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DEPARTMENT OF
WATER RESOURCESSTATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
STATEMENT OF COMPLETION
FOR SUBMITTING PROOF OF BENEFICIAL USE

FOR OFFICE USE ONLY

 Amt. of Fee \$ 100
 Receipt No. 2044418
 Received By SC
 Date Received 10/2/18
Department of Water Resources
Eastern Region

The Idaho Department of Water Resources considers this form a statement by the permit holder(s) that development of a water right has been **completed** and that water has been applied to beneficial use to the extent described below. **This form must be accompanied by an examination fee, when necessary, or by a completed Beneficial Use Field Report prepared by a certified water right examiner.** Please refer to the instructions and fee schedule for this form. If ownership of the permit has changed, contact any Department office or visit the Department's website at idwr.idaho.gov for an *Assignment of Permit* form. If you wish to relinquish your permit because you have not established the authorized use of the water and are not applying for an extension, please notify the Department in writing.

1. Permit No. 21-13080 Telephone No. 801-875-8589(Davis);801-641-8808(Barker)2. Name of Permit Holder(s) The Woodland at Bills Island LLC3. Mailing Address c/o HKHC, P.O. Box 50130 City Idaho Falls
State ID Zip 83405-0130 Email rdavis1@gmail.com; ryanbarker@gmail.com4. Source of Water Ground water If **GROUND WATER** (well), Date Drilled mo. / yr.
Well Driller Vollmer Well Drilling Drilling Permit Number D0058505 & D00585365. Extent of use(s) completed **as authorized by the water right permit:**Domestic (No. of households) Stockwater (No. and type of stock) Irrigation (No. of acres) Other Municipal: 0.72 cfs6. Total rate of diversion or storage volume for which proof is submitted 0.72 cfs OR acre-feet.7. Compliance with a measuring device requirement, lockable controlling device requirement, and/or other conditions of permit:
Refer to the approval conditions on your permit and respond accordingly.**The Department will not issue a license if permit conditions are not met.**

Measuring Device	Is a measuring device required?	Yes ☒	No ☐
	If yes, has the measuring device been installed?	Yes ☒	No ☐
Lockable Controlling Device	Is a lockable device required to control the diversion?	Yes ☒	No ☐
	If yes, has the lockable device been installed?	Yes ☒	No ☐
Fish Screen	Is a fish screen required?	Yes ☐	No ☒
	If yes, has the fish screen been installed?	Yes ☐	No ☒

Other Conditions of Permit

Do the approval conditions on your permit require you to submit additional information in connection with your proof of beneficial use? If yes, list the conditions below and attach documents with the required information.

 IDEQ Public Water Supply Number: PWS7220150 Completed? Yes ☒ No ☐
8. Fee Enclosed \$ 100 or not applicable ☐. See fee schedule on page 2 of the instructions.

Proof statements filed without an appropriate fee, will be considered incomplete.

9. Person to contact to accompany the Department representative during field examination of the water system.

Name Ryan Davis or Ryan Barker Telephone Number 801-875-8589(Davis);801-641-8808(Brkr)Mailing Address c/o HKHC, P.O. Box 50130 City Idaho FallsState ID Zip 83405-0130 Email rdavis1@gmail.com; ryanbarker@gmail.com

The information given on this form is my true statement of the extent to which the above numbered permit has been developed and water has been diverted and applied to a beneficial use. I understand that any undeveloped portion of the permit is relinquished to the State of Idaho.

 Signature of Permit Holder *Ryan L. Davis, Attorney* Date October 1, 2018
 (Include your title if on behalf of company or organization)

Mail to: Idaho Department of Water Resources, PO Box 83720, Boise, ID 83720-0098



BROCKWAY
ENGINEERING
P.L.L.C.

Hydraulics

Hydrology

Water Resources

August 28, 2018

Mr. Carlin Feisthamel
Idaho Department of Environmental Quality
900 Skyline Drive, Suite B
Idaho Falls, ID 83402

Re: The Woodlands at Bill's Island Water Distribution System

Dear Mr. Feisthamel:

Brockway Engineering has been involved with the design, construction, and testing of the water distribution system of the Woodland's at Bill's Island Subdivision for over 10 years. Charles G. Brockway, P.E., did the original design work and submittals for permit approval. I was on site to oversee the construction of the water distribution system in 2009, construction of the wells and well pump tests in 2010, and the pressure tests and chlorination verification in 2017. I also collected water quality samples in 2010 and again in 2017.

The distribution system was pressure tested on August 9, 2017. The system was fully flushed and chlorinated prior to the pressure test. The wells are controlled by variable frequency drives. Both VFD have digital pressure and flow rate readouts and the system also had two pressure gauges installed and a portable ultrasonic measuring device to verify the VFD readouts. The system was pressurized to 150 psi at 11:06 am and held constant for over 2 hours. No leaks were detected and no additional water was added to the system, based on the flow meter measurements. After the pressure test, 5 service connections were opened and 120 gpm diversion was observed with the system maintaining a pressure of 87 psi.

The most recent water quality samples for were collected at the well house from both well no. 1 and well no. 2 for total coliform, E. coli, total solids, nitrate and nitrite. And additional water quality sample for total coliform and E. coli was taken at one of the service connections of the system. The water quality results are shown in Table 1 and are compliant with the drinking water standards.

CHARLES E.
BROCKWAY,
PH.D., P.E.

CHARLES G.
BROCKWAY,
PH.D., P.E.

2016 NORTH
WASHINGTON
STREET • SUITE 4

TWIN FALLS,
IDAHO 83301

208•736•8543

FAX: 736•8506



Table 1: Water quality results of the August 9, 2017 samples

Sample	Total Coliform	E. coli	TS (mg/l)	Nitrate (mg/l)	Nitrite (mg/l)
Well No. 1	Absent	Absent	140	<0.60	<0.40
Well No. 2	Absent	Absent	130	<0.60	<0.40
Lot 17	Absent	Absent	--	--	--

It is my opinion based on observing the construction of the system, measuring the wells, witnessing the pressure test, and reviewing the water quality results that the water distribution system is adequate. Additional water samples should be collected and analyzed.

I have also included a sealed as-built drawing set, the O&M Manual and well drilling logs for both wells.

If you have any questions regarding this letter, please do not hesitate to contact me.

Sincerely,



G. Erick Powell, Ph.D., P.E.

cc: Terry Caldwell
Ryan Davis

enclosure



**MAGIC VALLEY LABS**

210 ADDISON AVE
TWIN FALLS, ID 83301
208-733-4250

Laboratory Supervisor: Brenda Ellis

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PWS #: 5550035
BROCKWAY ENGINEERING
2016 N. WASHINGTON #4
TWIN FALLS ID 83301

LAB ID # ID00911

COLIFORM BACTERIA ANALYSIS REPORT

Date Collected 8/9/2017
Time Collected 2:00:00 PM

Date Received 8/10/2017
Time Received 9:05:00 AM

Sample # 3011561621
Type S - ROUTINE SAMPLE
Location EDGEWATER LOT 17
Collector ERICK POWELL

Chlorine Residual: ppm

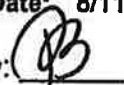
Date of Original Positive:

Copy:

Test Performed	Method	Result
Total Coliform	SM9223BCT	ABSENT
Escherichia Coli	SM9223BCT	ABSENT

Completed Date: 8/11/2017

Analyst HB

Reviewed by: 

Analyzed: Date 8/10/2017
Time 10:00:00 AM

SM9223B CT Standard Method 9223B Colilert Reagent
SM9223B CT18 Standard Method 9223B Colilert-18 Reagent
SM9223B CS Standard Method 9223B Colisure Reagent



MAGIC VALLEY LABS

210 ADDISON AVE
TWIN FALLS, ID 83301
208-733-4250

Laboratory Supervisor: Brenda Ellis

PWS #: 5550035
BROCKWAY ENGINEERING
2016 N. WASHINGTON #4
TWIN FALLS ID 83301

LAB ID # ID00911

COLIFORM BACTERIA ANALYSIS REPORT

Date Collected 8/9/2017
Time Collected 2:10:00 PM

Date Received 8/10/2017
Time Received 9:05:00 AM

Sample # 3011561631
Type S - ROUTINE SAMPLE
Location EDGEWATER WELL 1
Collector ERICK POWELL

Chlorine Residual: ppm

Date of Original Positive:

Copy:

Test Performed

Method

Result

Total Coliform

SM9223BCT

ABSENT

Escherichia Coli

SM9223BCT

ABSENT

Completed Date: 8/11/2017

Analyzed: Date 8/10/2017
Time 10:00:00 AM

Analyst HB

Reviewed by: 

SM9223B CT Standard Method 9223B Colilert Reagent
SM9223B CT18 Standard Method 9223B Colilert-18 Reagent
SM9223B CS Standard Method 9223B Colisure Reagent



MAGIC VALLEY LABS

210 ADDISON AVE
TWIN FALLS, ID 83301
208-733-4250

Laboratory Supervisor: Brenda Ellis

PWS #: 5550035
BROCKWAY ENGINEERING
2016 N. WASHINGTON #4
TWIN FALLS ID 83301

LAB ID # ID00911

COLIFORM BACTERIA ANALYSIS REPORT

Date Collected 8/9/2017
Time Collected 2:10:00 PM

Date Received 8/10/2017
Time Received 9:05:00 AM

Sample # 3011561641
Type S - ROUTINE SAMPLE
Location EDGEWATER WELL 2
Collector ERICK POWELL

Chlorine Residual: ppm

Date of Original Positive:

Copy:

Test Performed	Method	Result
Total Coliform	SM9223BCT	ABSENT
Escherichia Coli	SM9223BCT	ABSENT

Completed Date: 8/11/2017

Analyst HB

Reviewed by: 

Analyzed: Date 8/10/2017
Time 10:00:00 AM

SM9223B CT Standard Method 9223B Colilert Reagent
SM9223B CT18 Standard Method 9223B Colilert-18 Reagent
SM9223B CS Standard Method 9223B Colisure Reagent

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

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BROCKWAY ENGINEERING

2016 N. WASHINGTON #4
TWIN FALLS ID 83301

Collection Date 8/9/2017		Received Date 8/9/2017	Location	
Collection Time 2:10 PM		Received Time 9:05 AM	WELL 1	
Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1718021	NITRATE/N EPA300.0	<0.60	8/10/2017	HB
1718022	NITRITE/N EPA300.0	<0.40	8/10/2017	HB
1718023	TOTAL SOLIDS SM2540B	140	8/14/2017	HB

Signature



Report Date: Wednesday, August 16, 2017

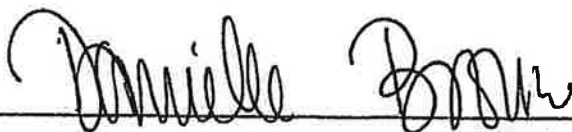
MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

BROCKWAY ENGINEERING

2016 N. WASHINGTON #4
TWIN FALLS ID 83301

Collection Date 8/9/2017		Received Date 8/9/2017	Location	
Collection Time 2:10 PM		Received Time 9:05 AM	WELL 2	
Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1718031	NITRATE/N EPA300.0	<0.60	8/10/2017	HB
1718032	NITRITE/N EPA300.0	<0.40	8/10/2017	HB
1718033	TOTAL SOLIDS SM2540B	130	8/14/2017	HB

Signature



Report Date: Wednesday, August 16, 2017

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Location Corrected by IDWR To:
T13N R42E Sec. 25 NWSNE
By: mciscell 2013-10-02

1. WELL TAG NO. D D0058505

Drilling Permit No. _____

Water right or Injection well # 21-13080

2. OWNER: The Woodlands at Bills Island

Name Holden, Kidwell, Hahn & Crapo

Address PO Box 50130

City Idaho Falls State ID Zip 83405

3. WELL LOCATION:

Twp. 13 North ☒ or South ☐ Rge. 42 East ☒ or West ☐

Sec. 25 NW 1/4 NW 1/4 NE 1/4

Gov't Lot _____ County Fremont

Lat. 44:25:46.5 (Deg. and Decimal minutes)

Long. 111:26:44.5 (Deg. and Decimal minutes)

Address of Well Site approx 700' from Bills

Island Road City Island Park

Lot. _____ Blk. _____ Sub. Name _____

4. USE:

☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☐ Other _____

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well
☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
Bentonite	4	24	1100lbs	overbore
cement	24	73	5.5yds	pressure grout

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner	Threaded	Welded
10"	+2	101	365	Steel	☒	☐	☒
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 101'

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____

Manufactured screen ☐ Y ☒ N Type _____

Method of Installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 43 Static water level (ft) 42

Water temp. (°F) 54° Bottom hole temp. (°F) 54°

Describe access port well cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
4.4'	280 gpm	24 hrs	☒	☐	☐	☐

Test method:

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
16"	0	3	Top Soil		X
16"	3	5	Soft Red Rhyolite		X
16"	5	14	Red Rhyolite		X
16"	14	35	Brown Rhyolite		X
16"	35	38	Dark Brown Rhyolite		X
16"	38	43	Grey Rhyolite		X
16"	43	47	Brown Rhyolite	X	
16"	47	53	Grey Rhyolite	X	
16"	53	73	Brown Rhyolite	X	
16"	73	92	Brown Sandy Clay	X	
16"	92	98	Brown Soft Rock	X	
16"	98	101	Basalt	X	
10"	101	122	Basalt	X	
10"	122	125	Fractured Basalt/Clay	X	
10"	125	145	Red Basalt	X	
10"	145	185	Grey Basalt	X	
10"	185	191	Grey Basalt	X	
10"	191	207	Grey & Red Soft Basalt	X	

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Department of Water Resources
Eastern Region

Completed Depth (Measurable): 204'

Date Started: 6-14-2010 Date Completed: 7-1-2010

14. DRILLER'S CERTIFICATION:

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Vollmer Drilling Co. No. 383

*Principal Driller [Signature] Date 8-9-10

*Driller _____ Date _____

*Operator II Joey Vollmer Date 08/09/10

Operator I _____ Date _____

* Signature of Principal Driller and rig operator are required.

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORTLocation Corrected by IDWR To:
T13N R42E Sec. 25 NWSNE
By: mciscell 2013-10-021. WELL TAG NO. D D0058536

Drilling Permit No. _____

Water right or injection well # _____

2. OWNER: The Woodlands at Bills Island, LLCName Woodlands at Bills Island, LLCAddress Holden, Kidwell, Hahn & Crapo POB 5013City Idaho Falls State ID Zip 83405

3. WELL LOCATION:

Twp. 13 North ☒ or South ☐ Rge. 42 East ☒ or West ☐Sec. 25 NW 1/4 NW 1/4 NE 1/4Gov't Lot _____ County FremontLat. 44:25:46.0 (Deg. and Decimal minutes)Long. 111:26:46.0 (Deg. and Decimal minutes)Address of Well Site approx 600 ft from BillsIsland Road City Island Park

Lot _____ Blk. _____ Sub. Name _____

4. USE:

☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection☐ Other _____

5. TYPE OF WORK:

☒ New well ☐ Replacement well ☐ Modify existing well☐ Abandonment ☐ Other _____

6. DRILL METHOD:

☒ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other _____

7. SEALING PROCEDURES:

Seal material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method/procedure
Cement	0	70	8.5yds	pressure grout

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/Schedule	Material	Casing Liner	Threaded	Welded
10"	+2	97	.365	Steel	☒	☐	☒
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 97'

9. PERFORATIONS/SCREENS:

Perforations ☐ Y ☒ N Method _____Manufactured screen ☐ Y ☒ N Type _____

Method of installation _____

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule

Length of Headpipe _____ Length of Tailpipe _____

Packer ☐ Y ☒ N Type _____

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft ³)	Placement method

11. FLOWING ARTESIAN:

Flowing Artesian? ☐ Y ☒ N Artesian Pressure (PSIG) _____

Describe control device _____

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) _____ Static water level (ft) 39'

Water temp. (°F) _____ Bottom hole temp. (°F) _____

Describe access port well cap

Well test:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)
6'	280gpm	6 hrs

Test method:

Pump ☒ Baller ☐ Air ☐ Flowing artesian ☐

Water quality test or comments: _____

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Water	
				Y	N
16"	0	3	Top Soil		X
16"	3	7	Soft Red Rhyolite		X
16"	7	16	Red Rhyolite		X
16"	16	42	Brown Rhyolite		X
16"	42	48	Grey Rhyolite	X	
16"	48	50	Brown Rhyolite	X	
16"	50	56	Grey Rhyolite	X	
16"	56	73	Brown Rhyolite	X	
16"	73	85	Soft Sandy Clay Stone	X	
16"	85	97	Grey Basalt	X	
10"	97	118	Grey Basalt	X	
10"	118	122	Fractured Basalt	X	
10"	122	125	Frac. Basalt & Cinders	X	
10"	125	132	Grey Basalt	X	
10"	132	137	Red Basalt & Cinders	X	
10"	137	146	Red Basalt	X	
10"	146	158	Grey Basalt	X	
10"	158	162	Grey Basalt sm Clay	X	
10"	162	175	Grey Basalt	X	
10"	175	185	Red Basalt/Sandstone	X	
10"	185	190	Red Sandstone	X	
10"	190	195	Quartz, Pumice, Sandstone	X	
10"	195	200	Grey Pumice, Quartz	X	
10"	200	207	Grey Rhyolite, Quartz	X	

RECEIVED

AUG 11 2010

Department of Water Resources
Eastern RegionCompleted Depth (Measurable): 203'Date Started: 7-12-2010Date Completed: 7-20-2010

14. DRILLER'S CERTIFICATION:

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Vollmer DrillingCo. No. 383*Principal Driller [Signature]Date 8-9-10

*Driller _____

Date _____

*Operator II Joey Killmer

Date _____

Operator I _____

Date _____

* Signature of Principal Driller and rig operator are required.

Operation and Maintenance Manual The Woodlands at Bills Island Water System

Brockway Engineering, PLLC
August 27, 2018



A. System Overview

The Woodlands at Bills Island water system serves potable water to 42 residential lots. A site plan of the system showing the location of all water mains, valve stations, and pumps is provided in the Appendix.

The purpose of this Operations and Maintenance Manual (OMM) is to provide specific information to allow the system manager to effectively operate and maintain the water system to meet regulatory requirements and protect the health of the public served by the system.

The system is relatively simple, containing two (2) wells and distribution system, and requires careful oversight and maintenance even though most aspects of the system are designed to be self-regulating.

A.1. Excavation and Locating

All distribution pipelines are buried, with a minimum cover of 60 inches. Locator wire is installed in the trench at all points. Electronic locating devices should be used prior to excavating.

All buried pipelines are PVC C-900 4" diameter pipe.

A.2. Contacts

Project Engineer:

G. Erick Powell, P.E.
Brockway Engineering, PLLC
2016 Washington St. North, Suite 4
Twin Falls, ID 83301
(208) 736-8543 / Fax (208) 736-8506
erick.powell@brockwayeng.com

The Woodlands at Bills Island representative:

Ryan Davis
(480) 323-5743

The Woodlands at Bills Island Water System Operator:

Robert Terry Cardwell
579 West 1st N
Rigby, ID 83442
(208) 360-7464
(or other licensed operator, presented in the Appendix. Confirm with the Woodlands at Bill's Island representative)

Idaho Department of Environmental Quality representative:

Engineering Staff
Idaho Department of Environmental Quality
900 North Skyline, Suite B
Idaho Falls, ID 83402

B. System Operation

B.1. General description

The potable water system is designed to supply adequate flow and pressure to each lot. There are 42 service taps, as shown on Figure 1. Two (2) new municipal wells provide water to the system in one pressure zone.

B.2. Service taps

A service tap is located at each lot. There are no flow meters on the taps. These taps must be used only for in-house water supply and no more than 0.25 acres of irrigation on each lot. No irrigation of any kind is allowed on common areas or open spaces from the potable system. Whenever any new construction or major remodeling is to occur, inform the owner and the contractor about these restrictions.

B.3. Wells and Pumps

The potable water system is supplied by two (2) groundwater wells with submersible pumps, pitless adapters, and pipelines to the pumphouse. The well pumps in combination will meet the peak hourly demand, and are set to operate in a duplex mode during normal operation. Both pumps will activate if demand cannot be met by one well. The pumps are designed to maintain approximately 70 psi at the pumphouse inlet under normal operating conditions, utilizing a variable-frequency drive. The pressure may drop to 50 psi under peak demand conditions.

Manual operation of one or both pumps may be necessary for unusual conditions such as system startup, malfunctioning controller, or repairs to pump.

At least one (1) spare potable well pump shall be kept on hand at all times. The spare pump shall be exactly the same make and model as the operational pump. In the event of a pump failure, the failed pump shall be withdrawn from the well and the spare pump shall be fitted in place of the failed pump. The new pump shall be in place and operational within seven (7) days of failure.

B.4. Sensors and Displays

Display(s) located within the pumphouse will provide the following information. The operator should verify that all sensor data is within the acceptable range.

Sensor	Acceptable Range
Pressure at pumphouse inlet	50 to 80 psi
Well 1 water level	125 feet maximum
Well 2 water level	125 feet maximum
System flow rate	0 to 210 gpm

B.5. Alarms

Alarms will be triggered whenever any of the following events occurs: well pump failure, or a low-pressure condition in distribution mainline. Both audio and visual signals are located on the outside of the pumphouse.

B.6. Source maintenance

The water supply wells should require little maintenance throughout their useful life. Visual inspection of the surface casing, sanitary seal, and appurtenances should be made once per year. If a well exhibits declining yield and/or increased drawdown, the project engineer should be contacted to discuss potential solutions.

B.7. Repairs, maintenance, and safety

B.7.1. Repairs to potable system.

In general, most maintenance can and should be performed without shutting down the water system. Bypass piping and valving in the pumphouse should allow this. However, the following procedures should be followed when making repairs that require shutting down the potable system.

1. Notify all occupants at least three (3) days ahead of time that the system will be depressurized.
2. Close the valve(s) in the pumphouse to isolate the system.
3. Shut down the well pumps to depressurize the system.
4. Proceed to perform the maintenance.
5. Take great care when dismantling any pipes, replacing components, etc. to avoid introducing dirt, grease, chemicals, or other contaminants into the system.
6. Re-start the system according to Section B.8. under the direction of a water system operator certified for this system.

B.7.2. Maintenance work in confined spaces

Performing maintenance or repair work in confined spaces such as vaults, tanks, or enclosures can be life-threatening due to the potential for oxygen depletion within the space. Great care shall be taken to protect the safety of workman in such instances.

The following are recommended guidelines:

- a) Utilize and monitor an O2 meter to detect depressed oxygen levels
- b) Use a ventilation fan wherever possible
- c) Do not perform such work alone; ensure that others are nearby and are able to assist if needed.

B.7.3. Pumphouse safety

Within the pumphouse, the following precautions should be taken and components should be replaced as necessary:

- Provide adequate lighting and replace faulty bulbs or electrical equipment promptly
- Verify the proper operation of the ventilation fans.
- Verify proper operation of door and window locks.
- Notify electrical contractor of problems with electrical system or pump controls.

B.8. System Startup

Starting the potable system after a depressurization or maintenance event consists of the following steps:

1. Notify all occupants at least three (3) days ahead of time that the system will be depressurized and instruct them to use no water on that day until notified that the system is safe.
2. Ensure the air-vacuum valves in the system are operational and can evacuate air.
3. Manually activate one of the well pumps.
4. Verify evacuation of air from the air-vacuum valves and verify closure of the valves indicating system pressurization.
5. Open the flushing hydrants one at a time. Leave each open for 15 minutes.

6. Disinfect system as described in Section B.9.

B.9. System Disinfection

Prior to initial startup or whenever the system has experienced a depressurization event for any reason, disinfect the system by following this procedure.

1. Notify all occupants at least three (3) days ahead of time, if possible, that the system will be disinfected and instruct them to use no water on that day until notified that the system is safe.
2. Close all service connection valves.
3. Open the flushing hydrants.
4. Connect a chemical feed pump suitable for sodium hypochlorite solution.
5. Begin filling the system by manually operating one well pump and regulating flow to no more than 20 gpm with the valves in the pumphouse.
6. Set the feed pump to achieve a 25 mg/l chlorine dose throughout the entire system, measure the concentration at regular intervals at the pumphouse and at the hydrants, and do not stop chlorine injection until the entire main is filled with chlorinated water.
7. Hold the chlorinated water in the system for at least 4 hours, operating all valves and hydrants within the system throughout their full range.
8. At the end of 24 hours, verify at the pumphouse and at the hydrants that the water has a chlorine residual of at least 10 mg/l free chlorine.
9. Flush the chlorinated water from the main using the flushing hydrants until the chlorine residual is less than 0.5 mg/l free chlorine at all points.
10. Take water samples at the pumphouse and at each of the flushing hydrants and perform total coliform tests. If an "absent" result is obtained at all points, notify occupants that the system is safe to use. If an "absent" result is not obtained at all points, return to Step 8, re-flush the system, and re-test. If an "absent" result is still not obtained, return to Step 2, re-disinfect the system, and re-test. Continue until an "absent" result is obtained at all sampling locations.

B.10. Depressurization events

Depressurization of the potable mainline and possible contamination can occur during events such as pipe repair and/or replacement, pipe breakage, or installing a new service connection. According to IDEQ rules, whenever the pressure in the system at any point drops below 20 psi, a depressurization event is deemed to have occurred and the system must be shut down and a disinfection procedure implemented as described in Section B.8. If the depressurization event is relatively small and isolated, a more localized approach may be warranted, but a “total coliform absent” test result must always be obtained. Contact the project engineer for guidance.

B.11. Service Connection Management

B.11.1. Cross-connections

A state-approved double-check valve shall be required on every connection to the potable water system.

B.11.2. Irrigation Time

Irrigation shall occur only from the hours of 8 pm to 6 am, and only from April 15 through October 31.

B.11.3. Irrigation Rotation

A 3-day irrigation rotation shall be established, with no more than 14 lots irrigating at any one time. Each day is termed an irrigation “set.” The purpose of the rotation is to limit irrigation demand during peak periods to prevent the system capacity from being exceeded. It is based on maximum-day demand with full build-out and 100% occupancy. Since this condition will not exist immediately, the 3-day rotation will not be necessary for a number of years.

B.11.4. Enforcement

If any violations of the above restrictions are observed, notify the lot owner of record in writing. If no satisfactory reply is received within 30 days, notify the president of the homeowners association and request enforcement action be taken in accordance with

the bylaws and CC&Rs. Enforcement is not required for the rotation scheme outlined in B.11.3. until the subdivision reaches greater than 50% build-out.

C. Monitoring Schedule

Potable water samples must be collected and analyzed according to a schedule approved by IDEQ. Collect the samples in the pumphouse at the water quality tap. All water samples must be delivered to a state-certified laboratory within 12 hours after the sample is drawn. A list of state-certified laboratories is found in the Appendix.

C.1. Initial water quality testing

Prior to delivering water to the public, initial testing on the two well sources must be performed for all constituents required by IDEQ for initial public water system tests. Prior to delivering water to the public through the distribution system, total coliform testing shall be conducted according to Section C.2.2.

C.2. Routine water quality testing

IDEQ requires periodic water quality monitoring in the system. Parameters that must be monitored include total coliform, nitrate-nitrogen, and nitrite-nitrogen.

C.2.1. Test methods, equipment, and sampling kits

All parameters are laboratory tests. Water must be drawn from the sampling points to an approved container for shipment to the laboratory. A supply of containers may be obtained from any state-certified laboratory listed in the Appendix. Any human contact with the water being sampled or with the mouth or lid of the container can cause a coliform-positive result. Great care must be taken during the sampling process.

C.2.2. Normal operation water quality sampling and measurement

During normal operation of the system, take water samples and measure parameters according to the criteria and schedule outlined in the table in Section C.2.4. All laboratory tests must be performed by a state-certified laboratory. A list of certified labs is provided in the Appendix. The monitoring schedule must be followed explicitly, unless prior written approval from IDEQ for a schedule modification is received.

The water quality sampling point for all parameters is the designated water quality sampling valve in the filtration plant. In addition, the water quality sampling points for total coliform sampling shall be five (5) randomly-selected locations throughout the distribution system, but shall always include the sample tap in the pumphouse and at least one of the flushing hydrants. The sampling points shall be rotated to ensure a different set of sampling point each time.

C.2.3. Events requiring notification of IDEQ

Certain events will require that the water system notify IDEQ. These events include the following:

- Coliform positive sample

C.2.4. Normal Operation Water Quality Sampling Schedule

Parameter	Units	Type of test	Location	Method	Frequency	Remarks / constraints
Total coliform	Presence/ Absence	Routine	Pumphouse and rotating locations	Laboratory	Once/month	Sample must reach lab within 24 hours of sampling.
		After a routine sample is total coliform positive	Pumphouse and rotating locations	Laboratory	Four repeat samples for each positive result; five samples during the month after positive result	Sample must reach lab within 24 hours of sampling.
pH	Std Units	Routine	Pumphouse	Field meter	Once/month	
Nitrate-nitrogen	mg/l	Routine	Pumphouse	Laboratory	Once/year	Take sample in summer
		After a routine sample result is greater than MCL of 10.0 mg/l	Pumphouse	Laboratory	Once within 24 hours of MCL exceedance	
Nitrite-nitrogen	mg/l	Routine	Pumphouse	Laboratory	Once/year	Take sample in summer

D. Equipment List

Wells and Appurtenances	
Well #1 Pump	Berkeley 5HHE-250 (20 HP) Variable speed
Well #1 Motor	20 HP 460 volt 3-phase Tesla Motor
Well #2 Pump	Berkeley 5HHE-250 (20 HP) Variable Speed
Well #2 Motor	20 HP 460 volt 3-phase Tesla Motor
Pitless Unit	MAAS Model MB
Check Valves	Val-Matic Model No. 1804
Pumphouse Equipment	
Variable-Speed Drive and Programmable Logic Controllers	ABB ACS550
Flow Meter	McCrometer UltraMag UM06-04
Combination Air and Vacuum Valves	Val-Matic 201C.2
Check Valves	Val-Matic Model No. 1804
Butterfly Valves	Mueller 040A236006LN
Pressure Tank	Well-X-Trol by Amtrol WX451C
Distribution System	
Hydrants	Kupferle Mainguard #77
Gate Valves	Mueller A-2360 Resilient-Wedge
Combination Air and Vacuum Valves	Pratt WCV20-332

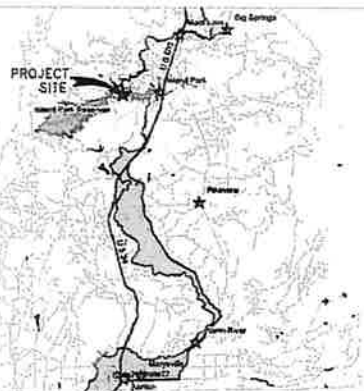
E. Vendor Contacts

Well and well pump service	Vollmer Well Drilling 4068 N. Haroldsen Drive Idaho Falls, ID 83401 208-552-0236
Controls and Sensors	Balanced Energy Solutions (208) 360-6880
Water testing laboratory	Teton Micobiology Lab 258 North Water Ave #2 Idaho Falls, ID 83402 (208) 932-0215
Bottled water delivery	Culligan Rexburg: (208) 356-8911 Idaho Falls: (208) 522-2921
Valves, flow meters, and appurtenances	PumpTechCompany, Inc. Idaho Falls, ID (208) 529-6868

Appendix

System Map

List of State-Certified Laboratories

VICINITY MAP
ABBREVIATION LIST

A	AND	N	NOT TO SCALE
AT		N.T.S.	NUMBER
CL	CENTER LINE	NO. OR #	
CONC.	CONCRETE	O	
CULV.	CORRUGATED METAL PIPE CULVERT	O.D.	OUTSIDE DIAMETER
D	DEPTH	P	
DIAL. Ø	DIAMETER	PVC.	POLYVINYL CHLORIDE
D.I.	DUCTILE IRON	R	
E		R. RAD.	RADIUS
EL. ELEV.	ELEVATION	S	
EXT. G	EXISTING	S.S.	STAINLESS STEEL
E.W.	EACH WAY	STD.	
G		STRU.	STRUCTURE
GALV.	GALVANIZED	T	
I.E.	INVERT ELEVATION	T.O.C.	TOP OF CONCRETE
IN. "	INCH	TYP	TYPICAL
M		V	
MAX.	MAXIMUM	VLV	VALVE
MPG.	MANUFACTURE	W	
MJ	MECHANICAL JOINT	W.S.E.	WATER SURFACE ELEVATION
MIN	MINIMUM	WITH	

DETAILING CONVENTIONS

The diagram illustrates the standard placement of section letters and detail numbers on a technical drawing. On the left, under the heading "SECTIONS", a cross-section of a roof is shown. A horizontal line with a diagonal slash and the letter 'X' is labeled "SECTION LETTER". Below this, a vertical line with a diagonal slash and the letter 'X' is labeled "SHEET WHERE SECTION IS SHOWN". A horizontal line with a diagonal slash and the letter 'X' is labeled "SHEET WHERE SECTION IS TAKEN". On the right, under the heading "DETAILS AND VIEWS", a detail of a roof corner is shown. A horizontal line with a diagonal slash and the number '1' is labeled "DETAIL NUMBER". Below this, a vertical line with a diagonal slash and the number '1' is labeled "SHEET WHERE DETAIL IS SHOWN". A horizontal line with a diagonal slash and the number '1' is labeled "SHEET WHERE DETAIL IS TAKEN".

THE WOODLANDS AT BILLS ISLAND WATER DISTRIBUTION SYSTEM

GENERAL NOTES:

1. THE PROJECT SHALL CONSIST OF CONSTRUCTION OF A PUMP HOUSE, WATER DISTRIBUTION SYSTEM, WELL PUMPS, AND ALL APPURTENANCES, WATER SUPPLY WELLS BY OTHERS.
2. GENERAL REQUIREMENTS: THE CONTRACTOR SHALL VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS SHOWN OR IMPLIED ON THE DRAWINGS AND SPECIFICATIONS AS WELL AS THE EXISTING WORK AND PHYSICAL CONDITIONS OF THE SITE. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO START OF WORK. PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION.
3. SITE WORK: CLEARING AND GRADING SHALL CONFORM TO LOCAL REQUIREMENTS AND SHALL BE CONDUCTED SUCH THAT EROSION OF SOILS AND VEGETATIVE LOSSES ARE MINIMIZED.
4. STRUCTURAL FILL SHALL BE COMPACTED IN 8" LIFTS TO A DENSITY OF 95% MAXIMUM DRY DENSITY PER ASTM D1557.
5. CONCRETE: $F_c = 2500$ PSI, MINIMUM 5-1/2" SACK MIX, 4" MAXIMUM BUMP. ULTIMATE STRENGTH DESIGN METHOD USED. MIXING AND PLACING OF ALL CONCRETE AND SELECTION OF MATERIALS SHALL BE IN ACCORDANCE WITH THE UBC AND ACI CODE 318. PROPORTIONS OF AGGREGATE TO CEMENT SHALL BE SUCH AS TO PRODUCE A DENSE WORKABLE MIX WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. CHAMFER ON ALL EXPOSED CONCRETE EDGES, UNLESS INDICATED OTHERWISE ON DRAWINGS. ADMIXTURES: USE AIR-ENTRAINED ADMIXTURE IN ALL CONCRETE EXPOSED TO WEATHER, UNLESS OTHERWISE SHOWN OR SPECIFIED. ADOPTING ADMIXTURE ADJUSTMENT AT THE MAXIMUM RATE PRESCRIBED RATE TO RESULT IN 1% AIR IN CONCRETE AT THE POINT OF PLACEMENT HAVING AIR CONTENT WITHIN THE FOLLOWING LIMITS: 4-16%.

5% FOR 1½" TO 2½" AGGREGATE
8% FOR 1" TO 1½" AGGREGATE
7% FOR ¾" TO 1" AGGREGATE

6. POWER SHALL BE 3-PHASE, 480-VOLT SUFFICIENT TO DRIVE PUMP AT MAXIMUM DISCHARGE.
7. ELECTRICAL WORK SHALL BE MET OR EXCEED APPLICABLE CODES.
8. ALL WELDS SHALL BE CONTINUOUS, FREE OF Voids, WATERTIGHT, AND HAVE A STRENGTH EXCEEDING THAT OF THE PIPE BEING WELDED.
9. ALL EXPOSED STEEL SHALL BE COATED WITH TWO COATS OF HEAVY-DUTY EPOXY PAINT
10. PUMPS AND CONTROLS SHALL BE TESTED AND MUST BE VERIFIED TO MEET OR EXCEED MANUFACTURER'S PERFORMANCE CURVE, AND ALL CONTROLS MUST BE VERIFIED TO PERFORM AS DESCRIBED ABOVE.
11. SHELTER OR PUMP HOUSE SHALL BE SUPPLIED TO OWNERS DESIGN AND SPECIFICATIONS, PROVIDED, HOWEVER, THAT EXTERIOR SHALL BE BRICK, CINDER BLOCK, METAL, OR OTHER FIRE AND WEATHER RESISTANT MATERIAL. INSULATION MUST PROVIDE A MINIMUM R-VALUE OF R-12 IN THE WALLS AND R-30 IN THE CEILING. ROOFING MUST BE ASPHALT SHINGLES OR OTHER FIRE-RESISTANT MATERIAL.
12. ALL CONCRETE SHALL CONTAIN STEEL REINFORCEMENT ROD, #4 AT 12 INCHES ON CENTER EACH WAY. ROD SHALL BE PLACED AS SHOWN ON THE DRAWINGS TO THE ALL SEPARATE JOINTS TOGETHER. REINFORCEMENT ROD SHALL BE NO CLOSER THAN 2 INCHES TO ANY EXTERIOR FACE OF THE CONCRETE.
13. CONSTRUCTION SPECIFICATIONS DATED NOVEMBER 12, 2008 ARE INCORPORATED BY REFERENCE. THE SPECIFICATIONS SHALL BE FOLLOWED PRECISELY UNLESS WRITTEN VARIANCE FROM THE ENGINEER IS OBTAINED.
14. OWNER UNDERSTANDS THAT THE WATER SYSTEM HAS NOT BEEN DESIGNED TO MEET FIRE FLOWS OR OTHER CRITERIA COMBINED WITH THE LATEST INTERNATIONAL FIRE CODE. THE PROPOSED SYSTEM HAS BEEN APPROVED BY THE ISLAND PARK FIRE DISTRICT. BROCKWAY ENGINEERING ACCEPTS NO LIABILITY FOR FIRE LOSSES.



Original signed by G. Erick Powell
on 8/29/18. Original is on file at
Brozovsky Engineering, PLLC at
the address below.

DRAWING INDEX	
TITLE	DWG No.
COVER SHEET AND VICINITY MAP	1.0
SITE PLAN I	2.0
SITE PLAN II	3.0
SECTIONS & DETAILS I	4.0
SECTIONS & DETAILS II	5.0

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D	AS-BUILT	8/25/18	DEP		
C	FOR CONSTRUCTION (IF DEQ STAMP AFFIXED)	4/8/09			
B	ISSUE FOR DEQ APPROVAL	8/1/00	C08		
A	ISSUED FOR REVIEW	3/25/08	C08		
REV	DESCRIPTION	DATE	APPD		REFERENCE DRAWING

DESIGNED BY

24

[illegible]

1

1

BROCKWAY ENGINEERING, PLLC.

HYDRAULICS • HYDROLOGY • WATER RESOURCES

2818 NORTH WASHINGTON, SUITE 4

TYWIN FALLS, ID. 83301

(208) 738-2543



THE WOODLANDS AT BILLS ISLAND WATER DISTRIBUTION SYSTEM

COVER SHEET & VICINITY MAP

PROJECT ●

940-02-2007

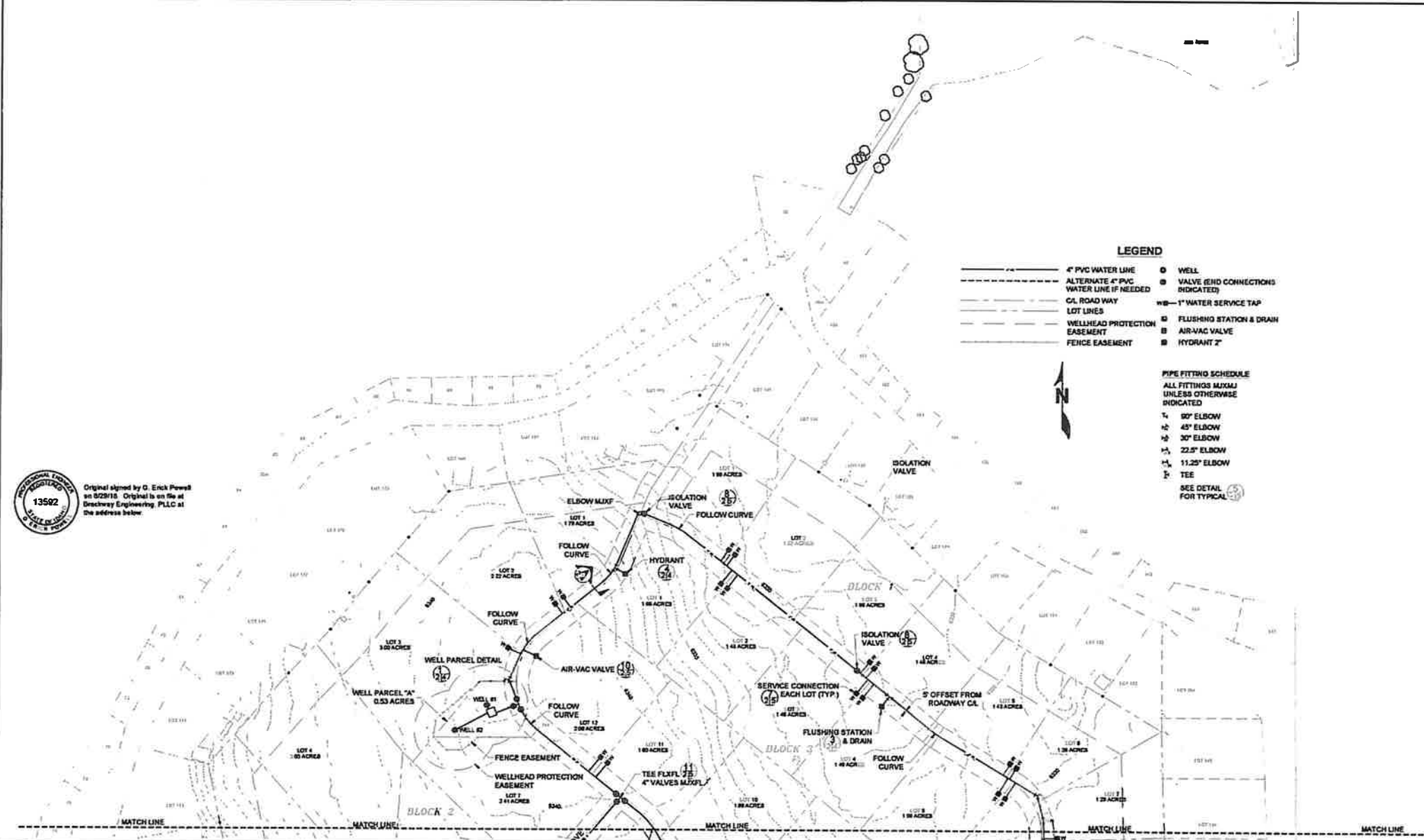
DWAG #

1





Original signed by G. Erick Powell
on 8/29/18. Original is on file at
Brockway Engineering, PLLC at
the address below.



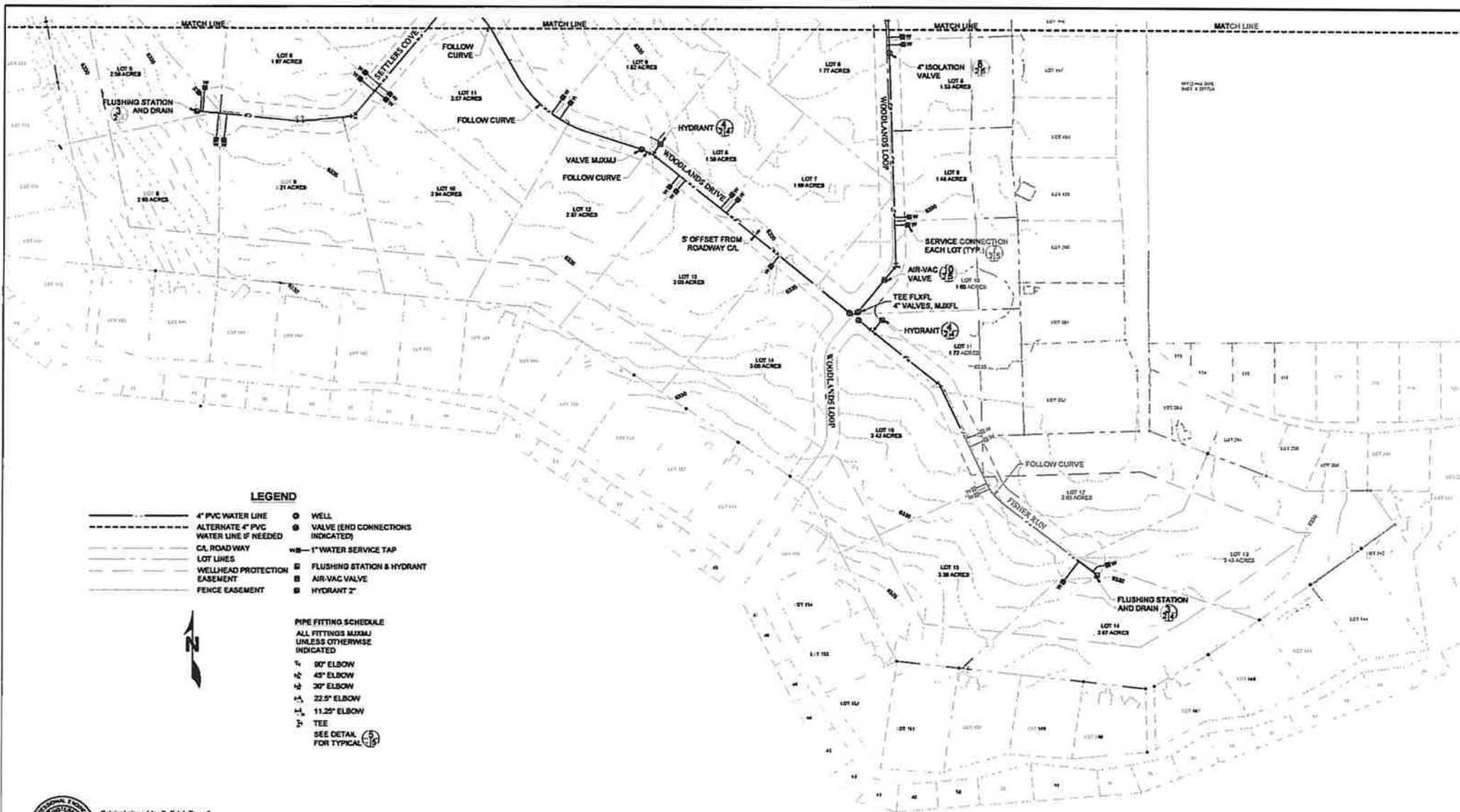
LEGEND

- 4\"/>
- ALTERNATE 4\"/>
- CL. ROAD WAY
- LOT LINES
- WELLHEAD PROTECTION EASEMENT
- FENCE EASEMENT
- WELL
- VALVE (END CONNECTIONS INDICATED)
- 1\"/>
- FLUSHING STATION & DRAIN
- AIR-VAC VALVE
- HYDRANT 2\"/>

PIPE FITTING SCHEDULE

- ALL FITTINGS MSSJ
UNLESS OTHERWISE
INDICATED
- 90° ELBOW
 - 45° ELBOW
 - 30° ELBOW
 - 22.5° ELBOW
 - 11.25° ELBOW
 - TEE
- SEE DETAIL
FOR TYPICAL

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D	AS-BUILT			8/29/18	GEP																		
C	FOR CONSTRUCTION (IF DESI STAMP AFFIXED)			4/9/09																			
B	ISSUE FOR DESI APPROVAL			01/08	CCB																		
A	ISSUE FOR REVIEW			3/20/06	CDB																		
REV	DESCRIPTION			DATE	APPR.	REFERENCE DRAWINGS			SCALE 1"=100' (AS SHOWN ONLY)								DWG # 2		REV A				



Original signed by G. Erick Pressel
on 02/28/10. Original to be in file at
Brockway Engineering, PLLC at
the address below

THIS DRAWING HAS BEEN PREPARED
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FOR A SPECIFIC PROJECT TAKING
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PROJECT. REUSE OF THIS DRAWING
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THE CLIENT IS GRANTED.

REV	DESCRIPTION	DATE	APPRO.	REFERENCE DRAWINGS
D	AS-BUILT	5/29/16	GEP	
C	FOR CONSTRUCTION (IF DEQ STAMP AFFIXED)	4/9/09		
B	ISSUE FOR DEQ APPROVAL	5/1/05	COB	
A	ISSUE FOR REVIEW	3/20/05	COB	
	DESCRIPTION	DATE	APPRO.	REFERENCE DRAWINGS

DESIGNED BY
CMB

DRAWN BY
ALA

SCALE 1"=100'
OR 1/8"=100' (SEE DETAIL 1)

BROCKWAY ENGINEERING, PLLC.
HYDRAULIC - HYDROLOGY - WATER RESOURCES
2018 NORTH WASHINGTON, SUITE 4
TWIN FALLS, ID. 83301
(208) 735-8543

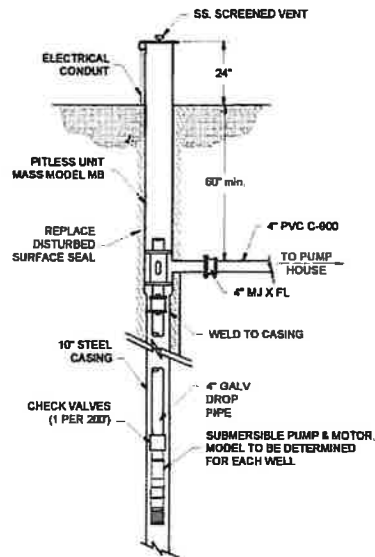
**THE WOODLANDS AT BILLS ISLAND
WATER DISTRIBUTION SYSTEM**

SITE PLAN - SOUTH

PROJECT #
940-02-2007

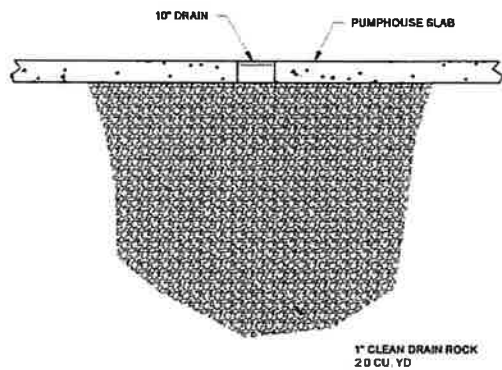
DWG #
3

REV
A

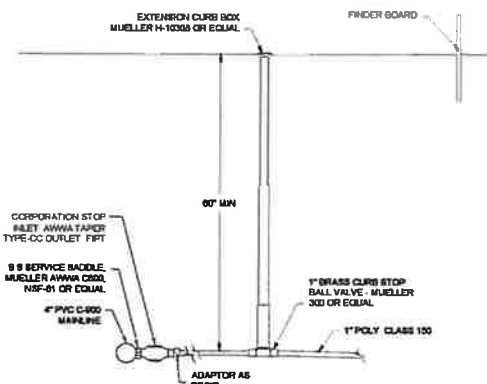


NOTE: WELL CONSTRUCTION BY OTHERS

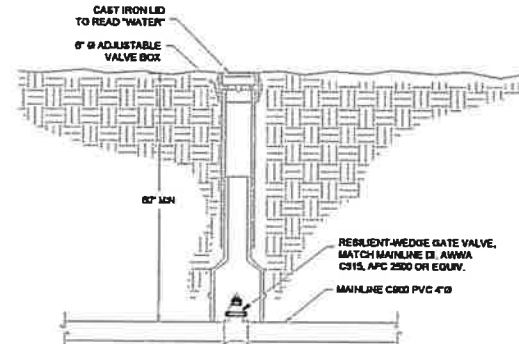
6 WELL PUMPS
4 5 N.T.S.



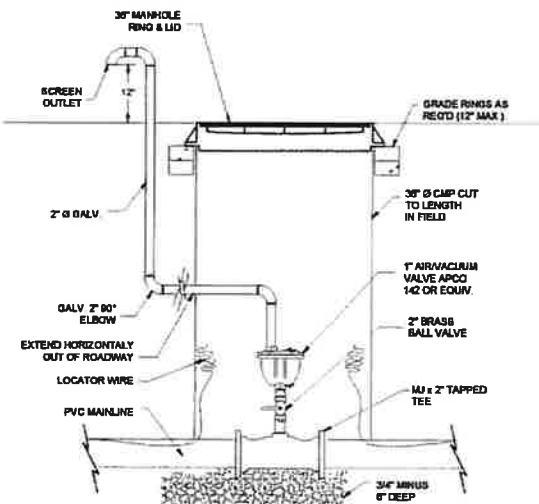
9 DRY WELL
4 5 SCALE 3/4" = 1'



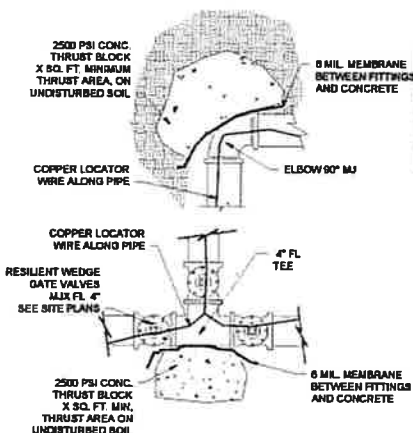
7 WATER SERVICE CONNECTION
2 5 SCALE 1"=1'



8 ISOLATION VALVE (TYP.)
2 5 SCALE 1"=1'



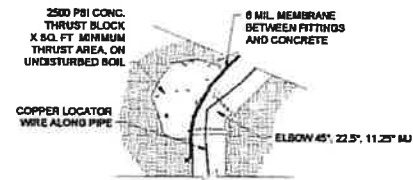
10 AIR/VAC STATION
2 5 SCALE 1"=1'



11 TYPICAL ELBOW & TEE CONFIGURATIONS, & THRUST BLOCK SIZE REQUIREMENTS
2 5 SCALE: N.T.S.

THRUST BLOCK SCHEDULE				
MINIMUM SQUARE FEET OF THRUST AREA ONTO UNDISTURBED EARTH				
PIPE SIZE	TEE, PLUG OR VALVES	90° BEND	45° BEND	22.5°/11.25° BENDS
4"	1.40	2.00	1.10	0.80

NOTE: PIPE SHALL BE PVC C-900 FOR POTABLE SYSTEM, TYPICAL APPLICATION SHOWN. USE FL, MJ, OR FL/MJ FITTINGS & VALVES AS REQ'D SEE SITE PLANS



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	D	AS-BUILT	5/29/18	GEP						DWG #	REV
	C	FOR CONSTRUCTION (IF DEC STAMP AFFIXED)	4/9/18							5	A
	B	ISSUE FOR DEC APPROVAL	6/1/18	CGB							
	A	ISSUE FOR REVIEW	3/20/18	CGB							
	REV	DESCRIPTION	DATE	APPD.	REFERENCE DRAWINGS	SCALE 1/2"=1' (SEE SITE PLANS FOR 11)					

Search Results For Contract Operators

The following operators are licensed in Idaho to operate drinking water or wastewater systems, pursuant to the Drinking Water and Wastewater Professionals Licensing Act, Idaho Code Sections 54-2401 to 54-2414, as of Aug 06, 2017. It is the responsibility of the customer to contact the operators regarding licensure. This information is provided as a courtesy and Idaho DEQ is not responsible for any errors in the following list or the quality of service provided by any operator. This list does not include all operators licensed in Idaho to operate drinking water or wastewater systems, only those who are choosing to contract their services.

Hiring a qualified veteran may make your system eligible for certain federal benefits or credits. Please access the following U.S. Dept. of Veterans Affairs website for details: https://www.vba.va.gov/bln/vre/emp_resources.htm

Search Criteria - Drinking Water - Distribution

	DWD1-14223	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I
LESLIE BRIENNE ABRAMS 719 N 7TH ST COEUR D ALENE, ID 83814 Veteran: No	Phone Number Cell Number E-mail	208-667-0726 208-929-1045 leslie@mywaterworksonline.com
	DWDVSW5-17276	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM
WENDELL LAWRENCE ADER 2118 HWY 95 MIDVALE, ID 83645 Veteran: Yes	Phone Number Cell Number E-mail	208-355-2221 208-550-0123 wader339@yahoo.com
	DWD1-15335	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I
DOUG C AMICK 26645 DESERT HILLS DR WILDER, ID 83676 Veteran: No	Phone Number Cell Number E-mail	-000-000 208-989-2983 sdamick@speedyquick.net
	DWD2-13667	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II
BRAD D ANDERSEN 4933 CAMAS CREEK CIRCLE IONA, ID 83427 Veteran: No	Phone Number Cell Number E-mail	208-523-9112 208-521-6970 oneh20boy@hotmail.com
	DWDVSW5-10093	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM
PAUL M ANDERSON PO BOX 3000 POCATELLO, ID 83206 Veteran: No	Phone Number Cell Number E-mail	208-237-8886 208-201-1950 alcnow@cableone.net
	DWD2-10113	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II
LARRY E ANNEN 151 HICKORY LANE OROFINO, ID 83544 Veteran: No	Phone Number Cell Number E-mail	000-000-000 208-827-0527 larryannen@hotmail.com
	DWD3-18309	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS III
BRENT J ARTE 51 N MIDLAND BLVD NAMPA, ID 83651	Phone Number Cell Number E-mail	208-489-8777 208-353-6366 brentarte@hotmail.com

Veteran: No

DWD4-14982 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS IV

RYAN BAUMANN
PO BOX 1061
TWIN FALLS, ID 83303
Veteran: No

Phone Number 208-329-2093
Cell Number
E-mail chukarorbust@gmail.com

DWD1-19103 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I

EUGENE D BROWN
401 BROOKS AVE
HAZELTON, ID 83335
Veteran: Yes

Phone Number 208-731-9018
Cell Number 208-731-9018
E-mail browneugene82@gmail.com

DWD1-15651 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I

DOUGLAS RAY BUYS
PO BOX 681
NEW MEADOWS, ID 83654
Veteran: No

Phone Number 208-469-9523
Cell Number 208-469-9523
E-mail nmcitysewer@frontiernet.net

DWD4-18668 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS IV

TRAVIS D CAPSON
1004 NW 99TH STREET
VANCOUVER, WA 98665
Veteran: No

Phone Number 208-461-4679
Cell Number
E-mail tcapson@cablone.net

DWD2-10304 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II

ROBERT T CARDWELL
579 W 1ST N
RIGBY, ID 83442
Veteran: No

Phone Number 208-360-7464
Cell Number 208-360-7464
E-mail terrych2o@gmail.com

DWD2-12782 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II

ROBERT CHANDLER
3525 S STACH RD
COEUR D'ALENE, ID 83814
Veteran: No

Phone Number 208-772-5657
Cell Number 208-691-3428
E-mail bobchandlercda@gmail.com

DWDVSW-10350 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM

JEFFREY D CHOULES
13136 BILLY LN
POCATELLO, ID 83202
Veteran: No

Phone Number 208-237-8265
Cell Number 208-530-0412
E-mail jchoules@cablone.net

DWD3-17712 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS III

CARL ALAN CHRISTENSEN
1541 CLAIRE VIEW LANE
IDAHO FALLS, ID 83402
Veteran: No

Phone Number 208-521-4873
Cell Number 208-521-4873
E-mail carleighid@gmail.com

DWD3-19478 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS III

ERIC R CHRISTENSEN 2040 H STREET HEYBURN, ID 83336 Veteran: No	Phone Number Cell Number E-mail	208-679-4827 208-431-2911 echris@pmt.org
DWD2-10390	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II	
PETE CORTEZ JR 825 FILLMORE ST AMERICAN FALLS, ID 83211 Veteran: No	Phone Number Cell Number E-mail	208-226-3119 208-705-0362 pcortez@co.power.id.us
DWD1-12249	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I	
JAMES C CRYER 11501 HIGHLANDER ROAD BOISE, ID 83709 Veteran: No	Phone Number Cell Number E-mail	208-369-1591 000-000-000 Cryer.James@Gmail.com
DWD2-19657	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II	
JASON PAUL CUNNINGHAM 1071 E 900 S EDEN, ID 83325 Veteran: No	Phone Number Cell Number E-mail	208-308-8531 208-308-8531 jhccunn@gmail.com
DWDVSWS-20202	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM	
SPENCER JOSEPH CURTIS 6403 COLONIAL DR BOISE, ID 83709 Veteran: No	Phone Number Cell Number E-mail	208-342-5515 541-788-3573 spencercurtis82@gmail.com
DWDVSWS-12257	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM	
WARREN B DRAKE 11 COTTONTAIL CT MCCALL, ID 83638 Veteran: No	Phone Number Cell Number E-mail	208-634-3859 208-573-6261 wdrake@frontlernet.net
DWDVSWS-10480	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM	
WILLIAM E DUNCAN 4132 W BAVARIA ST EAGLE, ID 83616 Veteran: No	Phone Number Cell Number E-mail	208-860-5075 000-000-000 intmsys@yahoo.com
DWDVSWS-12801	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM	
TERRY R FACKRELL 22138 OLD HWY 30 CALDWELL, ID 83607 Veteran: Yes	Phone Number Cell Number E-mail	208-454-1594 208-880-7594 trfackrell@bigplanet.com
DWD4-17459	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS IV	
JOSHUA LEE GABEL 1772 N DOE AVE KUNA, ID 83634	Phone Number Cell Number E-mail	208-407-3753 razie193208@gmail.com

Veteran: No

DWD1-14947 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I

RONALD M GEARHART
26235 LANSING LN
MIDDLETON, ID 83644
Veteran: No

Phone Number 208-365-5385
Cell Number 208-573-7606
E-mail ron@clearwateroperations.com

DWD3-13025 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS III

SETH W GOERTZ
517 E LIBERTY
WEISER, ID 83672
Veteran: No

Phone Number 208-549-3745
Cell Number 208-550-7255
E-mail seth@ruralnetwork.net

DWD4-17604 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS IV

JOHN F GRIFFIN
2816 WESTSIDE ROAD
BONNERS FERRY, ID 83805
Veteran: No

Phone Number 509-539-6662
Cell Number 509-539-6662
E-mail griffinpapabear@msn.com

DWD1-15636 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I

BOB W GRIMM
PO BOX 593
GARDEN VALLEY, ID 83622
Veteran: No

Phone Number 000-000-000
Cell Number 208-781-0261
E-mail afewgrimms@hotmail.com

DWD2-13440 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II

ROBERT F HANSEN
67 WILD HORSE TRAIL
SANDPOINT, ID 83864
Veteran: No

Phone Number 208-265-4270
Cell Number 208-661-0085
E-mail wsmibob@aol.com

DWD2-15829 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II

CHAS HEATON
7587 DEVONWOOD DR
BOISE, ID 83714
Veteran: No

Phone Number 208-941-0262
Cell Number 208-941-0262
E-mail cheaton@gardencityidaho.org

DWDVSW-12041-GP DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM

MARVIN C HEILESON
5410 REDONDO EVITA
IDAHO FALLS, ID 83401
Veteran: Yes

Phone Number 208-524-4015
Cell Number
E-mail mchelleson@gmail.com

DWDVSW-19884 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM

SCOTT M KAHRE
3 BOONE RD.
GARDEN VALLEY, ID 83622
Veteran: No

Phone Number 208-454-2730
Cell Number 208-514-6297
E-mail skahre@cableone.net

DWDVSW-10939 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM

SANDRA A KOCH
1623 ARTESIAN RD
EAGLE, ID 83616
Veteran: No

Phone Number 208-342-5515
Cell Number 208-859-0708
E-mail sandykoch@analyticallaboratories.com

DWD1-17048 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS I
DWDVSW-15381 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
VERY SMALL SYSTEM

THOMAS KRASOWSKI
PO BOX 231
NOTUS, ID 83656
Veteran: No

Phone Number 208-888-3000
Cell Number 208-353-1511
E-mail thomask@cableone.net

DWD2-14719 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS II

ROBERT KUCHENSKI
PO BOX 468
ATHOL, ID 83801
Veteran: No

Phone Number 208-683-0500
Cell Number 000-000-000
E-mail bob@integritywater.net

DWD1-10960 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS I

JAMES E LACKEY
12 HANFORD DR.
SAGLE, ID 83860
Veteran: No

Phone Number 000-000-000
Cell Number 208-290-6280
E-mail jlackey@schweltzer.com

DWD4-18306 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS IV

MITCHELL D LILE
2449 W. ASHLAND LANE
HAYDEN, ID 83835
Veteran: Yes

Phone Number 907-854-5369
Cell Number 907-854-5369
E-mail liquidvocation@gmail.com

DWDVSW-11024 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
VERY SMALL SYSTEM

MARC LONGLEY
PO BOX 2223
KETCHUM, ID 83340
Veteran: No

Phone Number 208-726-5942
Cell Number 208-720-0252
E-mail idahoh2osolutions@gmail.com

DWD3-19421 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS III

RALPH A MARTINI
11 W 200 S
BURLEY, ID 83318
Veteran: No

Phone Number 208-679-8624
Cell Number 208-431-2913
E-mail rmartini@pmt.org

DWDVSW-19425 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
VERY SMALL SYSTEM

BRIAN MCGOVERN
1804 N 33RD ST
BOISE, ID 83703
Veteran: No

Phone Number 208-342-5515
Cell Number 208-388-1745
E-mail brian@analyticallaboratories.com

DWD4-11113 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS IV

PATRICK J MCMAHON

Phone Number 208-622-4635

PO BOX 955
SUN VALLEY, ID 83353
Veteran: No

Cell Number 208-481-2566
E-mail mcmahon@cox.net

DWD1-19762 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I

MELANIE JANE MEAGHER
306 N MAIN ST
LATAH, WA 99018
Veteran: No

Phone Number 509-720-6656
Cell Number 509-720-6656
E-mail melaniejanemeagher@gmail.com

DWD3-11130 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS III

THOMAS J MEHIEL
1904 E BEACH ST
CALDWELL, ID 83605
Veteran: No

Phone Number 208-454-2706
Cell Number 208-941-5989
E-mail tom@valleyhydro.com

DWD1-19719 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I

MICHAEL TODD MORRIS
7025 W CONKLING RD
WORLEY, ID 83876
Veteran: No

Phone Number 208-686-1258
Cell Number 208-755-5673
E-mail morr8506@gmail.com

DWD2-15125 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II

RICHARD R NANSEN
PO BOX 515
DRIGGS, ID 83422
Veteran: No

Phone Number 208-354-2030
Cell Number 208-270-1525
E-mail rick@tetonwaterinc.com

DWD3-21142 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS III

DUSTIN ALAN PARKINSON
1168 N 4708 W
REXBURG, ID 83440
Veteran: No

Phone Number 208-313-0029
Cell Number 208-313-0029
E-mail mwwaterworks@gmail.com

DWDVSW-13313 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM

G. RYAN PATTIE
3314 POLE LINE RD
POCATELLO, ID 83201
Veteran: No

Phone Number 208-237-3300
Cell Number 208-251-1811
E-mail aquatech2817@gmail.com

DWD2-15311 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II

DEAN J RENNINGER
3710 N WOODS LN
COEUR D ALENE, ID 83815
Veteran: No

Phone Number 208-661-9521
Cell Number 208-661-9521
E-mail deanrenninger@gmail.com

DWD2-18495 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II

NATHAN RIBLETT
1840 DOVE DRIVE
AMMON, ID 83406
Veteran: No

Phone Number 208-881-2637
Cell Number
E-mail natemrib@gmail.com

DWD1-13927	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I
COREY G RICE 910 13TH STREET CHALLIS, ID 83226 Veteran: No	Phone Number 208-879-5742 Cell Number 208-833-7423 E-mail raz@custertel.net
DWD2-18440	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II
DARRELL ROMINE 2410 S STONEHEDGE DR NAMPA, ID 83686 Veteran: No	Phone Number 208-362-4395 Cell Number 208-901-4468 E-mail dtsj4r@gmail.com
DWD1-18884	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I
THOMAS L RUPPENTHAL 137 MAPLE DRIVE FISH HAVEN, ID 83287 Veteran: No	Phone Number 208-945-1070 Cell Number 206-409-8066 E-mail tom.ruppenthal@usaleakslc.com
DWDVSW-11431	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM
RICHARD J SCHAACK 114 PLEASANT VALLEY RD STITES, ID 83552 Veteran: No	Phone Number 208-926-7783 Cell Number 000-000-000 E-mail clearwaterwaterdist@gmail.com
DWD1-16219	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I
DANIEL P SEE 1815 N 24TH ST BOISE, ID 83702 Veteran: Yes	Phone Number 208-433-9231 Cell Number 208-861-3154 E-mail 2patricksee@msn.com
DWDVSW-20611	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - VERY SMALL SYSTEM
KEVIN IREC SORENSEN 8317 W. IDAHO BLVD EMMETT, ID 83617 Veteran: No	Phone Number 208-365-2084 Cell Number 208-515-9968 E-mail kisorensen@msn.com
DWD2-20987	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS II
RICHARD THOMAS STOLTENBURG 4325 N 1100 E BUHL, ID 83316 Veteran: No	Phone Number 208-308-5948 Cell Number 208-316-4620 E-mail rick.s@cityofbuhl.us
DWD1-11669	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I
BRIAN R TODD 1030 REAMS ROAD MOSCOW, ID 83843 Veteran: No	Phone Number 208-882-5032 Cell Number 509-336-0741 E-mail btoddecowater@verizon.net
DWD1-11686	DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR - CLASS I
PHILLIP M TSCHIDA	Phone Number 208-461-0608

8 BROWNLEE RD
HORSESHOE BEND, ID 83629
Veteran: No

Cell Number 208-781-0348
E-mail ddfields@velocitus.net

DWDVSW-12210 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
VERY SMALL SYSTEM

ROBERT C TURNIPSEED
P O BOX 1870
HAYDEN, ID 83835
Veteran: No

Phone Number 208-665-9200
Cell Number 208-661-1560
E-mail avondalecon@verizon.net

DWD3-17299 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS III

RONALD E WHITESEL
815 N 12TH E ST
MOUNTAIN HOME, ID 83647
Veteran: Yes

Phone Number 208-587-5358
Cell Number 208-484-9329
E-mail Ron-tins@live.com

DWD2-11788 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS II

ALLEN G WILDER
PO BOX 359
TETONIA, ID 83452
Veteran: No

Phone Number 208-456-2287
Cell Number 208-847-5822
E-mail awilder@ida.net

DWDVSW-15404 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
VERY SMALL SYSTEM

ROBERT S WILLIAMS
PO BOX 304
CHALLIS, ID 83226
Veteran: No

Phone Number 208-879-4676
Cell Number 208-833-4676
E-mail bwilliams@d181.k12.id.us

DWD1-18682 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
CLASS I

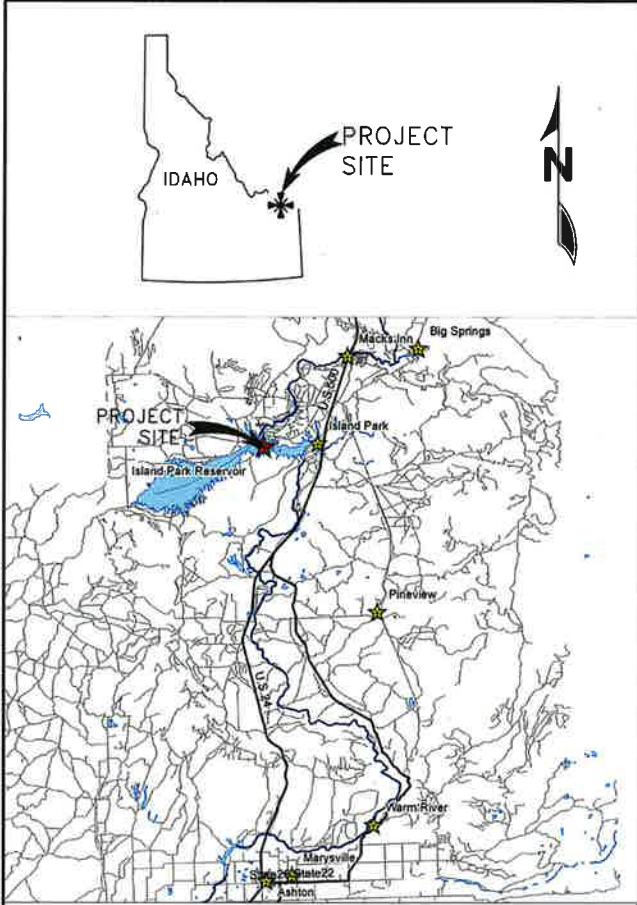
MICHAEL J WILLIAMS-BLACK
14360 SALMON RIVER RD
CALDWELL, ID 83607
Veteran: No

Phone Number
Cell Number 208-283-0237
E-mail mike.wastewater@gmail.com

DWDVSW-15982 DRINKING WATER DISTRIBUTION DRINKING WATER DISTRIBUTION OPERATOR -
VERY SMALL SYSTEM

JAMES B ZARUBICA
146 TREASURE LANE
HAILEY, ID 83333
Veteran: No

Phone Number 208-788-2694
Cell Number 208-788-2694
E-mail J.ZARUB@COX.NET



THE WOODLANDS AT BILLS ISLAND WATER DISTRIBUTION SYSTEM

GENERAL NOTES:

1. THE PROJECT SHALL CONSIST OF CONSTRUCTION OF A PUMP HOUSE, WATER DISTRIBUTION SYSTEM, WELL PUMPS, AND ALL APPURTENANCES, WATER SUPPLY WELLS BY OTHERS.
2. GENERAL REQUIREMENTS: THE CONTRACTOR SHALL VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS SHOWN OR IMPLIED ON THE DRAWINGS AND SPECIFICATIONS AS WELL AS THE EXISTING WORK AND PHYSICAL CONDITIONS OF THE SITE. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO START OF WORK. PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION.
3. SITE WORK: CLEARING AND GRADING SHALL CONFORM TO LOCAL REQUIREMENTS AND SHALL BE CONDUCTED SUCH THAT EROSION OF SOILS AND VEGETATIVE LOSSES ARE MINIMIZED.
4. STRUCTURAL FILL SHALL BE COMPACTED IN 8" LIFTS TO A DENSITY OF 95% MAXIMUM DRY DENSITY PER ASTM D1557.
5. CONCRETE: $F_c = 2500$ PSI, MINIMUM, 5-1/2" SACK MIX, 4" MAXIMUM SLUMP. ULTIMATE STRENGTH DESIGN METHOD USED. MIXING AND PLACING OF ALL CONCRETE AND SELECTION O MATERIALS SHALL BE IN ACCORDANCE WITH THE UBC AND ACI CODE 318. PROPORTIONS OF AGGREGATE TO CEMENT SHALL BE SUCH AS TO PRODUCE A DENSE WORKABLE MIX WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. CHAMFER ON ALL EXPOSED CONCRETE EDGES, UNLESS INDICATED OTHERWISE ON DRAWINGS. ADMIXTURES: USE AIR-ENTRAINING ADMIXTURE IN ALL CONCRETE EXPOSED TO WEATHER, UNLESS OTHERWISE SHOWN OR SPECIFIED. ADD AIR-ENTRAINING ADMIXTURE AT THE MANUFACTURER'S PRESCRIBED RATE TO RESULT IN CONCRETE AT THE POINT OF PLACEMENT HAVING AIR CONTENT WITHIN THE FOLLOWING LIMITS (+/- 1%):

5% FOR 1 1/2" TO 2 1/2" AGGREGATE
6% FOR 3/4" TO 1" AGGREGATE
7% FOR 3/8" TO 1/2" AGGREGATE
6. POWER SHALL BE 3-PHASE, 480-VOLT SUFFICIENT TO DRIVE PUMP AT MAXIMUM DISCHARGE.
7. ELECTRICAL WORK SHALL BE MEET OR EXCEED APPLICABLE CODES.
8. ALL WELDS SHALL BE CONTINUOUS, FREE OF VOIDS, WATERTIGHT, AND HAVE A STRENGTH EXCEEDING THAT OF THE PIPE BEING WELDED.
9. ALL EXPOSED STEEL SHALL BE COATED WITH TWO COATS OF HEAVY-DUTY EPOXY PAINT.
10. PUMPS AND CONTROLS SHALL BE TESTED AND MUST BE VERIFIED TO MEET OR EXCEED MANUFACTURER'S PERFORMANCE CURVE, AND ALL CONTROLS MUST BE VERIFIED TO PERFORM AS DESCRIBED ABOVE.
11. SHELTER OR PUMP HOUSE SHALL BE SUPPLIED TO OWNER'S DESIGN AND SPECIFICATIONS, PROVIDED, HOWEVER, THAT EXTERIOR SHALL BE BRICK, CINDER BLOCK, METAL, OR OTHER FIRE AND WEATHER RESISTANT MATERIAL. INSULATION MUST PROVIDE A MINIMUM R-VALUE OF R-12 IN THE WALLS AND R-30 IN THE CEILING. ROOFING MUST BE ASPHALT SHINGLES OR OTHE FIRE-RESISTANT MATERIAL.
12. ALL CONCRETE SHALL CONTAIN STEEL REINFORCEMENT ROD, #4 AT 12 INCHES ON CENTER EACH WAY. ROD SHALL BE PLACED AS SHOWN ON THE DRAWINGS TO TIE ALL SEPARATE POURS TOGETHER. REINFORCEMENT ROD SHALL BE NO CLOSER THAN 2 INCHES TO ANY EXTERIOR FACE OF THE CONCRETE.
13. CONSTRUCTION SPECIFICATIONS DATED NOVEMBER 12, 2008 ARE INCORPORATED BY REFERENCE. THE SPECIFICATIONS SHALL BE FOLLOWED PRECISELY UNLESS WRITTEN VARIANCE FROM THE ENGINEER IS OBTAINED.
14. OWNER UNDERSTANDS THAT THE WATER SYSTEM HAS NOT BEEN DESIGNED TO MEET FIRE FLOWS OR OTHER CRITERIA CONTAINED IN THE LATEST INTERNATIONAL FIRE CODE. THE PROPOSED SYSTEM HAS BEEN APPROVED BY THE ISLAND PARK FIRE DISTRICT. BROCKWAY ENGINEERING ACCEPTS NO LIABILITY FOR FIRE LOSSES.



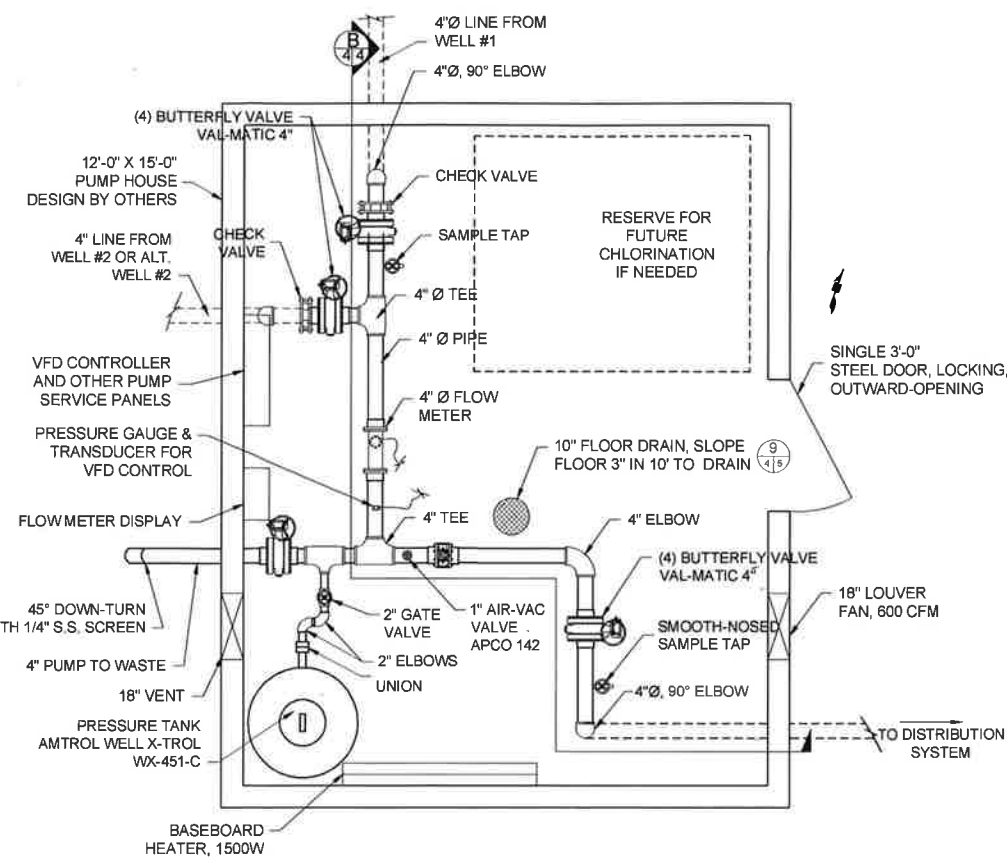
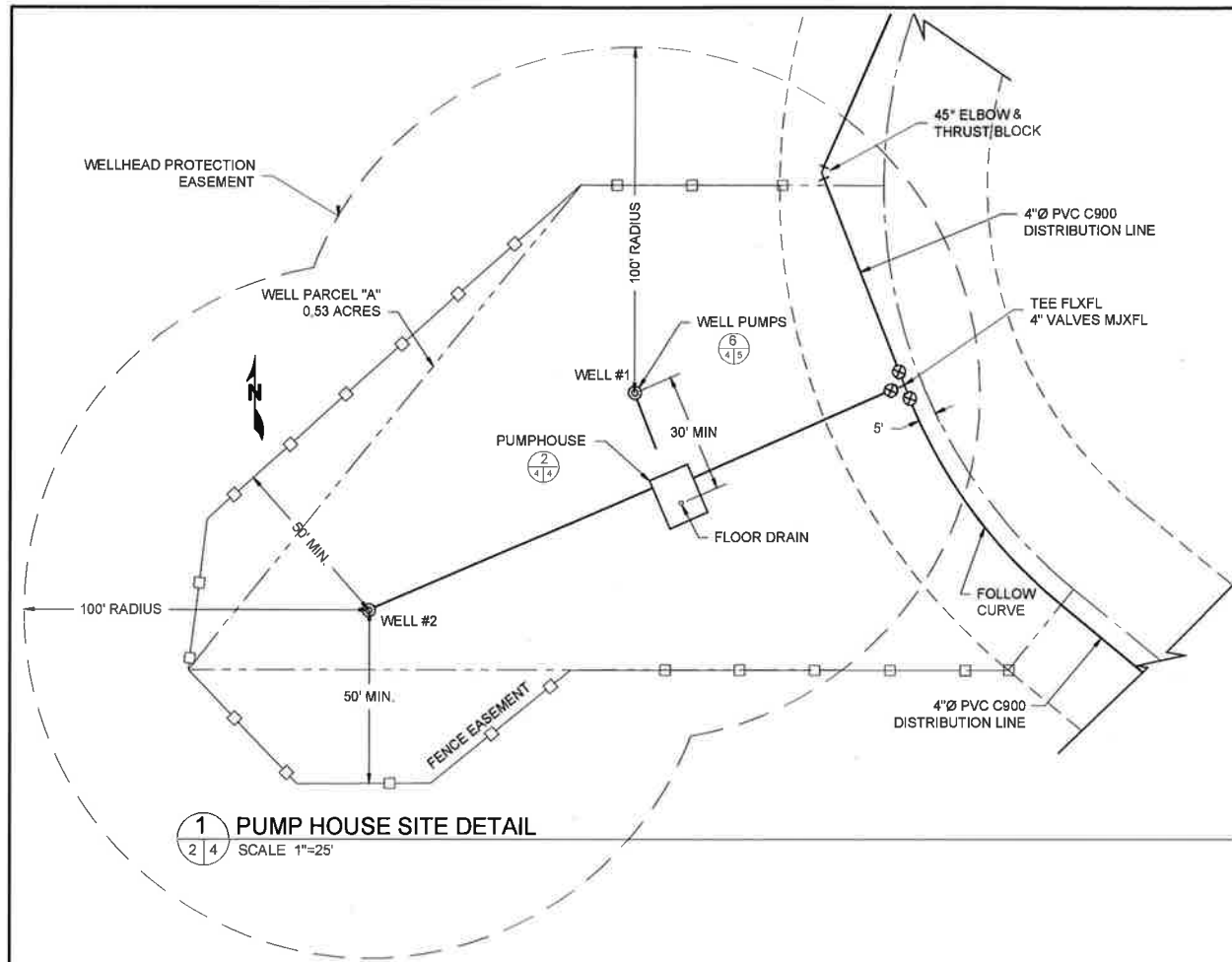
Original signed by G. Erick Powell
on 8/29/18. Original is on file at
Brockway Engineering, PLLC at
the address below.

DRAWING INDEX

TITLE	DWG No.
COVER SHEET AND VICINITY MAP	1.0
SITE PLAN I	2.0
SITE PLAN II	3.0
SECTIONS & DETAILS I	4.0
SECTIONS & DETAILS II	5.0

VICINITY MAP			
ABBREVIATION LIST			
A & @	AND AT	N N.T.S. NO. OR #	NOT TO SCALE NUMBER
C CL. CONC. CMP. CULV.	CENTER LINE CONCRETE CORRUGATED METAL PIPE CULVERT	O O.D.	OUTSIDE DIAMETER
D D DIA., Ø D.I.	DEPTH DIAMETER DUCTILE IRON	P PVC.	POLYVINYL CHLORID
E EL., ELEV. EXT'G E.W.	ELEVATION EXISTING EACH WAY	R R., RAD.	RADIUS
G GALV.	GALVANIZED	S S.S. STD. STRU.	STAINLESS STEEL STANDARD STRUCTURE
I I.E. IN, "	INVERT ELEVATION INCH	T T.O.C. TYP.	TOP OF CONCRETE TYPICAL
M MAX. MFG. MJ. MIN.	MAXIMUM MANUFACTURE MECHANICAL JOINT MINIMUM	V VLV W	VALVE
		W.S.E. W/	WATER SURFACE ELEVATION WITH
DETAILING CONVENTIONS			
SECTIONS:		DETAILS AND VIEWS:	
SECTION LETTER		DETAIL NUMBER	
SHEET WHERE SECTION IS SHOWN		SHEET WHERE DETAIL IS SHOWN	
SHEET WHERE SECTION IS TAKEN		SHEET WHERE DETAIL IS TAKEN	

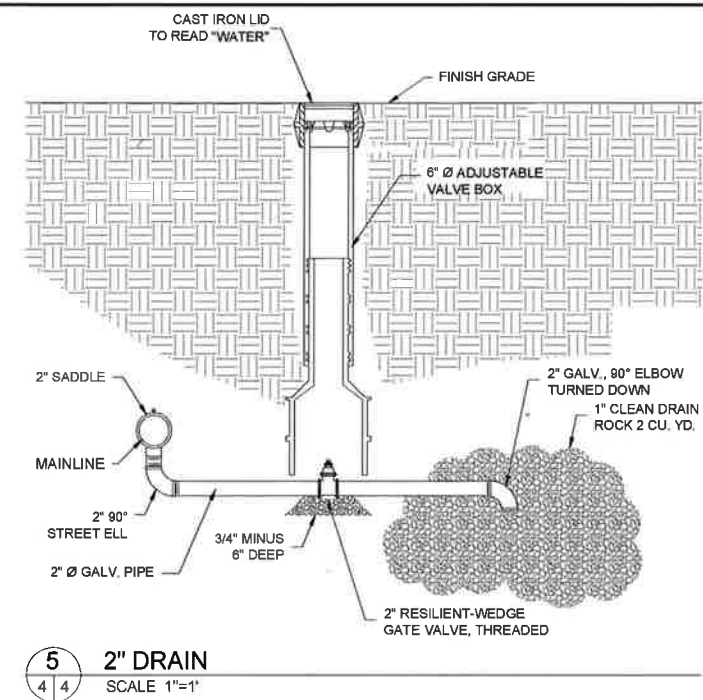
THIS DRAWING HAS BEEN PREPARED BY BROCKWAY ENGINEERING, PLLC. FOR A SPECIFIC PROJECT TAKING INTO ACCOUNT THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM BOTH BROCKWAY ENGINEERING & THE CLIENT IS GRANTED.							DESIGNED BY CGB	DRAFTED BY ALR	BROCKWAY ENGINEERING, PLLC. HYDRAULICS • HYDROLOGY • WATER RESOURCES 2016 NORTH WASHINGTON, SUITE 4 TWIN FALLS, ID. 83301 (208) 736-8543		THE WOODLANDS AT BILLS ISLAND WATER DISTRIBUTION SYSTEM	PROJECT # 940-02-2007
	D	AS-BUILT	6/29/18	GEP								
	C	FOR CONSTRUCTION (IF DEQ STAMP AFFIXED)	4/9/09									
	B	ISSUED FOR DEQ APPROVAL	8/1/08	CGB								
	A	ISSUED FOR REVIEW	3/20/08	CGB								
	REV	DESCRIPTION	DATE	APPD.	REFERENCE DRAWINGS							
							SCALE AS SHOWN (24 X 36 DWG ONLY)				DWG #	REV
											1	



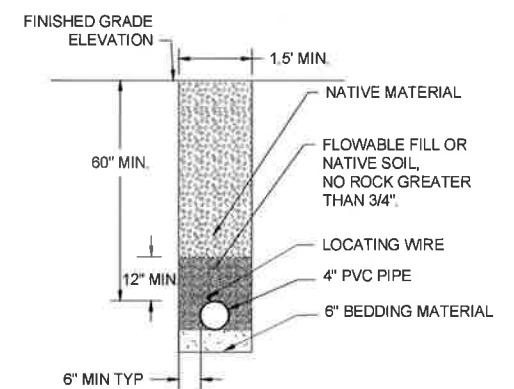
2 PUMP HOUSE
SCALE N.T.S.

NOTES:

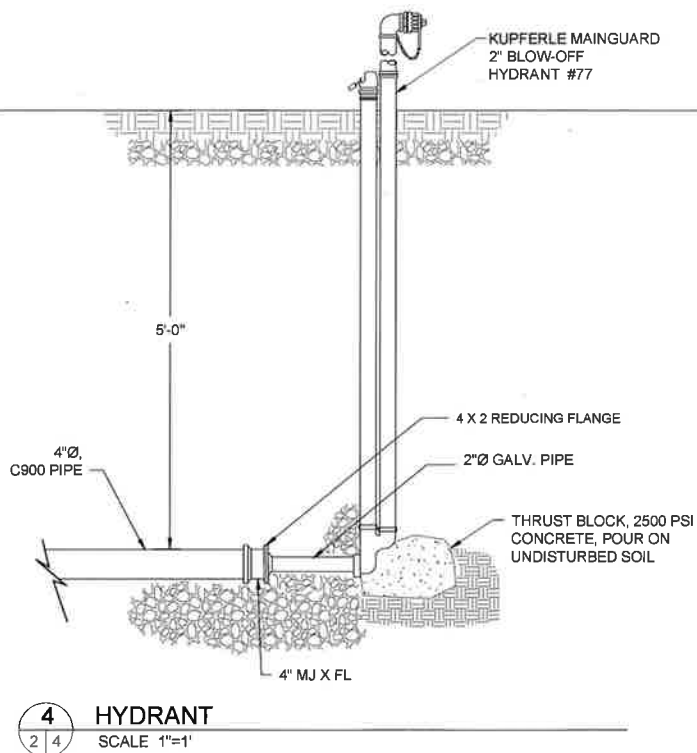
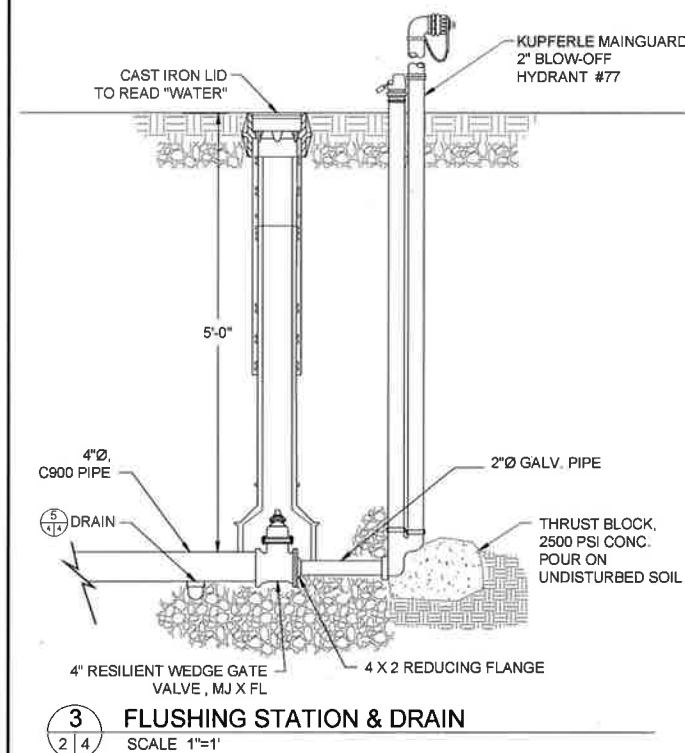
- PIPE SHALL BE DUCTILE IRON (FLANGED) OR GALVANIZED STEEL (THREADED), 150 PSI CLASS OR BETTER. IF GALVANIZED PIPE IS USED, PROVIDE UNIONS TO FACILITATE EQUIPMENT REMOVAL.
- DRY WELL UNDER FLOOR DRAIN: 1 C.Y. WASHED GRAVEL. DO NOT CONNECT DRAIN TO SEWERS, STORM DRAINS, CHLORINATION ROOMS, OR ANY OTHER SOURCE OF CONTAMINATION.



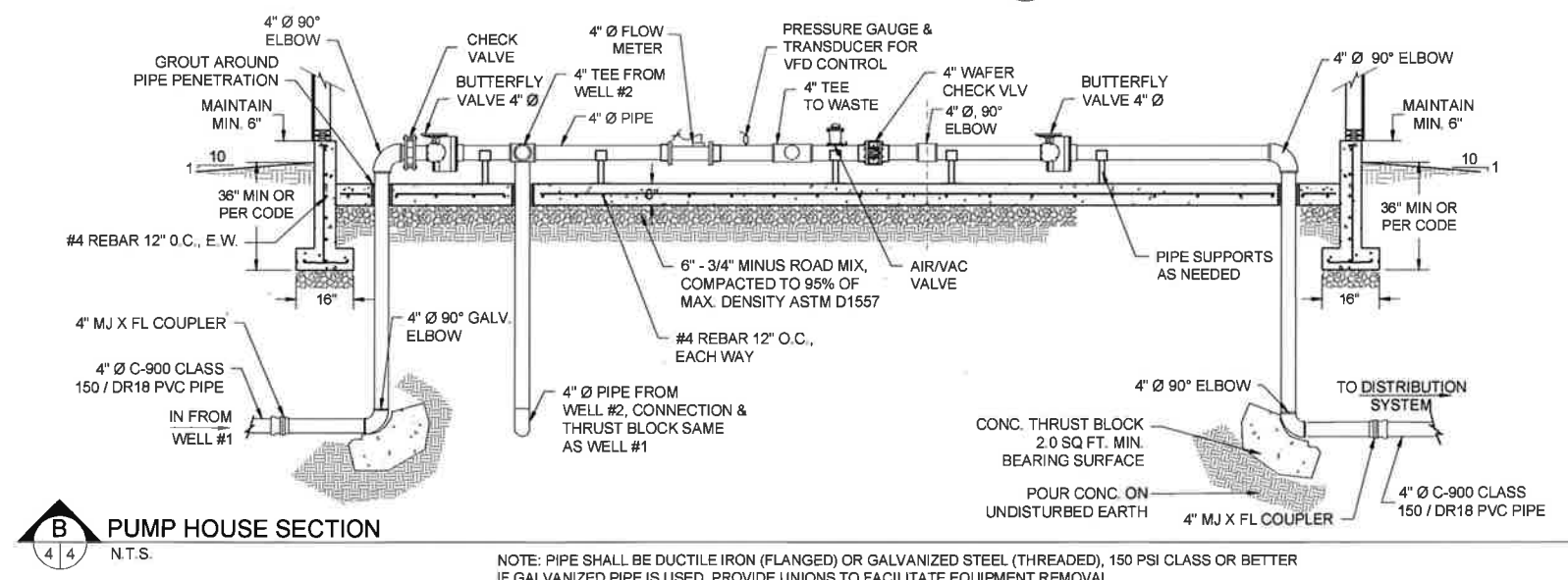
5 2" DRAIN
SCALE 1"=1'



A TYP. TRENCH SECTION
SCALE 1/2"=1'



4 HYDRANT
SCALE 1"=1'



B PUMP HOUSE SECTION
N.T.S.

NOTE: PIPE SHALL BE DUCTILE IRON (FLANGED) OR GALVANIZED STEEL (THREADED), 150 PSI CLASS OR BETTER. IF GALVANIZED PIPE IS USED, PROVIDE UNIONS TO FACILITATE EQUIPMENT REMOVAL.

THIS DRAWING HAS BEEN PREPARED BY BROCKWAY ENGINEERING, PLLC. FOR A SPECIFIC PROJECT TAKING INTO ACCOUNT THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM BOTH BROCKWAY ENGINEERING & THE CLIENT IS GRANTED.



D	AS-BUILT	8/29/18	GEP		
C	FOR CONSTRUCTION (IF DEQ STAMP AFFIXED)	4/9/09			
B	ISSUE FOR DEQ APPROVAL	8/1/08	CGB		
A	ISSUE FOR REVIEW	3/20/08	CGB		
REV	DESCRIPTION	DATE	APPD.	REFERENCE DRAWINGS	

DESIGNED BY	CGB
DRAFTED BY	ALR
SCALE	1/2"=1' (24" X 36" ONLY)

BROCKWAY ENGINEERING, PLLC.
HYDRAULICS - HYDROLOGY - WATER RESOURCES
2016 NORTH WASHINGTON, SUITE 4
TWN FALLS, ID. 83301
(208) 736-8543

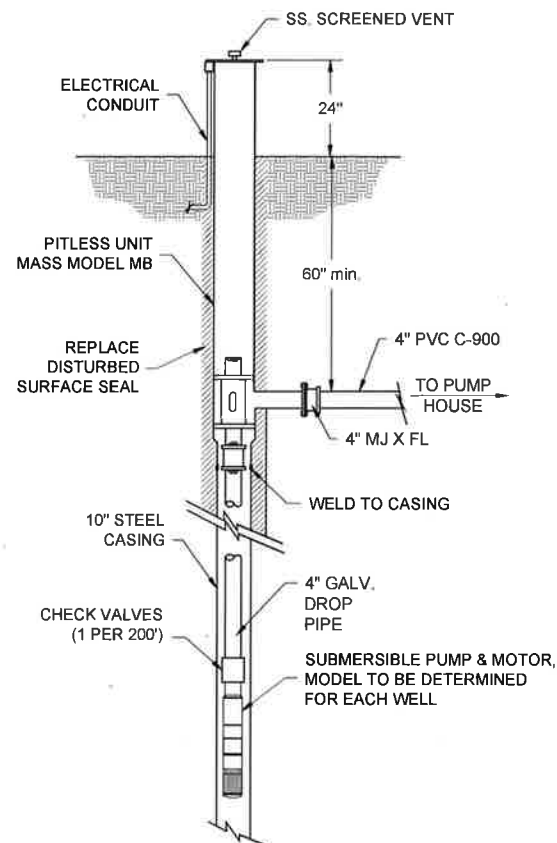
**THE WOODLANDS AT BILLS ISLAND
WATER DISTRIBUTION SYSTEM**

DETAILS & SECTIONS I

PROJECT #
940-02-2007

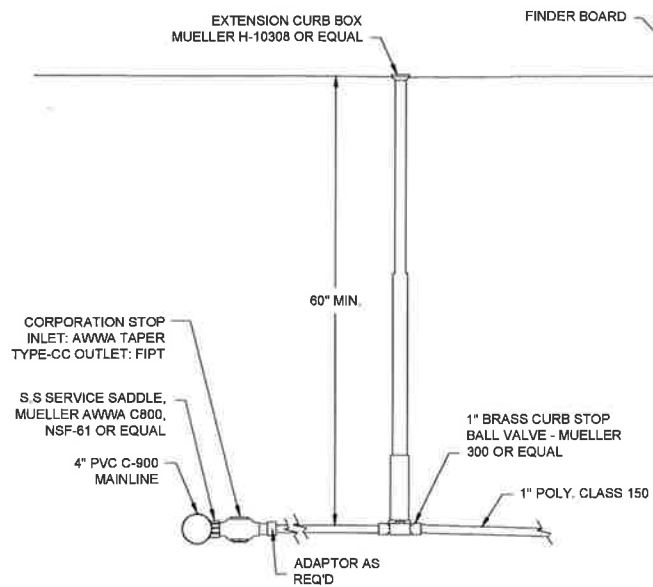
DWG #
4



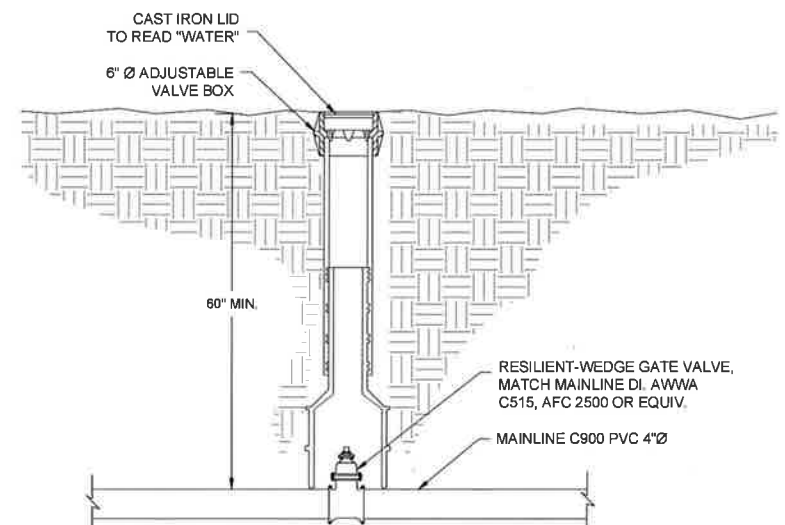


NOTE: WELL CONSTRUCTION BY OTHERS

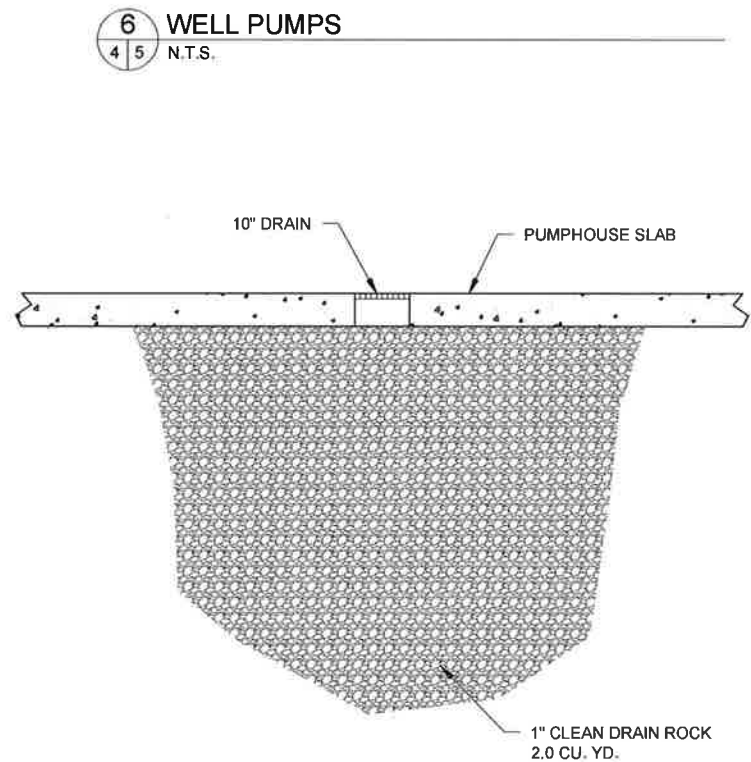
6 WELL PUMPS
4 | 5 N.T.S.



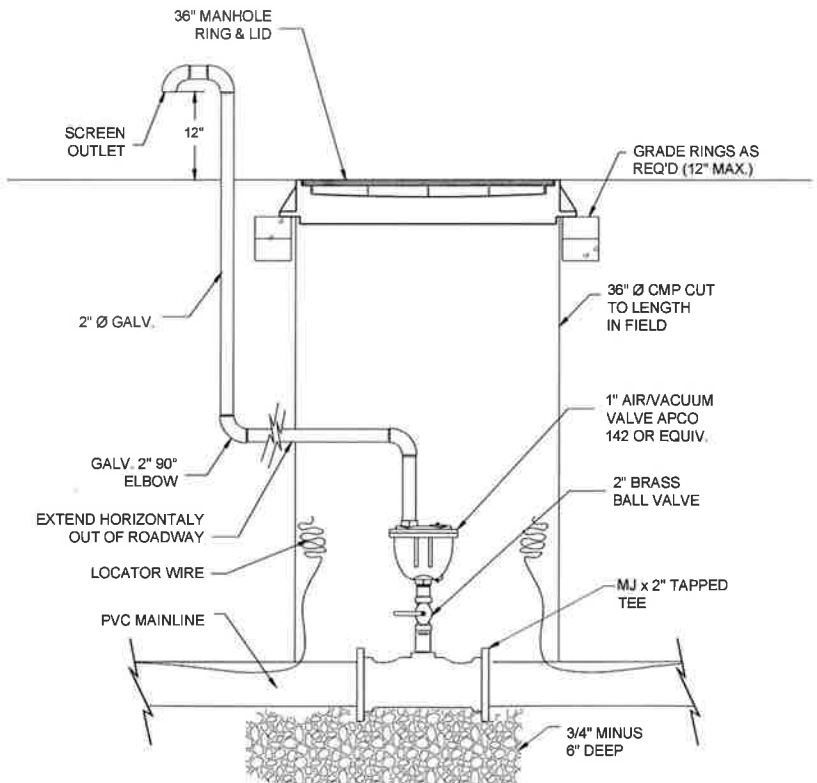
7 WATER SERVICE CONNECTION
2 | 5 SCALE 1"=1'



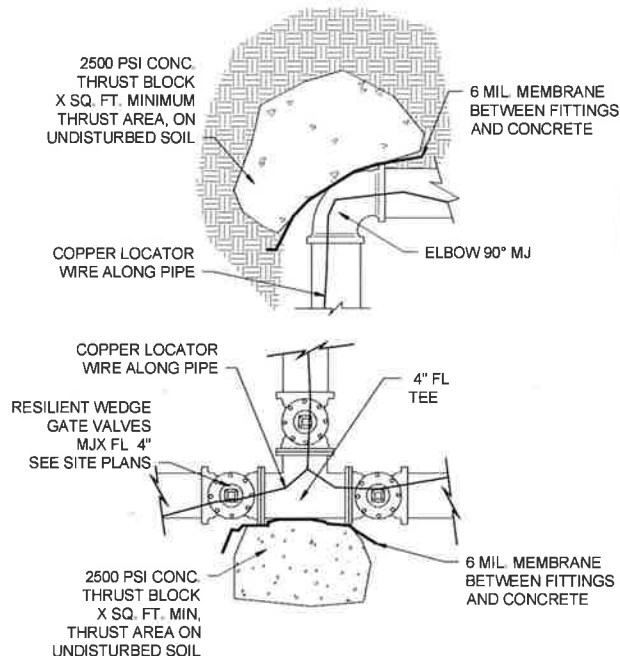
8 ISOLATION VALVE (TYP.)
2 | 5 SCALE 1"=1'



9 DRY WELL
4 | 5 SCALE: 3/4" = 1'

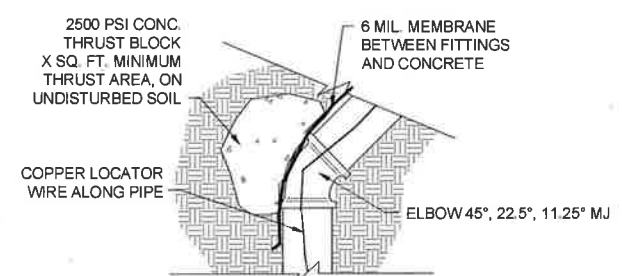


10 AIR/VAC STATION
2 | 5 SCALE 1"=1'



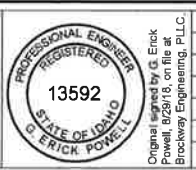
THRUST BLOCK SCHEDULE				
MINIMUM SQUARE FEET OF THRUST AREA ONTO UNDISTURBED EARTH				
PIPE SIZE	TEE, PLUG OR VALVES	90° BEND	45° BEND	22.5°, 11.25° BENDS
4"	1.40	2.00	1.10	0.60

NOTE: PIPE SHALL BE PVC C-900 FOR POTABLE SYSTEM, TYPICAL APPLICATION SHOWN. USE FL, MJ, OR FLX MJ FITTINGS & VALVES AS REQ'D SEE SITE PLANS



11 TYPICAL ELBOW & TEE CONFIGURATIONS, & THRUST BLOCK SIZE REQUIREMENTS
2 | 5 SCALE: NTS

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DESIGNED BY CGB	DRAFTED BY ALR
SCALE 1/2"=1' (24 X 36 DIMS ONLY)	

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HYDRAULICS - HYDROLOGY - WATER RESOURCES
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(208) 736-8543

**THE WOODLANDS AT BILLS ISLAND
WATER DISTRIBUTION SYSTEM**

DETAILS & SECTIONS II

PROJECT # 940-02-2007	
DWG # 5	REV D



State of Idaho

DEPARTMENT OF WATER RESOURCES

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098

Phone: (208) 287-4800 • Fax: (208) 287-6700 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

October 18, 2018

THE WOODLANDS AT BILLS ISLAND LLC
C/O HOLDEN KIDWELL HAHN & CRAPO
PO BOX 50130
IDAHO FALLS ID 83405-0130

PROOF ACKNOWLEDGEMENT LETTER

RE: Permit No. 21-13080

Dear Permit Holder(s):

On October 1, 2018, the Department of Water Resources' Eastern Regional Office accepted your statement of completion for submitting proof of beneficial use (proof) and a license examination fee of \$100.00 for the above referenced permit.

The Departments' State Office was not aware that the proof or the fee had been submitted, and inadvertently issued a lapse notice for this permit on October 5, 2018. Please disregard the lapse notice you received from the Department. The Department considered your proof filed timely on October 1, 2018, and has restored your permit to active status in the water rights database.

The Department acknowledges receipt of the proof of beneficial use form submitted for the above referenced permit. The next step in the process of developing a water right is for the Department to conduct a field examination to determine and confirm the use being made of the water.

Please be advised that Section 42-248, Idaho Code, requires you or the owner of this water right to maintain current ownership and address records on file with the Department. Forms to file a change of ownership of a water right and/or a change in the address of the water right owner are available from any Department office or at the Department's website at www.idwr.idaho.gov.

If you have any questions concerning the field examination, please contact the Eastern Region Office of the Department located in Idaho Falls at (208) 525-7161.

Sincerely,

Darla Block
Technical Records Specialist

Enclosure(s)



Holden Kidwell
Hahn & Crapo P.L.L.C.
L A W O F F I C E S

1000 Riverwalk Drive, Suite 200
PO Box 50130
Idaho Falls, Idaho 83405

Tel: (208) 523-0620
Fax: (208) 523-9518
www.holdenlegal.com

Email: rharris@holdenlegal.com

October 1, 2018

RECEIVED
OCT 01 2018
Department of Water Resources
Eastern Region

Idaho Department of Water Resources
Eastern Regional Office
900 North Skyline Dr., Ste. A
Idaho Falls, ID 83402-1718

Re: *Statement of Completion for Submitting Proof of Beneficial Use for Permit No. 21-13080.*

Dear Sir or Madam:

Enclosed for processing is the *Statement of Completion for Submitting Proof of Beneficial Use* for Permit No. 21-13080. We have also included the required \$100 filing fee.

Additionally, one of the conditions of the permit is for us to provide the Public Water Supply number for the water system authorized under the permit. That number is PWS 7220150. We are also including other documentation showing that the water supply system is being regulated by the Idaho Department of Environmental Quality as required under the permit condition.

If you have any questions or concerns, please let me know.

Best regards,

for Robert L. Harris
HOLDEN, KIDWELL, HAHN & CRAPO, P.L.L.C.

Enclosures

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