

August 30, 2017

Memorandum

To: Doug Schulze, Barry Loveless, Charles Krumheuer, Joe Levan
From: Piper Thornburgh, attorney on behalf of Jane Brunton, Owner
Re: Ownership Transfer of Casey Street Water Company LLC to COBI

Attached please find documentation and photographs for your consideration as you evaluate the offer by Jane Brunton to transfer ownership of the Casey Street Water Company to the City. Ms. Brunton acquired the system with her husband in 1994 from William Randall (d/b/a Starr Water Management Co.). In 2002, she took over sole ownership and formed the Casey Street Water Company, LLC (f/n/a New Brooklyn Water Company LLC). The system serves 8 households, 21 people total with the ability to add a 9th household. The system is in good repair with maintenance provided by Gresham Pump & Drilling.

2017 Financial information:

\$1558, January 1, 2017 balance in operating account
\$1394, August 23, 2017 balance in operating account
\$2603, deposits received

2017 Expenses:

\$138, Puget Sound Energy
\$943, Gresham
\$113, City of Bainbridge Island utility tax
\$700, Insurance
\$937, Repairs to the well house (new door and structural improvements)

The attached documents relating to the operation and maintenance of the system:

1. Casey Street Water Company rate sheet, July 7, 2017
2. Current Customer List
3. Casey Street Water Company meter readings: January 2017 through July 2017
4. State of Washington Certificate of Water Right, recorded June 21, 2001
5. Easement, recorded October 21, 1983
6. Documents filed May 2, 1983 with the Kitsap County Department of Community Development, including:
 - New Systems Data.
 - Parcel maps
 - Original water well report, January 9, 1983
 - Source and Distribution Plan
 - Schematic of well house
7. As-built drawing
8. Drinking water results, Spectra Laboratories Coliform Bacteria Analysis, July 28, 2017
9. Peter Corelis email to Jane Brunton re: costs of extending water main, June 22, 2017
10. Repair and Replacement Cost List
11. Photographs

ATTACHMENT 1

Casey Street Water Company LLC
8815 Ferncliff Avenue NE
Bainbridge Island, WA 98110

Casey Street Water Company LLC is a Group B water system (serving 2 – 14 connections). In accordance with requirements of the Kitsap County Health District and the WA State Department of Health (DOH), as stated in WAC Chapter 246-291, the system is in compliance for the tests required.

From January 1, 2009 through April, 2013, the base rate was \$50 per month for 600 cubic feet
Effective May 1, 2013 the base rate was increased to \$55 per month for 600 cubic feet
Effective September 1, 2016 the base rate was decreased to \$45 per month for 800 cubic feet
Effective July 1, 2017 the base rate remains at \$45 per month for 1000 cubic feet

As of 7/1/17, a Base Rate of \$45.00 for 1000 cubic feet (approx. 7,480.52 gallons) is in effect.
This rate may change. As a courtesy, notice of an increase in the base rate will be provided with a minimum of 60 days notice.

Amount over base: \$.05 per cubic foot all year

Fees:

Payment returned unpaid	\$ 24.00
Late Payments	\$ 24.00
Top of meter box or meter has to be cleared of debris in order to read meter	\$ 30.00
Disconnect and reconnect fee when payments are 3 months past due	\$100.00
Disconnect Existing Customer/Connect New (home sold/bought)	\$300.00

A special assessment was requested in 2016 for unexpected and large maintenance/replacement costs related to the well pump, well house and booster pump. An assessment could be requested at any time if there are exceptional expenses or damage to equipment or the facilities.

Water customers are responsible for all maintenance and repair of lines that are located on their property, and/or outside the easement area approved for the system owner/operator. Customers must ensure that the lid on the meter box can be easily lifted and that the meter is not covered by dirt or water and can be read without difficulty.

Meters are read monthly on the last day of the month and invoices are mailed within two days following the last day of the month. The bill shows the meter reading at the beginning and closing dates of the billing period, and states the usage for the month. The meter reading and invoice mailing could be delayed due to severe weather conditions.

Payments are due upon receipt, no later than the 15th of each month. Payments received after the 15th are subject to a late charge. Water service will be interrupted if a homeowner does not make payments for 3 consecutive months. If this happens, the homeowner may be asked to pay everything that is due in cash, including fees, before service is restored.

If the electrical power is out, there is no water service until the electrical power is restored. If there is exceptionally heavy water usage, the system will automatically shut down until the storage tank refills. If you don't have water and there is no apparent electrical power outage, please wait approximately 30 minutes before calling me. The tank typically refills and resets within 15 – 20 minutes, but it can take up to 30 minutes.

If there is a power outage and the temperatures fall below freezing, there is a strong possibility that the pumps or pipes may freeze, which may result in major damage to the system. This may also happen if there is damage to the well house as the result of a storm. A generator back-up is not feasible. Water service will be restored as soon as possible. Extraordinary expenses will result in an assessment to all system users. As required by the Kitsap County DOH, termination of service, i.e., shutting down the system and ceasing service can be made with 12 months notice.

Jane Brunton, Owner/Manager (206) 855-0630
8815 Ferncliff Ave. NE
Bainbridge Island, WA 98110

ATTACHMENT 2

**Lotus and Sean Halligan
10210 NE Casey St.
Bainbridge Island, WA 98110**

**Sean Strother (property rented to Annie Osburn)
10250 NE Casey St.
Bainbridge Island, WA 98110**

**Elizabeth Frei
10203 NE Casey St.
Bainbridge Island, WA 98110**

**Wanda and Miles Schulze
10300 NE Casey Street
Bainbridge Island, WA 98110**

**Leo and Sherry Glahn
10303 NE Casey St.
Bainbridge Island, WA 98110**

**Angela Adams
10245 NE Casey St.
Bainbridge Island, WA 98110**

**Mariela Humphrey
8855 Ferncliff Ave.
Bainbridge Island, WA 98110**

**Jane Brunton
8815 Ferncliff Ave NE
Bainbridge Island, WA 98110**

ATTACHMENT 3

CASEY STREET WATER COMPANY METER READINGS FOR

JULY, 2017

NAME	METER #	THIS Month	LAST Month	USAGE	MONTHLY BILLING
Lotus and Sean Halligan	19200716	184590	184130	460	Base \$45 + 0
Annie Osburn (property owner Sean Strother)	19200737	160010	159560	450	Base \$45 + 0
Elizabeth Frei	98709219	138164	136916	1248	Base \$45 + 22.46 = 67.46 248 = \$45 + 12.40 = 57.40
Wanda and Miles Schulze	19200711	233480	231440	2040	Base \$45 + 62.00 = 107.00 45 + 52 = 97.00
Leo and Sherry Glahn	19200696	234850	233530	1320	Base \$45 + 36 = 71.00 45 + 16 = 61.00
Angela Adams (9/16)	19200700	138660	138535	125	Base \$45 + 0
Mariela Humphrey	19200700	170350	169800	550	Base \$45 + 0
Jane Brunton	10200732	575790	570150	5640	\$0
WELL METER		1715146	1703546		\$425.40 \$315.4
TOTAL USAGE					11833
WELL +/-					-233 USAGE OVER WELL

SENDING INFO SHEET
COMMENTS ABOUT INJUNCTIONS AND DUELL
1000 BASE - AUGUST OR LONGER JULY

BASE \$45 = 800 cubic feet
Over Base \$.05 per cubic foot all year

CASEY STREET WATER COMPANY METER READINGS FOR

JUNE, 2017

NAME	METER #	THIS Month	LAST Month	USAGE	MONTHLY Billing
Lotus and Sean Halligan	19200716	184130	183590	540	ALL LOWER WAIVED Base \$45 + DUE TO TANK CLEANING
Annie Osburn (property owner Sean Strother)	19200737	159560	159350	210	Base \$45 +
Elizabeth Frei	98709219	136916	136033	883	Base \$45 + 83 OVER
Wanda and Miles Schulze	19200711	231440	230630	810	Base \$45 + 10 OVER
Leo and Sherry Glahn	19200696	233530	232330	1200	Base \$45 + 400 OVER
Angela Adams (9/16)	19200700	138535	138350	185	Base \$45 +
Marlela Humphrey	19200700	169800	169360	440	Base \$45 +
Jane Brunton	10200732	570150	567800	2350	\$0
WELL METER		1703546	1696516	7030	
TOTAL USAGE				6618	
WELL +/-				-412	WELL METER USAGE

BASE \$45 = 800 cubic feet
Over Base \$.05 per cubic foot all year

CASEY STREET WATER COMPANY METER READINGS FOR

MAY, 2017

NAME	METER #	THIS Month	LAST Month	USAGE	MONTHLY Billing
Lotus and Sean Halligan	19200716	183590	182920	670	Base \$45 +
Annie Osburn (property owner Sean Strother)	19200737	159350	159000	WELLER 350	Base \$45 +
Elizabeth Frei	98709219	136033	135550	483	Base \$45 +
Wanda and Miles Schulze	19200711	230630	230140	490	Base \$45 +
Leo and Sherry Glahn	19200696	232330	231960	370	Base \$45 +
Angela Adams (9/16)	19200700	138350	138200	150	Base \$45 +
Mariela Humphrey	19200700	169360	169050	310	Base \$45 +
Jane Brunton	10200732	567800	565930	1870	\$0
WELL METER		1696516	1691999	4517	
			TOTAL USAGE	4693	
			WELL +/-	+ 176 WELL	USAGE EXCEEDS

BASE \$45 = 800 cubic feet
Over Base \$.05 per cubic foot all year

CASEY STREET WATER COMPANY METER READINGS FOR

APRIL 2017

NAME	METER #	THIS Month	LAST Month	USAGE	MONTHLY Billing
Lotus and Sean Halligan	19200716	182920	182760	160	Base \$45 + 0
Annie Osburn (property owner Sean Strother)	19200737	159000	158720	280	Base \$45 + 0
Elizabeth Frei	98709219	135550	135048	502	Base \$45 + 0
Wanda and Miles Schulze	19200711	230140	229860	280	Base \$45 +
Leo and Sherry Glahn	19200696	231960	231730	230	Base \$45 +
Angela Adams (9/16)	19200700	138200	138100	100	Base \$45 +
Marleta Humphrey	19200700	169050	168750	300	Base \$45 +
Jane Brunton	10200732	565930	565370	560	\$0
WELL METER		1691999	1689646	2353	
TOTAL USAGE				2412	
WELL +/-				59	USAGE OVER WELL

BASE \$45 = 800 cubic feet
Over Base \$.05 per cubic foot all year

CASEY STREET WATER COMPANY METER READINGS FOR

MARCH, 2017

NAME	METER #	THIS Month	LAST Month	USAGE	MONTHLY Billing
Lotus and Sean Halligan	19200716	182760	182320	440	Base \$45 + ϕ
Annie Osburn (property owner Sean Strother)	19200737	158720	158410	310	Base \$45 + ϕ
Elizabeth Frei	98709219	135048	134649	399	Base \$45 + ϕ
Wanda and Miles Schulze	19200711	229860	229560	300	Base \$45 + ϕ
Leo and Sherry Glahn	19200696	231730	231180	550	Base \$45 + ϕ
Angela Adams (9/16)	19200700	138100	137990	110	Base \$45 + ϕ
Mariela Humphrey	19200700	168750	168340	410	Base \$45 + ϕ
Jane Brunton	10200732	565270	564820	540	\$0
WELL METER		1689646	1686581	3065	
			TOTAL USAGE	3059 is 3065	
			WELL +/-	+ 6	WELL OVER USAGE WAS UNDER LAST MONTH

BASE \$45 = 800 cubic feet
Over Base \$.05 per cubic foot all year

CASEY STREET WATER COMPANY METER READINGS FOR FEBRUARY, 2017

NAME	METER #	THIS Month	LAST Month	USAGE	MONTHLY Billing
Lotus and Sean Halligan	19200716	182320	181890	430	Base \$45 +
Annie Osburn (property owner Sean Strother)	19200737	158410	158110 <small>WATER RUNNING</small>	300	Base \$45 +
Elizabeth Frei	98709219	134649	134292	357	Base \$45 +
Wanda and Miles Schulze	19200711	229560	229320	240	Base \$45 +
Leo and Sherry Glahn	19200696	231180	230520	660	Base \$45 +
Angela Adams (9/16)	19200700	137990	137960	30	Base \$45 +
Mariela Humphrey	19200700	168340	168030	310	Base \$45 +
Jane Brunton	10200732	564830	564330	500	\$0
WELL METER		1686581	1683759	2822	
TOTAL USAGE				2827	
WELL +/-				5	USAGE EXCEEDS WELL

BASE \$45 = 800 cubic feet
Over Base \$.05 per cubic foot all year

CASEY STREET WATER COMPANY METER READINGS FOR

JANUARY, 2017

NAME	METER #	THIS Month	LAST Month	USAGE	MONTHLY Billing
Lotus and Sean Halligan	19200716	181890	181370	520	Base \$45 +
Annie Osburn (property owner Sean Strother)	19200737	158110	157750	360 WATER RUNNING	Base \$45 +
Elizabeth Frei	98709219	134292	133830	462	Base \$45 +
Wanda and Miles Schulze	19200711	229320	229040	280	Base \$45 +
Leo and Sherry Glahn	19200696	230520	229910	610	Base \$45 +
Angela Adams (9/16)	19200700	137960	137840	120	Base \$45 +
Mariela Humphrey	19200700	168030	167670	360 WATER RUNNING	Base \$45 +
Jane Brunton	10200732	564330	563860	470	\$0
WELL METER		1683759	1680613	3146 REFILLED DURING PROCESS	
			TOTAL USAGE	3182	
			WELL +/-	36	USAGE EXCEEDS WELL

BASE \$45 = 800 cubic feet
Over Base \$.05 per cubic foot all year

ATTACHMENT 4



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06/21/2001 08:40A
Kitsap Co, WA

Mr. Ed Brunton, Manager
Casey Street Enterprises, LLC
8815 Ferncliff Avenue NE
Bainbridge Island, WA 98110-2907



**STATE OF WASHINGTON
CERTIFICATE OF WATER RIGHT**

Document Title: Certificate of Water Right

Agency: Department of Ecology
Northwest Regional Office
3190 160th Avenue Southeast
Bellevue, WA 98008-5452

Applicant: Casey Street Enterprises
8815 Ferncliff Avenue NE
Bainbridge Island, WA 98110

Reference Number: N/A

PRIORITY DATE	APPLICATION NUMBER	PERMIT NUMBER	CERTIFICATE NUMBER
April 16, 1992	G1-26537	G1-26537 P	G1-26537 C

This is to certify that the herein named applicant has made proof to the satisfaction of the Department of Ecology of a right to the use of the public waters of the State of Washington as herein defined, and under and specifically subject to the provisions contained in the Permit issued by the Department of Ecology, and that said right to the use of said waters has been perfected in accordance with the laws of the State of Washington, and is hereby confirmed by the Department of Ecology and entered of record as shown, but is limited to an amount actually beneficially used.

PUBLIC WATERS TO BE APPROPRIATED

SOURCE	TRIBUTARY OF (IF SURFACE WATERS)	
Well	N/A	
MAX. CUBIC FEET PER SECOND	MAX. GALLONS PER MINUTE	MAX. ACRE-FEET PER YEAR
N/A	12	2.0

QUANTITY/TYPE OF USE/PERIOD OF USE

8 connections/Multiple domestic supply/continuously

LEGAL DESCRIPTION OF LOCATION OF DIVERSION/WITHDRAWAL

1/4 1/4	SECTION	TOWNSHIP N.	RANGE (E. OR W.) W.M.	W.R.I.A.	COUNTY
SE NW	23	25N	2E	15	Kitsap

PARCEL # N/A

ADDITIONAL LEGAL IS ON PAGE 2

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

1/4 1/4	SECTION	TOWNSHIP N.	RANGE (E. OR W.) W.M.	W.R.I.A.	COUNTY
N/A	33	26N	2E	15	Kitsap

PARCEL # N/A

ADDITIONAL LEGAL IS ON PAGE 2

CONTINUED LEGAL DESCRIPTION FOR LOCATION OF DIVERSION/WITHDRAWAL

140 feet north and 640 feet west from the center of Section 23.

CONTINUED LEGAL DESCRIPTION FOR PROPERTY ON WHICH WATER IS TO BE USED

That portion of Tract 25, Rolling Bay City, as per plat recorded in volume 3 of Plats, Page 11, Records of Kitsap County, described as follows: Beginning at the SW corner of said tract 25; thence Northerly along Cedar Street 125 feet; thence Easterly parallel to the South line of said tract to Grand Avenue; thence Southerly to the SE corner of said Tract; thence West to the point of beginning; EXCEPT county roads; situated in Kitsap County, WA. Lot E as described in boundry LINE ADJUSTMENTS and DEED recorded under Auditor's File Nos. 8907310142 and 8907310143, being a portion of the NW quarter of the SW quarter of the SW quarter of Section 33, Township 26N, Range 2E, W.M., in Kitsap County, Washington.

PROVISIONS

All conditions and requirements contained in reports of examination or permits previously issued apply to this certificate.

The well access port shall be maintained at all times.

This certificate is subject to the implementation of the minimum requirements established in the Interim Guidelines for Public Water System Regarding Water Use Reporting, Demand Forecasting Methodology and Conservation Programs, July 1990.

An approved metering device shall be installed and maintained in accordance with RCW 90.03.360, 90.44.450 and WAC 508-64-020 through -040, and WAC 508-12-030. Meter readings shall be recorded at least monthly.

In order to monitor the resource, static water level (SWL) shall be measured at least once each month. Measurements shall be taken after the pump has been shut off and the water level in the well has been stabilized. The data shall be maintained and made available to Ecology upon request. However, Ecology's Water Resources Section (NWRO) shall be notified if the SWL is determined to be below the level normally recorded at that time of year.

The right to use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in RCW 90.03.380, 90.03.390, and 90.44.020.

This certificate of water right is specifically subject to relinquishment for non-use of water as provided in RCW 90.14.180.

Given under my hand and the seal of this office at Bellevue, Washington,
this 14th day of JUNE, 2001.

The seal of the City of Bellevue, Washington, is located at the bottom left of the page. It features a circular design with the words "CITY OF BELLEVUE" and "WASHINGTON" around the perimeter, and a central emblem.

Tom Fitzsimmons

ATTACHMENT 5

OCT 21 1983 AM 8:00

EASEMENTSHERRIL HUFF
KITSAP COUNTY AUDITOR
DEPUTY *m*

The undersigned Casey McGrath and Carl B. Luckerath owners of adjoining property, for their mutual advantage in the installation, use, and maintenance of a water system, join in the execution of this easement for such purpose, permanently imposed on the following described property:

A strip 3' on either side of the main water line paralleling the South line of tract 25 of Rolling Bay city as short subdivision, Kitsap County #2688, approved March 22, 1982, with access lines across existing dedicated road (E New Brooklyn) to each of the lots A thru D of Short Subdivision #1624 approved October 14, 1980. Together with 3' on all sides of mainline approach and around well, well house and storage tank.

The water system is owned by Grantors in proportion four sevenths (4/7) by Luckerath; three sevenths (3/7) by McGrath and bears the name "New Brooklyn Water Co." and Kitsap County I.D. number (to be assigned). It shall be know herein as the Grantee. It is the intent of the parties hereto that this water system not be or not become a public water system within the jurisdiction of Washington Utilities and Transformation Commission nor shall it be subject to RCW 80.04 and its regulations for required service to additional consumers and regulations of rates.

The Grantors shall make no use of the land occupied by said easement for a water line except for as would not adversely affect its use as an easement for water line.

In exercising the rights herein granted, the Grantees, their successors and assigns, may pass and repass over said easement and may cut and remove brush, trees and other obstructions which in the opinion of the Grantees interfere with its use as an easement for water line.

The covenants herein contained shall run with the land and are binding upon all subsequent owners thereof.

IN WITNESS WHEREOF, the said Grantors have executed this instrument this 10th day of May, 1983.

Casey McGrath
CASEY MCCRATH

Carl B. Luckerath
CARL LUCKERATH

STATE OF WASHINGTON)
COUNTY OF KITSAP) ss.

I, Marlene Hoover, Notary Public in and for the State of Washington

8310210053

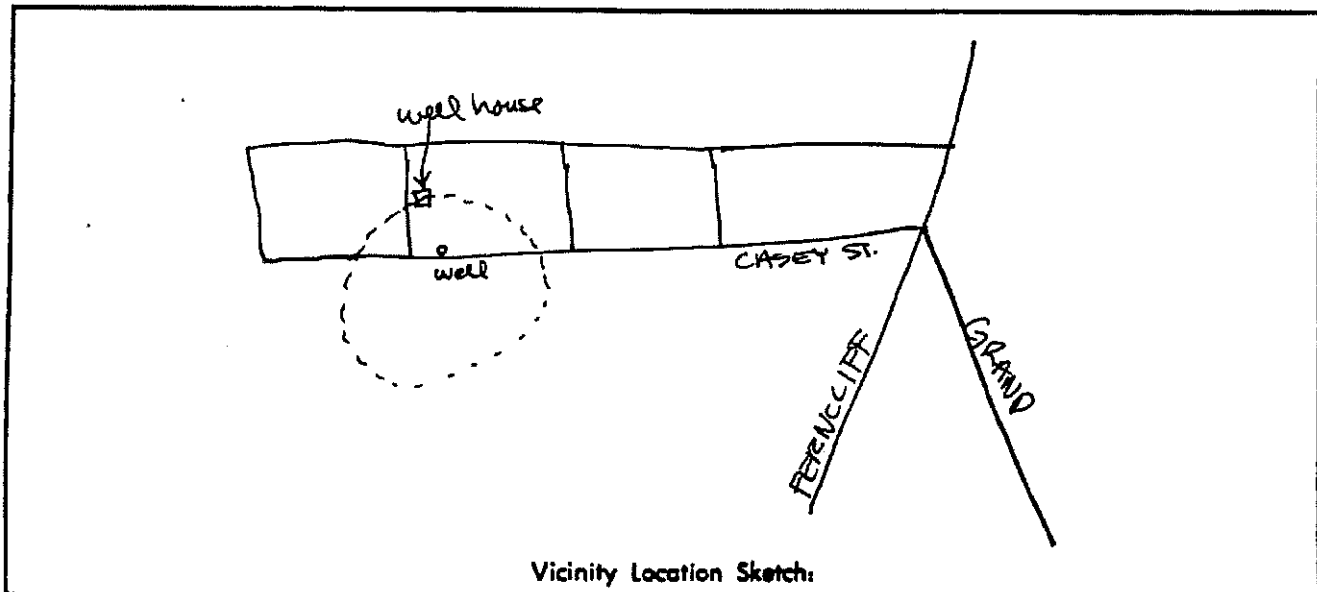
ATTACHMENT 6

NEW SYSTEMS—Cont.

Section 1. General System Data

- a. System Name: NEW BROOKLYN WATER CO.
- b. System Location: NE 1/4, SW 1/4, Section 23, Township 25N, Range 2E
USGS 1/4, 1/4 Section Letter Code Designation:
- c. I.D. Number: 18406-5 Age: 9 yrs. Number of Services: 9
- d. Owner: Stewart Water Management Manager: Steve
- e. Address: 3979 Wagon Wheel Ln Address:
Poulsbo, WA 98370
- f. Telephone: 842-3744 Telephone:

NOT DRAWN TO SCALE



Vicinity Location Sketch:

- g. Is there an adjacent water system: Yes..... No...X.....
- h. If yes, could it serve you: Yes..... No...X.....
- i. Name or designation of source

Name or Designation of Source						
Number	NAME	Dug Well	Drilled Well	Spring	Surface Water	Capacity
1		X				

- j. **System Layout Sketch**—Draw system layout sketch on Page 10 of this workbook or attach applicable design. Include: Distribution lines, pipe lengths and size, materials, age, condition, valves and fittings, appurtenances, and customer services.
- k. **Source Location and Protection Layout**—Draw source location and protection sketch on Page 11 of this workbook and indicate property lines, roads, radius of protection control, and potential sources of contamination relative to the well site. Show spring collection, if applicable.

NEW SYSTEMS

Section 2. Source Development—to be completed for each source. (Appendix 1)

A. General Source Data

I. *Wells

- a. Well Logs: Existing Well X , New Well _____
Attached X , Not Available _____
- b. If not available, contact your local health agency.
- c. Well construction: X Satisfactory _____ Unsatisfactory (Appendix 1)
- d. If construction is not to standards, list deviations and attach.

II. *Springs (Appendix 4)

- a. Recharge Area: Defined _____ , Protected X _____
- b. Waterbearing Strata: Protected X _____ , Unprotected _____
- c. Spring collection according to Appendix 4, figure _____ , or if Appendix 4 is not applicable, sketch actual configuration and attach.

B. *Source Collection Site

- a. Site Inspection: X Satisfactory _____ Unsatisfactory (Appendix 2—attach report)
- b. Protective covenants/easements: X Satisfactory _____ Unsatisfactory _____ Unobtainable (Appendix 3)
- c. For 100 ft. radius X , 200 ft. radius _____ , Other _____ (Define on attached sheet)
When clearly justified these requirements may be reduced or increased by the health officer and lesser or more stringent requirements may be imposed.
- d. Recorded X Yes, _____ No, Number 8305030177-78 8310210053
If the protective covenants/easements are "unobtainable", contact your local health agency regarding a request for variance. "Unobtainable" may be defined by the local health department if a reasonable attempt has been made by the purveyor to secure the restrictive covenants and/or easements.

C. Source Capacity

- a. Number of connections 9 , Maximum required peak flow 36.8 gpm (Table 1, page 7)
- b. Required Daily Production: 36.8 gpm 7200 gpd (Table 1, page 7)
- c. Source capacity (by pump test, bailer test is unacceptable) 12 gpm 17280 gpd
If some other technique is used, include details on an attached sheet.
- d. Proposed Pump Rate: 36.8 gpm 7200 gpd
If the proposed pump rate is less than the maximum required peak flow, refer to Section 4, page 5, for the required storage.

*If the response to any portion of these subsections is "unsatisfactory", "undefined", or "unprotected", please contact your local health agency.

NEW SYSTEMS—Cont.

D. Pumping Equipment (Appendix 7)

i. Source Pump

- a. Pump rate 12 gpm (Must be no less than Required Daily Production)

Note: Section 6, page 6, "Distribution System Sizing and Headloss" must be completed before filling out the following form.

b. Required Pump Head (Appendix 7)

	WELL	SPRING
Static Head		
(a) Well lift	<u>70</u> ft.	.....ft.
(b) System Elev. Diff.	<u>0</u> ft.	.....ft.
Headlosses	<u>0</u> ft.	.....ft.
Residual (30 psi)	<u>0</u> ft.	.....ft.
TOTAL	.....ft.	.....ft.
Available Pressure Head	.....ft.	.....ft.

Also, use this method if the source pump delivers to a storage tank where repumping is necessary; then a residual of 0 or close to 0 may be considered in pump sizing.

For springs, if the available pressure head exceeds the required pump head, then no pump will be required.

c. Required pump:

Total required Pump Head 70 ft.

Pump Rate 12 gpm

Select pump from pump catalog for 70 head and pump rate of 12 gpm.

d. Selected Pump: (attach pump curve and specifications)

Type Sub. Manufacturer FRANKLIN Model No. Not Known

RPM _____, Horsepower 1/2

Pump rate 12 gpm, at a head of 70 ft. giving _____ % efficiency (when available)

e. Depth of pump setting 87

In situations where repumping from a storage tank is necessary, a booster pump must be sized as below.

ii. Booster Pump

- a. Pump rate 36.8 gpm

b. Required pump head

	WELL	SPRING
System Elev. Diff.	<u>15</u> ft.	.....ft.
Headlosses	<u>32.5</u> ft.	.....ft.
Residual (30 psi)	<u>70</u> ft.	.....ft.
TOTAL	<u>117.50</u> ft.	.....ft.
Available Pressure Head	.....ft.	.....ft.

For springs, if the available pressure head exceeds the required pump head, then no pump will be required.

NEW SYSTEMS

c. Select pump from catalog for 117.5 head and well pump rate of 36.8 gpm.

d. Selected Pump: (attach pump curve and specifications)

Type Centrifugal, Manufacturer Sta Rite, Model No. JHAGS3

RPM _____, Horsepower 2.5

Pump rate 37 gpm, at a head of 12.9 ft., giving _____ % efficiency (if available).

E. Pumphouse (Appendix 5)

a. Pumphouse will conform to Appendix 5, figure _____

b. If Appendix 5 does not apply, sketch pumphouse layout and attach. Attached _____

yes

no

c. Required Pumphouse Components (Appendix 5)

	Satisfactory	Unsatisfactory
Insulation	X	
Heating	X	
*Wiring	X	
Well Casing	X	
Sanitary Well Seal	X	
Pressure Gauge	X	
Casing Vent	X	

	Satisfactory	Unsatisfactory
Floor Drain		
Pump Mounting	X	
Flooring	X	
Security	X	
Chlorine Injection Point		
Inspection Port	X	
Raw Water Sampling Tap	X	

*Approval by building inspector. yjs

d. Optional items included in pumphouse:

	Included	Satisfactory	Unsatisfactory
Pressure Tank	X		
Pump to Waste			
System Alarms			
Sampling Tap	X		

	Included	Satisfactory	Unsatisfactory
110 outlet wired with pump	X		
M/O Equipment			
Meter			
Airlines			

A definition of satisfactory and unsatisfactory for all pumphouse components is included in Appendix 5.

NEW SYSTEMS

Section 3. Water Quality Data

- a. Water Chemistry: X Satisfactory, _____ Unsatisfactory
Attach copies of analysis reports
- b. Bacteriological: X Satisfactory, _____ Unsatisfactory
Attach copies of analysis reports

Additional analysis may be required at the discretion of the local health agency.

Water quality requirements are discussed in detail on page 3. ("Class 4 Water System Design—Requirements, Procedures and Examples")

Section 4. Storage

- a. Required Peak Flow 3618 gpm = X Section 2(C) page 2
- b. Pump Rate 12 gpm = Y (from Sec. 2 (D), (i), page 3)
If the pump rate is greater than the required peak flow, no storage is needed.
- c. If the pump rate is less than the required peak flow, the needed storage is:
- $$20 \left(\frac{X - Y}{60} \right)$$
- 20 min. (Required Peak Flow — Pump Rate)
- $$20 \text{ min. } \left(\frac{3618 - 12}{60} \right) = 25$$
- $$20 (25) = 500 \text{ gallons}$$

Section 5. Pressure Tank Sizing

- a. Pressure tank will be ASME _____, equivalent Captive Air (Attach specifications)
- b. ASME approved relief valve is installed. Yes X No _____
- c. Pressure tank is for: Pump protection X, storage _____, both X
- d. Working storage:

(A) Pump rate 37 gpm. *2.5 x pump rate = 93 gallons

(B) Storage requirement (from Section 4) = 500 gallons 1400 Gal Reservoir

When tank is for pump protection, use A above and refer to Table 2, Page 7.

When tank is for storage or both, use larger of A or B above and refer to Table 2, Page 7.

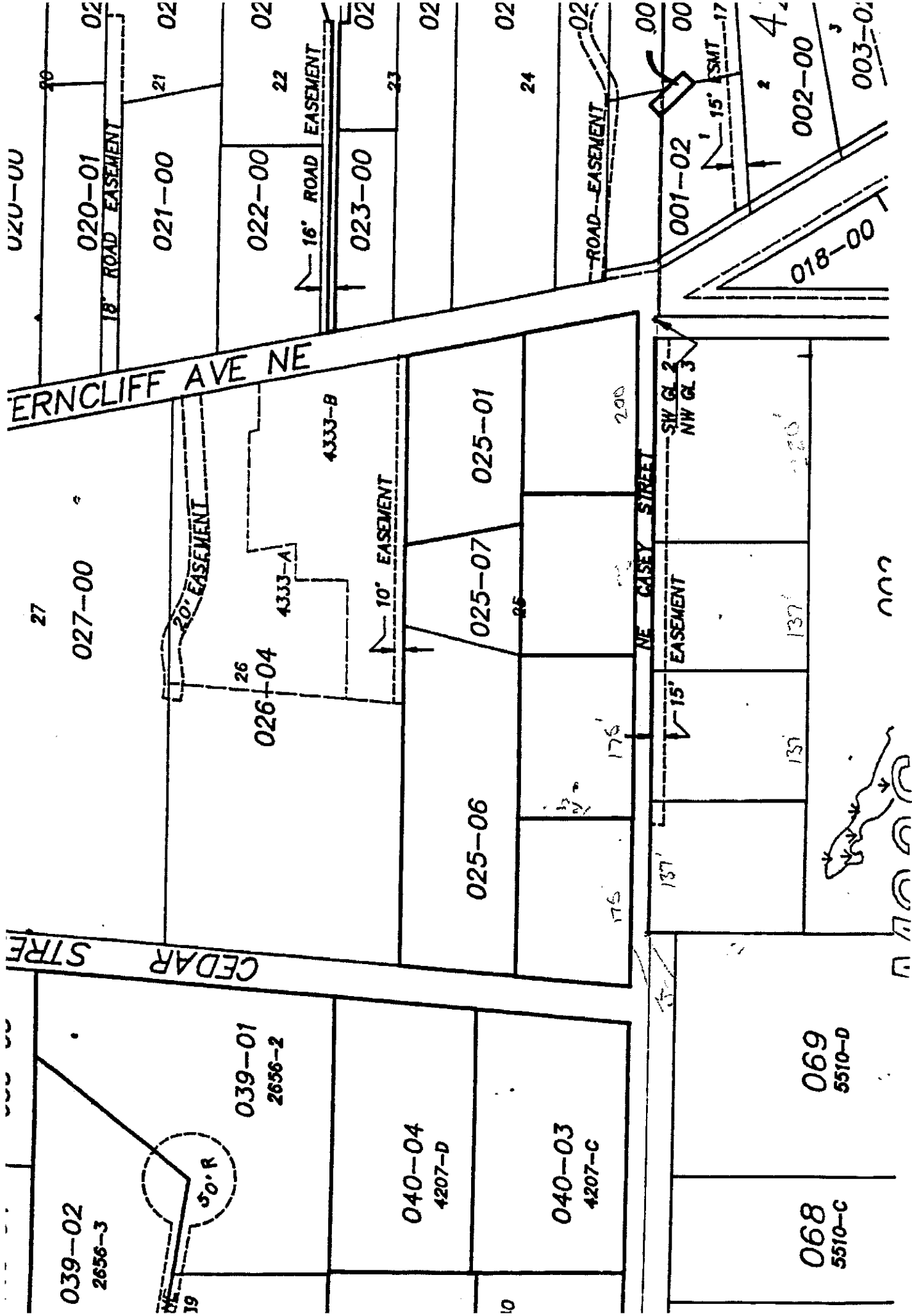
- e. Pressure tank is _____ horizontal X vertical
- f. Selected tank size 4-WXT302 Com Air
- g. **Selected Pressure Range 40 - 60
- h. Is air make-up by _____ snifter valve, _____ compressor, Bladder other (specify)

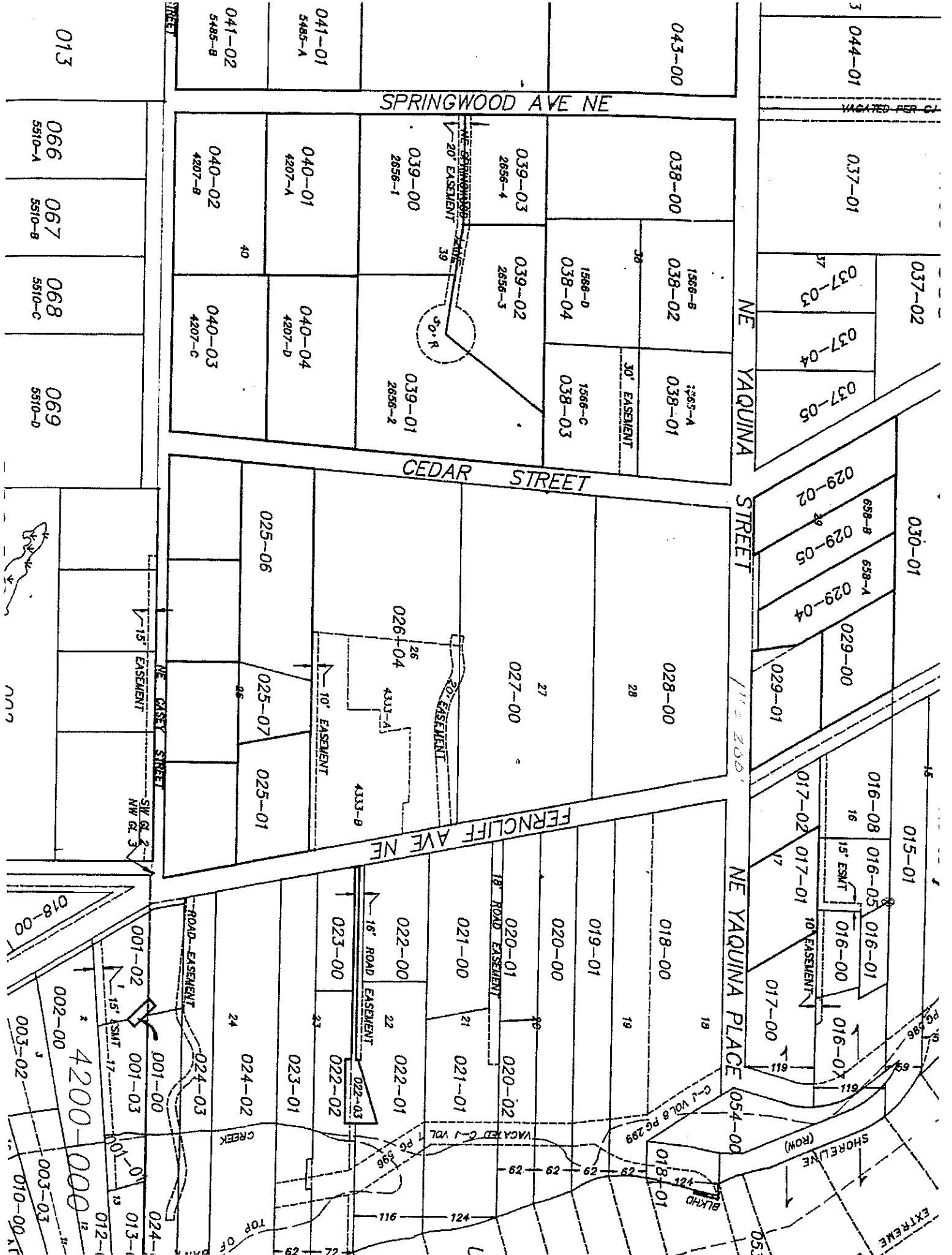
i.

Storage Type	Capacity (gallons)		Preferred	Alternate	Sketch configuration below. Show materials, dimensions, plumbing.
	New	Old			
Elevated Tank					
Ground Level					
Pressure Tank	<u>X</u>				
Other (define)					

**Design Standards for Public Water Supplies"

**Minimum Pressure Tank Setting = System elev. diff. + Friction loss + 70"





WATER WELL REPORT

STATE OF WASHINGTON

Application No.

Permit No.

(1) OWNER: Name Michael McLean Address 4116 Rainier Ave. S.

(2) LOCATION OF WELL: County KITASAP T. 4 N. R. W.

Bearing and distance from section or subdivision corner

(3) PROPOSED USE: Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐

(4) TYPE OF WORK: Owner's number of well (if more than one)
New well ☒ Method: Dug ☐ Bored ☐
Deepened ☐ Cable ☒ Driven ☐
Reconditioned ☐ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 103 ft. Depth of completed well 103 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 6" Diam. from 0 ft. to 93 ft.
Threaded ☐ " Diam. from ft. to ft.
Welded ☒ " Diam. from ft. to ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations in. by in.
..... perforations from ft. to ft.
..... perforations from ft. to ft.
..... perforations from ft. to ft.

Screens: Yes ☒ No ☐
Manufacturer's Name SS Well Screen
Type Telescoping Model No
2 Diam. 5" Slot size 1/4" from 103 ft. to 93 ft.
Diam. Slot size from ft. to ft.

Gravel packed: Yes ☐ No ☒ Size of gravel:
Gravel placed from ft. to ft.

Surface seal: Yes ☒ No ☐ To what depth? 20 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☒
Type of water? Depth of strata
Method of sealing strata off

(7) PUMP: Manufacturer's Name FRANKLIN
Type: Submersible HP 1/2

(8) WATER LEVELS: Land-surface elevation above mean sea level 99 ft.
Static level 60 ft. below top of well Date 2-5-83
Artesian pressure lbs. per square inch Date
Artesian water is controlled by (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level DRILLER
Was a pump test made? Yes ☒ No ☐ If yes, by whom?
Yield: gal./min. with ft. drawdown after hrs.
" 10 " 10 " 4 "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)
Time Water Level Time Water Level Time Water Level
0 - 67 11 30 min = 60 1/2"
8 min = 64 1/2"
11 min = 62 1/2"
Date of test 2-5-83
Bailer test 1st gal./min. with 15 ft. drawdown after 4 hrs.
Artesian flow g.p.m. Date
Temperature of water Was a chemical analysis made? Yes ☐ No ☒

(10) WELL LOG:

Formation: Describe by color, character, size of material and structure, a show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation

MATERIAL	FROM	TO
Red Brown Gravel Sand	0	2
Thin River Sand Clay + Gravel	2	6
Gray Brown Sandy Clay	6	16
Gray Sand, clay + Gravel	16	24
Gray Brown Sand, clay + Gravel	24	39
Gray Sand, clay + Gravel	39	52
Gray Clay w/ sand + Gravel	52	65
Gray Brown Sandy Clay + Gravel	65	78
Gray - clay filled sand + Gravel	78	93
Gray Sand + Gravel	93	103
Gray Sandy Clay	103	
Pipe 7" ID		
20'-0 3/4" w/ 1/2" slot		
+ 9'-10 3/8"		
29'-11 3/8"		
+ 9'-10 3/4"		
39'-10 1/8"		
+ 10'-2 5/8"		
49'-12 3/4"		
50'-0 3/4"		
+ 10'-0 1/8"		
60'-0 7/8"		
+ 10'-1 1/2"		
70'-2 3/8"		
+ 10'-0		
80'-2 3/8"		
+ 10'-0 7/8"		
90'-3 1/4"		
+ 10'-0 5/4"		
100'-4"		
+ 10'-0 7/8"		
110'-1 1/4"		
- 14'-0		
96'-1 1/8"		

Work started 1-9-83, 19..... Completed 2-5-83, 19.....

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report true to the best of my knowledge and belief.

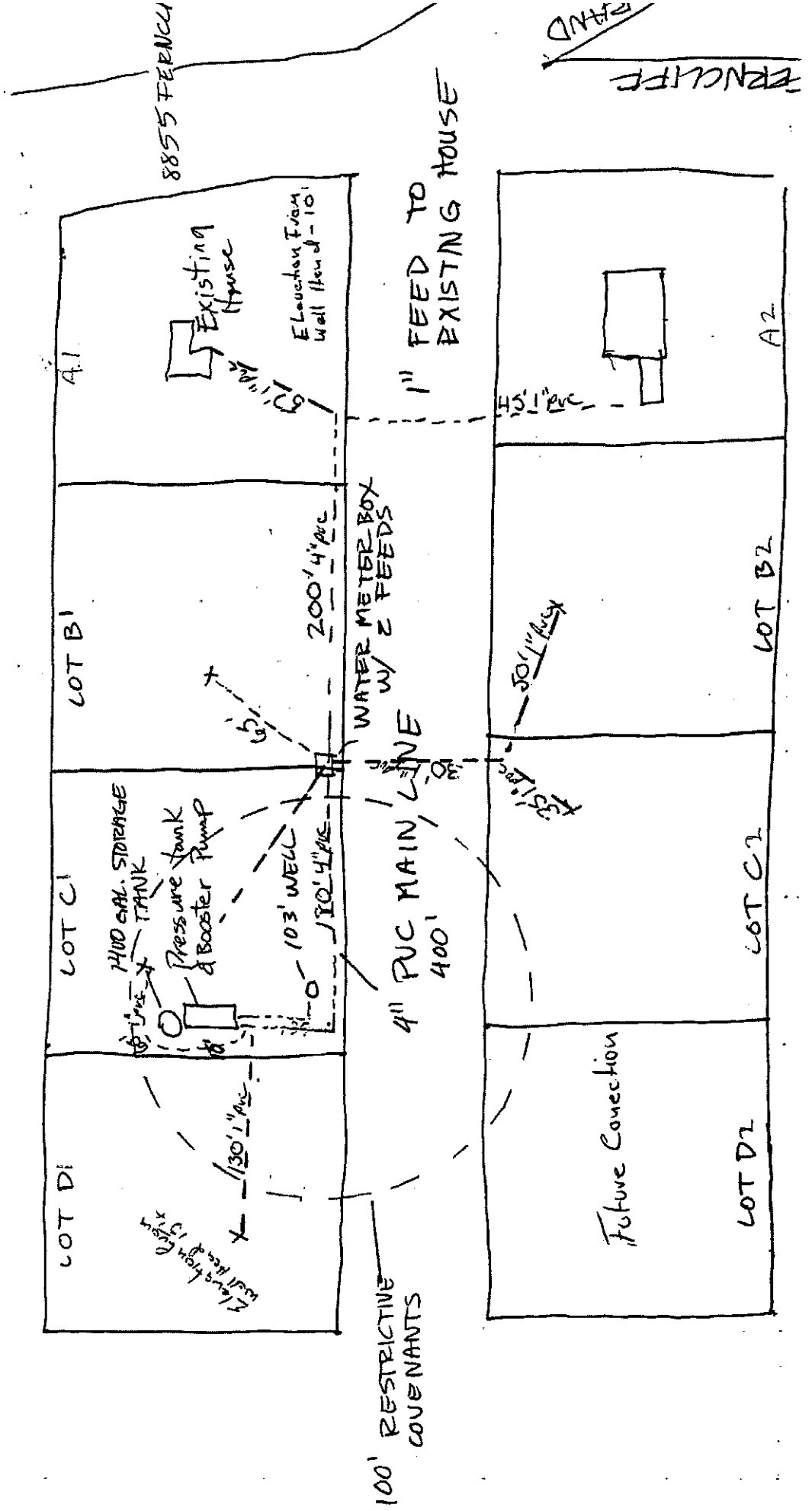
NAME B. M. Driller
(Person, firm, or corporation) (Type or print)

Address 4116 Rainier Ave. S.

[Signed] B. M. Driller
(Well Driller)

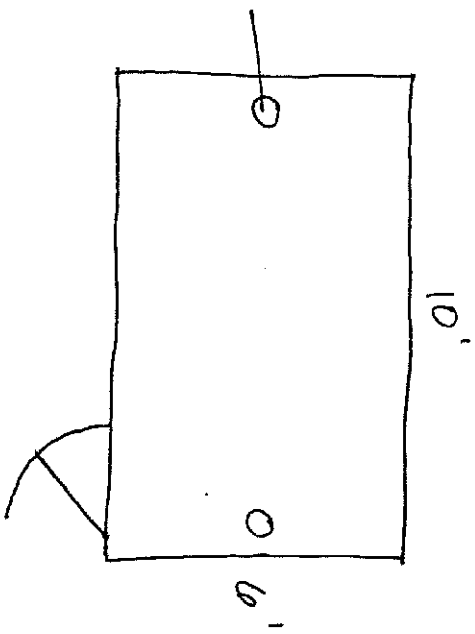
License No. Date 19.....

Source & Distribution plan for 8855 Ferncliff (NEW BROOKLYN WATER CO.)

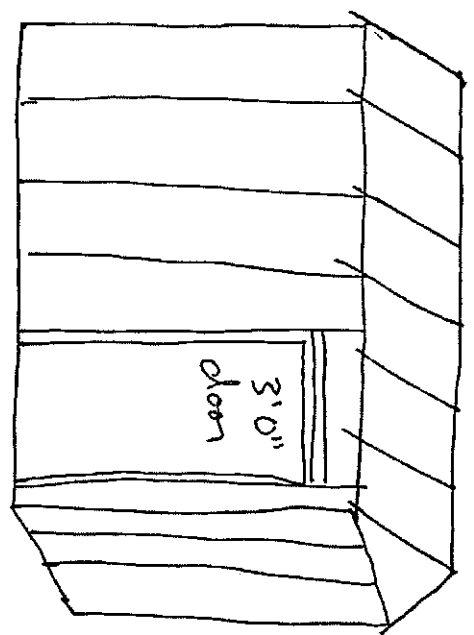
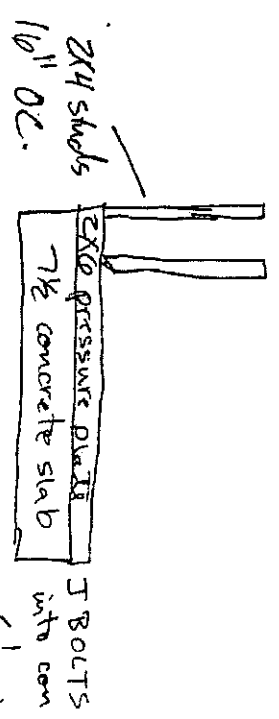


WELL HOUSE 8895 FERN CLIFF LOT. C

pipe
access
hole



7 1/2" concrete slab



2x4 STUD FRAME 16" OC walls & roof
3/8 ext. ply sheathing w/ 30lb felt
1x6 cedar siding (bevel)
Roof = 1/2" plywood sheathing w/ 15" 30lb
Shake liner & cedar shakes

RECEIVED
MAY 02 1983

KISNO COUNTY DEPT. OF
COMMUNITY DEVELOPMENT

L. Mc Grath
842-8389

WELL HOUSE

8855 FERNCLIFF LOT C

175'

30'

well
house

10'

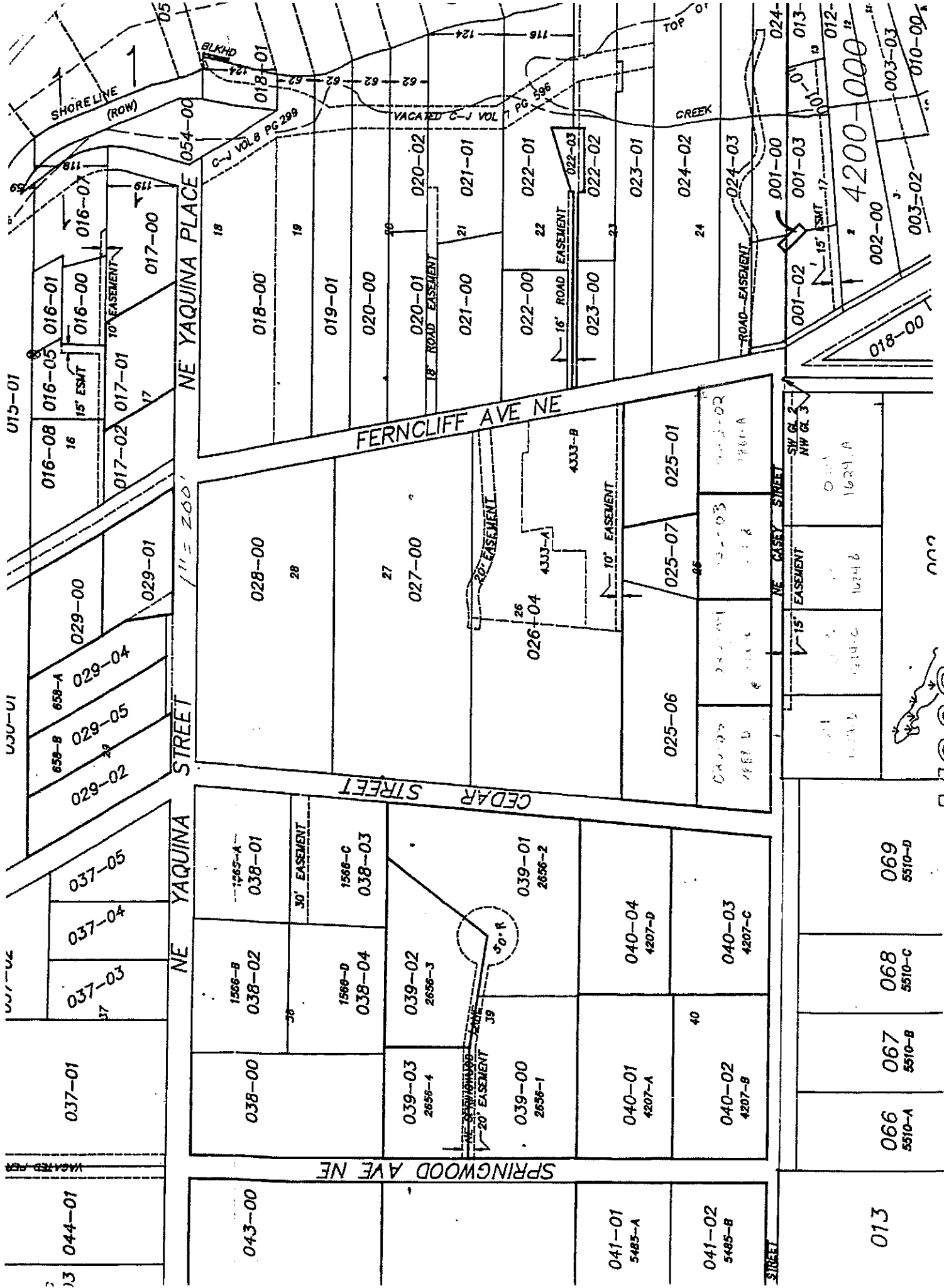
125'

RECEIVED

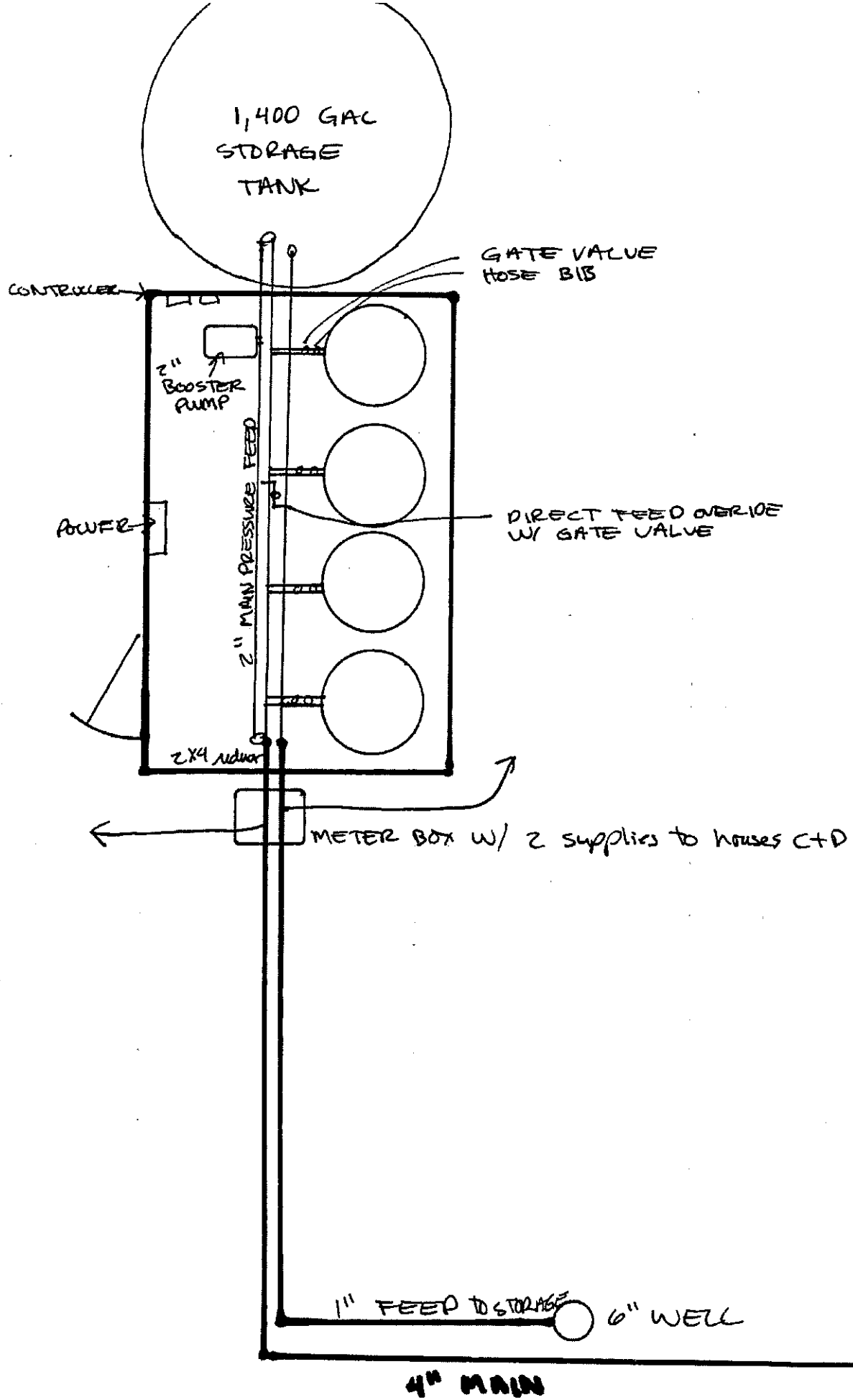
MAY 02 1983

LITSAP COUNTY DEPT. OF
COMMUNITY DEVELOPMENT

D. Mc Graw
647-8389



ATTACHMENT 7



ATTACHMENT 8

SPECTRA Laboratories – Kitsap

26276 Twelve Trees Lane, Suite C, Poulsbo, WA 98370

(360) 779-5141

COLIFORM BACTERIA ANALYSIS

Date Sample Collected 7/28/17 Month Day Year	Time Sample Collected 7:45 AM AM PM	County Kitsap
--	---	------------------

Type of Water System (check only one box)

☐ Group A ☒ Group B ☐ Other _____

Group A and Group B Systems - Provide from Water Facilities Inventory (WFI):

ID# 184965
System Name: Casey St Water Co LLC

Contact Person: Gresham Pump & Drilling Inc

Day Phone: 800 779 9323 Cell Phone: ()

Eve. Phone: Fax: ()

Email Address: info@greshampump.com

Send results and invoices to (Print full name, address and zip code)

GRESHAM PUMP & DRILLING, INC.

P.O. BOX 1606

POULSBO, WA 98370

SAMPLE INFORMATION

Sample collected by (name): Gresham Pump & Drilling Inc

Specific location where sample collected: outside house @ 8815 Ferncliff Ave NE & W/Count

Special instructions or comments:

Type of Sample (must check only one box of #1 through #5 listed below)

1. ☒ Routine Distribution SampleChlorinated: Yes _____ No ☒

Chlorine Residual: Total _____ Free _____

3. Ground Water Rule Source Sample

s

☐ Triggered (A/P)☐ Assessment (A/P)

2. Repeat Sample (A/P)

(from distribution system after unsat. routine)

Unsatisfactory routine lab number:

Unsatisfactory routine collect date:

Chlorinated: Yes _____ No _____

Chlorine Residual: Total _____ Free _____

4. ☐ Surface or GWI Raw Source Water Sample (Enumeration)☐ E. coli ☐ Fecal Filtered Yes _____ No _____

s

5. ☐ Sample Collected for Information Only

Investigative _____ Construction / Repairs _____ Private Residence _____ Other _____

LAB USE ONLY DRINKING WATER RESULTS LAB USE ONLY☐ Unsatisfactory Total Coliform Present and☐ E. coli present☐ E. coli absent☒ Satisfactory

Replacement Sample Requested/Flagged:

☐ Sample too old (>30 hours) ☐ TNTC ☐ _____

Bacterial Density Results: Total Coliform < 1 /100ml. E. coli < 1 /100ml.

Fecal Coliform _____ /100ml. HPC _____ /1 ml. _____

Date/Time Received 7/28/17 4:15 Lab Reference Number 120418-01

Date/Time in Incubator 7-28-17 1510 Method Code 9223B

Date/Time Out Incubator 7-29-17 1125 Receipt Temp C° (Raw Water)

DOH Lab-Sample# 010-41801 Remarks: left neg. 7-29-17 1205

ATTACHMENT 9

Subject: Re: Waterline Extension Cost
From: Jane Brunton (audittjane@yahoo.com)
To: pcorelis@bainbridgewa.gov;
Date: Thursday, June 22, 2017 6:12 PM

Thank you Peter - this is very helpful.

On Thursday, June 22, 2017 5:02 PM, Peter Corelis <pcorelis@bainbridgewa.gov> wrote:

Hello Jane,

Last we spoke I was going to look an approximate of extending the water main up Ferncliff to Casey. I have come up with some rough numbers for your consideration, but I advise you to get an independent estimate. The total length of water line extension from the end of the main at Garibaldi to Casey and then down Casey to Cedar is approximately 2,100 linear feet.

Contractor Mobilization: 5%
Erosion Control: 3%
Traffic Control: \$10,000
8-Inch Ductile Iron Pipe: \$90 per linear foot = \$189,000
Asphalt @ \$120 per ton (along Ferncliff only for 1,350 feet): \$6,000
Top Course @ \$30 per ton (Ferncliff and Casey): \$5,000
Base Course @ \$30 per ton (" "): \$7,000
Sawcutting: \$8,000
Gate Valves @ \$1500 each: \$9,000
Surveying: \$15,000
Engineering 5%:

Total: \$281,370

This can be broken down to find the costs of just the Ferncliff extension (1,350 feet) which is about \$189,275.

Hope this helps.

Regards,



Peter Corelis, P.E.
Development Engineer
www.bainbridgewa.gov
facebook.com/citybainbridgeisland/
206.780.3759

Attachments

- image001.jpg (3.46KB)

ATTACHMENT 10

Casey Street Water Company Equipment Repair & Replacement Costs

2017	Storage Tank cleaned	Gresham	\$735.75
2017	Well House new door, structural repairs)	Mass Construction	\$937.07
2016	Extension to Well Head Pump	Gresham	\$1,141.88
2016	Booster Pump	Gresham	\$2,332.03
2016	Well House new roof	Mass Construction	\$1,304.40
2013	Well Head Pump	Duckworth	\$1,456.11
2013	Storage Tank Covers glued down	Gresham	\$125.22
2013	Well House electrical improvements	BI Electric	\$249.10
2012	Pressure Tank	Duckworth	\$947.52
2007	Storage Tank Covers replaced	Duckworth	\$282.23
2007	Well House electrical improvements	BI Electric	\$455.14
2006	Pressure Tank	Duckworth	\$930.85
2003	Well House Pipes redone	Aquarius	\$369.68
2003	Well House electrical work/side venting	K. Shields	\$320.56
2002	Pressure Tanks (2)	Aquarius	\$1,764.93
		TOTAL	\$13,352.47

ATTACHMENT 11

