	DATE
	S.M.	S.M.	J.W.	May 2003



**PHASING PLAN**

**SEQUENCE OF WORK**

**CONSTRUCTION NOTES**

**SEQUENCE OF CONSTRUCTION**

The sequence of construction appearing in the contract plans shows the anticipated method of constructing the planned project with the fewest service interruptions and public inconvenience. The Contractor shall conduct the project in the manner presented unless otherwise authorized. If the Contractor's proposed methods differ from the planned sequence of construction, the Contractor must submit the proposed modification of the project sequence to the Engineer at least ten calendar days in advance of the requested change. The Contractor shall also present the required changes in the project's traffic control plans by showing the necessary construction signs, flaggers, and other traffic control devices required for the change.

Make pressure and leakage tests on all newly laid pipe and valved sections of it. Furnish all necessary equipment and material, make all taps, and furnish all closure pieces in the pipe as required. The City will monitor and approve a satisfactory test. Pressure test procedures shall conform to AWWA C600 as hereinafter modified or expanded, and the requirements of any governing agency having jurisdiction. Conduct tests after the trench has been partially back-filled with the joints left exposed for inspection, or when completely back-filled, as permitted by the City. Where any section of pipe is provided with concrete thrust blocking, do not conduct pressure test until at least 2 days have elapsed after the concrete thrust blocking was installed. If high-early cement is used for the concrete thrust blocking, the time may be reduced to 1 day. After the pipe has been back-filled or partially back-filled, as herein specified, fill the pipe with water, expelling air during filling, and permit it to stand for a 24-hour period to allow natural absorption to take place. The pressure to be used in the test shall be the greater of 1.5 times the working pressure or 150 psi. Before disinfecting, flush all foreign matter from the pipeline. Provide hoses, pumps, temporary pipes, ditches, etc., as required to dispose of flushing water without damage to adjacent properties. Flushing velocities shall be at least 2.5 FPS. For large diameter pipe where it is impractical or impossible to flush the pipe at 2.5 FPS velocity, clean the pipeline in place from the inside by brushing and sweeping, then flush the line at a lower velocity.

Disinfection  
 Pipelines intended to carry potable water shall be disinfected and tested by the City before placing in service. Disinfection procedures shall conform to AWWA C651 as hereinafter modified or expanded, and the requirements of any governing agency having jurisdiction. Treated water shall be retained in the pipeline long enough to destroy all nonspore-forming bacteria, or as directed by the Engineer. The Contractor shall be responsible to operate all new valves, hydrants and other appurtenances during disinfection to assure that the disinfecting mixture is dispersed into all parts of the line, including dead ends, new services and similar areas that otherwise may not receive the treated water. After the applicable retention period, heavily chlorinated water will be flushed from the new water main. After final flushing and before the new main is connected to the distribution system, two consecutive sets of acceptable samples, taken at least 24 hours apart, shall be collected from the new main.

The Contractor shall provide testing locations as required by the plans or as directed by the Engineer. A combination blowoff and sampling tap is recommended, but samples may be taken at tapped saddle locations provided that the saddle is used for a service connection at the completion of the project. No hose or fire hydrant may be used in the collection of samples. All samples shall be tested for bacteriological quality in accordance with Standard Methods for the Examination of Water and Wastewater, and shall show the absence of coliform organisms. Each test requires a minimum 24 hour period for results.

**PHASE 1**  
 CONSTRUCT LINE A 10+10 TO 20+00  
 CONSTRUCT LATERAL BRANCHES  
 PRESSURE TEST AND DISINFECT LINES  
 BACTERIOLOGICAL TEST (2 DAY MIN)  
 CONNECT LINE A @ 18+16 AND 10+00  
 TRANSFER SERVICE @ 13+93  
 CONNECT LINE A @ 18+47 AND 11+74

**PHASE 2**  
 CONSTRUCT LINE A 20+00 TO 24+77  
 PRESSURE TEST AND DISINFECT LINES  
 BACTERIOLOGICAL TEST (2 DAY MIN)  
 CONNECT LINE A @ 20+00  
 TRANSFER SERVICES @ 20+65 AND 24+50  
 CONNECT LINE A @ 24+77