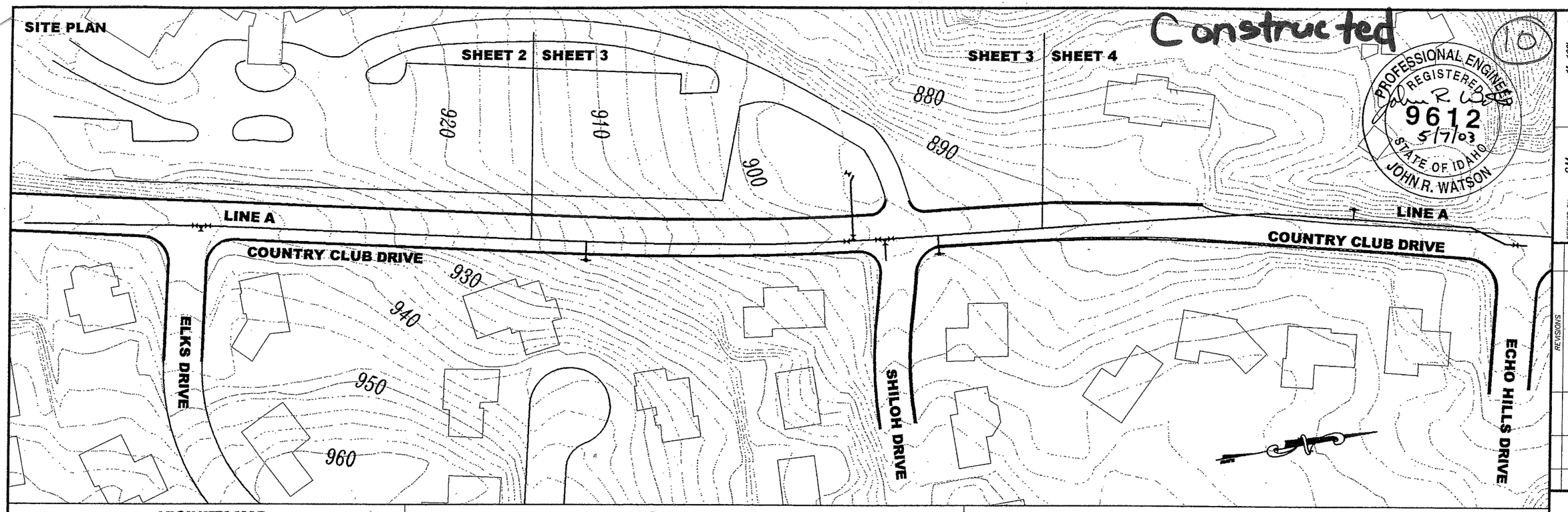
Constructed

10

SITE PLAN

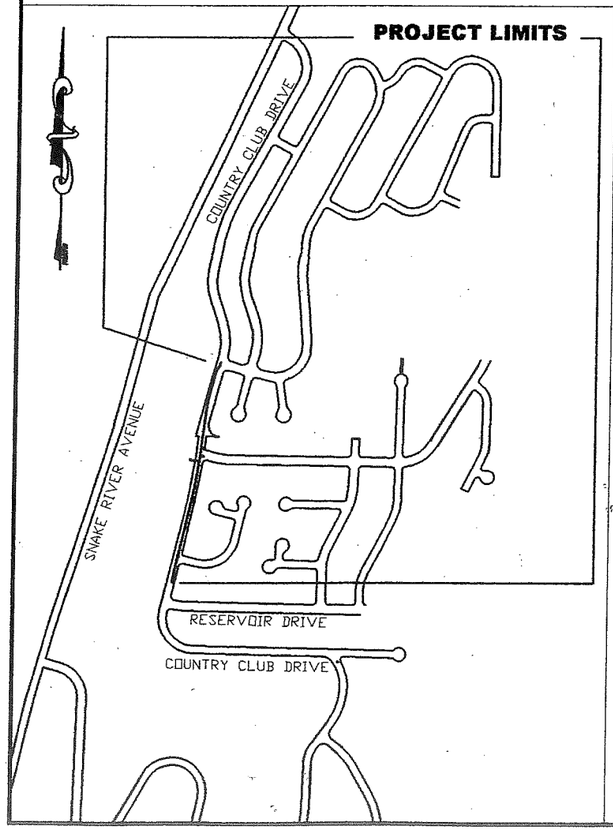


PROFESSIONAL ENGINEER
REGISTERED
JOHN R. WATSON
9612
5/7/03
STATE OF IDAHO

SCALE:	1"=100'
DATE:	May 2003
DRAWING NO.:	Site Plan
SHEET	1 OF 7
DESIGNED BY:	S.M.
DRAWN BY:	S.M.
CHECKED BY:	J.W.
JOB NO.:	

NO.	DATE	FILENAME	DESCRIPTION	BY
			REVISIONS	

VICINITY MAP



LEGEND

EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM
		Deciduous Tree	— P —		Power
		Shrub	— T —		Telephone
		Traffic Sign	— SD —		Storm Drain
		Telephone Riser	— SS —		Sanitary Sewer
		Utility Pole	△		Survey Control Point
		Utility Pole Anchor	⊕		Monument
		Gas Meter	— x —		Wire Fence
		Catch Basin	— · · —		Right-of-Way Line
		Storm Drain Manhole			Property Line
		Sanitary Sewer Manhole			Edge of Pavement
		Water Meter Setting			Curb & Gutter
		Water Valve			Building
		Fire Hydrant			P.C.C. Pavement
		Tee			A.C. Pavement
		90° Elbow			Gravel
		45° Elbow		A/1	Detail or Section Designation
		22.5° Elbow			Sheet Number on Which Detail Appears
		11.25° Elbow			
	PRV	Pressure Reducing Valve (PRV) Station			
		Remove & Replace (Fire Hydrant or Water Meter Setting)			
		Remove (Fire Hydrant or Water Meter Setting)			
— W —		Water			
— GAS —		Gas			
— CTV —		Cable TV			

CONSTRUCTION NOTES

1. UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATIONS IN FIELD PRIOR TO EXCAVATION. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR OR UTILITY COMPANY, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE UTILITY COMPANY.
2. UTILITY FORCES MAY ENGAGE IN MOVING, RECONSTRUCTING OR INSTALLING, OR MAINTAINING UTILITY FACILITIES, AND THE CONTRACTOR SHALL COOPERATE WITH THESE FORCES AND CONDUCT OPERATIONS IN SUCH A MANNER AS TO AVOID ANY DELAY TO WORK BEING PERFORMED BY OTHER FORCES. THE CONTRACTOR SHALL JOIN HIS WORK WITH THE WORK OF THE OTHERS AND PERFORM THE WORK IN PROPER SEQUENCE AND WITH JUDICIOUS HANDLING OF FORCES AND EQUIPMENT.
3. SURVEYING AND CONSTRUCTION STAKING FOR SEWER AND WATER MAIN CONSTRUCTION WILL BE PERFORMED BY THE CITY OF LEWISTON. CONTRACTOR SHALL RETAIN AND PROTECT CONSTRUCTION STAKING, AND SHALL NOTIFY THE ENGINEER OF ANY ERRORS.
4. SHOULD ADD ALTERNATE D BE AWARDED, ALL INSTALLATION WORK WITHIN THE ROADWAY LIMITS SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF THE MAINTENANCE OVERLAY.
5. THE NEW WATER MAIN SHALL BE CONSTRUCTED IN THE SEQUENCE INDICATED BY THE PLANS UNLESS OTHERWISE DIRECTED.
6. ALL TRENCHES AND EXCAVATED AREAS SHALL BE BACKFILLED TO FINISH GRADE WITH CRUSHED AGGREGATE BACKFILL IN ACCORDANCE WITH SECTION 202 OF THE SPECIFICATIONS. EXCESS AGGREGATE SHALL BE REMOVED PRIOR TO PAVEMENT REPLACEMENT.
7. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL SEPARATION OF 10' BETWEEN THE WATER MAIN AND SANITARY OR STORM SEWER MAIN AND IN COMPLIANCE WITH CITY OF LEWISTON STANDARD DRAWING W-9.
8. AT ALL WATER/SEWER MAIN CROSSINGS, WATER MAINS SHALL BE CONSTRUCTED TO PROVIDE A MINIMUM 18" VERTICAL SEPARATION BETWEEN THE OUTSIDE OF THE WATER MAIN AND OUTSIDE OF THE SANITARY OR STORM SEWER MAIN. THE WATER MAIN SHALL BE INSTALLED WITH A MINIMUM 20' LENGTH WATER CLASS PIPE ENCASEMENT AT THE SEWER LINE CROSSING.
9. THRUST BLOCKS SHALL BE INSTALLED AT ALL FITTING LOCATIONS AS SPECIFIED ON CITY STANDARD DRAWING W-2. THRUST BLOCKS SHALL BE CONSTRUCTED TO SIZES BASED ON ALLOWABLE SOIL STRESS OF 1000 PSI.
10. REMOVAL OF CURB FOR HYDRANT INSTALLATION IS INCIDENTAL TO THAT ITEM. PAY LENGTH FOR REPLACEMENT OF CURB AND GUTTER OVER HYDRANT LEADS SHALL BE AS INDICATED OR DIRECTED BY THE ENGINEER. WHEN WATER SERVICES ARE REQUIRED BENEATH EXISTING CURBS, THE CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING CURBS.
11. THE CONTRACTOR SHALL PRESSURE TEST THE NEW WATER MAIN IN ACCORDANCE WITH THE SPECIFICATIONS AND AWWA C600.
12. EXCEPT AS REQUIRED IN THE SPECIFICATIONS, THE CONTRACTOR WILL NOT BE REQUIRED TO DISINFECT NEW WATER MAINS. THE CONTRACTOR SHALL INSTALL FITTINGS AND APPURTENANCES AS REQUIRED BY THE OWNER FOR DISINFECTION. THE CITY OF LEWISTON WATER DEPARTMENT WILL THEN PERFORM SYSTEM DISINFECTION.
13. CONNECTION OF EXISTING WATER SERVICE LINES SHALL BE PERFORMED IN ACCORDANCE WITH DETAIL A/7
14. THE EXISTING WATER LINE SHALL BE KEPT IN SERVICE UNTIL ALL WATER SERVICE CONNECTIONS ARE INSTALLED ON THE NEW WATER MAIN. THE EXISTING WATER MAIN SHALL BE CAPPED AND ABANDONED IN PLACED UNLESS OTHERWISE SPECIFIED.
15. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. RESTORATION OF PAVEMENT, SIDEWALK, CURB, AND GUTTER SHALL BE IN CONFORMANCE WITH THE PROVISIONS OF SECTION 201 OF THE SPECIFICATIONS. RESTORATION OF ALL OTHER SURFACES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

Constructed

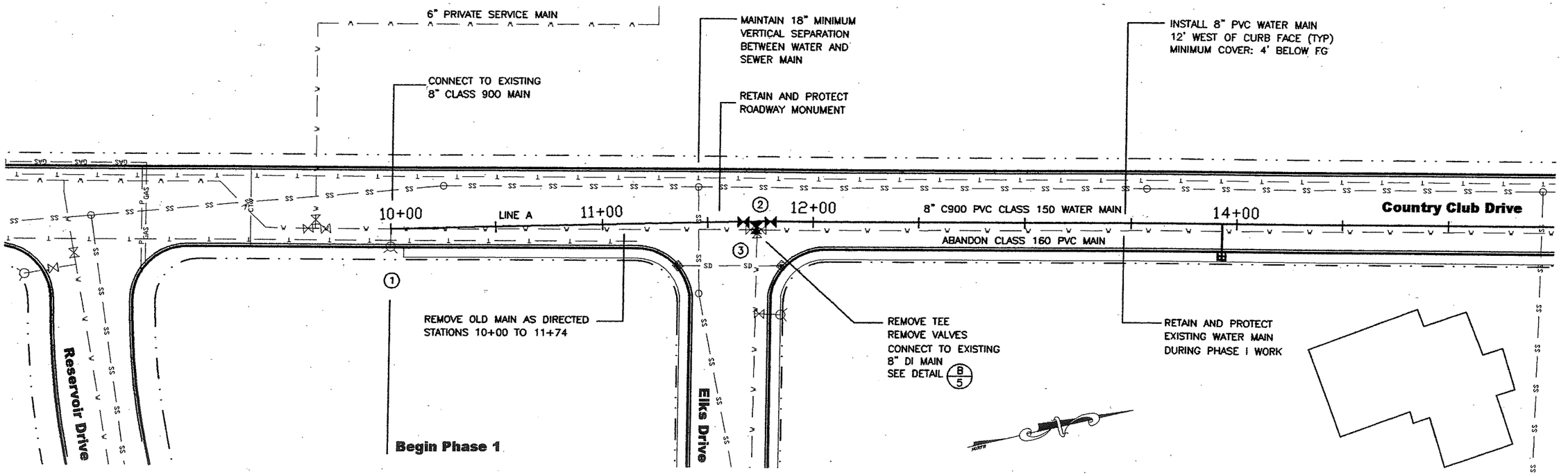
SITE PLAN
ADD ALTERNATE D
Country Club Drive
Water Main Replacement

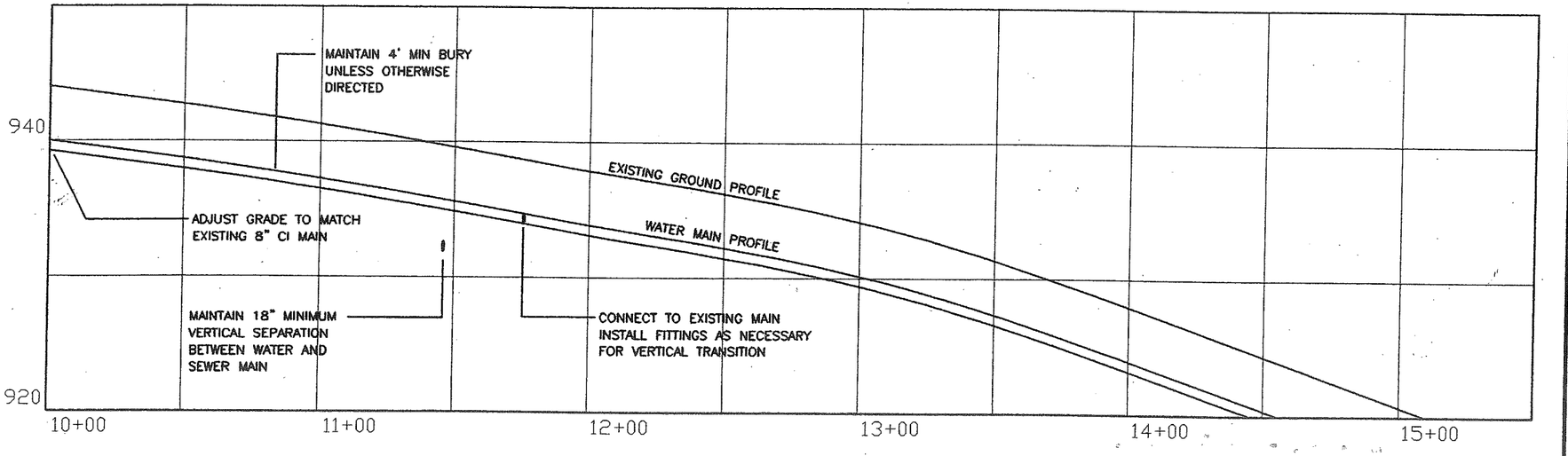
CITY OF LEWISTON
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1134 F STREET LEWISTON, ID 83501
(208) 746-3671 FAX (208) 746-9667

WATER MAIN SCHEDULE

NO.	LINE	STATION	OFFSET	NOTES	NO.	LINE	STATION	OFFSET	NOTES
(1)	'A'	10+00		CONNECT TO EXISTING MAIN	(3)	'A'	13+74	RT	REMOVE EXISTING TEE
(2)	'A'	11+74		8" x 8" FL TEE					REMOVE EXISTING VALVES (3)
				8" FL x MJ GV (S)					CONNECT TO EXISTING MAIN (E)
				8" FL x MJ GV (N)					CAP ABANDONED MAIN (N)
				8" FL x MJ GV (E)					CAP ABANDONED MAIN (S)
				10 LF 8" PIPE (E)					

PROFESSIONAL ENGINEER
REGISTERED
9612
5/7/03
STATE OF IDAHO
JOHN R. WATSON





REVISIONS			
NO.	DATE	FILENAME	DESCRIPTION	BY

DESIGNED BY: S.M. | SCALE: 1" = 50'
DRAWN BY: S.M. | DATE: May 2003
CHECKED BY: J.W. | DRAWING NO.: plans.dwg
JOB NO.: | SHEET 2 OF 7

PLAN AND PROFILE
ADD ALTERNATE D
Country Club Drive
Water Main Replacement

CITY OF LEWISTON
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1134 F STREET LEWISTON, ID 83501
(208) 746-3671 FAX (208) 746-9867

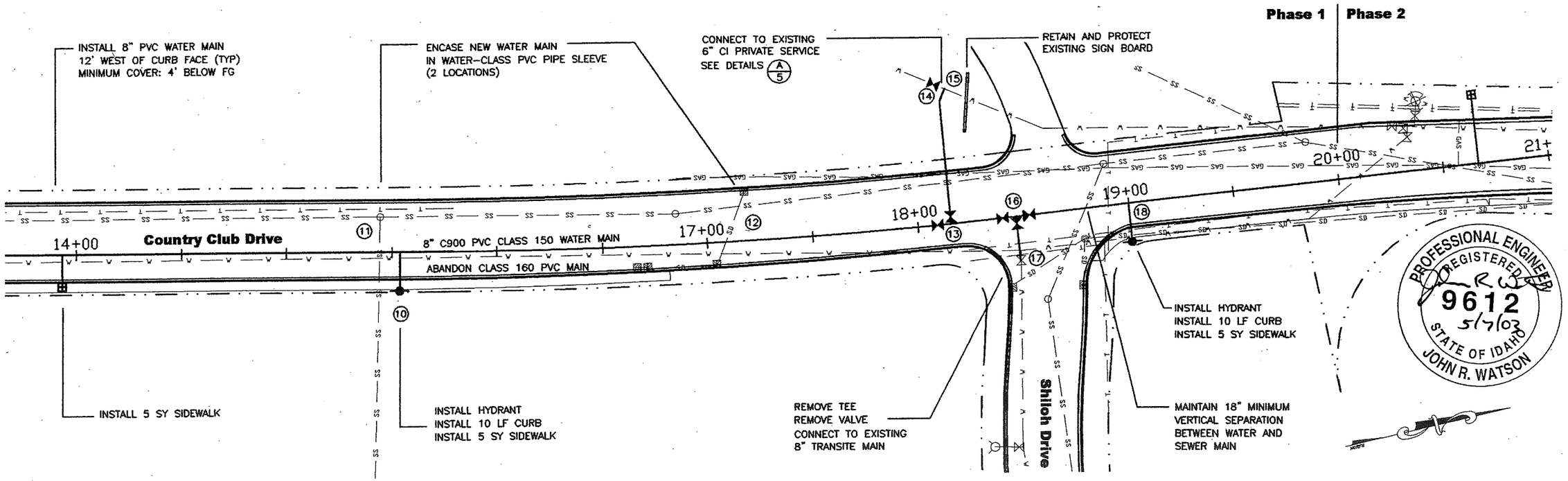
WATER MAIN SCHEDULE

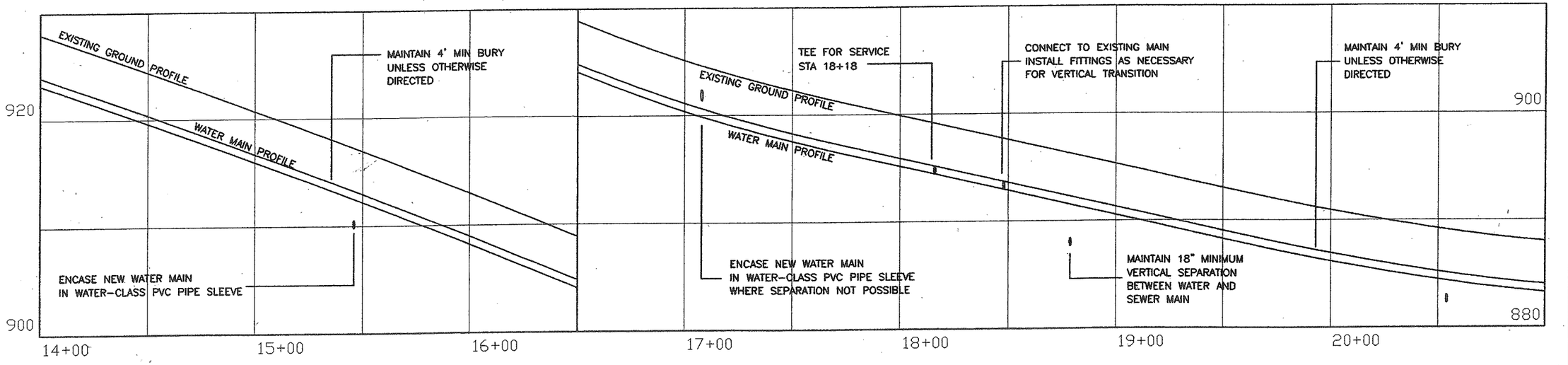
NO.	LINE	STATION	OFFSET	NOTES
(10)	'A'	15+54	18' RT	HYDRANT ASSEMBLY
(11)	'A'	15+44		ENCASE PIPELINE – 20 LF
(12)	'A'	17+09		ENCASE PIPELINE – 20 LF
(13)	'A'	18+16		8" x 6" FL TEE
				8" FL x MJ GV (S)
				8" FCA (N)
				6" FL x MJ GV (W)
				66 LF 6" PIPE (W)
				6" 22 DEG ELL (W)

NO.	LINE	STATION	OFFSET	NOTES
(14)	'A'	18+16	LT	6" x 6" FL TEE
				6" FL x MJ GV (S)
				6" FCA (E)
				6" FCA (N)
				CONNECT TO EXISTING MAINS
(15)	'A'	18+16	LT	CAP EXISTING MAIN (N)
				CAP ABANDONED MAIN (N)

NO.	LINE	STATION	OFFSET	NOTES
(16)	'A'	18+47		8" x 8" FL TEE
				8" FL x MJ GV (S)
				8" FL x MJ GV (N)
				8" FL x MJ GV (E)
				21 LF 8" PIPE (W)

NO.	LINE	STATION	OFFSET	NOTES
(17)	'A'	18+47	RT	REMOVE EXISTING TEE
				REMOVE EXISTING VALVE
				CONNECT TO EXISTING MAINS
				CAP ABANDONED MAIN (N)
				CAP ABANDONED MAIN (S)
(18)	'A'	19+00	18' RT	HYDRANT ASSEMBLY



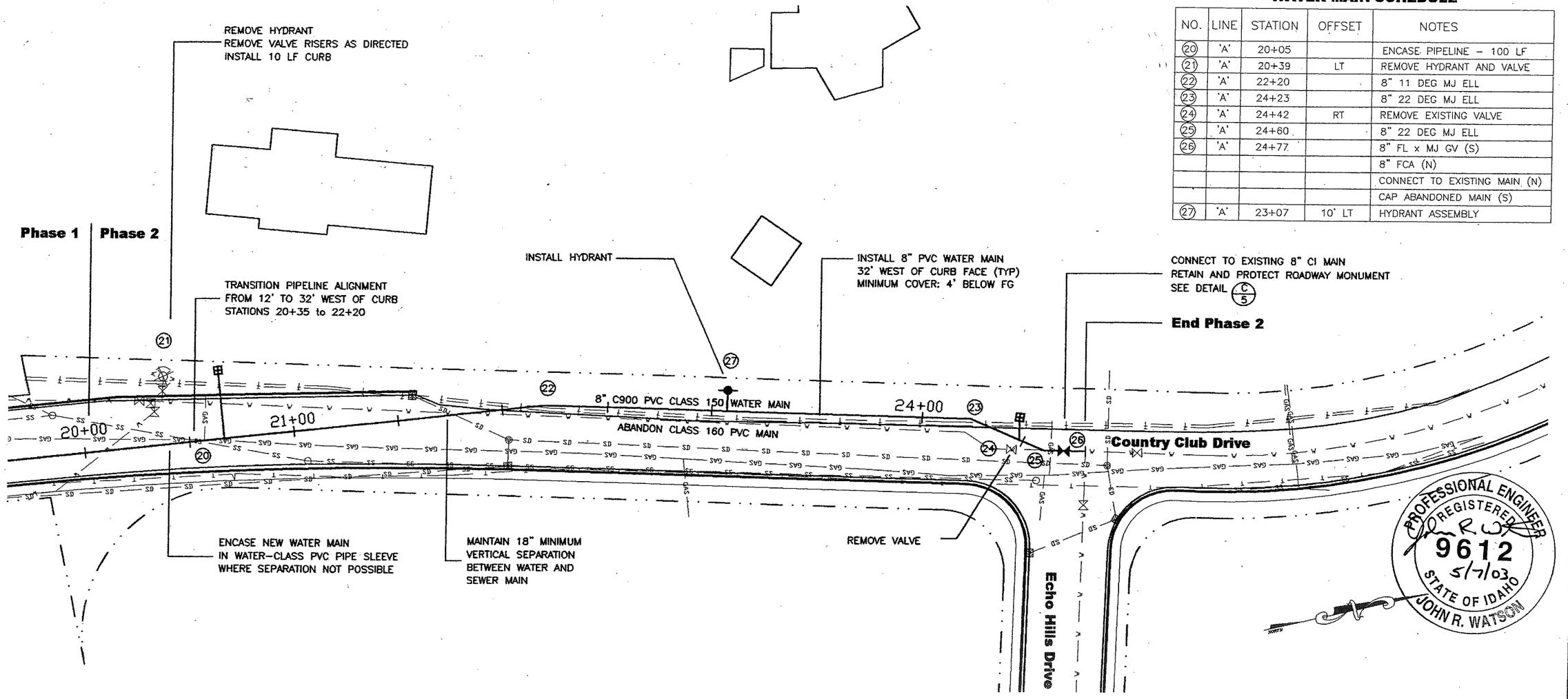


SCALE:	1" = 50'
DATE:	May 2003
DRAWING NO.:	plans.dwg
SHEET	3 OF 7
DESIGNED BY:	S.M.
DRAWN BY:	S.M.
CHECKED BY:	J.W.
JOB NO.:	

NO.	DATE	FILENAME	DESCRIPTION	BY
REVISIONS				

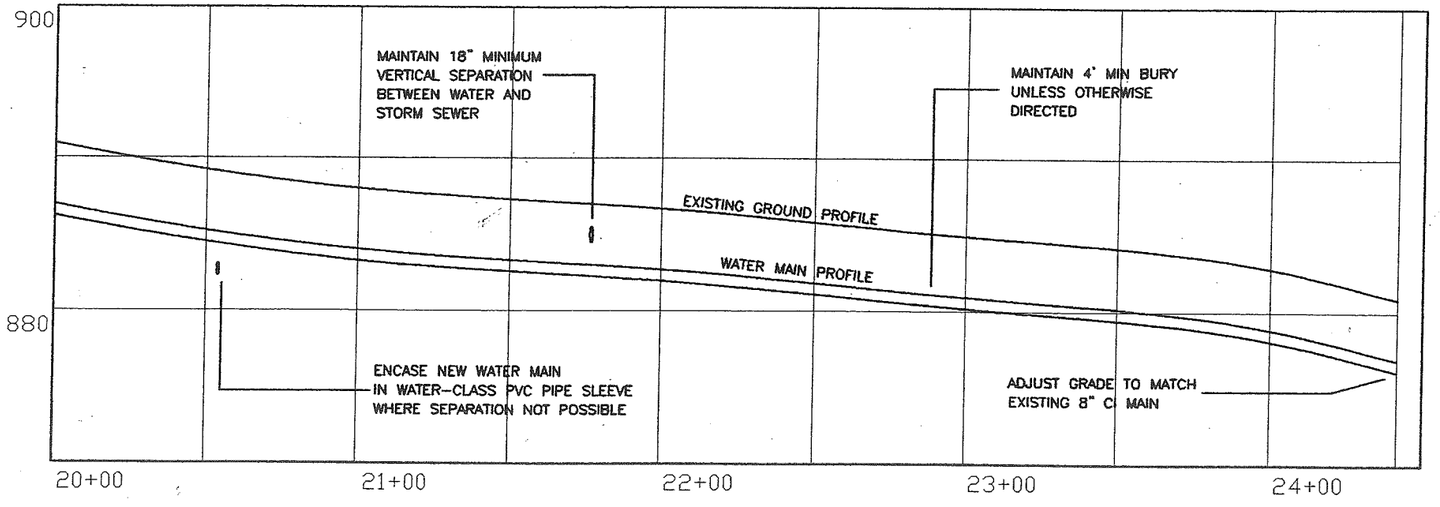
PLAN AND PROFILE
ADD ALTERNATE D
Country Club Drive
Water Main Replacement

CITY OF LEWISTON
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1134 'F' STREET LEWISTON, ID 83501
(208) 746-3671 FAX (208) 746-8667



WATER MAIN SCHEDULE

NO.	LINE	STATION	OFFSET	NOTES
20	'A'	20+05		ENCASE PIPELINE – 100 LF
21	'A'	20+39	LT	REMOVE HYDRANT AND VALVE
22	'A'	22+20		8" 11 DEG MJ ELL
23	'A'	24+23		8" 22 DEG MJ ELL
24	'A'	24+42	RT	REMOVE EXISTING VALVE
25	'A'	24+60		8" 22 DEG MJ ELL
26	'A'	24+77		8" FL x MJ GV (S)
				8" FCA (N)
				CONNECT TO EXISTING MAIN (N)
				CAP ABANDONED MAIN (S)
27	'A'	23+07	10' LT	HYDRANT ASSEMBLY



WATER SERVICE NOTES

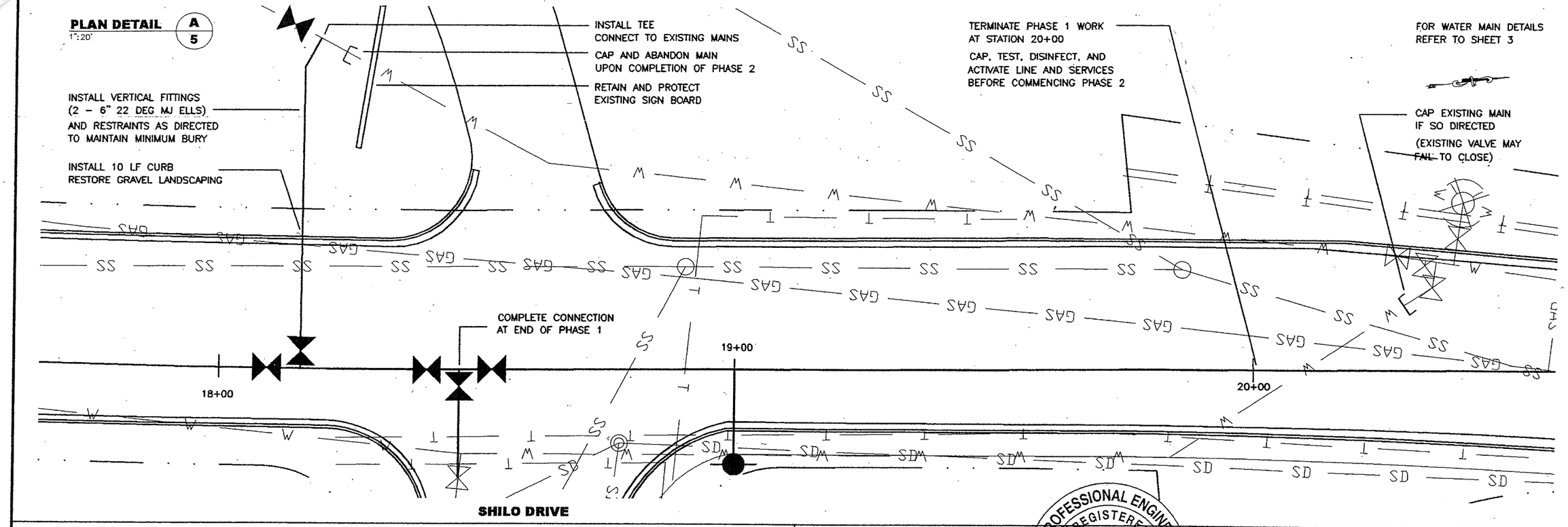
LINE	LOCATION	SIDE	ADDRESS	ID #	APPROX LENGTH	NOTES
'A'	13+93	RT.	3473 Elks Dr	NONE	15 LF	1" SERVICE
'A'	20+65	LT.	3406 CC	5286	33 LF	1" SERVICE
'A'	24+50	LT.	3434 CC	5288	12 LF	1" SERVICE

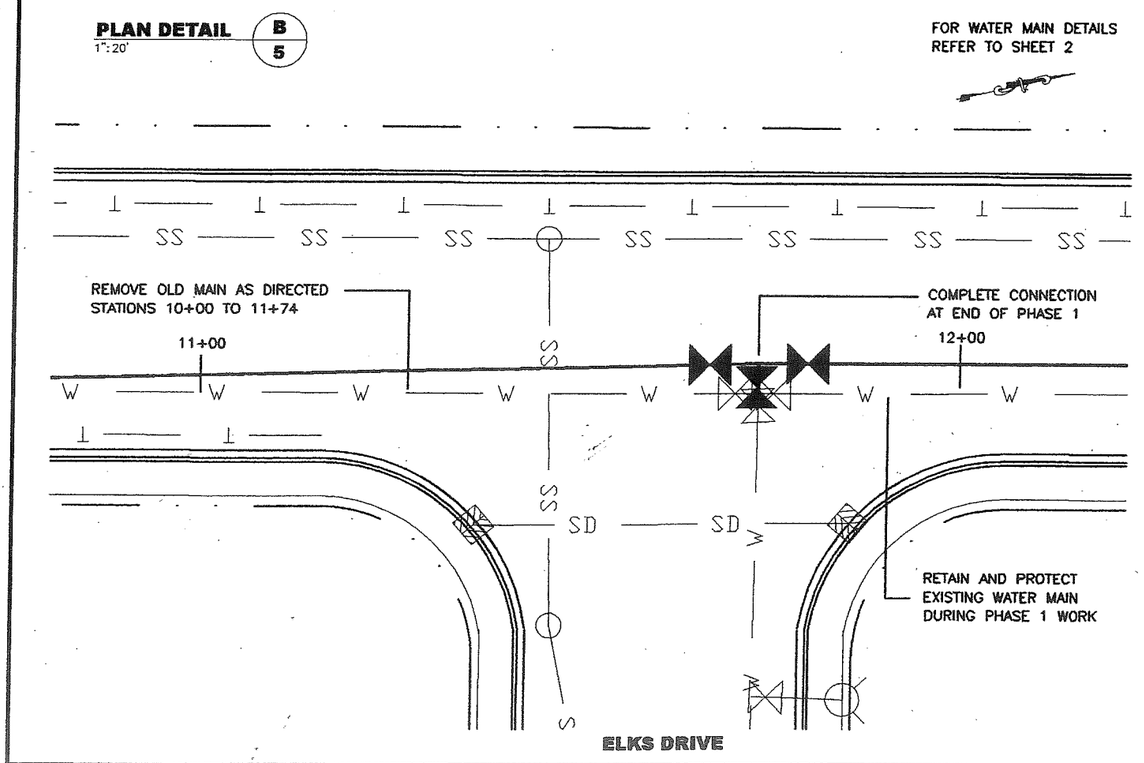
REVISIONS

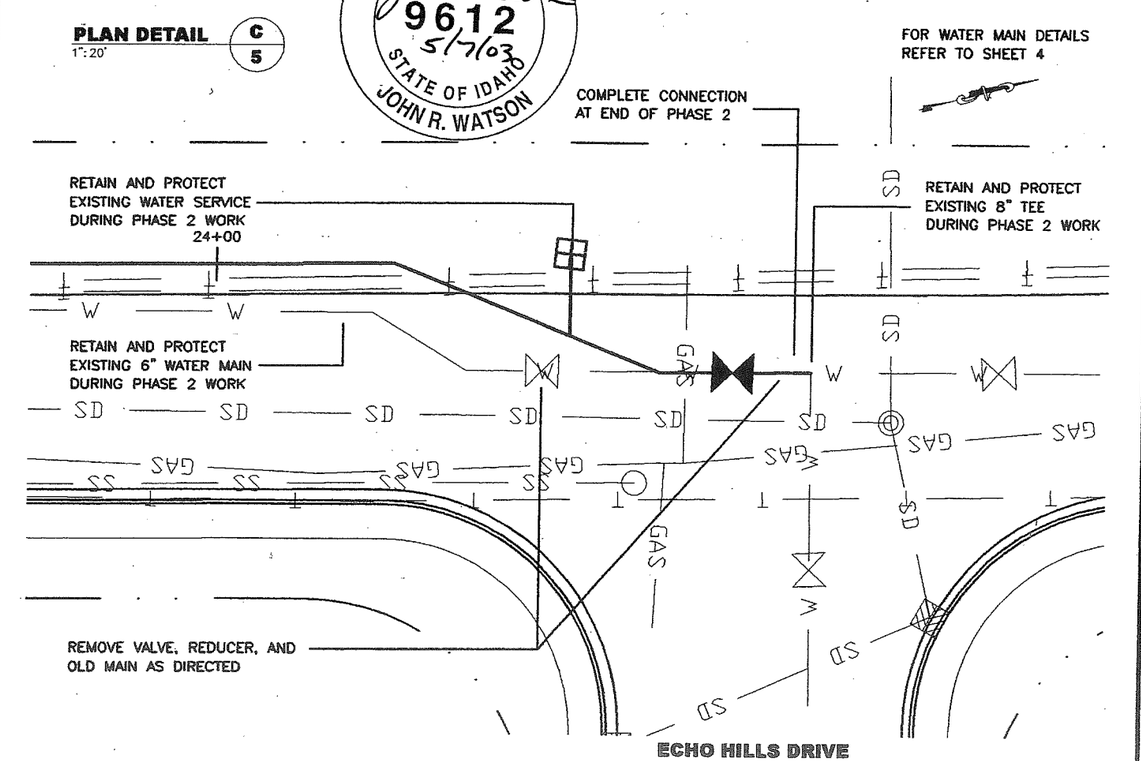
DESIGNED BY: S.M.
DRAWN BY: S.M.
CHECKED BY: J.W.
SCALE: 1" = 50'
DATE: May 2003
DRAWING NO.: plans.dwg

PLAN AND PROFILE
ADD ALTERNATE D
Country Club Drive

CITY OF LEWISTON
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1134 'F' STREET LEWISTON, ID 83501
(208) 746-9671 FAX (208) 746-9667







PROFESSIONAL ENGINEER
REGISTERED
9612
5/7/03
STATE OF IDAHO
JOHN R. WATSON

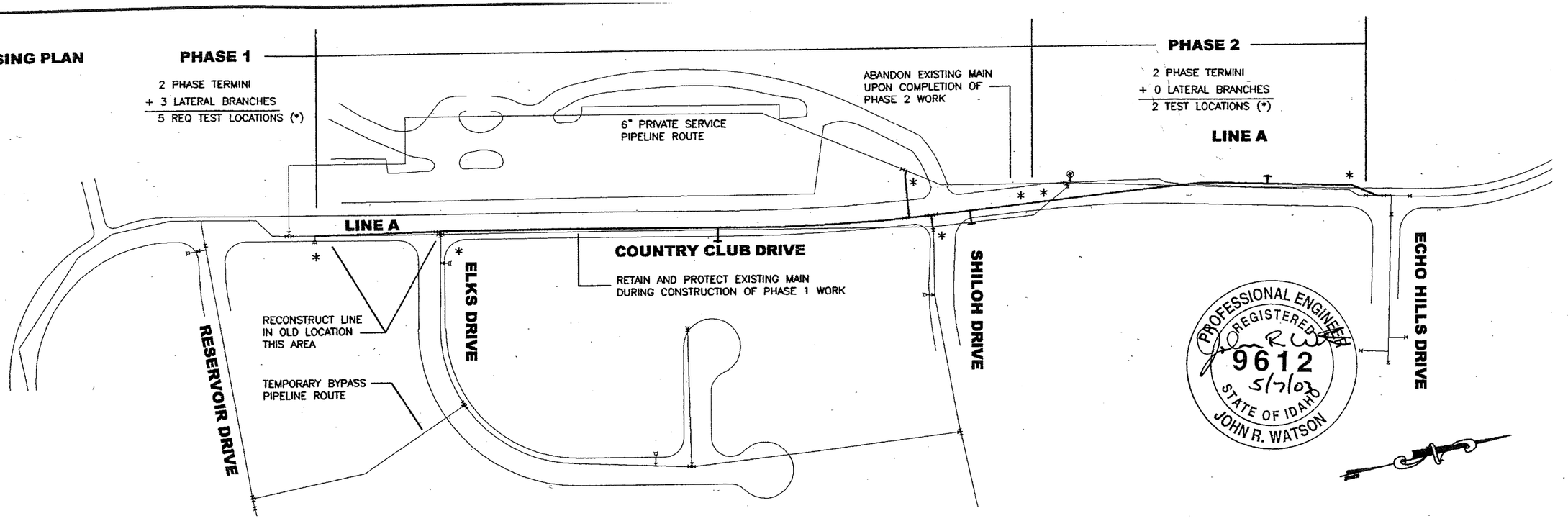
SCALE:	1" = 20'
DATE:	May 2003
DRAWING NO:	plans.dwg
DESIGNED BY:	S.M.
DRAWN BY:	S.M.
CHECKED BY:	J.W.

REVISIONS

PLAN DETAILS
ADD ALTERNATE D
Country Club Drive
Water Main Replacement

CITY OF LEWISTON
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1134 14th STREET LEWISTON, ID 83501
(208) 746-3671 FAX (208) 746-9687

PHASING PLAN



SEQUENCE OF WORK

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

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.

Hydrostatic Test

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.

DESIGNED BY: S.M. | SCALE: 1"= 150'
DRAWN BY: S.M. | DATE: May 2003
CHECKED BY: J.W. | DRAWING NO.: phasing.dwg
REVISIONS

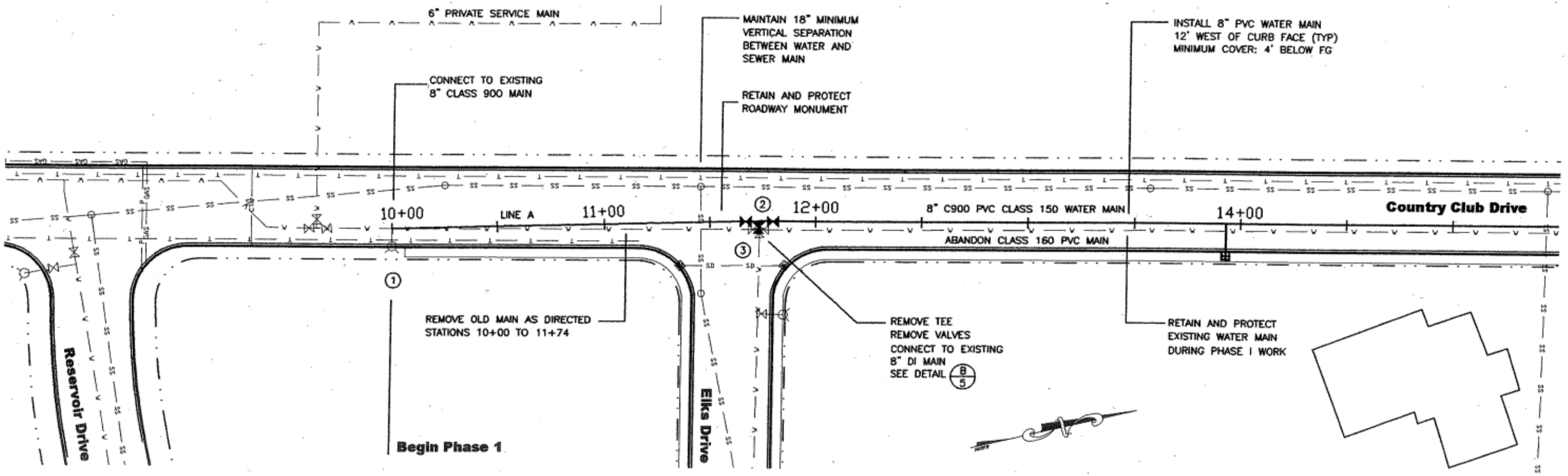
PHASING PLAN AND WORK SEQUENCE
ADD ALTERNATE D
Country Club Drive
Water Main Replacement

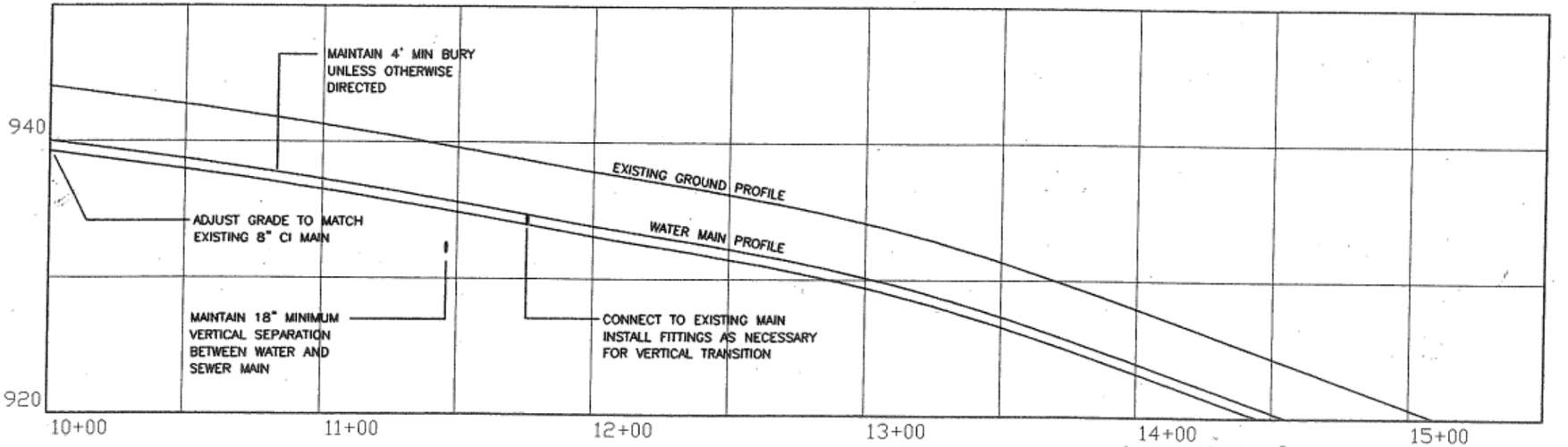
CITY OF LEWISTON
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1134 F STREET LEWISTON, ID 83501
(208) 746-3671 FAX (208) 749-8667

WATER MAIN SCHEDULE

NO.	LINE	STATION	OFFSET	NOTES	NO.	LINE	STATION	OFFSET	NOTES
(1)	'A'	10+00		CONNECT TO EXISTING MAIN	(3)	'A'	13+74	RT	REMOVE EXISTING TEE
(2)	'A'	11+74		8" x 8" FL TEE					REMOVE EXISTING VALVES (3)
				8" FL x MJ GV (S)					CONNECT TO EXISTING MAIN (E)
				8" FL x MJ GV (N)					CAP ABANDONED MAIN (N)
				8" FL x MJ GV (E)					CAP ABANDONED MAIN (S)
				10 LF 8" PIPE (E)					

PROFESSIONAL ENGINEER
REGISTERED
JOHN R. WATSON
9612
5-7-03
STATE OF IDAHO





DESIGNED BY:	S.M.
DRAWN BY:	S.M.
CHECKED BY:	J.W.
JOB NO.:	
SCALE:	1" = 50'
DATE:	May 2003
DRAWING NO.:	pstrs.dwg
SHEET	2 OF 7

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

PLAN AND PROFILE
ADD ALTERNATE D
Country Club Drive
Water Main Replacement

CITY OF LEWISTON
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1134 9TH STREET LEWISTON, ID 83501
(208) 746-3671 FAX (208) 746-9667