State of Idaho
Department of Water Resources

Water Right License

Water Right No. 77-14317

Priority: October 29, 2008

Maximum Diversion Rate: 0.07 CFS
Maximum Diversion Volume: 32.4 AF

It is hereby certified that:

UNITED STATES OF AMERICA USDA FOREST SERVICE
1249 S VINNELL WAY STE 200 BOISE ID 83709-1663

has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated October 29, 2008, and has submitted Proof of Beneficial Use on June 14, 2012. An examination confirms water is diverted from:

Source : GROUND WATER

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
DOMESTIC	01/01 to 12/31	0.07 CFS	32.4 AF

Location of Point(s) of Diversion

GROUND WATER L2 (SW¼ NW¼), Sec. 7, Twp 15N, Rge 07E, B.M. VALLEY County
GROUND WATER L2 (NE¼ NW¼), Sec. 13, Twp 15N, Rge 06E, B.M. VALLEY County

Place of Use: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
15N	06E	12	X	X L1	X L1	X L4					X L5			X L6					
15N	06E	13		X L2	X L3		X L2			X						X L5			
15N	07E	7								X									

Conditions of Approval

1. Rights 77-2056, 77-7337, and 77-14317 when combined shall not exceed a total annual maximum diversion volume of 32.4 af.
2. The domestic use authorized under rights 77-2056, 77-7337 and 77-14317 shall not exceed 13,000 gallons per day per cabin or lodge.
3. A lockable device subject to the approval of the Department shall be maintained on the diverting works in a manner that will provide the watermaster suitable control of the diversion.
4. When notified by the Department or by a watermaster with regulatory authority over this right, the right holder shall report the amount of water diverted in connection with this right. The report shall be submitted in the manner and frequency specified by the Department or the watermaster.
5. Upon specific notification by the Department, the right holder shall install and maintain acceptable measuring device(s), including data logger(s), at the authorized point(s) of diversion, in accordance with Department specifications.
6. Rights 77-2056, 77-7337, and 77-14317 when combined authorize domestic use for 52 cabins and 2 lodges.
7. This right does not grant any right-of-way or easement across the land of another.

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State of Idaho
Department of Water Resources

Water Right License

Water Right No. 77-14317

8. When ordered by the Director, the right holder shall provide mitigation acceptable to the Director to offset depletion of lower Snake River flows needed for migrating anadromous fish. The amount of water required for mitigation, which is to be released into the Snake River or a tributary for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this right. Any order of the Director issued in accordance with this paragraph shall be in conformance with applicable rules allowing the right holder due process as the need for mitigation and the amount of mitigation are determined.

This license is issued pursuant to the provisions of Idaho Code § 42-219. The water right confirmed by this license is subject to all prior water rights and shall be used in accordance with Idaho law and applicable rules of the Department of Water Resources.

Signed this 20th day of October, 2022.

SCOTT STORMS
Water Rights Supervisor

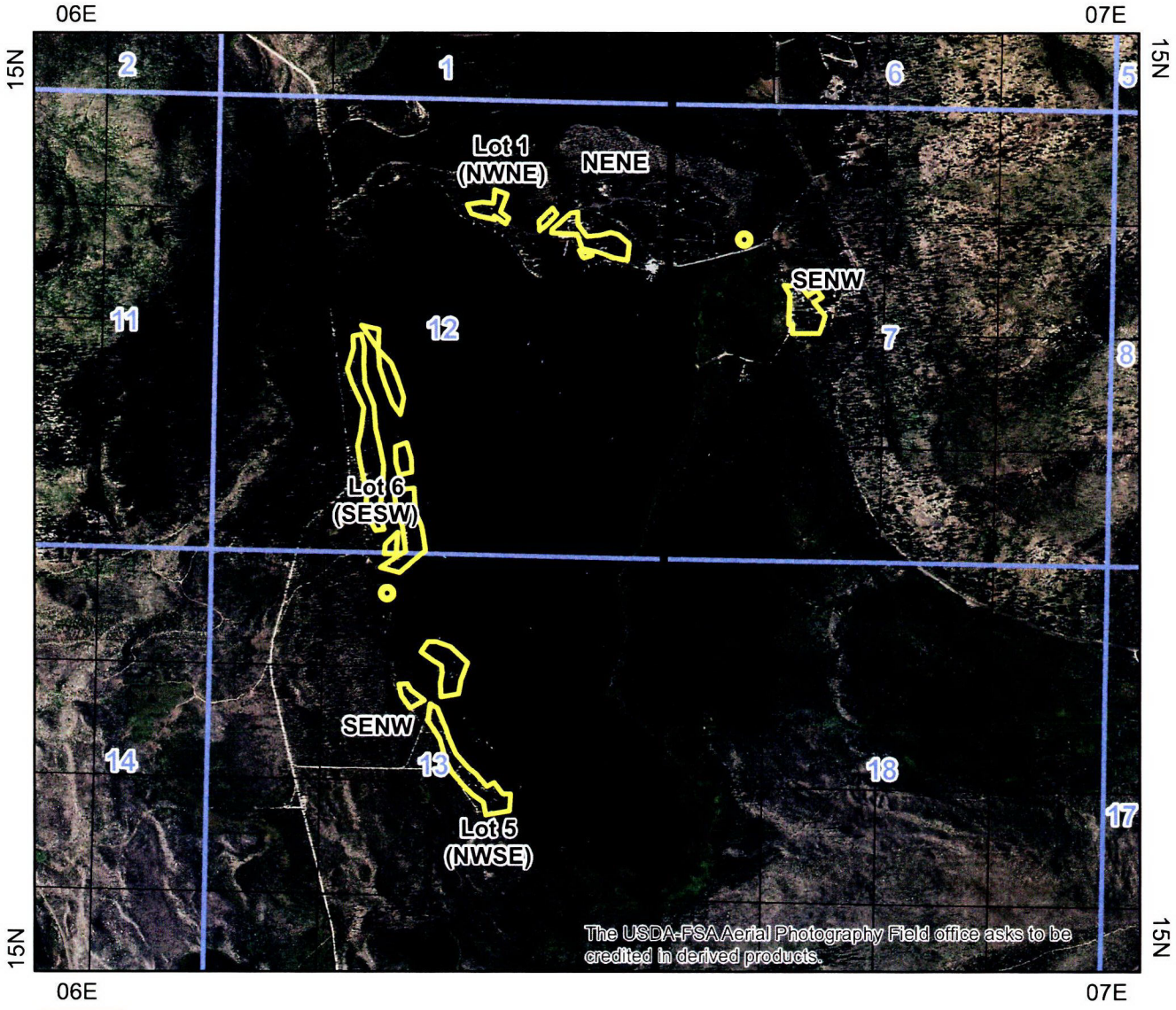
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State of Idaho
Department of Water Resources

Attachment to Water Right License

77-14317

This map depicts the DOMESTIC place of use boundary for this water right at the time of this approval and is attached to the approval document solely for illustrative purposes.



Place Of Use Boundary
Townships
PLS Sections
Quarter Quarters
Point of Diversion

0 0.25 0.5 1 Miles

N

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State of Idaho
Department of Water Resources

Application for Amendment

(For Licensing Purposes)
Water Right No. 77-14317

FOR DEPARTMENT USE ONLY

Preliminary check by JL Fee = $100 Receipted by LE # W049353 Date 4/9/21

ACTION OF THE DEPARTMENT OF WATER RESOURCES

The Idaho Department of Water Resources hereby approves the above Application for Amendment for Permit No. 77-14317 with the following:

Conditions of Approval

1. Rights 77-2056, 77-7337, and 77-14317 when combined shall not exceed a total diversion rate of 0.07 cfs.
2. The domestic use authorized under rights 77-2056, 77-7337 and 77-14317 shall not exceed 13,000 gallons per day per cabin or lodge.
3. Under this right, the right holder shall maintain a lockable device, subject to the approval of the Department, in a manner that will provide suitable control of the diversion.
4. When notified by the Department or by a watermaster with regulatory authority over this right, the right holder shall report the amount of water diverted in connection with this right. The report shall be submitted in the manner and frequency specified by the Department or the watermaster.
5. Upon specific notification by the Department, the right holder shall install and maintain acceptable measuring device(s), including data logger(s), at the authorized point(s) of diversion, in accordance with Department specifications.
6. Domestic use is for 20 cabins.
7. This right does not grant any right-of-way or easement across the land of another.
8. When ordered by the Director, the right holder shall provide mitigation acceptable to the Director to offset depletion of lower Snake River flows needed for migrating anadromous fish. The amount of water required for mitigation, which is to be released into the Snake River or a tributary for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this right. Any order of the Director issued in accordance with this paragraph shall be in conformance with applicable rules allowing the right holder due process as the need for mitigation and the amount of mitigation are determined.

This amendment is issued pursuant to the provisions of Idaho Code § 42-211.

Signed this 20th day of October, 2022.

SCOTT STORMS
Water Rights Supervisor

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OCT 31 2022

RECEIVED
APR 29 2021
WATER RESOURCES
WESTERN REGION

State of Idaho
Department of Water Resources

Application for Amendment

(For Licensing Purposes)
Water Right No. 77-14317

Priority: October 29, 2008

Maximum Diversion Rate: 0.07 CFS
Maximum Diversion Volume: 12.0 AF

The owner and holder of Permit to Appropriate the Public Waters of the State of Idaho No. 77-14317

UNITED STATES OF AMERICA USDA FOREST SERVICE
1249 S VINNELL WAY STE 200 BOISE ID 83709-1663

requests the permit be changed as follows:

Source : GROUND WATER
Source : GROUND WATER

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
DOMESTIC	01/01 to 12/31	0.07 CFS	12.0 AF

Location of Point(s) of Diversion
GROUND WATER L2 (SW¼ NW¼), Sec. 7, Twp 15N, Rge 07E, B.M. VALLEY County
GROUND WATER L2 (NE¼ NW¼), Sec. 13, Twp 15N, Rge 06E, B.M. VALLEY County

Place of Use: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
15N	06E	12	X	X L1	X L1	X L4					X L5			X L6					
15N	06E	13		X L2	X L3		X L2			X						X L5			
15N	07E	7								X									

Permit holder asserts that no one will be injured by such change and that such change will be made at permit holder's own risk.

Signed this 7 day of April, 2021

Kathryn Conant
(Signature)

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IDAHO DEPARTMENT OF
WATER RESOURCES

Western Region • 2735 W Airport Way • Boise, ID 83705-5082
Phone: 208-334-2190 • Fax: 208-334-2348 • Email: westerninfo@idwr.idaho.gov • Web: idwr.idaho.gov

Governor Brad Little

Director Gary Spackman

October 20, 2022

UNITED STATES OF AMERICA
USDA FOREST SERVICE
1249 S VINNELL WAY STE 200
BOISE ID 83709-1663

RE: License No. 77-14317

ISSUANCE OF LICENSE

Dear Water Right Holder(s):

The Department of Water Resources ("Department") has issued the enclosed Water Right License confirming that a water right has been established in accordance with your permit. Please be sure to thoroughly review all the conditions of approval listed on your license. The conditions may include ongoing requirements, such as maintenance of a measuring device or implementation of mitigation, as well as information about how your water use may be administered, such as regulation by a watermaster in a water district.

The license is a PRELIMINARY ORDER issued by the Department pursuant to Rule 730 of the Department's Rules of Procedure (IDAPA 37.01.01.730). It can and will become a final order without further action by the Department unless a party petitions for reconsideration, files exceptions, or requests a hearing as described in the enclosed information sheet.

Also, please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Water right forms are available from any office of the Department or on the Department's website at idwr.idaho.gov

If you have any questions concerning the enclosed information, please contact me at (208) 605-4624.

Sincerely,

Scott Storms
Water Rights Supervisor

Enclosure(s)

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CERTIFICATE OF SERVICE

I hereby certify that on October 21, 2022, I served a true and correct copy of Water Right License No. 77-14317 by U.S. Mail, postage prepaid, to the following:

UNITED STATES OF AMERICA (Current Owner)
USDA FOREST SERVICE
1249 S VINNELL WAY STE 200
BOISE ID 83709-1663

URANGA HYDROLOGIC (Representative)
1216 N 22ND ST
BOISE ID 83702

WARM LAKE RECREATIONAL WATER DISTRICT (Original Owner)
5412 KEYBRIDGE DR
BOISE ID 83703

Scott Storms
Water Rights Supervisor

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EXPLANATORY INFORMATION TO ACCOMPANY A PRELIMINARY ORDER

(To be used in connection with actions when a hearing was **not** held)

(Required by Rule of Procedure 730.02)

The accompanying order or approved document is a "**Preliminary Order**" issued by the department pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department of Water Resources ("department") unless a party petitions for reconsideration, files an exception and brief, or requests a hearing as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the department within fourteen (14) days of the service date of this order. **Note: the petition must be received by the department within this fourteen (14) day period.** The department will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See Section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after: (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding with the Director. Otherwise, this preliminary order will become a final order of the agency.

REQUEST FOR HEARING

Unless a right to a hearing before the Department or the Water Resource Board is otherwise provided by statute, any person aggrieved by any final decision, determination, order or action of the Director of the Department and who has not previously been afforded an opportunity for a hearing on the matter may request a hearing pursuant to section 42-1701A(3), Idaho Code. A written petition contesting the action of the Director and requesting a hearing shall be filed within fifteen (15) days after receipt of the denial or conditional approval.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

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CERTIFICATE OF SERVICE

All exceptions, briefs, requests for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with IDAPA Rules 37.01.01302 and 37.01.01303 (Rules of Procedure 302 and 303).

FINAL ORDER

The Director will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

> Unless a different date is stated in a final order, the order is effective fourteen (14) days after its service date if a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:
>
> (a) The petition for reconsideration is disposed of; or
> (b) The petition is deemed denied because the agency head did not dispose of the petition within twenty-one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

i. A hearing was held,
ii. The final agency action was taken,
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 77-14317
Exam Date: 07/08/2019

1. Current Owner:
UNITED STATES OF AMERICA
USDA FOREST SERVICE
1249 S VINNELL WAY STE 200
BOISE ID 83709-1663

2. Accompanied by: Terry Hardy
Phone No: 208-373-4235
Address: 1249 S. Vinnell Way, Ste 200, Boise, ID 83709
Relationship to permit Holder: USDA Forest Service Watershed Program Manager

3. **SOURCE:**
GROUND WATER

Method of Determination: Field Observation

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
77-2056	Chipmunk Creek	Domestic	Decree
77-7337	Groundwater	Domestic	License

Comments: WR 77-7337 licensed for 32/52 homes and 2 lodges.

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
N/A	N/A	N/A	N/A

Comments: No other water rights overlap at point of diversion.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**
GROUND WATER L2 (NE¼ NW¼), Sec. 13, Twp 15N, Rge 06E, B.M. VALLEY County
GROUND WATER L2 (SW¼ NW¼), Sec. 7, Twp 15N,Rge 07E, B.M. VALLEY County

Method of Determination: Garmin Handheld GPS (115°40'37.245"W 44°38'31.53"N); Additional information provided by permit holder.

PLACE OF USE: DOMESTIC

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
15N	06E	12	X	X L1	X L1	X L4					X L5			X L6					
15N	06E	13		X L2	X L3		X L2			X						X L5			
15N	07E	7								X									

Method of Determination: Aerial imagery, ArcMap Tools, Valley County Taxlot Data

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3.

x Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

x Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

N/A Aerial Photo Attached (required for irrigation of 10+ acres).

x Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
D0053332	Centripro	5	N/A	Goulds	40GS50

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A	N/A	N/A	N/A	N/A	N/A	N/A

2. Measurements: Did not have access to pump house at time of exam to measure diversion rates.

E. FLOW CALCULATIONS

x Additional Computation Sheets Attached

Measured Method: A theoretical calculation was used on this permit. Additionally, specific pump curves were used to calculate flow.

Theoretical: 0.07 cfs
Pump Curve: 0.07 cfs
Permit Allowed: 0.20 cfs
B.U. Limit: ~0.35 cfs
License Recommendation: 0.07 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Domestic: As per apps memo 22, 0.6 af per unit/stubbed lot used to determine annual volume: 0.6 af x 54 cabins/lodges/lots with service connections = 32.4 af

G. NARRATIVE/REMARKS/COMMENTS

Field exam was completed by agent Justin Shearer July 8, 2019 and was accompanied by Terry Hardy, Watershed Program Manager of the USDA Forest Service. Additional information was sought and provided post-exam by Rob Barrett, President of the Warm Lake Recreational Water District. USDA Forest Service is the active permit owner and Warm Lake Recreational Water District was the original applicant. The application for permit was submitted on October 29, 2008, an assignment of permit was submitted on January 14, 2010, and proof of beneficial se was made on June 14, 2012.

The Point of Diversion (POD) is an 8" well tagged D0053332 from which groundwater is diverted to a 13,000 gallon buried water tank via 2" PE transmission line. The well was installed in 2008 and is the primary source of potable domestic water for the Warm Lake Recreational Water District (the District). The district supplies water from this well to 52 private cabins

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and 2 commercial lodges. The well is equipped with a Goulds 40GS50 5 hp submersible pump. The pump is controlled by high and low float switches inside the storage tank. The District then provides water to the cabins and lodges from the water tank through a series of 2" and 3" distribution mains. Service connections are 1" or 3/4 ". The groundwater source diversion is located in L2(NENW) QQ of Sec. 13, TWP 15N, Rge 06E and is accurately described on the permit. Water right overlap did not discover any other water rights associated with well. No amendments are required to correct the legal description of the POD. However, because a second well that serves as the POD for 77-2056 and 77-7337 is tied into the same system an amendment to add a POD is recommended.

Rob Barrett provided system diagrams that detail the well, storage tank, water lines, and the 52 cabins and 2 lodges. ArcMap tools, aerial imagery, and Valley county taxlot data were used to verify the 54 lots in order to determine the Place of Use (POU). Overlap review found that water rights 77-2056 and 77-7337 overlap with the described POU. Moreover, 32 of the cabins and the 2 lodges are covered under groundwater right 77-7337. All 54 lots served water by the District fall within the described QQ's of the permit. No amendment required to correct the legal description of the POU.

The 13,000 gallon storage tank can be found uphill 0.15 miles to the north of the POD. Elevations of the well and storage tank are 2997' (asl) and 3147' (asl) respectively. Rob Barrett provided pump, well house design, and storage tank design information. The pump sits at 220' below surface. The calculated head is 365'. Using the pump curve for the Goulds 40GS50 and the head of 265', a rate of 0.07 cfs was calculated. A theoretical calculation was also performed and estimated a rate of 0.07 cfs (attached). Barrett provided totalized meter readings for the pump for the years of 2017-2019. The estimated rate of 0.07 cfs correlates to the meter readings as feasible to provide the annual amounts observed by the installed measuring device. Thus, a recommended rate of 0.07 cfs is capable of providing ample water for the permit holder's system and needs. Water right 77-7337 provides 0.06 cfs and 20.4 af for 32 of the cabins and the 2 lodges, however because this permit was developed to be able to provide water throughout the entire system and to all 54 lots I am recommending a volume of 32.4 af for 52 cabins and 2 lodges under this right. Since 77-7337 authorizes a 0.06 cfs diversion rate, and the system diverts at 0.07 cfs, a combined use limit of 0.07 cfs and 32.4 AF will be added to the associated water rights.

Conditions 26A and 004 were removed as per licensing standards. Condition 121 was updated to 103. Condition X35 was added to place a combined rate and volume on rights 77-14317, 77-7337, and 77-2056. Condition 71 was added to limit domestic use when combined with other rights to 13,000 gpd. Condition 195 was modified to R02 for standard licensing language. Condition 196 was removed because totalizing flow meter is already installed.

Have conditions of permit approval been met? __x__ Yes ____ No

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H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use	Rate of Diversion	Annual Volume
DOMESTIC	01/01 to 12/31	0.07 CFS	32.4 AF
	Totals:	0.07 CFS	32.4 AF

2. Recommended Amendments

____ Change P.D. as reflected above __x__ Add P.D. as reflected above ____ None

____ Change P.U. as reflected above ____ Add P.U. as reflected above __x__ None

I. AUTHENTICATION

Justin Shearer - Water Resource Agent, Senior

Field Examiner's Name _____ Date 10/7/22

Reviewer _____ Date 10/20/22

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THEORETICAL HORSEPOWER EQUATION WORKSHEET (cjh 1/92)

Water Right No.: 77-14317
Reviewer: Justin Shearer
Date of Review: 2/9/2021

P/D No.:	Senerio 1	Senerio 2	Senerio 3	
PUMP HORSEPOWER	5	5	5	
BOOSTER HORSEPOWER	0	0	0	
PUMPING LEVEL	365	365	365	
DISCHARGE PRESSURE	40	45	50	
RATE OF FLOW (cfs)	0.07	0.07	0.06	0.07

The above calculates the formula = $$Q = \frac{8.8 * (\text{Efficiency}) * hp}{\text{depth to water} + 2.31*(psi)+\text{friction}}$$

Assumptions: %70 efficiency.
No Friction

Examiners Notes:

Field exam reports a 5 hp pump. Lift is recorded at 265 ft. A range of discharge pressures were used base on expected domestic system pressures (40-50 psi). Theoretical average flow rate is 0.07 cfs. Pump curve indicates a rate of 32 gpm @ 360 ft, or 0.07 cfs.

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TECHNICAL BROCHURE

B33-80GS R4

FEATURES

Powered for Continuous Operation: All ratings are within the working limits of the motor as recommended by the motor manufacturer. Pump can be operated continuously without damage to the motor.

Field Serviceable: Units have left hand threads and are field serviceable with common tools and readily available repair parts.

Sand Handling Design: Our face clearance, floating impeller stack has proven itself for over 50 years as a superior sand handling, durable pump design.

FDA Compliant Non-Metallic Parts: Impellers, diffusers and bearing spiders are constructed of glass filled engineered composites. They are corrosion resistant and non-toxic.

Discharge Head/Check Valve: Cast 303 stainless steel for strength and durability. Two cast-in safety line loops for installer convenience. The built-in check valve is constructed of stainless steel and FDA compliant BUNA rubber for abrasion resistance and quiet operation.

Motor Adapter: Cast 303 stainless steel for rigid, accurate alignment of pump and motor. Easy access to motor mounting nuts using standard open end wrench.

Stainless Steel Casing: Polished stainless steel is strong and corrosion resistant.

Hex Shaft Design: Six sided shafts for positive impeller drive.

Engineered Polymer Bearings: The proprietary, engineered polymer bearing material is strong and resistant to abrasion and wear. The enclosed upper bearing is mounted in a durable Noryl® bearing spider for excellent abrasion resistance.

33GS, 40GS, 55GS, 60GS, 75GS & 80GS

33-80 GPM, 1 - 10 HP, 60 HZ, SUBMERSIBLE PUMPS

GOULDS WATER TECHNOLOGY

a xylem brand

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OCT 31 2022

WATER END DATA

Series	Model	Required H.P.	Stages	Water End	
				Length (in)	Wt (lbs)
33GS	33GS10	1	6	14.2	8
	33GS15	1.5	8	16.6	9
	33GS20	2	10	19.1	10
	33GS30	3	14	24	13
	33GS50	5	22	35.2	19
	33GS75	7.5	34	50.6	27
	33GS100	10	44	62.8	33
40GS	40GS15	1.5	5	12.9	8
	40GS20	2	6	14.2	8
	40GS30	3	8	16.6	9
	40GS50	5	14	24.0	13
	40GS75	7.5	21	34.0	18
55GS	55GS15	1.5	5	17.1	10
	55GS20	2	7	21.2	12
	55GS30	3	9	25.3	15
	55GS50	5	15	39.1	22
	55GS75	7.5	22	54.1	32
	55GS100	10	29	68.6	39
60GS	60GS15	1.5	4	15.0	8
	60GS20	2	5	17.1	9
	60GS30	3	7	21.2	10
	60GS50	5	11	30.9	14
	60GS75	7.5	17	43.2	19
75GS	75GS30	3	7	24.1	14
	75GS50	5	11	34.8	19
	75GS75	7.5	16	48.2	27
	75GS100	10	21	63.8	35
80GS	80GS30	3	5	21.4	10
	80GS50	5	9	29.4	13
	80GS75	7.5	14	42.8	24

SPECIFICATIONS

Model	Flow Range GPM	Horse-power Range	Best Efficiency GPM	Discharge Connection	Minimum Well Size	Rotation①
33GS	10 - 50	1 - 10	33	2"	4"	CCW
40GS	20 - 65	1½ - 7½	40	2"	4"	CCW
55GS	20 - 80	1½ - 10	55	2"	4"	CCW
60GS	40 - 80	1½ - 7½	60	2"	4"	CCW
75GS	40 - 100	3 - 10	75	2"	4"	CCW
80GS	50 - 120	3 - 7½	80	2"	4"	CCW

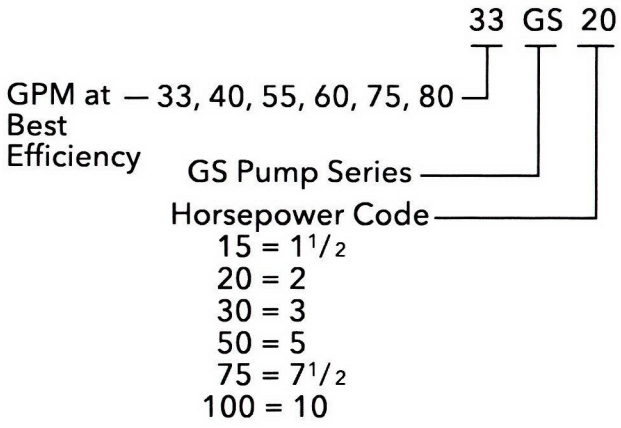
① Rotation is counterclockwise when observed from pump discharge end.

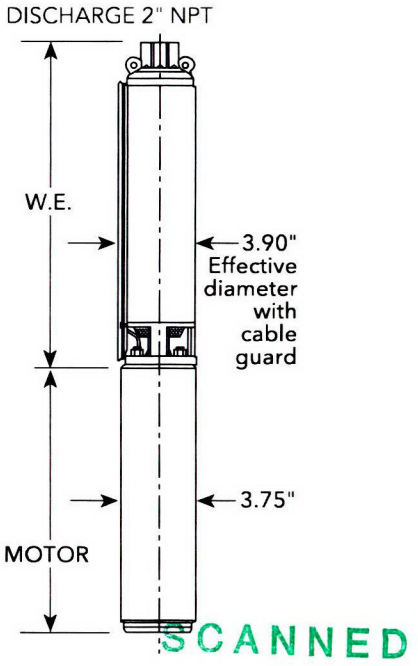
"GS" SERIES MATERIALS OF CONSTRUCTION

Part Name	Material
Discharge Head	AISI 303 SS
Check Valve Poppet	AISI 304 SS
Check Valve Seal	BUNA, FDA compliant
Check Valve Seat	AISI 304 SS
Check Valve Retaining Ring	AISI 302 SS
Bearing Spider - Upper	Glass Filled Engineered Composite
Bearing	Proprietary Engineered Polymer
Klipring	AISI 301 SS
Diffuser	Lexan®
Impeller	Noryl®
Bowl	AISI 304 SS
Intermediate Sleeve*	AISI 304 SS, Powder Metal
Intermediate Shaft Coupling*	AISI 304 SS, Powder Metal
Intermediate Bearing Spider*	Glass Filled Engineered Composite
Intermediate Bearing Spider*	AISI 303 SS
Shim	AISI 304 SS
Screws - Cable Guard	AISI 304 SS
Motor Adapter	AISI 303 SS
Casing	AISI 304 SS
Shaft	17-4 PH Stainless Steel
Coupling	AISI 304 SS, Powder Metal
Cable Guard	AISI 304 SS
Suction Screen	AISI 304 SS

*See repair parts for where used.

NOMENCLATURE - SOLD AS WATER ENDS ONLY





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CENTRIPRO 4" SINGLE-PHASE MOTORS

Order No.	Type	HP	Volts	Length in. (mm)	Weight lb. (kg.)
M10422	2-wire PSC	1	230	13.3 (337)	24.5 (11.1)
M15422		1.5		14.9 (378)	28.9 (13.1)
M10412	3-wire	1	230	11.7 (297)	23.1 (10.5)
M15412		1.5		13.6 (345)	27.4 (12.4)
M20412		2		15.1 (383)	31.0 (14.1)
M30412		3		18.3 (466)	40.0 (18.1)
M50412		5		27.7 (703)	70.0 (31.8)

CENTRIPRO 4" THREE-PHASE MOTORS

Order No.	HP	Volts	Length in. (mm)	Weight lb. (kg.)
M10430	1	200	11.7 (297)	22 (10.4)
M15430	1.5		11.7 (297)	22 (10.4)
M20430	2		13.8 (351)	28 (12.7)
M30430	3		15.3 (389)	32 (14.5)
M50430	5		21.7 (550)	55 (24.9)
M75430	7.5		27.7 (703)	70 (31.8)
M10432	1	230	11.7 (297)	23 (10.4)
M15432	1.5		11.7 (297)	23 (10.4)
M20432	2		13.8 (351)	28 (12.7)
M30432	3		15.3 (389)	32 (14.5)
M50432	5		21.7 (550)	55 (24.9)
M75432	7.5		27.7 (703)	70 (31.8)
M10434	1	460	11.7 (297)	23 (10.4)
M15434	1.5		11.7 (297)	23 (10.4)
M20434	2		13.8 (351)	28 (12.7)
M30434	3		15.3 (389)	32 (14.5)
M50434	5		21.7 (550)	55 (24.9)
M75434	7.5		27.7 (703)	70 (31.8)
M100434	10		–	–
M15437	1.5	575	11.7 (297)	23 (10.4)
M20437	2		15.3 (389)	32 (14.5)
M30437	3		15.3 (389)	32 (14.5)
M50437	5		27.7 (703)	70 (31.8)
M75437	7.5		27.7 (703)	70 (31.8)

NEMA MOTOR

- Corrosion resistant stainless steel construction.
- Built-in surge arrestor is provided on single phase motors through 5 HP.
- Stainless steel splined shaft.
- Hermetically sealed windings.
- Replaceable motor lead assembly.
- NEMA mounting dimensions.
- Control box is required with 3 wire single phase units.
- Three phase units require a magnetic starter with three leg Class 10 overload protection.

AGENCY LISTINGS

CentriPro Motor - tested to UL778 and CAN 22.2 by CSA International (Canadian Standards Association)

CentriPro Motor - Certified to NSF/ANSI 61, Annex G, Drinking Water System Components 4P49

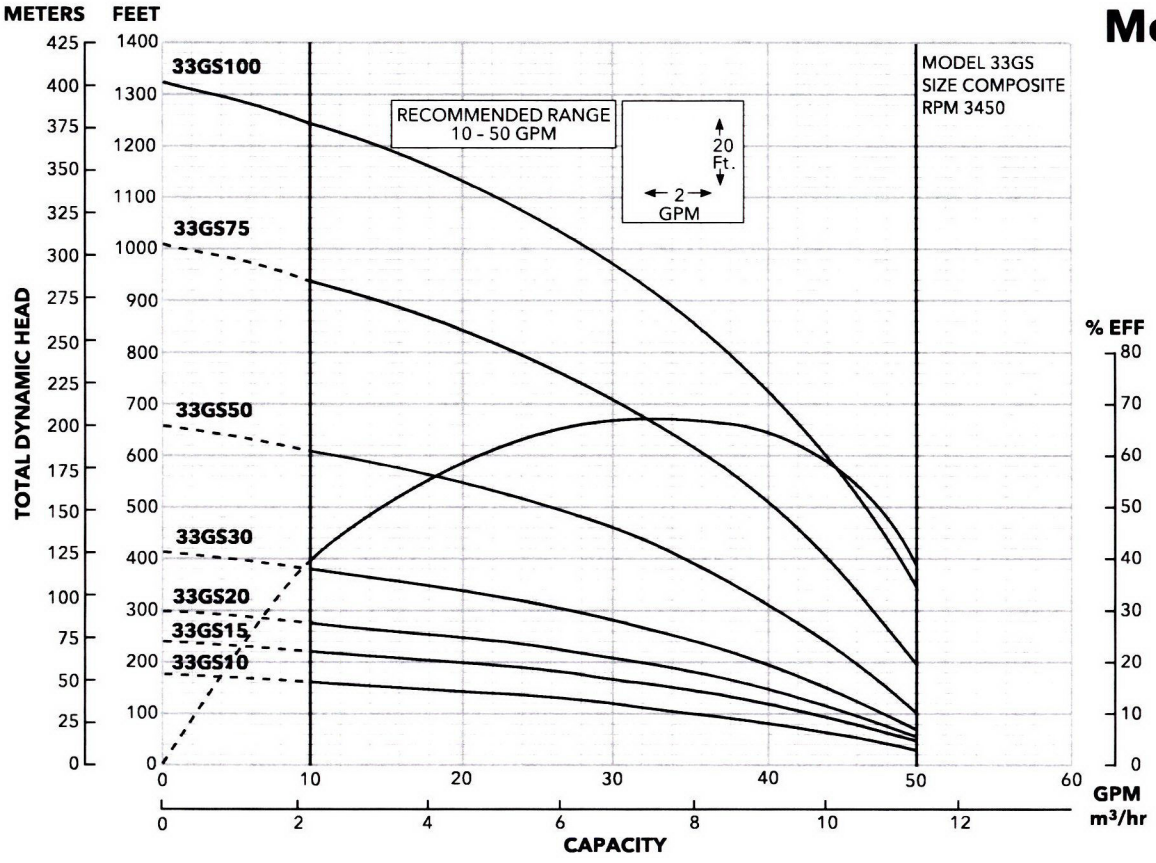
NSF/ANSI 372 – Drinking Water System Components – Lead Content

CLASS 6853 01 - Low Lead Content Certification Program - - Plumbing Products

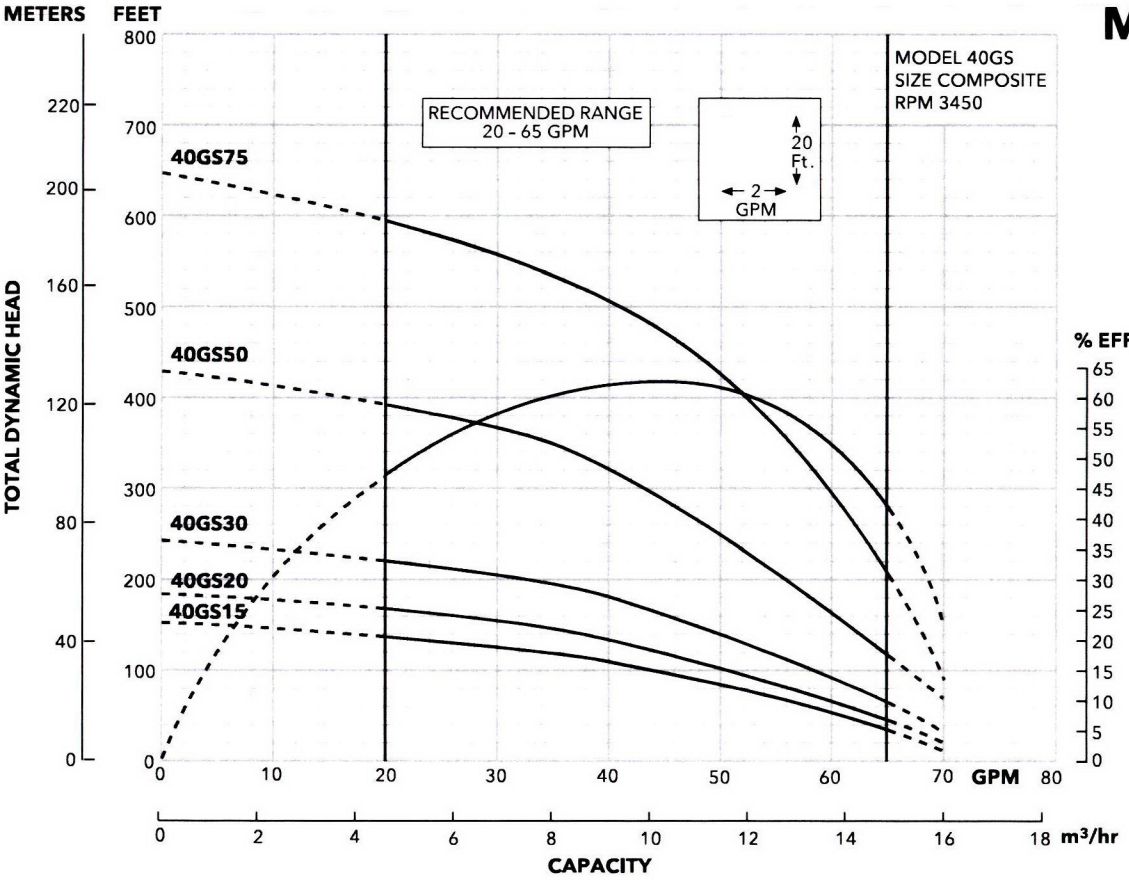
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Model 33GS



Model 40GS



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MODEL 40GS

SELECTION CHART

Horsepower Range 1½ - 7½, Recommended Range 20 - 65 GPM, 60 Hz, 3450 RPM

Pump Model	HP	PSI	Depth to Water in Feet/Ratings in GPM (Gallons per Minute)																									
			20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	440	480	520	560	600	640
40GS15	1½	0		65	59	53	46	35																				
		20	58	51	43	31																						
		30	50	41	28																							
		40	40	25																								
		50	22																									
		60																										
Shut-off PSI			57	49	40	31	23	14																				
40GS20	2	0			63	58	53	47	38	25																		
		20	61	57	51	44	35																					
		30	56	50	43	33																						
		40	49	42	31																							
		50	40	29																								
		60	26																									
Shut-off PSI			71	62	53	45	36	27	19	10																		
40GS30	3	0				63	59	56	51	47	41	33	20															
		20	65	62	58	54	50	45	38	32	30																	
		30	61	58	54	49	44	37	28																			
		40	57	53	48	43	36	26																				
		50	52	48	42	35	24																					
		60	47	41	33	21																						
Shut-off PSI			97	88	80	71	62	54	45	36	28	19	10															
40GS50	5	0						65	64	62	60	58	56	53	51	48	45	42	38	33	26							
		20				65	63	61	59	57	55	52	50	47	44	41	36	31	23									
		30			64	63	61	59	57	54	52	50	47	44	40	36	30	21										
		40		64	62	60	58	56	54	52	49	46	43	39	35	29	20											
		50	64	62	60	58	56	54	51	49	46	43	39	34	28													
		60	62	60	58	56	53	51	48	45	42	38	33	26														
Shut-off PSI			178	169	161	152	143	135	126	117	109	100	91	83	74	65	57	48	39	31	22							
40GS75	7½	0										65	64	63	62	61	60	59	57	56	54	53	49	44	38	30		
		20								65	64	63	62	61	59	58	57	55	54	52	50	48	43	37	28			
		30							65	64	63	62	61	59	58	57	55	53	52	50	48	45	40	32	22			
		40						65	64	63	62	60	59	58	56	55	53	51	49	47	45	42	36	27				
		50					65	64	62	61	60	59	58	56	55	53	51	50	47	45	42	39	31	20				
		60			65	64	63	62	61	60	59	57	56	54	53	51	49	47	44	41	38	35	25					
Shut-off PSI			271	263	254	245	237	228	219	211	202	194	185	176	168	159	150	142	133	124	116	107	90	72	55	38		

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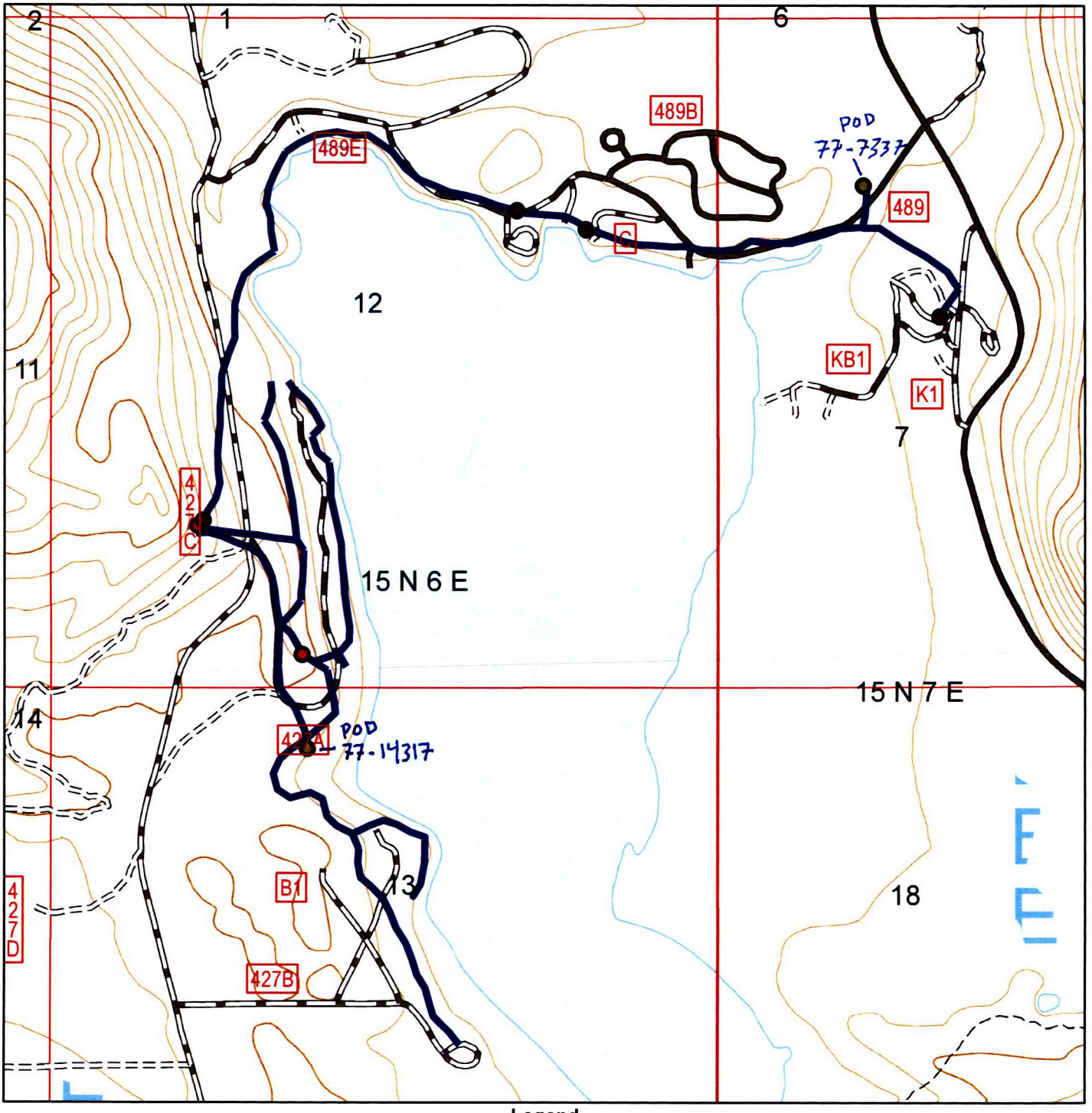
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[redacted] System Diagram [redacted]

USDA FOREST SERVICE

Special Use Authorization Appendix A

Boise National Forest - Cascade Ranger District



Authorization Information

Name: Warm Lake Water Users Association
Authorization ID: CAS915119
Primary Use Code: 915
Use Code Name: Water Trans Pipeline <12" D
Expiration Date: 12/31/2048

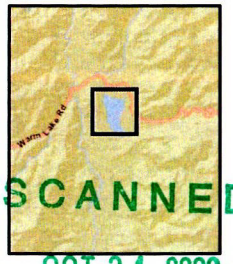
Legend

0.15 0.075 0 0.15 Miles

- Meter
- Well
- Reservior
- Polylines
- Road - Light Duty - Dirt
- Road - Light Duty - Gravel
- Road - Light Duty - Paved
- Road - Unimproved
- Trail

IDAHO
Valley County





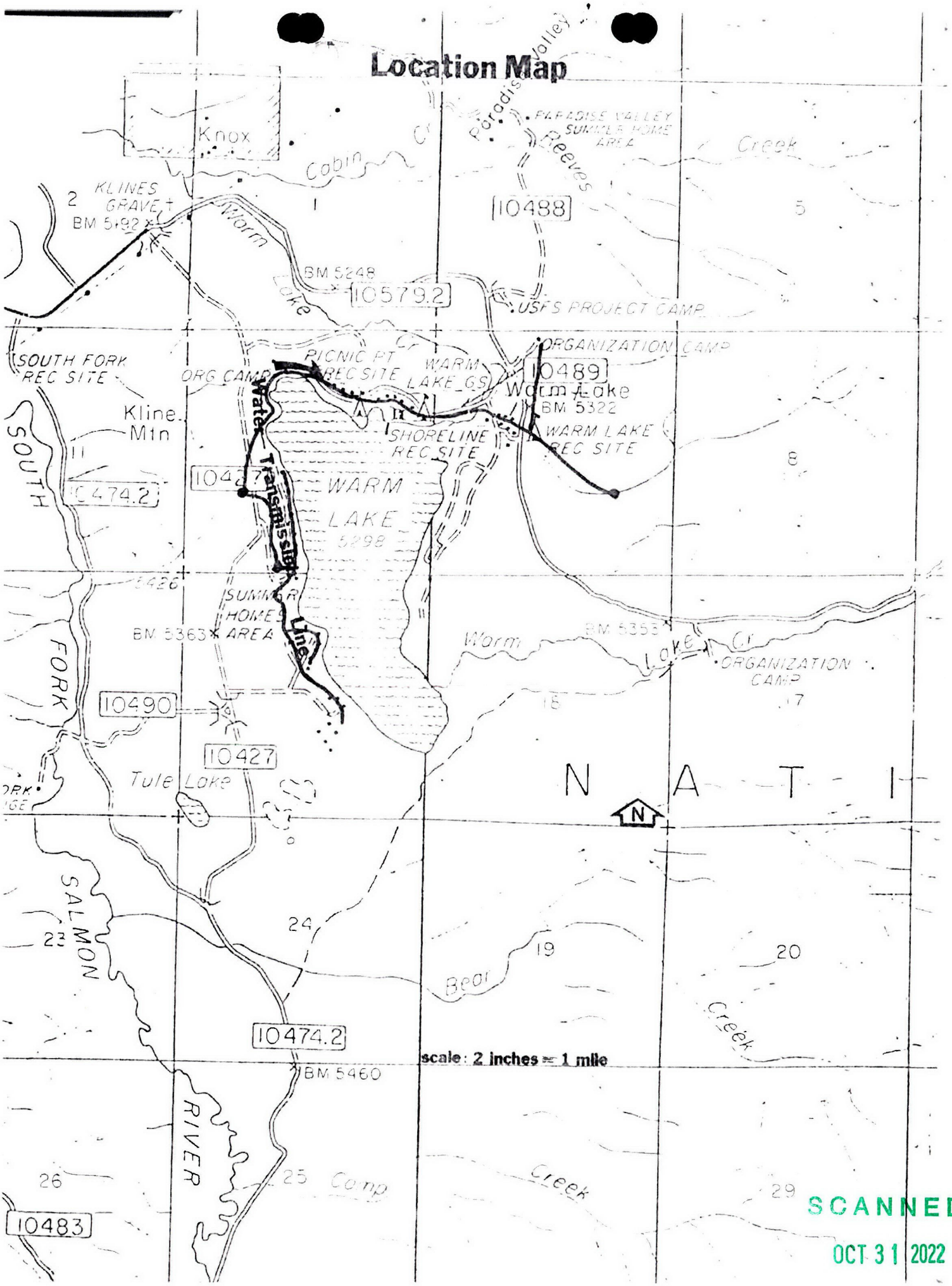
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Map Author: cworas; Map Creation Date: 12/2/2018

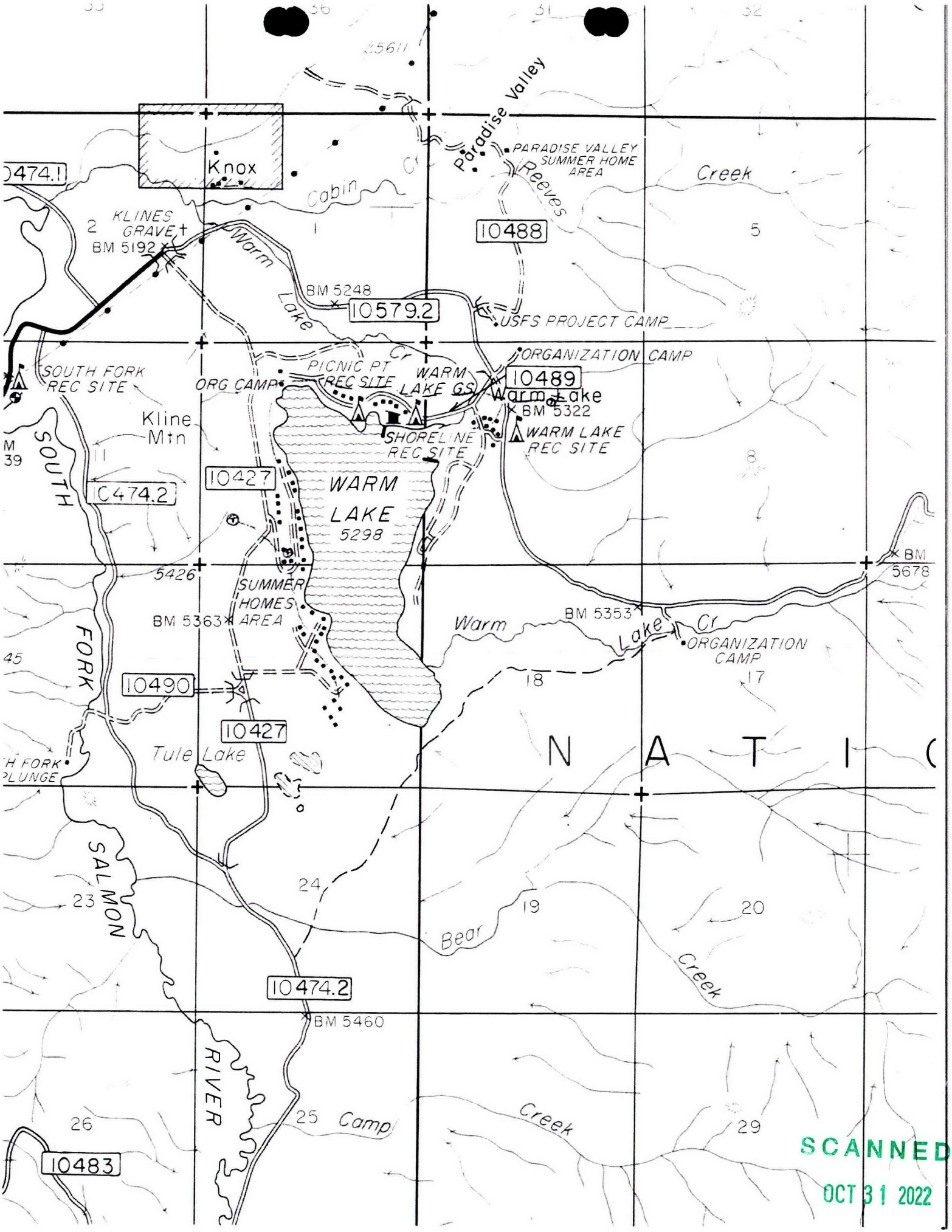
Disclaimer

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Location Map



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Knox
Paradise Valley
PARADISE VALLEY SUMMER HOME AREA
Reeves Creek
Cabin Cr
KLINES GRAVE
BM 5192
Warm Lake
10488
BM 5248
10579.2
USFS PROJECT CAMP
ORGANIZATION CAMP
SOUTH FORK REC SITE
ORG CAMP
PICNIC PT REC SITE
WARM LAKE GS
10489
Warm Lake
BM 5322
WARM LAKE REC SITE
SHORELINE REC SITE
Kline Mtn
SOUTH FORK
10427
C474.2
WARM LAKE 5298
5426
SUMMER HOMES AREA
BM 5363
BM 5353
Warm Lake Cr
ORGANIZATION CAMP
BM 5678
10490
10427
Tule Lake
SALMON RIVER
10474.2
BM 5460
Bear Creek
Camp Creek
10483
N A T I
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Shearer, Justin

From: Robert Barrett <rjbarrett@q.com>
Sent: Tuesday, October 22, 2019 9:48 AM
To: Shearer, Justin
Cc: 'Barrett, Robert'
Subject: RE: Warm Lake Water Right Permit 77-14317
Attachments: WLRWD - IDWR Docs.zip

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Jason,

I went through all of the files relating to the water district's newest well under permit 77-14317. See attached file. The only documents I can find are the same ones that are on the IDWR web site and have the Warm Lake Recreational Water District as the assignee. Once the transfer to the USDA Forest Service was completed, the water district has not received any other correspondence or documents pertaining to that permit.

Also, I have attached what documentation I have regarding another IDWR permit, 77-7337, of which the water district is this shown as an assignee. Hope these documents will help.

Regards,
Rob Barrett, President
Warm Lake Recreational Water District

From: Shearer, Justin <Justin.Shearer@idwr.idaho.gov>
Sent: Thursday, August 15, 2019 2:09 PM
To: Barrett, Robert <robert.barrett@suez.com>
Subject: Warm Lake Water Right Permit 77-14317

Good afternoon Rob,

On July 8th I attempted to conduct a field exam for Forest Service water right permit 77-14317. However, those that accompanied me from the USFS were not very familiar with the system and it is my understanding that you might be more knowledgeable in regards to how the system up at Warm Lake operates.

If you could please give me a call at your earliest convenience to discuss the system, I have a few questions for you. I would greatly appreciate it.

Thanks and regards,

Justin Shearer
Water Resource Agent, Sr.
(208)-334-2190

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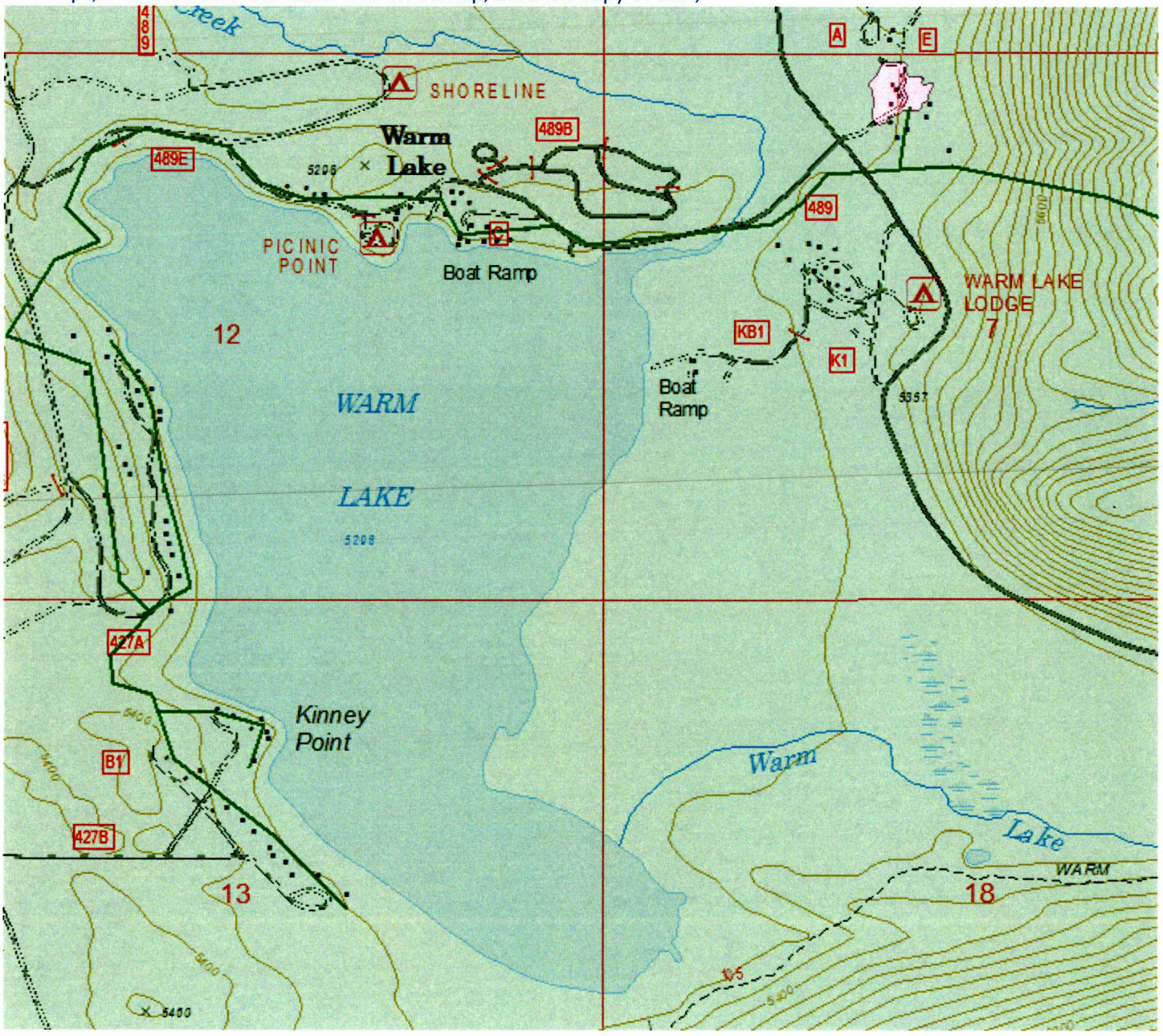
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Shearer, Justin

From: Hermanns, Katherine - FS <katherine.hermanns@usda.gov>
Sent: Friday, July 12, 2019 12:59 PM
To: Shearer, Justin
Subject: RE: Warm Lake Water Users Association

Justin,

If it helps, I have isolated the water line in ArcMap, here is a copy of that,



Kate Hermanns
North Zone Special Uses Administrator

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[redacted] [redacted]
USDA Forest Service
Boise National Forest, Emmett Ranger District
C: 208-258-4589
P: 208-365-7026

katherine.hermanns@usda.gov
1857 Hwy 16, Suite A
Emmett, ID 83617
www.fs.fed.us
Caring for the land and serving people

From: Hermanns, Katherine - FS
Sent: Friday, July 12, 2019 10:31 AM
To: justin.shearer@idwr.idaho.gov
Cc: Hardy, Terry -FS <terry.hardy@usda.gov>
Subject: RE: Warm Lake Water Users Association

Oops, forgot to attach the scanned documents, here they are.

Kate Hermanns
North Zone Special Uses Administrator
USDA Forest Service
Boise National Forest, Emmett Ranger District
C: 208-258-4589
P: 208-365-7026

katherine.hermanns@usda.gov
1857 Hwy 16, Suite A
Emmett, ID 83617
www.fs.fed.us
Caring for the land and serving people

From: Hermanns, Katherine - FS
Sent: Friday, July 12, 2019 10:28 AM
To: justin.shearer@idwr.idaho.gov
Cc: Hardy, Terry -FS <terry.hardy@usda.gov>
Subject: Warm Lake Water Users Association

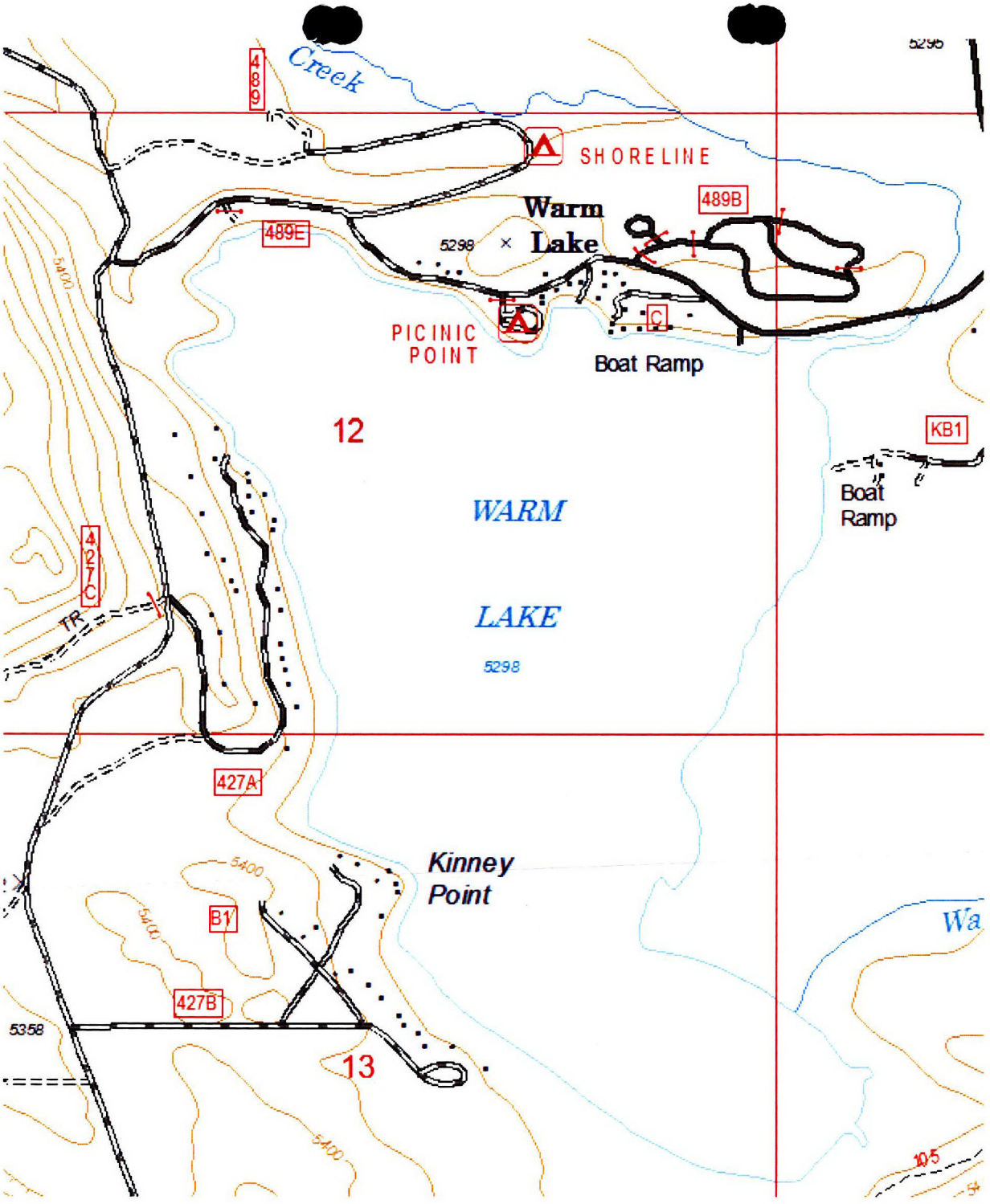
Good Morning,

Here is what I found in the files as far as maps for the Warm Lake Water Users Association. There are a few maps that are the same, but they have different details that I think are pertinent to the system. One of the maps has all of the sites in the group and the user at the time—though a few folks have sold their cabins, the number of sites is still the same.

Let me know if you need more information and I will dig further into the file and see if there are any more details that could be useful in finding the points you need to inspect.

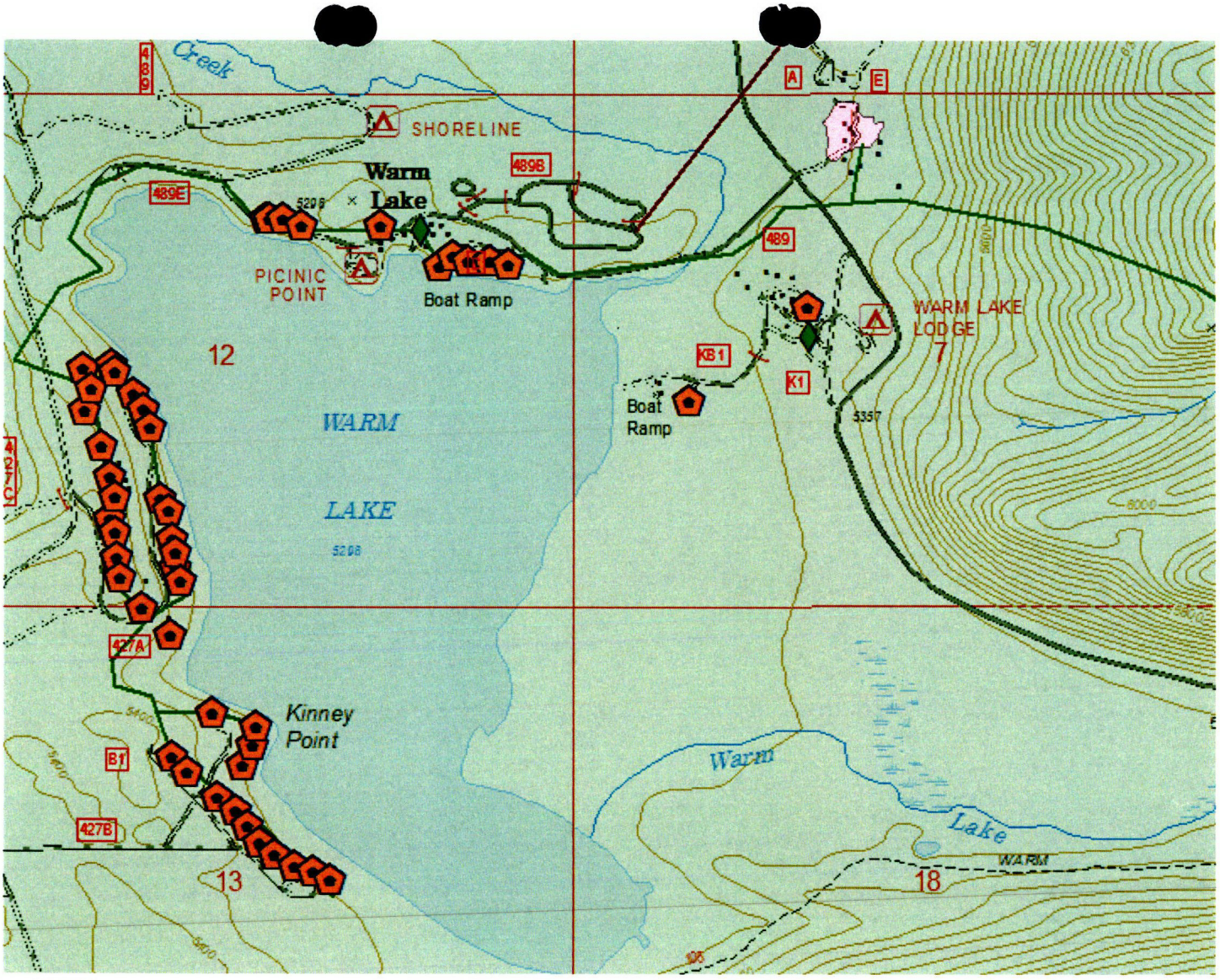
Here is a snip from ArcMap, with points for the cabins.

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And here is a snip of that map with the water line marked in green,

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Kate Hermanns
North Zone Special Uses Administrator

USDA Forest Service
Boise National Forest, Emmett Ranger District

C: 208-258-4589
P: 208-365-7026

katherine.hermanns@usda.gov
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Emmett, ID 83617
www.fs.fed.us

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Form 238-7
6/07

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

853818

1. WELL TAG NO. D 0053332
Drilling Permit No.
Water right or injection well #

2. OWNER
Name Warm Lake Recreational Water District
Address 5412 Keybridge Drive
City Boise State ID Zip 83703

3. WELL LOCATION:
Twp. 15 North ☒ or South ☐ Rge. 6 East ☒ or West ☐
Sec. 13 ____ 10 acres 1/4 NE 40 acres 1/4 NW 160 acres 1/4
Gov't Lot 2 County Valley
Lat. ____ ° ____ (Deg. and Decimal minutes)
Long. ____ ° ____ (Deg. and Decimal minutes)
Address of Well Site off Shoreline frm Stolle Meadows Rd (NFD 427)
Warm Lake City Cascade
(Give street name of road + Distance to Road or Landmark)
Lot ____ Blk. ____ Sub. Name ____

4. USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection
☒ Other domestic>0.04 cfs

5. TYPE OF WORK check all that apply (Replacement etc.)
☒ 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 ft³)	Placement method/procedure
30% grout	10	83	140 cu/ft	tremie
med chips	0	10	25	poured

8. CASING/LINER:

Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Material	Casing	Liner	Threaded	Welded
8"	+2'	235	.322	steel	☒	☐	☐	☒
5"	226	253	scrn	assembly	☐	☐	☐	☐
					☐	☐	☐	☐

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 235

9. PERFORATIONS/SCREENS:
Perforations ☐ Y ☒ N Method
Manufactured screen ☒ Y ☐ N Type telescoping st st
Method of installation set in, pull back

From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Material	Gauge or Schedule
236	246	.020		5"	st st	

Length of Headpipe 12' Length of Tailpipe 5'
Packer ☒ Y ☐ N Type

10. FILTER PACK:

Filter Material	From (ft)	To (ft)	Quantity (lbs or ft³)	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) 49
Water temp. (°F) ____ Bottom hole temp. (°F)
Describe access port

Well test: Test method:

Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
200	80	8 hrs	☐	☐	☒	☐
65	70	7 hrs				

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	Water N
12"	0'	2'	top soil		X
12"	2'	5'	tan clay		X
12"	5'	15'	sandy brown clay		X
12"	15'	25'	granite boulders	X	
12"	25'	33'	cemented quartz grey		X
12"	33'	38'	gery quartz sand, cavey	X	
12"	38'	41'	boulders, sand & gravel	X	
12"	41'	45'	boulder, grey granite		X
12"	45'	50'	sand & gravel	X	
12"	50'	55'	brown decomposed granite		X
12"	55'	65'	gravel & boulders	X	
12"	65'	80'	brown decomposed granite		X
8"	80'	90'	brown decomposed granite		X
8"	90'	95'	grey granite		X
8"	95'	105	brown decomposed granite	X	
8"	105	110	blue clay		X
8"	110	130	brown granite w/clay strips		X
8"	130	135	brown silty granite	X	
8"	135	160	brown dirty caving granite	X	
8"	160	165	brown dirty caving granite	X	
8"	165	180	brown decomposed granite		X
8"	180	233	brown decomposed granite		X
8"	233	235	brown broken sand & gravel	X	
8"	235	246	coarse sand & gravel	X	
8"	246	253	brown clay, decomposed granite		X

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WATER RESOURCES
WESTERN REGION

Completed Depth (Measurable) 253
Date: Started 10-5-08 Completed 10-25-08

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 Down Right Drilling & Pump, Inc Co. No. 637
*Principal Driller [signature] Date 11-6-08
*Driller Tony Hewlett Date 11-6-08
*Operator II ____ Date ____
Operator I ____ Date ____
* Signature of Principal Driller and rig operator are required.

1-16-09 [signature]

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[redacted] Taxlots Associated [redacted] with POU

Enterprise."DWRPROD\JSHEARER".%Taxlots_1_1_21_1, 2/9/2021, Page 1-1

ID	UPDATED	PIN	OWNER
12227733	3/18/2020	LR15N06E121875	CRUMLEY THEODORE
12227734	3/18/2020	LR15N06E121870	BROOKOVER J GORDON
12227735	3/18/2020	LR15N06E121855	SCHAPPACHER GUNTHER F
12227736	3/18/2020	LR15N06E121820	BRUETT WARM LAKE CABIN TRUST
12227737	3/18/2020	LR15N06E121995	CRAVEN BARBARA
12227738	3/18/2020	LR15N06E120446	ROBINSON TAWNI
12227739	3/18/2020	LR15N06E120400	ALLEN FRANK & NADINE CABIN TRUST
12227740	3/18/2020	LR15N06E121185	CATEY JOHN A WARM LAKE CABIN REVOCABLE LIVING TRUST
12227741	3/18/2020	LR15N06E121180	KNIEFEL ROBERT E
12227742	3/18/2020	LR15N06E121155	SPENCER DAVID R
12227743	3/18/2020	LR15N06E120985	BARRETT PAULINE M
12227744	3/18/2020	LR15N06E124835	DELANA SUMNER
12227745	3/18/2020	LR15N06E124885	ONEIL LIVING TRUST
12227746	3/18/2020	LR15N06E124945	DEAL FRED E MD
12227747	3/18/2020	LR15N06E125290	HOFF BRIAN C
12227748	3/18/2020	LR15N06E125375	SHAW BILL
12227749	3/18/2020	LR15N06E124600	GERHARD CLYDE
12227750	3/18/2020	LR15N06E124965	MC MENNAMIN CAMILLE
12227751	3/18/2020	LR15N06E124985	WHEELER AMY L
12227752	3/18/2020	LR15N06E125075	MILLER DON H
12227753	3/18/2020	LR15N06E125160	BATE STEVEN S
12227754	3/18/2020	LR15N06E125215	SHERMAN HELEN G
12227755	3/18/2020	LR15N06E126790	YERRINGTON KENT
12227756	3/18/2020	LR15N06E126845	WEEKS RUSSELL L
12227757	3/18/2020	LR15N06E126910	JAYO DOUGLAS
12227758	3/18/2020	LR15N06E126985	MORFORD MELVIN E
12227759	3/18/2020	LR15N06E126635	LEATH FAMILY TRUST RESTATED
12227760	3/18/2020	LR15N06E126655	SKINNER KATHRYN E
12227761	3/18/2020	LR15N06E126745	BLOMBERG BEVERLY
12227762	3/18/2020	LR15N06E127095	DRAKE JOEL P
12227763	3/18/2020	LR15N06E127145	HOFFMAN FAMILY WARM LAKE CABIN TRUST
12227764	3/18/2020	LR15N06E132455	MC DOWELL FAMILY TRUST OF 2003
12227765	3/18/2020	LR15N06E127195	STEVENS CHARLES L
12227766	3/18/2020	LR15N06E132435	MC KOWN MICHAEL L DVM
12227767	3/18/2020	LR15N06E132485	KESLING JAMES E
12227768	3/18/2020	LR15N06E132945	NELSON SHERMAN A REVOCABLE TRUST
12227769	3/18/2020	LR15N06E131045	ADOLPHSEN FRED
12227770	3/18/2020	LR15N06E131360	FOSTER ALICE GILL
12227771	3/18/2020	LR15N06E131400	STILWELL M DALE
12227772	3/18/2020	LR15N06E131485	MOORE FAMILY TRUST
12227773	3/18/2020	LR15N06E134300	HAMMOND DENNIS
12227774	3/18/2020	LR15N06E134655	NELSON FAMILY UPPER CABIN REVOCABLE TRUST
12227775	3/18/2020	LR15N06E131555	TERTELING THOMAS E
12227776	3/18/2020	LR15N06E131645	HOFF THEODORE
12227777	3/18/2020	LR15N06E134865	COFFMAN THOMAS J
12227778	3/18/2020	LR15N06E138045	GARY JUDE
12227779	3/18/2020	LR15N06E138090	LARRONDO STEVE
12227780	3/18/2020	LR15N06E138270	BARKER RICHARD B
12227781	3/18/2020	LR15N06E138300	RODWELL DANNY L
12227782	3/18/2020	LR15N06E138345	BLOME DIXIE V
12227784	3/18/2020	LR15N07E074595	STODDARD VALERIE
12227785	3/18/2020	LR15N07E074475	ABBOTT RONALD
12227786	3/18/2020	LR15N06E122020	OLIVER FRED S
12230640	3/18/2020	LR15N07E074566	TERRA LLC

SCANNED
OCT 31 2022

LEGAL1	LEGAL2
U.S.F.S. LEASE LOT 4 NORTH SHORE /WARM LAKE SUMMER HOME ARE...	<Null>
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U.S.F.S. LEASE LOT 67 KINNEY POINT / WARM LAKE SUMMER HOME ARE...	<Null>
CABIN LOCATED ON LOT 68 (U.S.F.S. LEASE) KINNEY POINT / WARM LAK...	<Null>
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LODGE & CABINS LOCATED ON U.S.F.S. LEASED LAND S7 T15N R7E "W...	<Null>

SCANNED
OCT 31 2022

WARM LAKE RECREATIONAL WATER DISTRICT
2009 WATER SYSTEM UPGRADES
VALLEY COUNTY, ID

JULY 2009

CONSTRUCTION DOCUMENTS

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2. G-2 NOTES & LEGEND
3. G-3 KEY MAP, TRAFFIC CONTROL, EROSION CONTROL AND CONTROL POINTS

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4. C-1 PLAN AND PROFILE
5. C-2 PLAN AND PROFILE
6. C-3 SITE ACCESS PLAN
7. C-4 TANK SITE PLAN AND SECTIONS
8. C-5 WELL HOUSE SITE PLAN PIPING PLAN & SECTIONS
9. C-6 SYSTEM IMPROVEMENTS
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15. D-5 EROSION CONTROL DETAILS

ELECTRICAL
16. E-1 ELECTRICAL LEGENDS AND SCHEDULES
17. E-2 ELECTRICAL POWER AND LIGHTING
18. E-3 CONTROLS PLAN

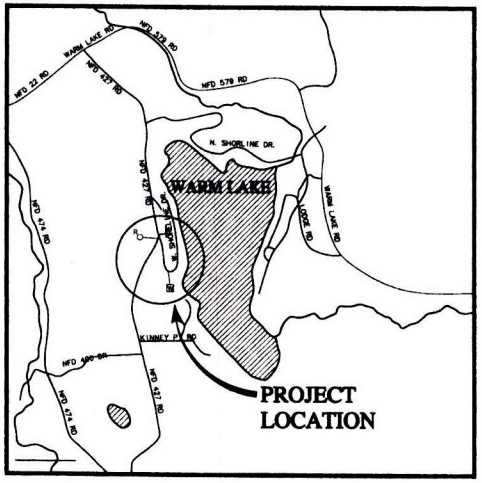
CLIENT:

WARM LAKE RECREATIONAL WATER DISTRICT
5412 KEYBRIDGE DRIVE
BOISE, ID 83709

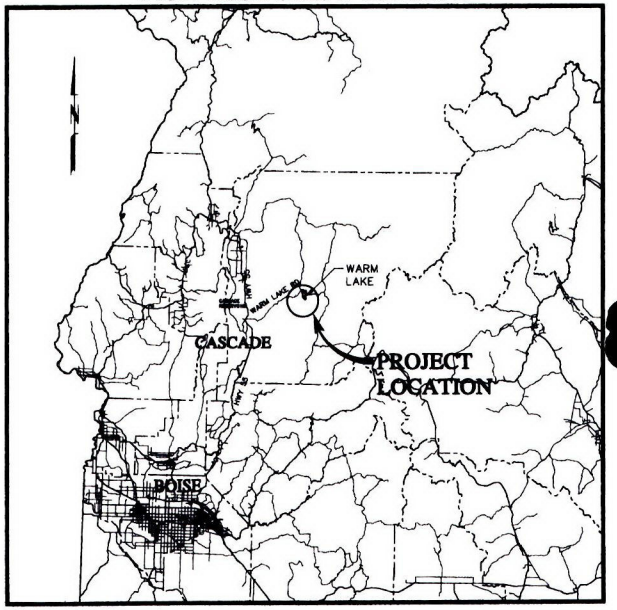
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Boise, Idaho 83702
PHONE 208.350.2250
FAX 208.350.2251



VICINITY MAP
SCALE: 1"=2,000'



REGION MAP
SCALE: 1"=30,000'

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN

PLANS & SPECIFICATIONS REVIEW

These plans and/or specifications have been reviewed for compliance with Department of Environmental Quality rules. This review does not relieve the owner, engineer, or the contractor of the responsibility to design or construct these facilities in compliance with all current applicable federal, state and local laws, rules, regulations, or ordinances. Plans and/or specifications must be resubmitted for review if construction is not completed within one year from approval date.

7-20-05

Refer to approval conditions in letter to: Robert Brassil

09-1021.201

S:\Projects\09\021\201\CAD\09-1021-201-ID-G-1.dwg G-1 7/14/2009 5:05 PM DWB 17.0s (LWS Tech)

SCANNED OCT 31 2022

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL OBTAIN A GENERAL CONSTRUCTION PERMIT FROM THE ENVIRONMENTAL PROPECTION AGENCY (EPA) BEFORE BEGINNING CONSTRUCTION. AT A MINIMUM, THE CONTRACTOR SHALL BE REQUIRED TO FILE A NOTICE OF INTENT (NOI) AND PREPARE A SURFACE WATER POLLUTION PREVENTION PLAN (SWPPP) IN ORDER TO OBTAIN THE PERMIT FROM THE EPA.

2. THE EROSION SEDIMENTATION CONTROL (ESC) FACILITIES SHOWN ON THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. INSTALLED ESC FACILITIES SHALL MEET THE REQUIREMENTS OF THE APPROVED EPA PERMIT.

3. THE IMPLEMENTATION OF THESE EROSION/SEDIMENTATION CONTROL (ESC) PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.

4. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THESE PLANS SHALL BE CLEARLY FLAGGED BY CONTRACTOR IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

5. THE ESC FACILITIES SHOWN ON THESE PLANS MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.

6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONALITY.

7. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.

8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN AN ESC FACILITY. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.

9. ESC MEASURES SHALL BE REMOVED BY THE CONTRACTOR WHEN THE SITE IS STABILIZED.

GENERAL NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL, COUNTY, STATE, AND UTILITY CONSTRUCTION PERMITS, AND SHALL CONTACT EACH PERMITTING AGENCY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO STARTING WORK. CONTRACTOR SHALL OBTAIN ALL REQUIRED LICENSES BEFORE STARTING CONSTRUCTION. CONTRACTOR TO OBTAIN AND COMPLY WITH OWNER'S PERMITS AND REQUIREMENTS FOR WORK IN, AND RESTORATION OF, ROADWAYS.

2. CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN AS REQ'D FOR APPROVAL. THE TRAFFIC CONTROL SHOWN ON SHEET G-3 IS FOR REFERENCE ONLY AND MAY BE USED IN DEVELOPING THE FINAL PLAN.

3. ALL SURFACE FEATURES ARE BASED ON A FIELD SURVEY WITH AN ASSUMED DATUM (SEE CONTROL POINT #101, ELEV. 3,000 FT) AND COORDINATE SYSTEM. ALL UTILITY LOCATIONS ARE ASSUMED, BASED ON CONVERSATIONS WITH THE UTILITY PROVIDER AND GENERAL ASSUMPTIONS. LOCATIONS ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. CONTRACTOR SHALL PERFORM A UTILITY LOCATE AND NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS. THE CONTRACTOR SHALL KEEP EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION. WHERE INTERRUPTION OF EXISTING FACILITIES IS REQUIRED, CONTRACTOR SHALL PROVIDE 72 HOUR NOTICE TO ENGINEER AND THE AFFECTED UTILITY.

4. PORTIONS OF THE 2008 EDITION OF THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC) MANUAL ARE DIRECTLY REFERENCED IN THE PLANS AND TECHNICAL SPECIFICATIONS FOR THIS WORK AND ARE INTENDED TO DEFINE SPECIFIC MATERIALS AND CONSTRUCTION REQUIREMENTS. THE SPECIFIC PORTIONS OF THE ISPWC THAT ARE LISTED IN THESE DOCUMENTS ARE TO BE CONSIDERED INCORPORATED INTO THE CONTRACT DOCUMENTS BY REFERENCE. THE CONTRACTOR SHALL OBTAIN A COPY OF THE 2008 EDITION OF THE ISPWC AND SHALL RETAIN A COPY OF THE SAME AT THE JOBSITE FOR REFERENCE PURPOSES.

5. NO ADDITIONAL PAYMENT SHALL BE MADE FOR UTILITY RELOCATION COORDINATION OR DELAYS CAUSED BY UTILITY CONFLICTS. ALL COSTS RELATED TO UTILITY COORDINATION AND RELOCATION, INCLUDING ADDITIONAL POTHOLING, ARE TO BE CONSIDERED INCIDENTAL AND INCLUDED IN THE BID.

6. CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS BEFORE STARTING CONSTRUCTION, AND 24 HOURS BEFORE RESUMING WORK AFTER SHUTDOWNS EXCEPT FOR NORMAL RESUMPTION OF WORK FOLLOWING SATURDAYS, SUNDAYS, OR HOLIDAYS. CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS PRIOR TO ANY TESTING OR REQUIRED INSPECTION.

7. ANY ALTERATION OR VARIANCE FROM THESE PLANS, EXCEPT MINOR FIELD ADJUSTMENT NOT AFFECTING DESIGN NEEDED TO MEET EXISTING FIELD CONDITIONS, SHALL FIRST BE APPROVED BY THE ENGINEER. ANY ALTERATIONS OR VARIANCE FROM THESE PLANS SHALL BE DOCUMENTED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER. ANY PROPOSED CHANGES IN CONSTRUCTION PLANS MUST BE SUBMITTED IN WRITING AND APPROVED BY ENGINEER PRIOR TO COMMENCING WORK.

8. THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED OR REPLACED MATERIAL AND EQUIPMENT IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS, EXCEPT THOSE ITEMS DESIGNATED BY THE OWNER FOR SALVAGING. SALVAGED ITEMS SHALL REMAIN THE PROPERTY OF THE OWNER, AND SHALL BE CAREFULLY REMOVED AND STORED AS DIRECTED.

9. CONTRACTOR SHALL RESTORE ALL STRUCTURES, LOTS, SWALES, DITCHES, CURBS, FENCES, WALLS, MAILBOXES, SIGNS, POLES, GUY WIRES, PIPING, AND UTILITIES DISTURBED DURING CONSTRUCTION TO EXIST CONDITION UNLESS OTHERWISE SPECIFIED.

10. CONTRACTOR SHALL PROVIDE A COPY OF THE AWWA STANDARDS C651 DISINFECTION WATER MAINS, C652 DISINFECTION OF WATER-STORAGE FACILITIES , AND C654 DISINFECTION OF WELLS ONSITE AT ALL TIMES.

TOPOGRAPHIC LEGEND

	EXISTING	PROPOSED
WATERLINE	----16"W----	16"W
ELECTRICITY	----OHP----	----OHP----
GAS	----4"G----	
TELEPHONE/TELEMETRY	----T----	----T----
SANITARY SEWER LINE	----8"SS----	
STORM DRAIN	----8"SD----	
CULVERT	>----------<	
CENTERLINE	---- --- ----	
CONSTRUCTION LIMITS		----------
DRAINAGE DITCH		— —<— —<
EASEMENT/PROPERTY LINE	—— - - ——	
EDGE OF PAVEMENT/AC	————	
PCC PAVEMENT		
EDGE OF GRAVEL	- - - - - -	
TOP OF BANK	.....	
STRUCTURE OR FACILITY	▭	▭
CONTOUR MINOR	~~~~~	
CONTOUR MAJOR	~~200~~	
MANHOLE	○	●
CLEAN-OUT	○	
VALVE (GATE VALVE/BALL VALVE)		⋈ OR ⋈
PULL BOX/JUNCTION BOX		
UTILITY POLE	-o-	
GUY WIRE	—→	
SIGN	-▾-	
CONTROL POINT/MON	○	
TREE DECIDUOUS	♧	
TREE CONIFEROUS	✿	
SURFACE ELEVATION	XXXX.XX	XXXX.XX
WELL		W
SILT FENCING		-x-x-x-
DEMO		XXXXXXXX OR ✕

ABBREVIATIONS

@	AT
ABAN	ABANDON(ED)
ABC	AGGREGATE BASE COURSE
ABV	ABOVE
AGGR	AGGREGATE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
APPVD	APPROVED
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AVG	AVERAGE
BETW	BETWEEN
BLDG	BUILDING
BF/BFILL	BACKFILL
BM	BENCH MARK/BEAM
CHAN	CHANNEL
CIR	CIRCULAR
CL or C	CENTER LINE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CND	CONDUIT
CONC	CONCRETE
CONT	CONTINUOUS(ATION)
CONTR	CONTRACT(OR)
COORD	COORDINATE
CP	CONTROL POINT
CR	CRUSHED ROCK
CTS	COPPER TUBE SIZE CONNECTION (SEE PET)
CULV	CULVERT
D	DRAIN
DEMO	DEMOLITION
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DR	DRIVE
DWY	DRIVEWAY
EL	ELEVATION
ELEC or E	ELECTRICAL
EP	EDGE OF PAVEMENT
EQL SP	EQUALLY SPACED
ESC	EROSION & SEDIMENT CONTROL
ESMT	EASEMENT
ETW	EDGE OF TRAVELWAY
EW	EACH WAY
EXC	EXCAVATE
EXST	EXISTING
EXST GR	EXISTING GRADE
FL	FLOOR LINE
FIN FL	FINISH FLOOR
FIN GR	FINISH GRADE
FIP	FEMALE PIPE THREAD (NPT)
FLL	FLOW LINE
FN	FENCE
FITG	FITTING
FUT	FUTURE
GALV	GALVANIZED STEEL PIPE
GR	GRADE
GR LN	GRADE LINE
HPT	HIGH POINT
IE	INVERT ELEVATION
IP	IRON PIPE (CONNECTION)
INV	INVERT
ISPWC	IDAHO STANDARD FOR PUBLIC WORKS CONSTRUCTION
LPT	LOW POINT
MON	MONUMENT
MIP	MALE PIPE THREAD (NPT)
NTS	NOT TO SCALE
ORIG	ORIGINAL
PEP	POLYETHELENE PIPE (SAME ID AS IRON PIPE)
PET	POLYETHELENE TUBING (SAME OD AS COPPER TUBING)
PL	PROPERTY LINE
PP	POWER POLE
PROP	PROPERTY
PT	POINT
REQ'D	REQUIRED
ROW	RIGHT OF WAY
SD	STORM DRAIN
SHLDR	SHOULDER
SLP	SLOPE
STA	STATION
STD	STANDARD
TEL	TELEPHONE
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W/	WITH
X SECT	CROSS SECTION

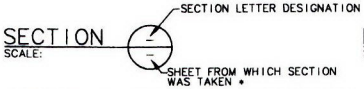
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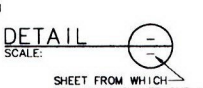
SECTION DESIGNATIONS



DETAIL DESIGNATIONS







• NOTE: IF PLAN AND SECTION FOR DETAIL CALL-OUT AND DETAIL ARE SHOWN ON THE SAME DRAWING, DRAWING NUMBER IS REPLACED WITH A DASH.

CALL BEFORE YOU DIG
DIGLINE
(1-800-342-1585)

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DMB DESIGNED
DMB DRAWN
DG CHECKED

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN

MSA Murray, Smith & Associates, Inc. Engineers/Planners
850 W. Bannock, Suite 910 Boise, Idaho 83702
PHONE 208.350.2250 FAX 208.350.2251

WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

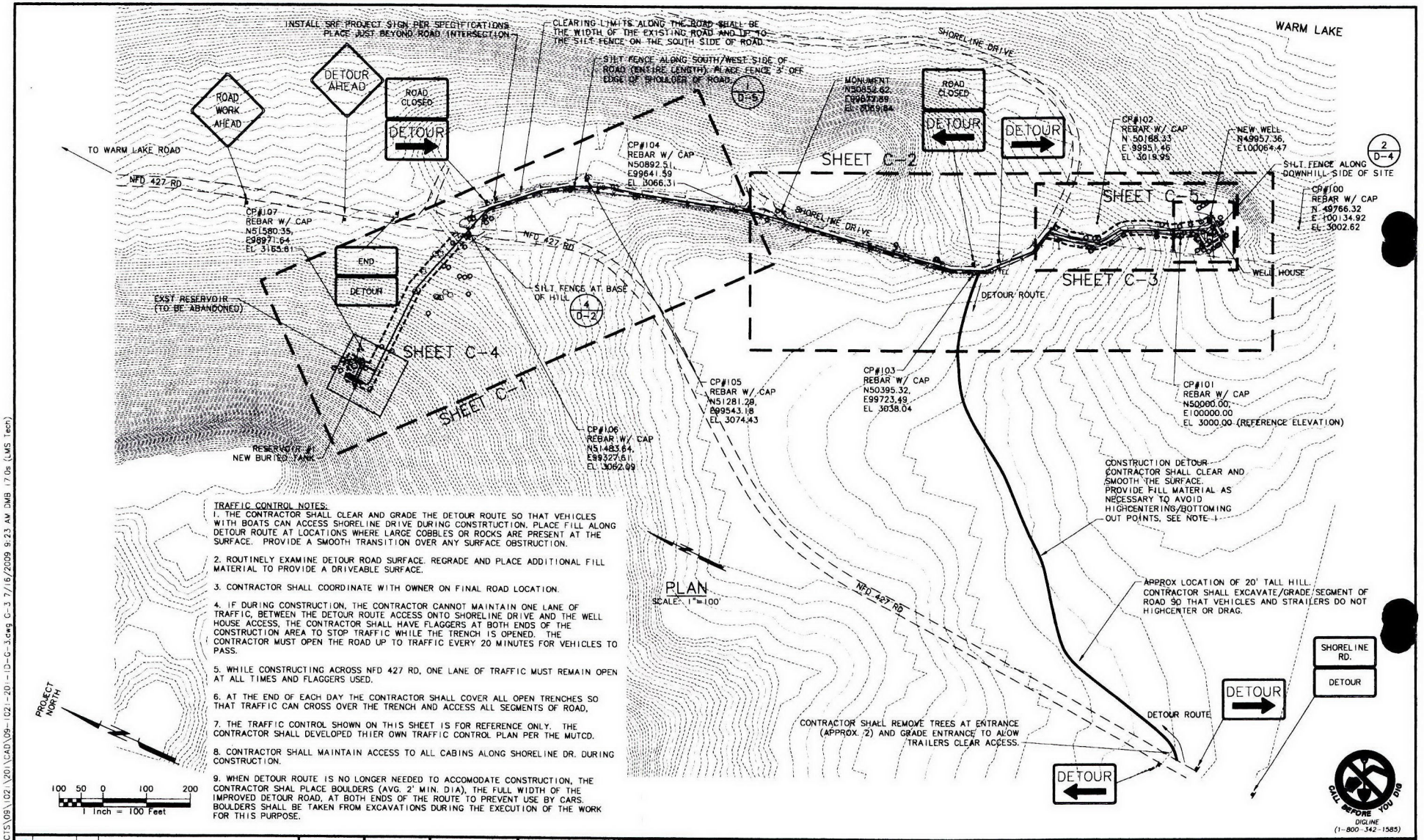
NOTES AND LEGEND

SHEET G-2
2 of 18

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SCANNED OCT 31 2022

\\Pw-file\d\PROJECTS\09\102\20\CAD\09-1021-201-1D-G-1.dwg G-2 7/14/2009 5:05 PM DMB 17.0s (LMS Tech)



TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL CLEAR AND GRADE THE DETOUR ROUTE SO THAT VEHICLES WITH BOATS CAN ACCESS SHORELINE DRIVE DURING CONSTRTUCTION. PLACE FILL ALONG DETOUR ROUTE AT LOCATIONS WHERE LARGE COBBLES OR ROCKS ARE PRESENT AT THE SURFACE. PROVIDE A SMOOTH TRANSITION OVER ANY SURFACE OBSTRUCTION.

2. ROUTINELY EXAMINE DETOUR ROAD SURFACE. REGRADE AND PLACE ADDITIONAL FILL MATERIAL TO PROVIDE A DRIVEABLE SURFACE.

3. CONTRACTOR SHALL COORDINATE WITH OWNER ON FINAL ROAD LOCATION.

4. IF DURING CONSTRUCTION, THE CONTRACTOR CANNOT MAINTAIN ONE LANE OF TRAFFIC, BETWEEN THE DETOUR ROUTE ACCESS ONTO SHORELINE DRIVE AND THE WELL HOUSE ACCESS, THE CONTRACTOR SHALL HAVE FLAGGERS AT BOTH ENDS OF THE CONSTRUCTION AREA TO STOP TRAFFIC WHILE THE TRENCH IS OPENED. THE CONTRACTOR MUST OPEN THE ROAD UP TO TRAFFIC EVERY 20 MINUTES FOR VEHICLES TO PASS.

5. WHILE CONSTRUCTING ACROSS NFD 427 RD, ONE LANE OF TRAFFIC MUST REMAIN OPEN AT ALL TIMES AND FLAGGERS USED.

6. AT THE END OF EACH DAY THE CONTRACTOR SHALL COVER ALL OPEN TRENCHES SO THAT TRAFFIC CAN CROSS OVER THE TRENCH AND ACCESS ALL SEGMENTS OF ROAD,

7. THE TRAFFIC CONTROL SHOWN ON THIS SHEET IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL DEVELOPED THIER OWN TRAFFIC CONTROL PLAN PER THE MUTCD.

8. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL CABINS ALONG SHORELINE DR. DURING CONSTRUCTION.

9. WHEN DETOUR ROUTE IS NO LONGER NEEDED TO ACCOMODATE CONSTRUCTION, THE CONTRACTOR SHAL PLACE BOULDERS (AVG. 2' MIN. DIA), THE FULL WIDTH OF THE IMPROVED DETOUR ROAD, AT BOTH ENDS OF THE ROUTE TO PREVENT USE BY CARS. BOULDERS SHALL BE TAKEN FROM EXCAVATIONS DURING THE EXECUTION OF THE WORK FOR THIS PURPOSE.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DMB DESIGNED
DMB DRAWN
DG CHECKED

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN

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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

KEY MAP, TRAFFIC CONTROL, EROSION CONTROL AND CONTROL POINTS

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET G-3

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\\Pdx-file\d\PROJECTS\09\1021\201\CAD\09-1021-201-ID-G-3.dwg C-3 7/16/2009 9:23 AM DMB 17.0s (LMS Tech)

SCANNED OCT 31 2022

NOTES:

1. SEE SHT G-2 FOR EROSION CONTROL NOTES.

2. SEE SHT G-2 FOR GENERAL NOTES.

3. PROTECT ALL TREES, GREATER THAN 4" DIAMETER, WITHIN THE LIMITS OF CONSTRUCTION, UNLESS NOTED OTHERWISE. IF A TREE IS NOT SHOWN ON THE PLANS AND NEEDS TO BE REMOVED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. ALL REMOVED TREES TO BE RELOCATED TO PIPE TRENCH SECTIONS IN SLOPED ARRAS, NOT IN EXISTING ROADWAYS. CONTRACTO TO PLACE TREE PERPENDICULAR TO SLOPE.

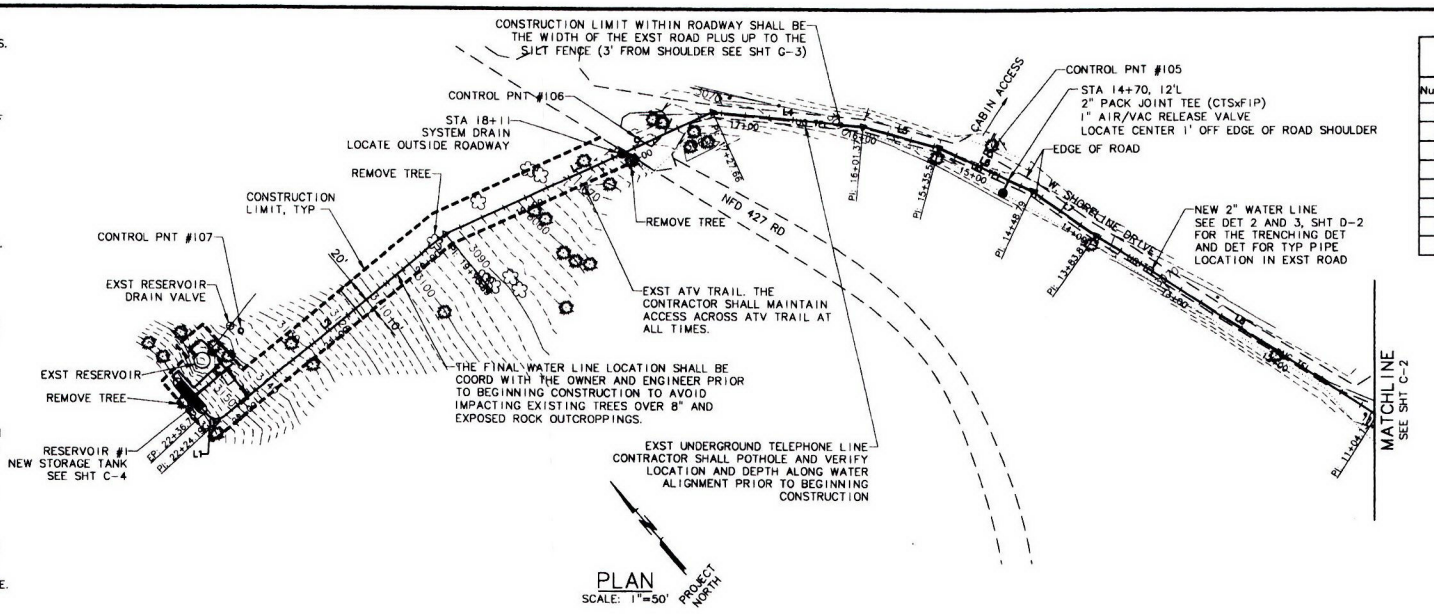
4. TRENCH SURFACE REPAIR. REFER TO PROFILE FOR TYPE OF SURFACE RESTORATION.

A. CLEAR AND GRUBBED RESTORATION: CONTRACTOR SHALL REMOVE, SEPARATE AND STOCK PILE THE CLEARED AND GRUBBED MATERIAL (SEPARATE PILES). WHEN EXCAVATION/TRENCHING WORK IS COMPLETE THE GRUBBED MATERIAL WILL BE USED TO TOP THE EXCAVATED AREA AND THE CLEARED MATERIAL WILL BE PLACED AS THE FINAL COURSE ON THE SURFACE.

B. EXST ROAD SURFACE: CONTRACTOR SHALL USE NATIVE MATERIAL LESS THAN 6" AND COMPACTED TO 95% MAXIUM DRY DENSITY. THE FINAL SURFACE GRADE SHALL MATCH THE EXISTING GRADE.

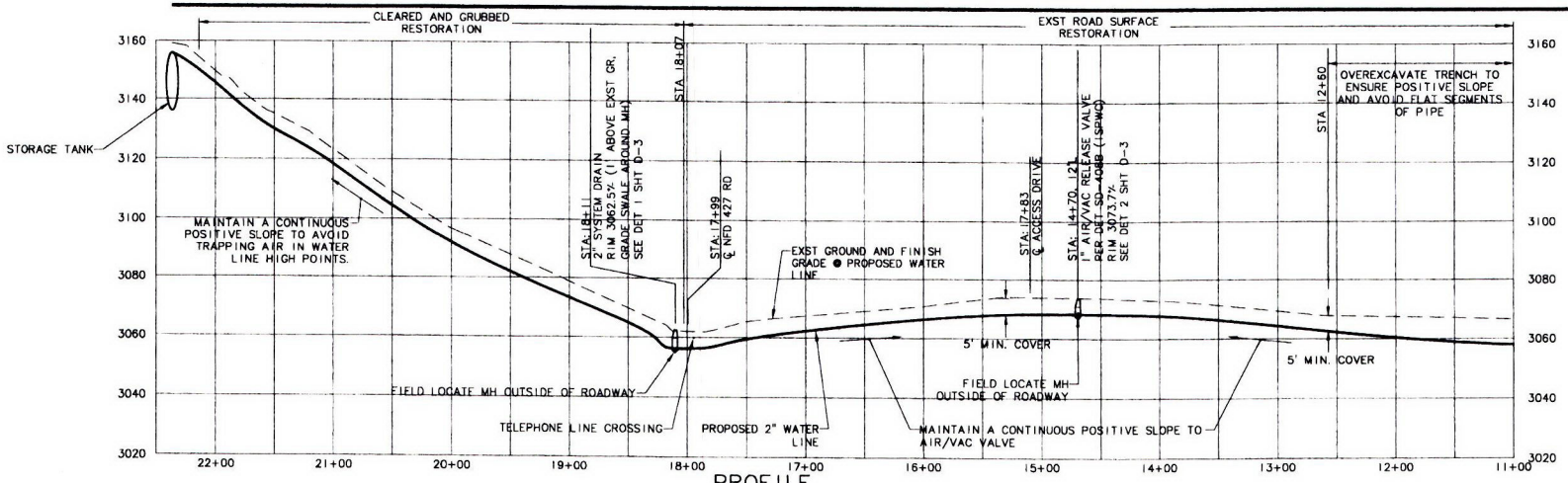
C. NEW ROAD SURFACE: SEE DET 2, SHT D-1

5. CLEARING LIMITS SHALL BE DEFINED AS THE ARE WITHIN THE CONSTRUCTION LIMITS IMPACTED BY PIPE AND FACILITY INSTALLATION, INCLUDING AREAS IMPACTED BY EQUIPMENT USAGE AND MATERIAL STORAGE.



PLAN
SCALE: 1"=50'

LINE TABLE		
Number	Length	Direction
L8	279.68	S16° 15' 31.32"E
L7	64.98	N13° 21' 15.45"W
L6	86.74	N24° 02' 37.24"W
L5	65.84	N34° 03' 21.41"W
L4	126.29	N43° 28' 59.24"W
L3	248.23	N73° 35' 31.03"W
L2	250.30	N88° 32' 25.92"W
L1	12.51	N1° 40' 55.76"W



PROFILE
SCALE: 1"= 50' HORIZ, 1"= 20' VERT

CALL BEFORE YOU DIG
DIGLINE
(1-800-342-1585)

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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DMB DRAWN
DG CHECKED

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN

MSA Murray, Smith & Associates, Inc. Engineers/Planners
950 W. Bannock, Suite 910 Boise, Idaho 83702
PHONE 208.350.2250 FAX 208.350.2251

WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

PLAN AND PROFILE

SHEET C-1

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PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

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NOTES:

1. SEE SHT G-2 FOR EROSION CONTROL NOTES.

2. SEE SHT G-2 FOR GENERAL NOTES.

3. PROTECT ALL TREES, GREATER THAN 4" DIAMETER, WITHIN THE LIMITS OF CONSTRUCTION, UNLESS NOTED OTHERWISE. IF A TREE IS NOT SHOWN ON THE PLANS AND NEEDS TO BE REMOVED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. ALL REMOVED TREES TO BE RELOCATED TO PIPE TRENCH SECTIONS IN SLOPED ARRAS, NOT IN EXISTING ROADWAYS. CONTRACTO TO PLACE TREE PERPENDICULAR TO SLOPE.

4. TRENCH SURFACE REPAIR. REFER TO PROFILE FOR TYPE OF SURFACE RESTORATION.

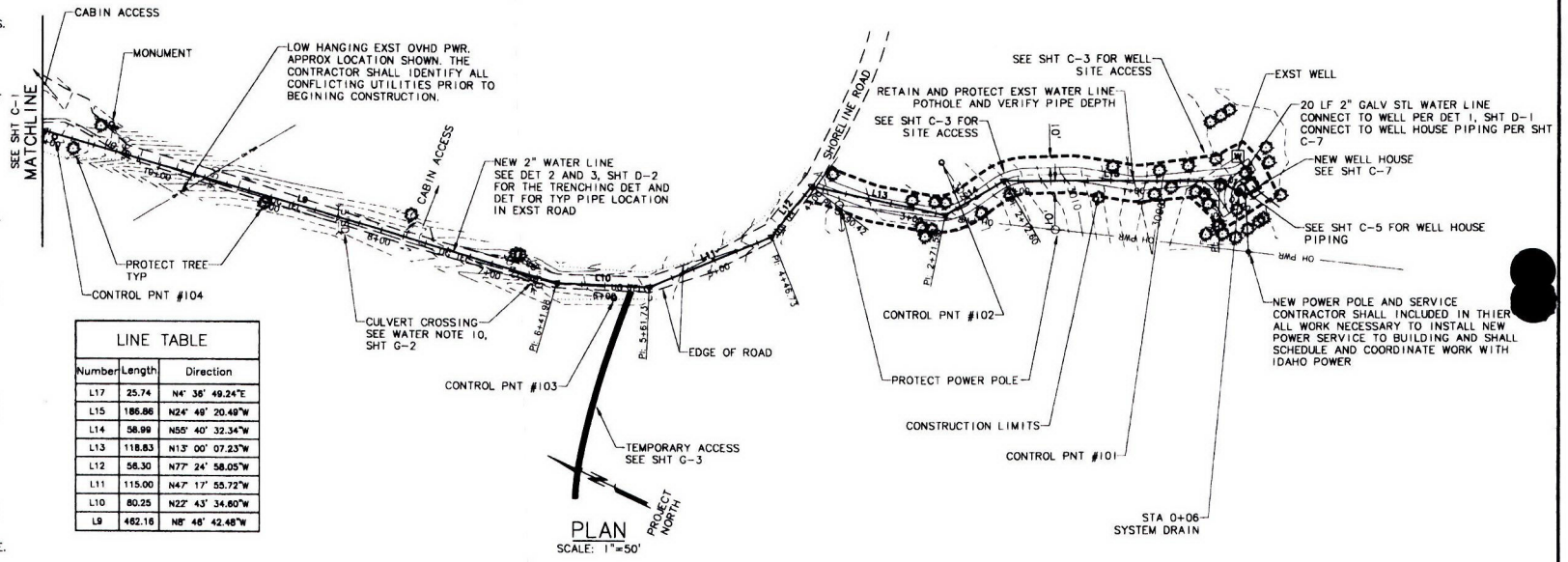
A. CLEAR AND GRUBBED RESTORATION: CONTRACTOR SHALL REMOVE, SEPARATE AND STOCK PILE THE CLEARED AND GRUBBED MATERIAL (SEPARATE PILES). WHEN EXCAVATION/TRENCHING WORK IS COMPLETE THE GRUBBED MATERIAL WILL BE USED TO TOP THE EXCAVATED AREA AND THE CLEARED MATERIAL WILL BE PLACED AS THE FINAL COURSE ON THE SURFACE.

B. EXST ROAD SURFACE: CONTRACTOR SHALL USE NATIVE MATERIAL LESS THAN 6" AND COMPACTED TO 95% MAXIUM DRY DENSITY. THE FINAL SURFACE GRADE SHALL MATCH THE EXISTING GRADE.

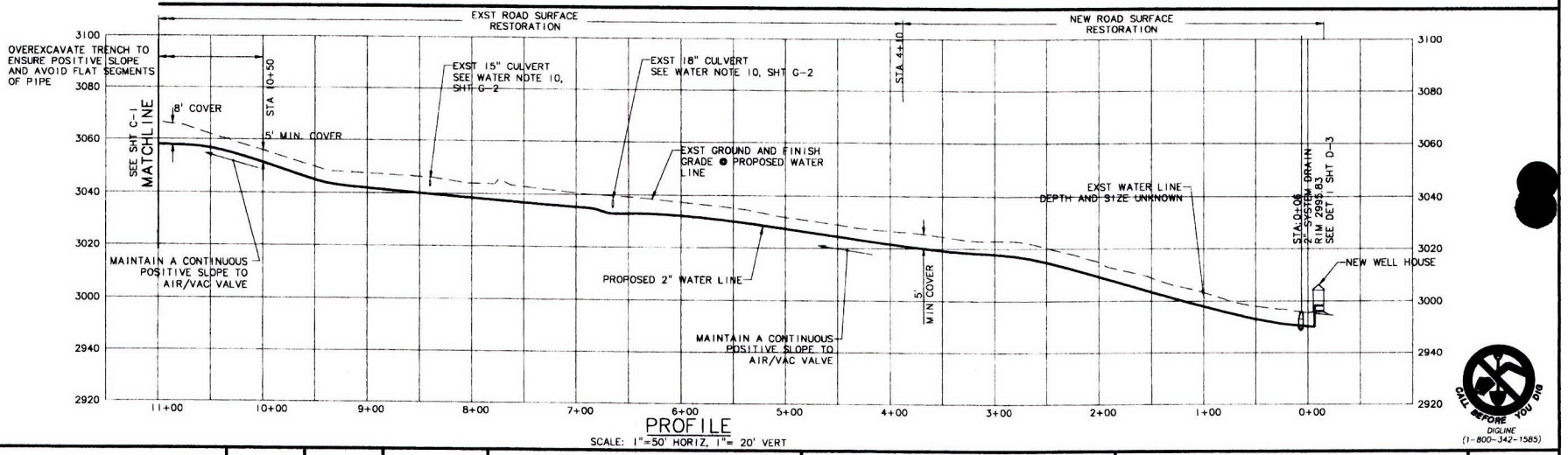
C. NEW ROAD SURFACE: SEE DET 2, SHT D-1

5. CLEARING LIMITS SHALL BE DEFINED AS THE ARE WITHIN THE CONSTRUCTION LIMITS IMPACTED BY PIPE AND FACILITY INSTALLATION, INCLUDING AREAS IMPACTED BY EQUIPMENT USAGE AND MATERIAL STORAGE.

LINE TABLE		
Number	Length	Direction
L17	25.74	N4° 38' 49.24"E
L15	186.86	N24° 49' 20.49"W
L14	58.99	N55° 40' 32.34"W
L13	118.83	N13° 00' 07.23"W
L12	56.30	N77° 24' 58.05"W
L11	115.00	N47° 17' 55.72"W
L10	80.25	N22° 43' 34.60"W
L9	462.16	N8° 46' 42.48"W



PLAN
SCALE: 1"=50'



PROFILE
SCALE: 1"=50' HORIZ, 1"= 20' VERT

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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

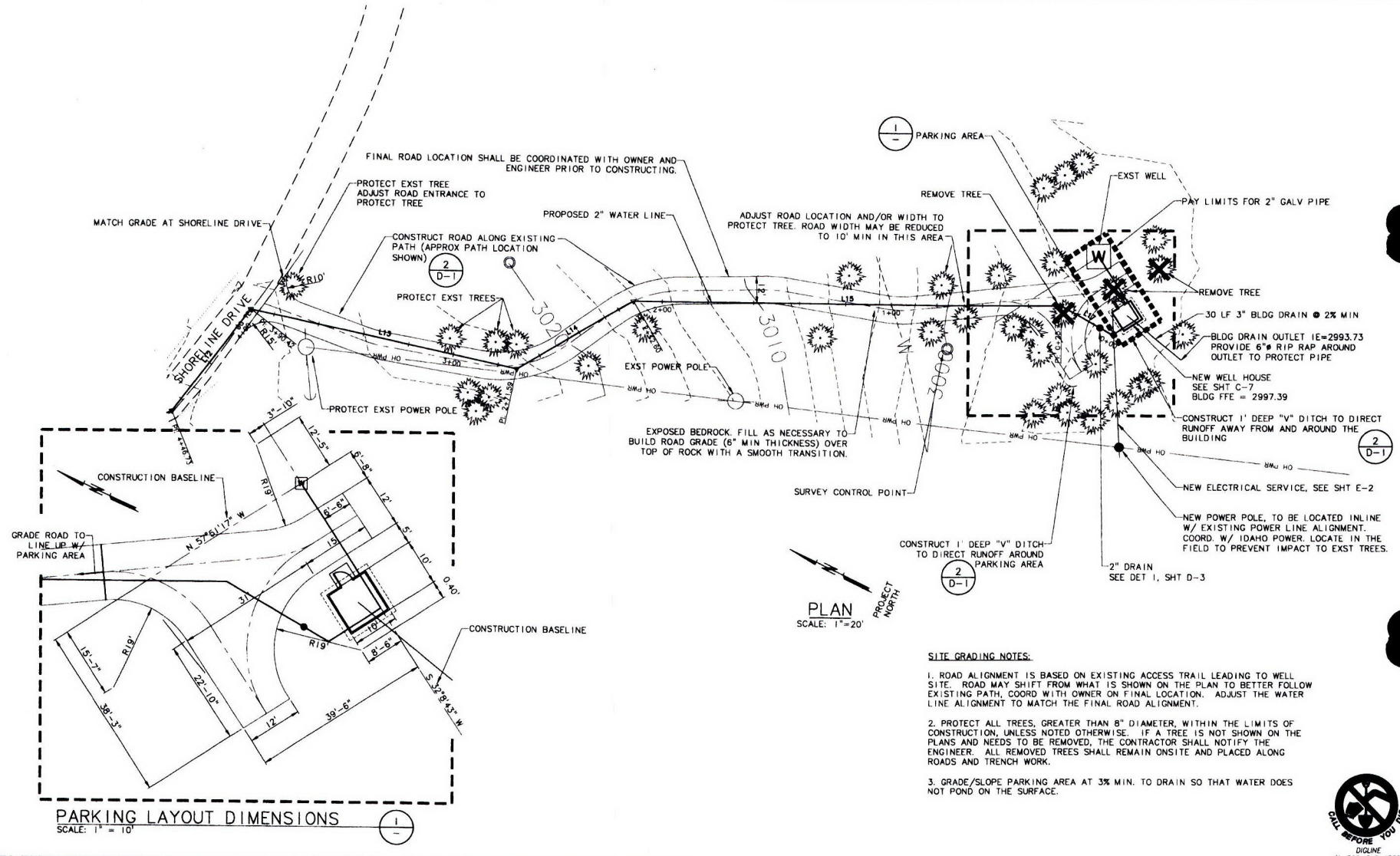
PLAN AND PROFILE

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET C-2
5 of 18

SCANNED OCT 31 2022

\\Pdx-file\d\PROJECTS\09\1021\201\CAD\09-1021-201-10-C-1.dwg C-2 7/15/2009 5:02 PM DMB 17.0s (LMS Tech)



SITE GRADING NOTES:

1. ROAD ALIGNMENT IS BASED ON EXISTING ACCESS TRAIL LEADING TO WELL SITE. ROAD MAY SHIFT FROM WHAT IS SHOWN ON THE PLAN TO BETTER FOLLOW EXISTING PATH, COORD WITH OWNER ON FINAL LOCATION. ADJUST THE WATER LINE ALIGNMENT TO MATCH THE FINAL ROAD ALIGNMENT.

2. PROTECT ALL TREES, GREATER THAN 8" DIAMETER, WITHIN THE LIMITS OF CONSTRUCTION, UNLESS NOTED OTHERWISE. IF A TREE IS NOT SHOWN ON THE PLANS AND NEEDS TO BE REMOVED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. ALL REMOVED TREES SHALL REMAIN ONSITE AND PLACED ALONG ROADS AND TRENCH WORK.

3. GRADE/SLOPE PARKING AREA AT 3% MIN. TO DRAIN SO THAT WATER DOES NOT POND ON THE SURFACE.

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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

SITE ACCESS PLAN

SHEET C-3 6 of 18

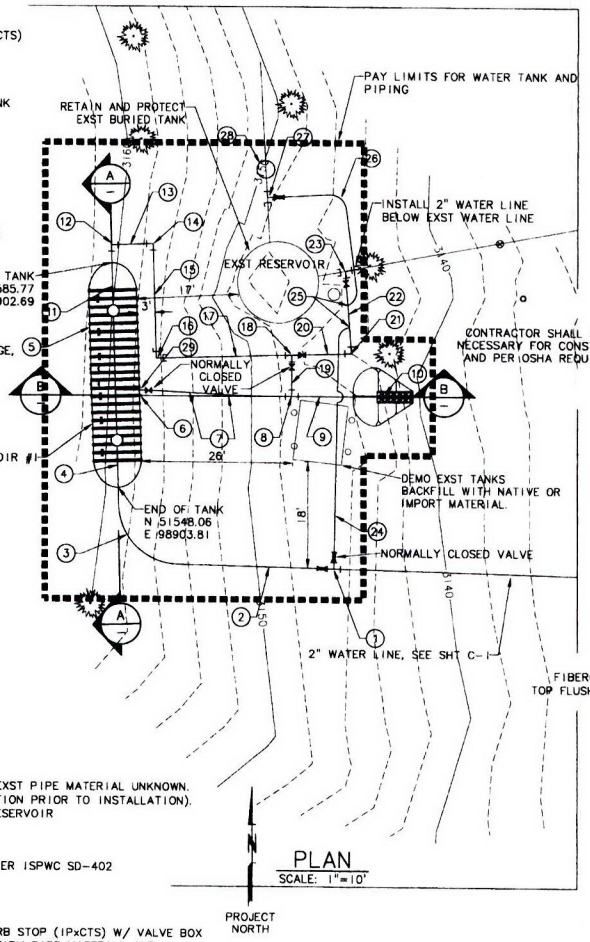
PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

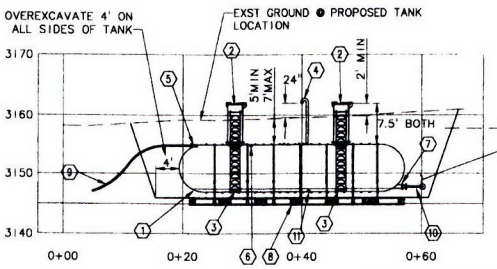
SCANNED OCT 31 2022

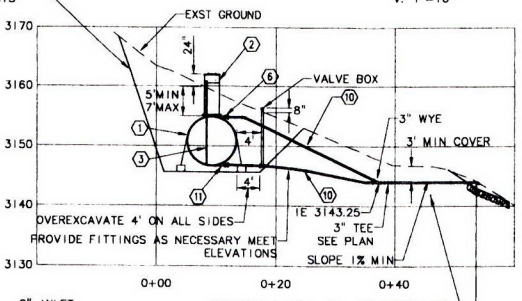
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KEYNOTES:

1. 2" BRASS TEE (FIPxFIP)
   2" PACK JOINT COUPLING (CTSxMIP)
   (2) 2" BALL VALVE CURB STOP (MIPxCTS)
   W/ VALVE BOX AND OPERATING NUT
2. 32 LF 2" WATER LINE
3. DEFLECT PE PIPE TO LINE UP W/ TANK
4. CONNECT TO 2" TANK INLET W/
   2" TRANSITION COUPLING
   RESTRAIN PIPE
5. 8' DIA 12,000 GAL TANK
   SEE TANK ELEVATION SECTION ON
   THIS SHT FOR ELEVATIONS
6. CONNECT TO 4" TANK OVERFLOW (FLG)
   (1) 4"x3" REDUCER (FLG)
7. 30 LF 3" DI PIPE
8. 3" TEE W/ THRUST BLOCK
9. 16 LF 3" DI PIPE
10. TANK OVERFLOW AND DRAIN DISCHARGE,
    SEE DET 1 SHT D-2
11. CONNECT TO 3" TANK OUTLET (FLG)
    (1) 4"x3" REDUCER (FLG)
    10 LF 3" DI PIPE
12. 3" 90° ELB, W/ THRUST BLOCK
13. 7 LF 3" DI PIPE
14. 3" 90° ELB, W/ THRUST BLOCK
15. 19 LF 3" DI PIPE
16. 3" TEE, W/ THRUST BLOCK
17. 23 LF 3" DI PIPE
18. 3" TEE, W/ THRUST BLOCK
    (2) 3" GV W/ VALVE BOX
19. 7 LF 3" DI PIPE
20. 10 LF 3" DI PIPE
21. 3" 90° ELB, W/ THRUST BLOCK
22. 14 LF 3" DI PIPE
23. CUT INTO EXST 3" PIPE
    3" 90° ELB, W/ THRUST BLOCK
    (1) 3" GV W/ VALVE BOX
    (1) 3" FLANGED COUPLING ADAPTER (EXST PIPE MATERIAL UNKNOWN.
    CONFIRM PIPE MATERIAL AND CONDITION PRIOR TO INSTALLATION).
    (1) 3" CAP ON EXST LINE TO EXST RESERVOIR
24. 45 LF 2" WATER LINE
25. (2) 2" WATER SERVICE CONNECTION PER ISPWC SD-402
26. 35 LF 2" WATER LINE
27. CUT INTO EXST 1 1/2" PIPE
    1 1/2"x2" BALL VALVE PACK JOINT CURB STOP (IPxCTS) W/ VALVE BOX
    (EXST PIPE MATERIAL UNKNOWN. CONFIRM PIPE MATERIAL AND
    CONDITION PRIOR TO INSTALLATION)(EXST MATERIAL ASSUMED TO BE
    1 1/2" IP)
    CAP EXST 1 1/2" PIPE W/ A 1 1/2"x1" BALL VALVE PACK JOINT CURB
    STOP (IPxFIP) AND A 1" BRASS SERVICE PLUG (MIP)
28. NEW WATER METER,
    SEE SYSTEM IMPROVEMENT MAP, SHT C-6 AND DET 3, SHT D-4
29. CONNECT TO 4" TANK DRAIN (FLG)
    (1) 4"x3" REDUCER (FLG)

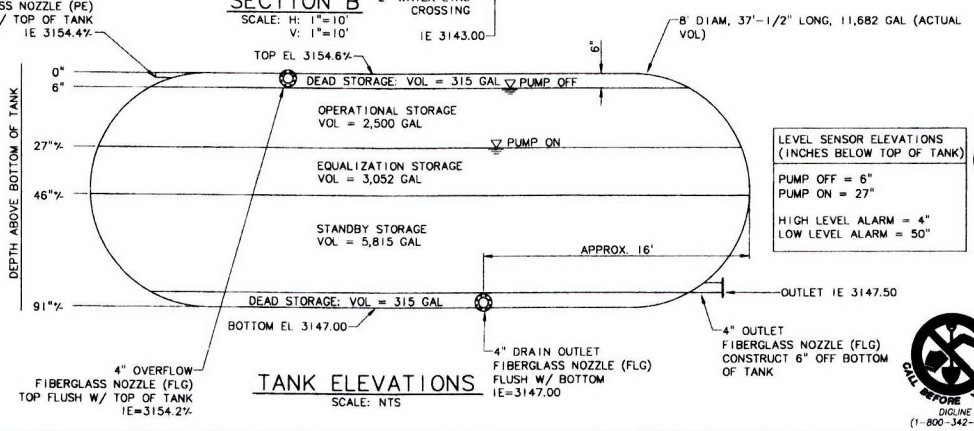






KEY NOTES:

1. 8' DIAM 12,000 GAL XERXES FRP TANK
2. 30" MANWAY W/ HINGED LOCKABLE ACCESS W/ GAUGE PLATE
3. NSF APPROVED FRP LADDER
4. 4" DIP VENT W/ #24 TYPE 304 SST BUG SCREEN, MAINTAIN 2' AIR GAP
5. 2" TOP DOME INLET TANGENTIAL NOZZLE (INLET)(NPT)
6. 4" HORIZONTAL TANGENTIAL NOZZLE (OVERFLOW)(FLG) W/ 4"x3" REDUCER (FLG)
7. 4" BOTTOM DOME OUTLET OFFSET NOZZLE (OUTLET)(FLG) W/ 4"x3" REDUCER (FLG)
8. PRECAST DEADMAN SYSTEM W/HOLD DOWN STRAP AND TURNBUCKLE ASSY. COORD W/ TANK MANUFACTURE FOR SIZE
9. 2" WATER LINE
10. 3" WATER LINE
11. 4" HORIZONTAL TANGENTIAL NOZZLE (DRAIN)(FLG) W/ 4"x3" REDUCER (FLG)



LEVEL SENSOR ELEVATIONS (INCHES BELOW TOP OF TANK)
PUMP OFF = 6" PUMP ON = 27" HIGH LEVEL ALARM = 4" LOW LEVEL ALARM = 50"

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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

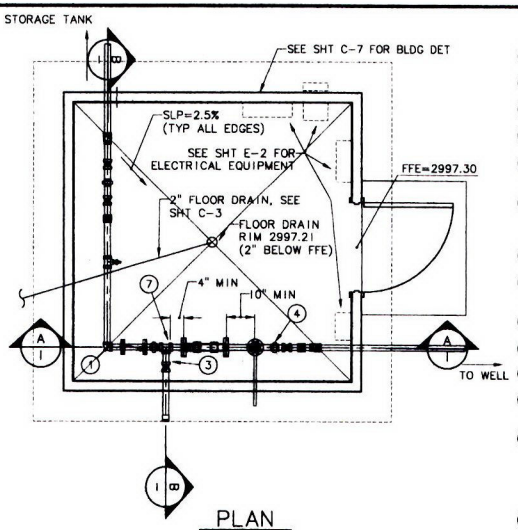
TANK SITE PLAN AND SECTIONS

SHEET C-4 7 of 18

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

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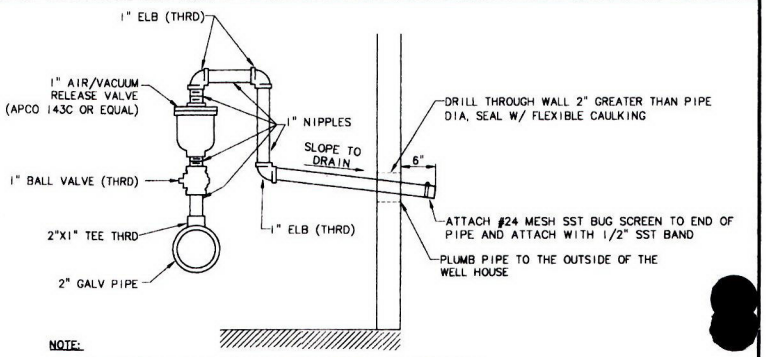
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PLAN
SCALE: 1/2"=1'

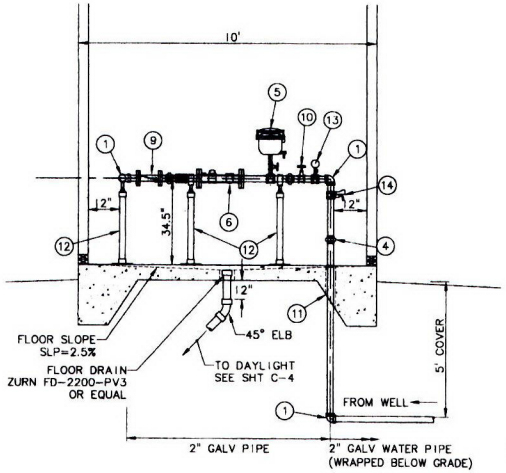
KEY NOTES:

1. 2" 90° BEND (THRD)
2. 2" PACK JOINT COUPLING (FIPxCST)
3. 2" GV (THRD)
4. 2" UNION (THRD)
5. 1" COMBINATION AIR/VAC VALVE (SEE DET 1 THIS SHT)
6. 2" TURBO METER (4 BOLT FLG) INSTANTANEIOUS FLOW & TOTALIZING REGISTER (2) ASTM CL 125 THRD COMPANION FLG
7. 2" TEE (THRD)
8. 2" CAM LOCK FITTING (FIPxMALE ADAPTER) W/ DUST CAP
9. 2" SWING CHKV (FIP)
10. 2" GLOBE VALVE (THRD)
11. FLOOR PENETRATION, SEE DET 2 THS SHT
12. ADJUSTABLE PIPE SADDLE SUPPORT (STANDON NO. S92 OR EQUAL), BOLT TO FLOOR W/ SST BOLT (& EXPANSION ANCHOR W/MIN 2" EMBEDMENT IF IN A CONC SLAB)
13. PRESSURE GAUGE 0/200 PSI RANGE 1/2" SERVICE SADDLE, SINGLE STRAP 1/2" BV (FIP) (2) 1/2"x1" NIPPLE
14. SMOOTH NOSE SAMPLE TAP (MIP) 2"x1/2" TEE (FIP)
15. 2"x1/2" TEE THRD (FIP) (FOR FUTURE SYSTEM CHLORINATION SYSTEM CONNECTION) CONNECT 1/2" PVC INJECTOR QUILL/BACK PRESSURE VALVE
16. 2"x3/4" TEE (FIP) W/ 3/4" HOSE BIB (MIP) W/ INTEGRAL ANTI-SIPHON AND VACUUM BREAKER

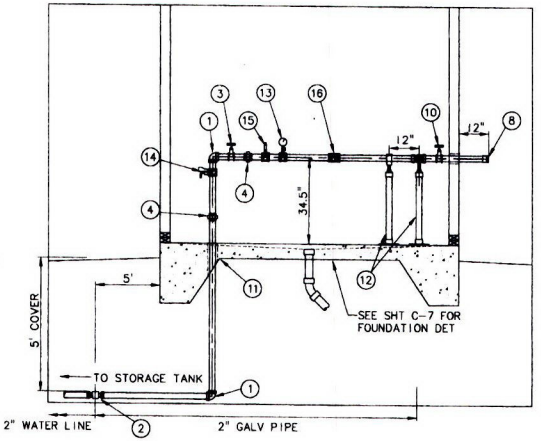


NOTE:
ALL PIPE AND FITTINGS GALV STL. OR BRASS, UNLESS OTHERWISE NOTED

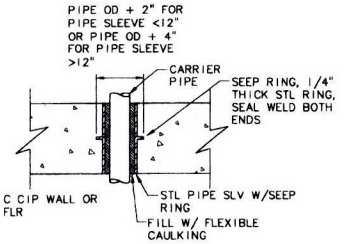
COMBINATION AIR/VAC
RELEASE VALVE IN WELL HOUSE (1)
SCALE: NTS



SECTION A
SCALE: 1/2"=1'



SECTION B
SCALE: 1/2"=1'



NOTE: FLOOR SLEEVE WITH SEEP RING TO BE HOT DIP GALVANIZED.

CONCRETE FLOOR SLEEVE (2)
SCALE: NTS

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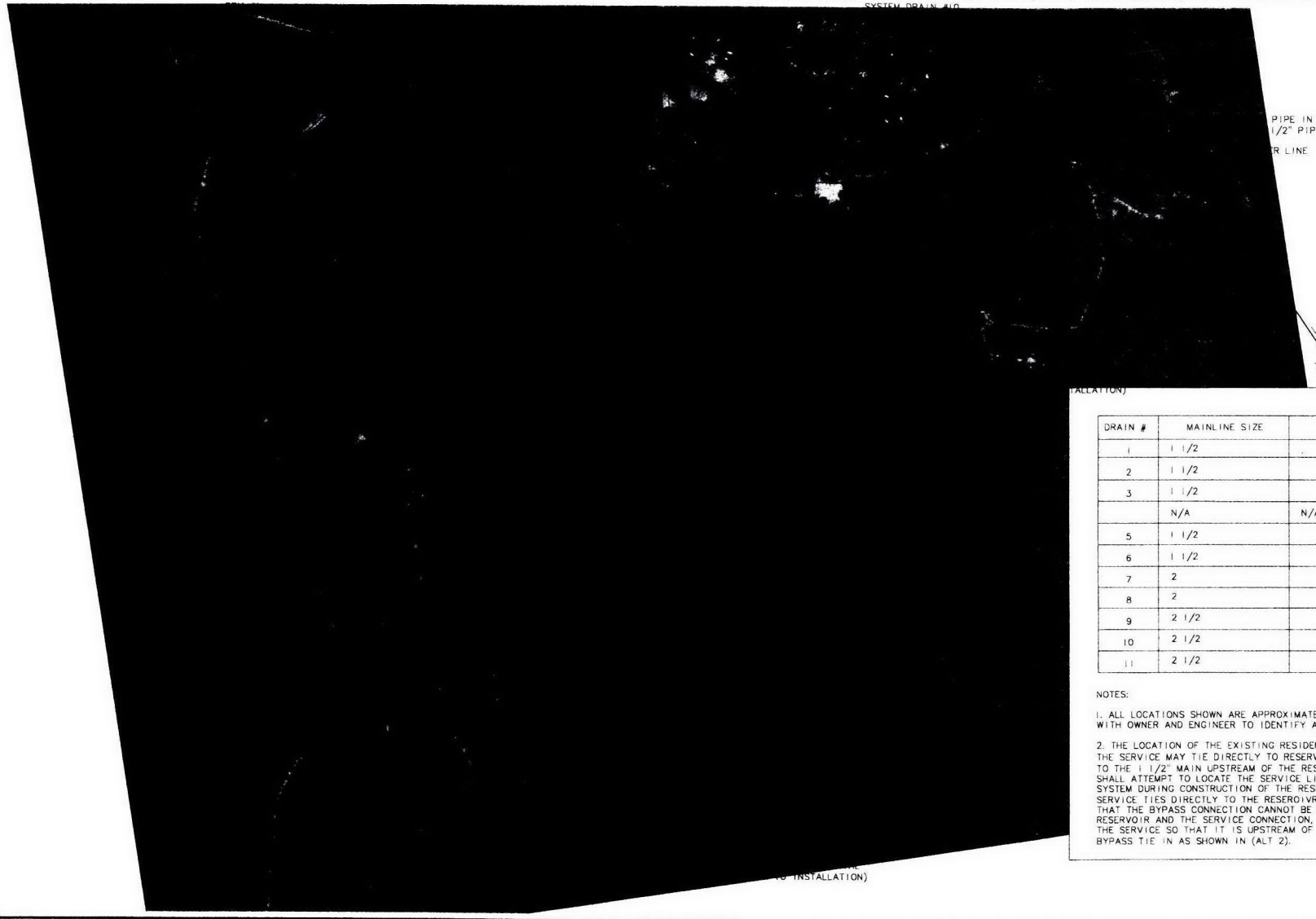
WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

WELL HOUSE PIPING PLAN & SECTIONS

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET C-5
8 of 18

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N

300 150 0 300 600

1 Inch = 300 Feet

DRAIN #	MAINLINE SIZE	COMMENT/LOCATION
1	1 1/2	
2	1 1/2	
3	1 1/2	
	N/A	N/A
5	1 1/2	
6	1 1/2	
7	2	
8	2	
9	2 1/2	
10	2 1/2	
11	2 1/2	

NOTES:

1. ALL LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH OWNER AND ENGINEER TO IDENTIFY AND MARK AREAS FOR IMPROVEMENTS.

2. THE LOCATION OF THE EXISTING RESIDENTIAL WATER SERVICE IS NOT KNOWN. THE SERVICE MAY TIE DIRECTLY TO RESERVOIR #2 (ALT 2) OR IT MAY CONNECT TO THE 1 1/2" MAIN UPSTREAM OF THE RESERVOIR (ALT 1). THE CONTRACTOR SHALL ATTEMPT TO LOCATE THE SERVICE LINE AND CONNECTION POINT TO THE SYSTEM DURING CONSTRUCTION OF THE RESERVOIR BYPASS. IF THE EXISTING SERVICE TIES DIRECTLY TO THE RESEROIVR OR ALONG THE 1 1/2" MAIN, SUCH THAT THE BYPASS CONNECTION CANNOT BE CONSTRUCTED BETWEEN THE RESERVOIR AND THE SERVICE CONNECTION, THE CONTRACTOR SHALL RELOCATE THE SERVICE SO THAT IT IS UPSTREAM OF THE RESERVOIR AND BYPASS TIE IN AS SHOWN IN (ALT 2).

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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

SYSTEM IMPROVEMENTS

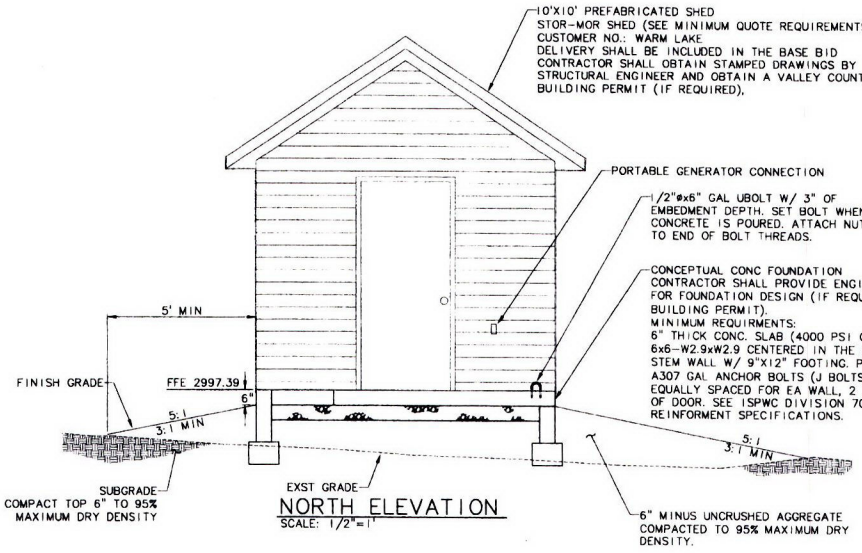
PROJECT NO.: 09-102.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET C-6

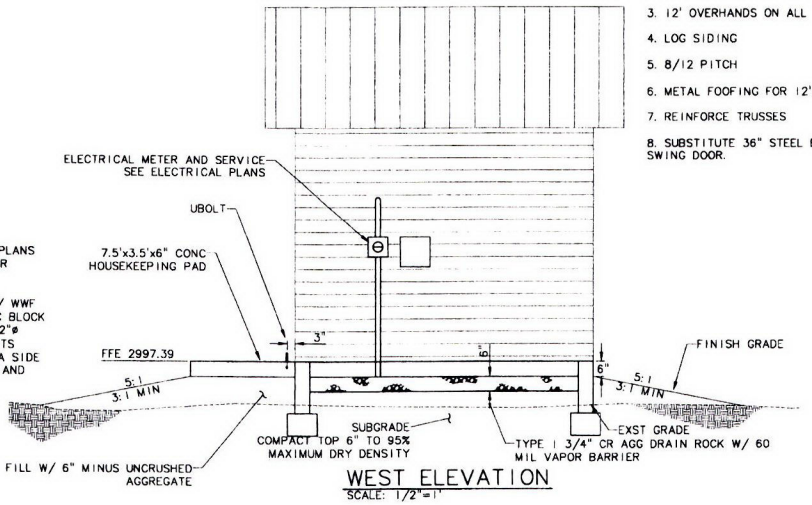
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SCANNED OCT 31 2022



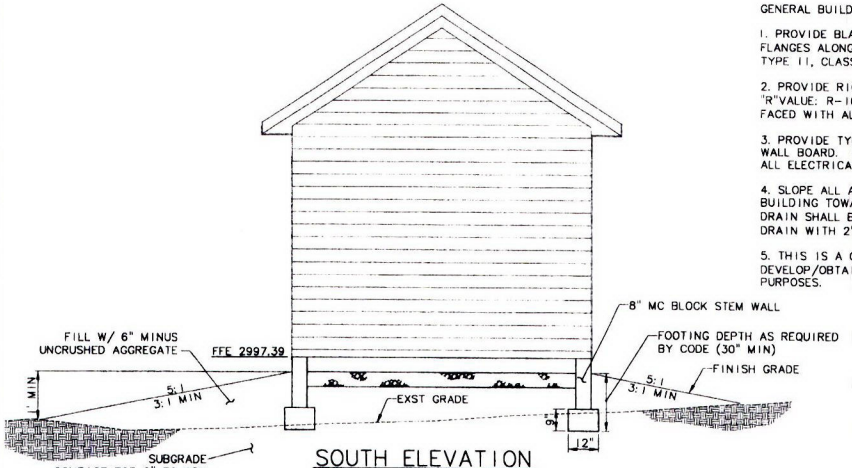
NORTH ELEVATION
SCALE: 1/2"=1'



WEST ELEVATION
SCALE: 1/2"=1'

MINIMUM BUILDING QUOTE REQUIRMENTS:

1. 10'x10' GABLE STYLE BUILDING W/ NO FLOOR - UNPAINTED.
2. 8' HIGH FRAMED SIDEWALLS
3. 12' OVERHANDS ON ALL 4 SIDES
4. LOG SIDING
5. 8/12 PITCH
6. METAL FOOFING FOR 12'x12' ROOF
7. REINFORCE TRUSSES
8. SUBSTITUTE 36" STEEL ENTRY DOOR FOR SWING DOOR.



SOUTH ELEVATION
SCALE: 1/2"=1'

GENERAL BUILDING NOTES:

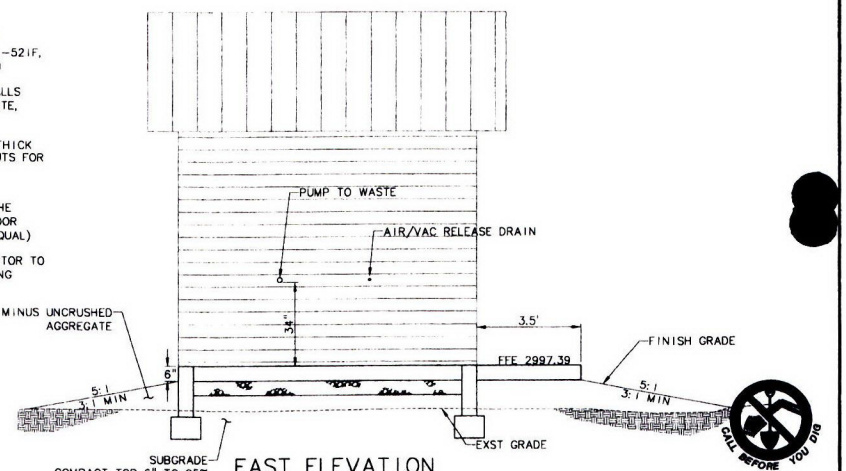
1. PROVIDE BLANKET INSULATION WITH NAILING FLANGES ALONG CEILING "R" VALUE: R-38 (HH-1-521F, TYPE II, CLASS C VAPOR BARRIER FACING UNIT)

2. PROVIDE RIGID INSULATION BOARD ALONG WALLS "R"VALUE: R-10 (HH-1-1972/1 POLYISOCYANURATE, FACED WITH ALUMINUM FOIL ON BOTH SIDES)

3. PROVIDE TYPE III, GRADE R, CLASS 1, 5/8" THICK WALL BOARD. COVER ALL WALLS. PROVIDE CUTOUTS FOR ALL ELECTRICAL PLUGS AND CONNECTIONS.

4. SLOPE ALL AREAS OF CONCRETE PAD WITHIN BUILDING TOWARDS AREA DRAIN AT 2.5% MIN. THE DRAIN SHALL BE A 4 1/2" GENERAL PURPOSE FLOOR DRAIN WITH 2" DRAIN PIPE (ZURN FD2201 OR EQUAL)

5. THIS IS A CONCEPTUAL PLAN ONLY. CONTRACTOR TO DEVELOP/OBTAIN THIER OWN PLAN FOR PERMITING PURPOSES.



EAST ELEVATION
SCALE: 1/2"=1'

CALL BEFORE YOU DIG
DIGLINE
(1-800-342-1585)

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DMB DESIGNED
DMB DRAWN
DG CHECKED

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MSA Murray, Smith & Associates, Inc. Engineers/Planners
850 W. Bannock, Suite 910 Boise, Idaho 83702
PHONE 208.336.2250 FAX 208.336.2251

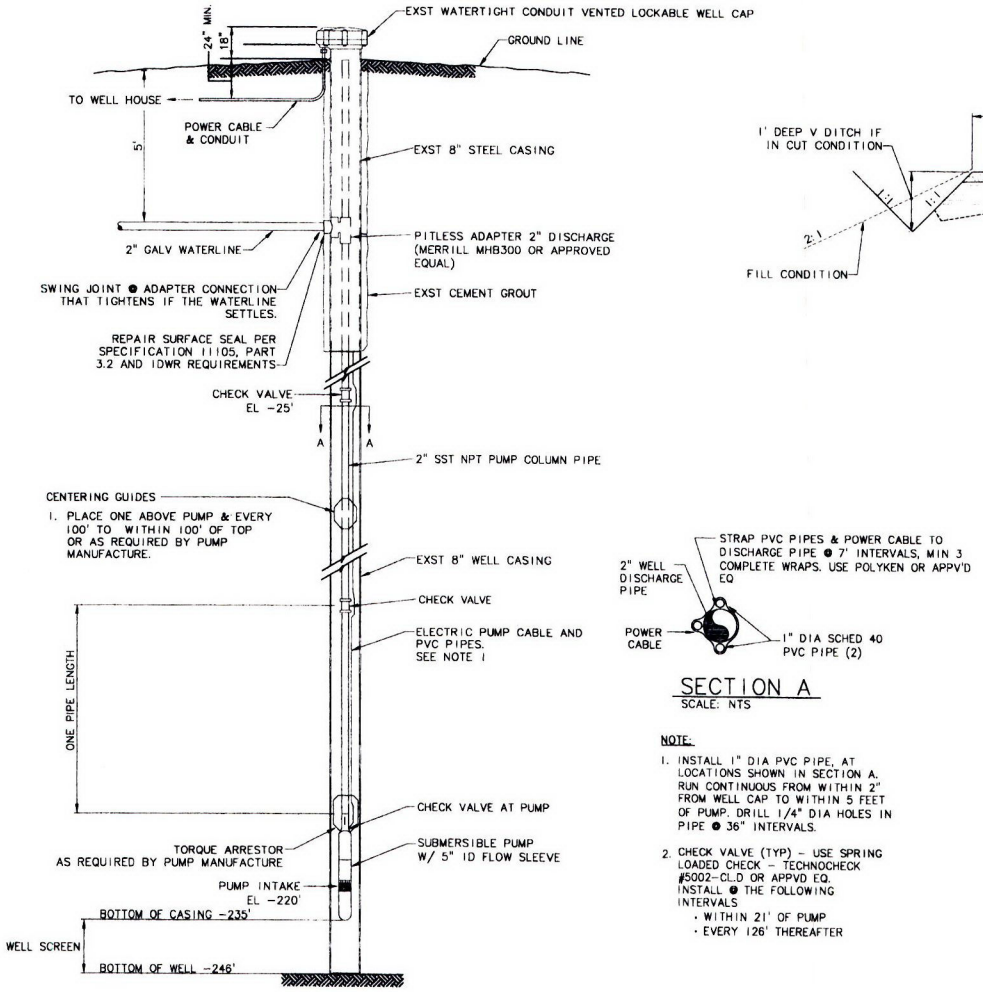
WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

WELL HOUSE SECTIONS

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET C-7
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SCANNED OCT 31 2022



TYPICAL PUMP ASSEMBLY

SCALE: NTS

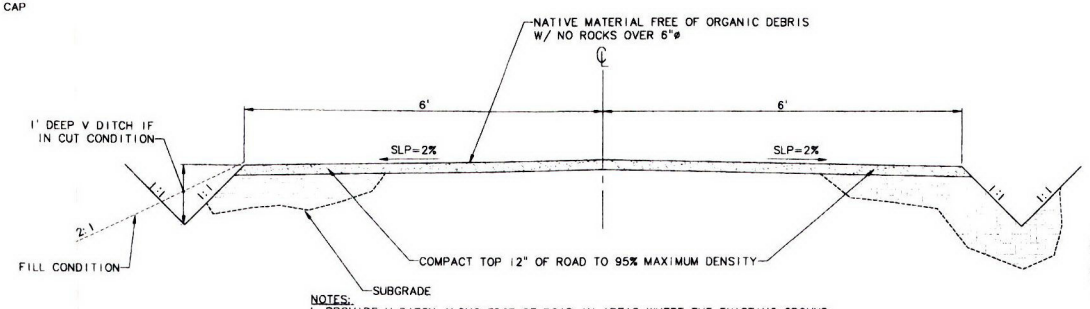
(1)

SECTION A

SCALE: NTS

NOTE:

1. INSTALL 1" DIA PVC PIPE, AT LOCATIONS SHOWN IN SECTION A. RUN CONTINUOUS FROM WITHIN 2" FROM WELL CAP TO WITHIN 5 FEET OF PUMP. DRILL 1/4" DIA HOLES IN PIPE @ 36" INTERVALS.
2. CHECK VALVE (TYP) - USE SPRING LOADED CHECK - TECHNOCHECK #5002-CL.D OR APPVD EQ. INSTALL @ THE FOLLOWING INTERVALS
   - WITHIN 21' OF PUMP
   - EVERY 126' THEREAFTER



NOTES:
1. PROVIDE V DITCH ALONG EDGE OF ROAD IN AREAS WHERE THE EXISTING GROUND SLOPES TOWARDS THE ROAD AND IS ABOVE THE ROAD FINISH GRADE.

ACCESS ROAD SECTION

SCALE: NTS

(2)

CALL BEFORE YOU DIG
DIGLINE
(1-800-342-1585)

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

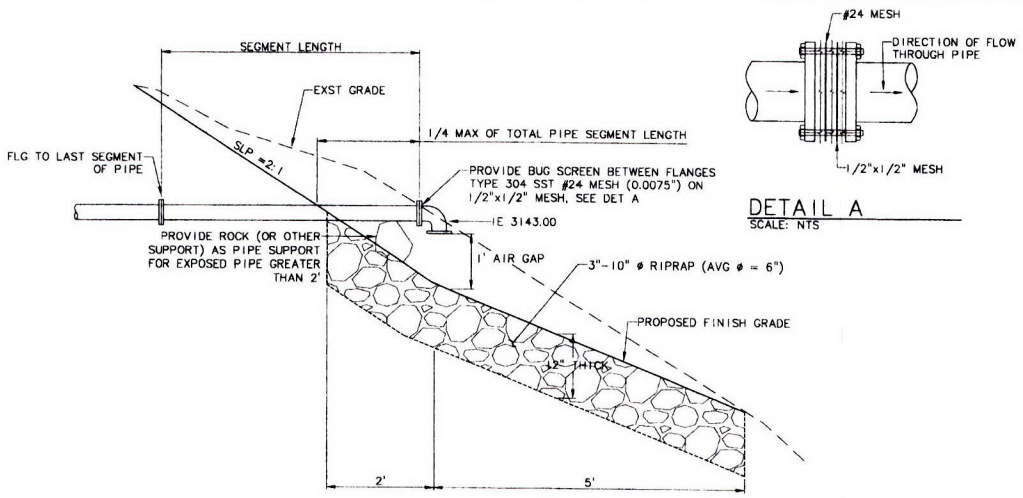
WELL & ACCESS ROAD SECTIONS

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET D-1
11 of 18

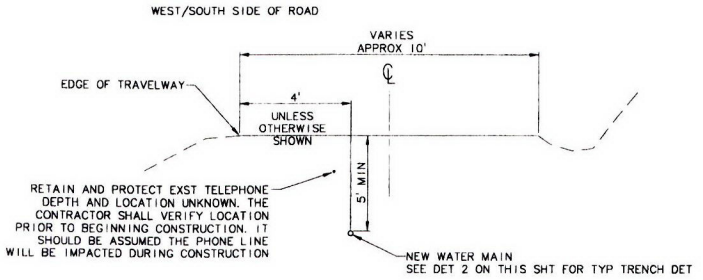
SCANNED OCT 31 2022

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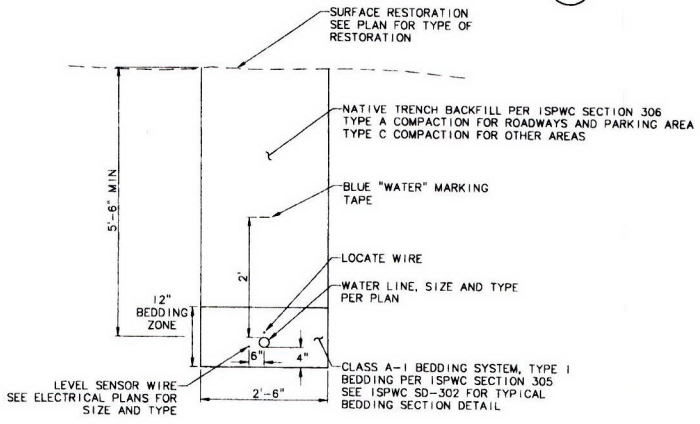


DETAIL A
SCALE: NTS

TANK OVERFLOW/DRAIN DAYLIGHT
SCALE: NTS
1



TYPICAL NEW WATER PIPE LOCATION IN EXST ROAD
SCALE: NTS
3



TRENCHING DETAIL
SCALE: NTS
2

CALL BEFORE YOU DIG
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(1-800-342-1585)

NO.	DATE	BY	REVISION

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0 ½ 1
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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

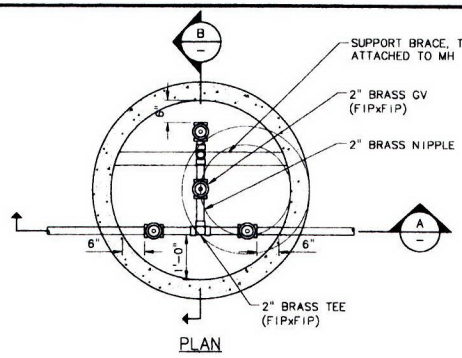
DETAILS

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

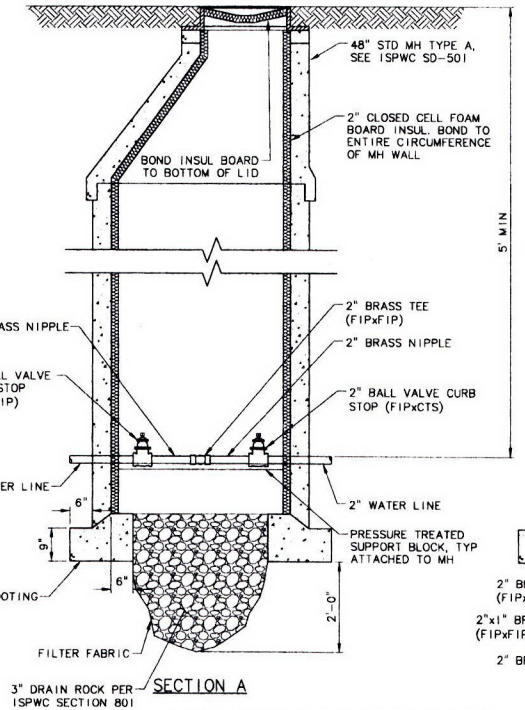
SHEET D-2
12 of 18

SCANNED OCT 31 2022

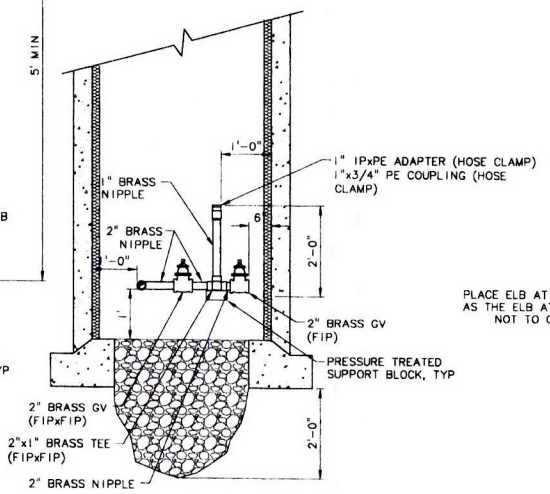
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PLAN

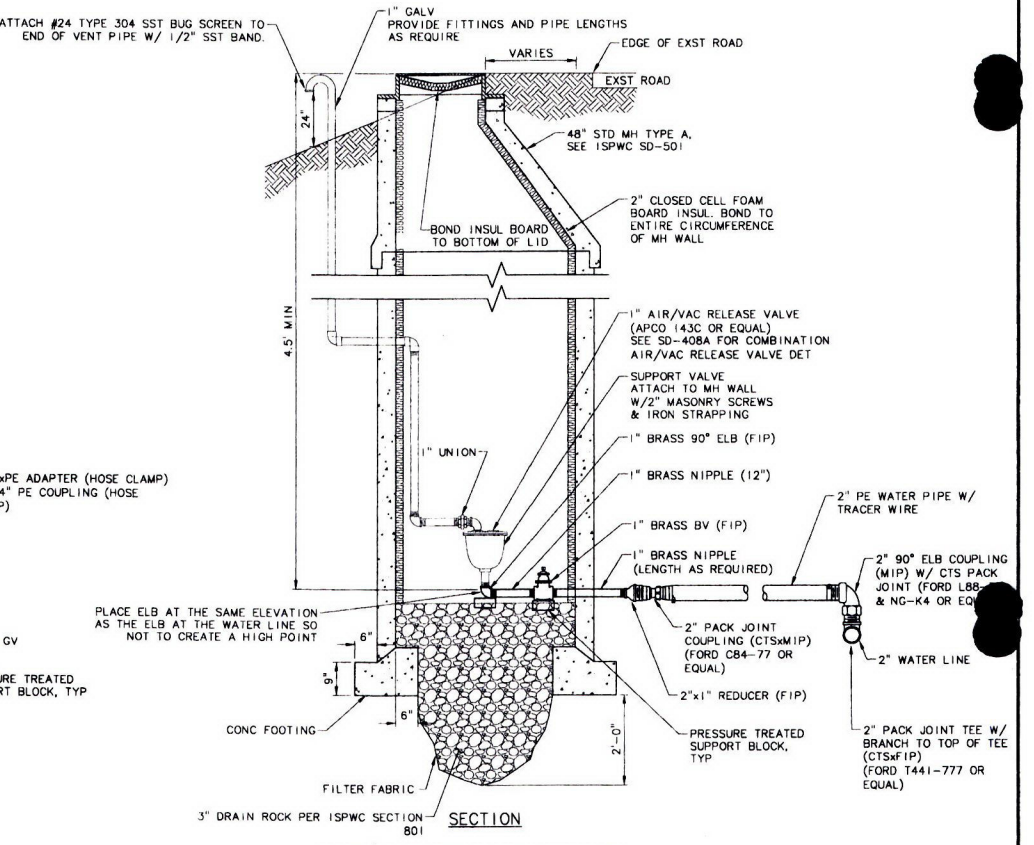


SECTION A



SECTION B

2" DRAIN (PE PIPE INSTALLATION)
SCALE: ¾"=1'-0"



SECTION

AIR/VAC RELEASE VAULT
SCALE: ¾"=1'-0"

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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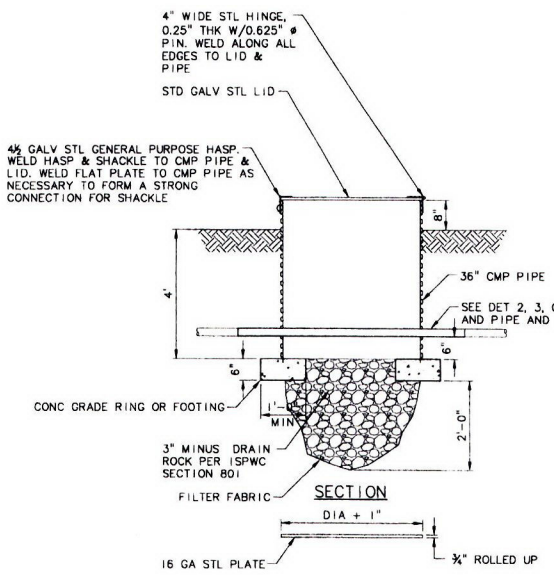
DETAILS

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET D-3
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CMP VALVE VAULT
SCALE: ¾"=1'-0"

1

GENERAL NOTES:

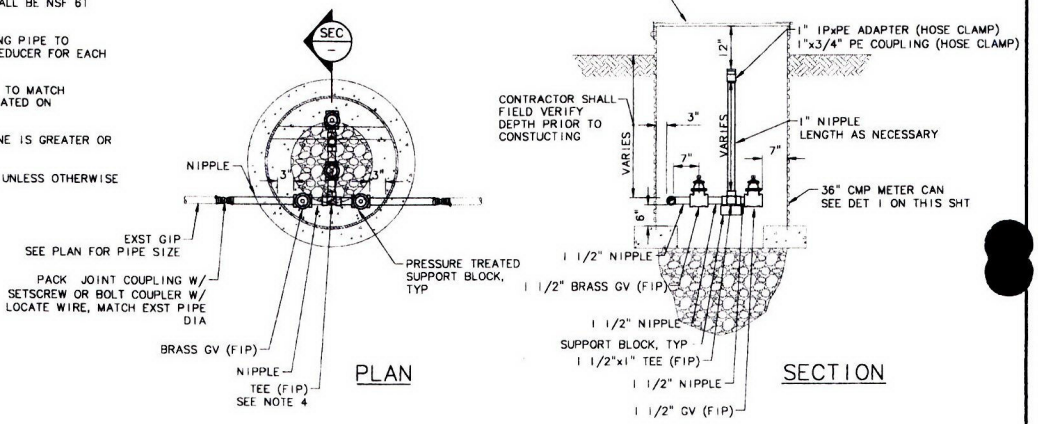
1. ALL PIPING, VALVING, AND FITTINGS SHALL BE NSF 61 CERTIFIED.

2. REFER TO SHT C-6 FOR SIZE OF EXISTING PIPE TO DETERMINE THE PROPER PACK JOINT AND REDUCER FOR EACH DRAIN, METER AND PRV IMPROVEMENT.

3. PROVIDE PIPING, VALVES AND FITTINGS TO MATCH THE SIZE OF THE EXISTING LINE AS INDICATED ON THE PLANS, UNLESS OTHERWISE NOTED.

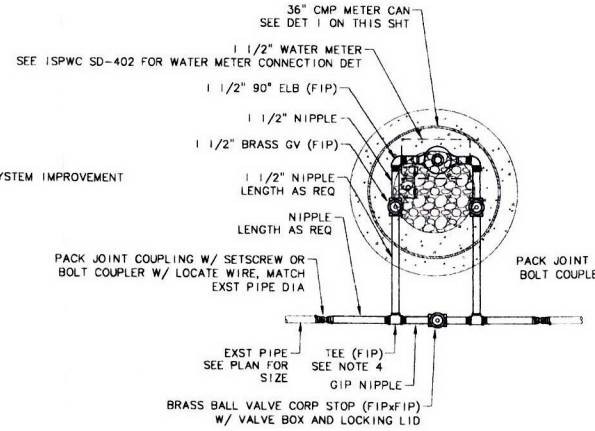
4. PROVIDE REDUCING TEE IF EXISTING LINE IS GREATER OR LESS THAN 1 1/2"

5. ALL NEW PIPING SHALL BE BRASS PIPE, UNLESS OTHERWISE NOTED.



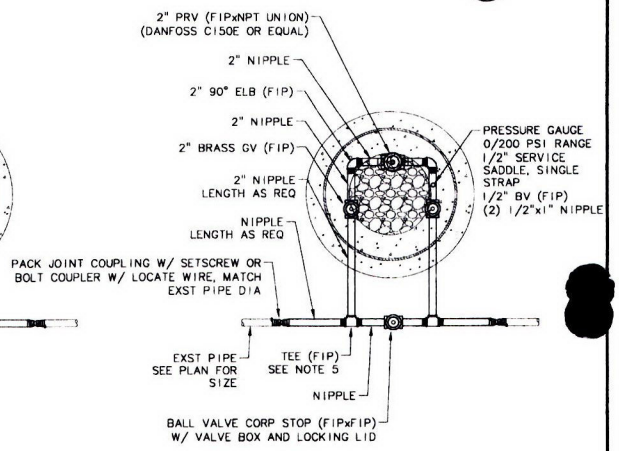
TYPICAL SYSTEM DRAIN
SCALE: ¾"=1'-0"

2



TYPICAL SYSTEM METER
SCALE: ¾"=1'-0"

3



TYPICAL SYSTEM PRV
SCALE: ¾"=1'-0"

4

NO.	DATE	BY	REVISION

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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

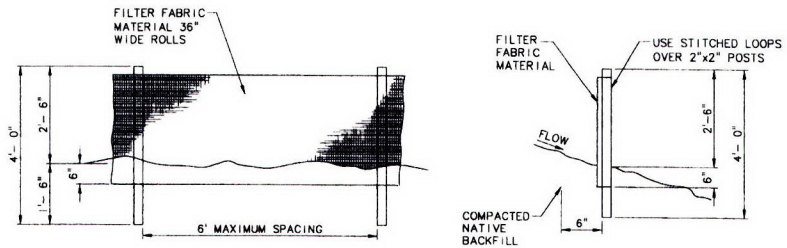
SYSTEM IMPROVEMENT DETAILS

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET D-4 14 of 18

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SEDIMENT FENCE (1)
SCALE: NTS

SEDIMENT FENCE NOTES:

1. POSTS SHALL BE 2"x2" FIR, PINE OR STEEL FENCE POSTS.

2. STITCHED LOOPS TO BE INSTALLED DOWNHILL SIDE OF SLOPE.

3. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND BOTH ENDS SECURELY FASTENED TO THE POST.

4. THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS WHERE FEASIBLE.

5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRE OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES.

6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE.

7. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF THE ABOVE STANDARD NOTE FOR STANDARD STRENGTH FILTER FABRIC APPLYING.

8. FILTER FABRIC/SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

9. FILTER FABRIC/SEDIMENT FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

10. FILTER FABRIC/SEDIMENT FENCES SHALL BE INSTALLED AT THE TOE OF FILL SLOPES AND OTHER AREAS IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT LEAVE THE SITE.

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
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DMB DESIGNED
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WARM LAKE RECREATIONAL WATER DISTRICT 2009 WATER SYSTEM UPGRADES

EROSION CONTROL DETAILS

PROJECT NO.: 09-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

SHEET D-5
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SCANNED OCT 31 2022

WARM LAKE RECREATIONAL WATER DISTRICT

WARM LAKE, ID

PANEL: A	VOLT:120/240	AMP:100	PHASE:1 WIRE:3
LOCATION (ROOM #):	PUMP BLDG	NOTE:	- -
MFG:	SQUARE D	AIC RATING:	SEE ONE LINE
TYPE:	NQOD	GROUND BUS:	YES
TYPE OF MAIN:	MLO	MOUNTING:	SURFACE
FEEDER:	SEE ONE-LINE	FED FROM:	- -

CIRCUIT DESCRIPTION	P/L	BRK AMP	CKT NO	A	B	CKT NO	BRK AMP	P/L	CIRCUIT DESCRIPTION
RECEPTACLES - BLDG INTERIOR	1	20	1	540 / 62		2	20	1	LIGHTING - INTERIOR
RECEPTACLES - BLDG INT./EXT.	1	20	3		360 / 110	4	20	1	LIGHTING - EXTERIOR
CONTROL PANEL	1	20	5	600 / 0		6	20	1	SPARE
SPARE	1	20	7		0 / 0	8	20	1	SPARE
SPARE	1	20	9	0 / 0		10	20	1	SPARE
SPARE	1	20	11		0 / 0	12	20	1	SPARE
SPARE	1	20	13	0 / 0		14	20	1	SPARE
SPARE	2	20	15		0 / 0	16	60	2	SPARE
UNIT HEATER	2	20	17	1300 / 2054		18	60	2	WELL PUMP (5 HP)
" "	"	"	19		1320 / 3034	20	"	"	" "
PHASE TOTALS				5438	4794				
TOTAL WATTS				10232					
TOTAL AMPS				43					

LOAD SUMMARY

EQUIPMENT DESCRIPTION	QUANTITY	UNITS	kVA EA	TOTAL (kVA)	NOTES
Well Pump (5 HP)	1	EA	6.7	6.7	Largest motor.
Misc. Load	1	EA	5.0	5.0	
TOTAL ESTIMATED LOAD:				11.7	kVA
CODE REQUIRED ADJUSTMENT:				13.4	kVA 125% largest motor plus rest of load
AMPACITY:				56	Amps At 240V/1PH
MINIMUM SERVICE SIZE:				100	Amps. Need 120/240V/1PH/3W service.

LIGHT FIXTURE SCHEDULE

TYPE	MAN.	CAT N.	LOC	TYPE	HT	TYPE	NO	VOLT	WATT	REMARKS
1AE	LITHONIA	DM-1-32-MVOLT-GEB10IS-SL14DW	CEILING	SURFACE		F32T8/SP30	1	120	32	NOTE 2
1SE	LITHONIA	TWAC-50M-120-PE-2DC2013-PE-DDBT	WALL	SURFACE	NOTE 3	50W MH	1	120	60	NOTES 1
1R	LITHONIA	ELT50-N-R0-TD	WALL	SURFACE	NOTE 3	N/A		120	50	NOTE 4

NOTES:
1. PROVIDE WITH TWAWG WIREGUARD.
2. PROVIDE WITH EMERGENCY BALLAST AS INDICATED.
3. SEE PLAN FOR MOUNTING HEIGHT.
4. REMOTE BATTERY UNIT FOR EXTERIOR EGRESS LIGHTING. TO POWER TWO 20W LAMPS PER FIXTURE. SEE PLAN VIEW FOR NUMBER OF FIXTURES TO POWER PER UNIT.

SWITCH SCHEDULE

SWITCH TYPE	SWITCH MFG.	SWITCH CAT. NUMBER	VOLTAGE RATING	REMARKS
$	LEVITON	1221-2-E	120	SEE NOTE #1

NOTES
1. DEVICE COVER PLATES TO BE STAINLESS STEEL IN COLOR. UNLESS NOTED OTHERWISE.

RECEPTACLE SCHEDULE

RECEPTACLE TYPE	RECEPTACLE MFG.	RECEPTACLE CAT. NUMBER	VOLTAGE RATING	REMARKS
	LEVITON	8362-E	125	SEE NOTE #1
WP GFI	LEVITON	W7899-00E 5877-GY	125	SEE NOTE #1,2

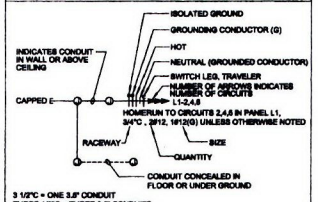
NOTES
1. DEVICE COVER PLATES TO BE STAINLESS STEEL IN COLOR. UNLESS NOTED OTHERWISE.
2. WEATHER RESISTANT TYPE WITH WHILE IN USE WEATHER PROOF COVER.

LEGEND

SYMBOL	LIGHTING
	PENDANT OR SURFACE MOUNTED FLUORESCENT LIGHT FIXTURE, SIZE ON PLANS
	WALL MOUNTED HID FIXTURE

SYMBOL	DEVICES & POWER
$	SWITCH - SPST
	RECEPTACLE - DUPLEX GFI GROUND FAULT INTERRUPT WP WEATHERPROOF
	SPECIAL PURPOSE CONNECTION, WORK AS NOTED
	ELECTRIC MOTOR CONNECTION
	DISCONNECT SWITCH
	CIRCUIT BREAKER
	PANELBOARD, SURFACE MOUNTED
	ELECTRIC METER, BUILDING MOUNTED
	ELECTRIC METER, TRANSFORMER MOUNTED

CIRCUITING SYMBOLS



3 1/2"C = ONE 3.5" CONDUIT
THREE 1/2"C = THREE 0.5" CONDUITS
THREE 3 1/2"C = THREE 3.5" CONDUITS

SYMBOL	ABBREVIATIONS AND MISCELLANEOUS
MTS	MANUAL TRANSFER SWITCH
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
GC	GENERAL CONTRACTOR
C	CONDUIT
GND	GROUND
BOD	BOTTOM OF DEVICE
COD	CENTER OF DEVICE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BLG	BELOW GRADE
AC	ABOVE COUNTER, 4" ABOVE BACK SPLASH
BC	BELOW COUNTER, 4" BELOW COUNTER TOP
W	WITH
a,b,c etc.	SWITCH DESIGNATION
SF	SURFACE
UG	UNDERGROUND
WP	WEATHER PROOF
1/ES.2	INDICATES DETAIL 1 ON SHEET ES.2
(#)	SHEET WORK NOTE.

PERMIT SET - NOT FOR CONSTRUCTION

CTA ARCHITECTS & ENGINEERS

NO.	DATE	BY	REVISION

NOTICE: 0 1 — IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SHANEC DESIGNED
GREGB DRAWN
DARINY CHECKED



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Engineers/Planners
850 W. Bannock, Suite 910
Boise, Idaho 83702
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WARM LAKE RECREATIONAL WATER DISTRICT
2009 WATER SYSTEM UPGRADES

ELECTRICAL
LEGENDS AND SCHEDULES

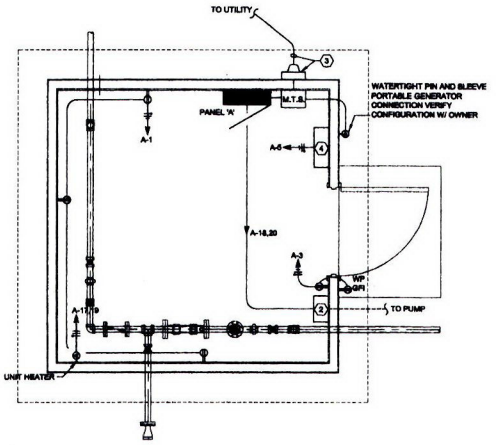
SHEET E-1

PROJECT NO.: 08-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

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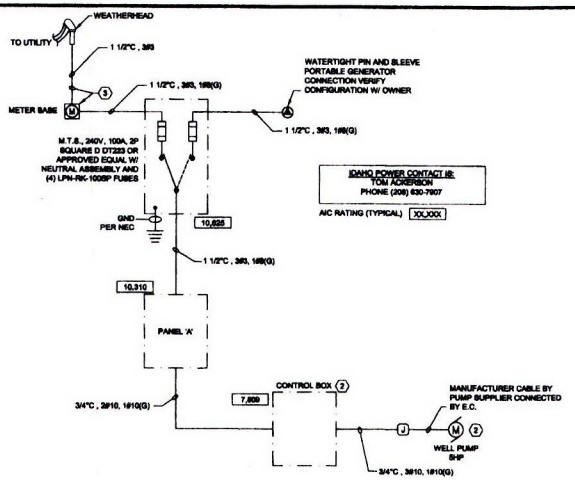
SCANNED
OCT 31 2022



POWER PLAN

SCALE: 1/2" = 1'

1 E-2



ONE-LINE DIAGRAM

SCALE: NONE

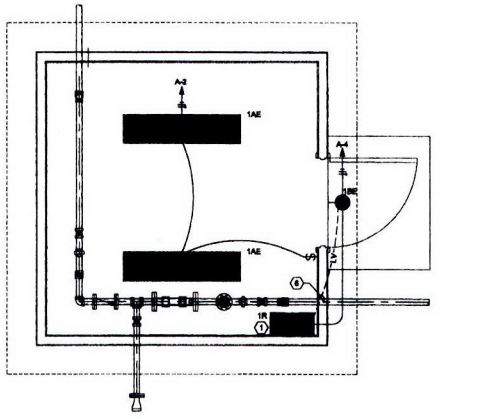
2 E-2

GENERAL NOTES

1. ALL FIXTURES DENOTED AS EMERGENCY (SHADED) REQUIRE AN UNSWITCHED HOT CONNECTION TO THE EMERGENCY BALLAST FROM THE SAME CIRCUIT THAT FEEDS THE NORMAL BALLAST(S) IN THAT FIXTURE.
2. ALL EXPOSED CONDUIT TO BE RIGID GALVANIZED STEEL. UNDERGROUND CONDUIT TO BE PVC SCHEDULE 80, WITH 90 DEGREE ELBOWS BEING PVC COATED RIGID GALVANIZED STEEL.
3. ALL WIRE TO BE THHN/THWN COPPER.

(#) SHEET WORK NOTES

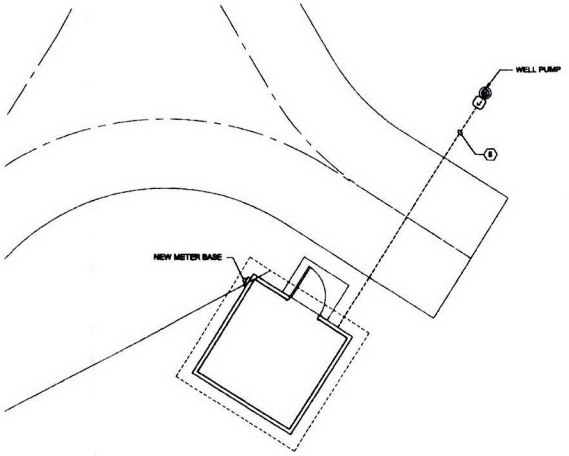
1. EXTERIOR EMERGENCY LIGHTING BATTERY PACK. MOUNT AT +8'-0" AFF.
2. PUMP MOTOR AND CONTROL BOX SUPPLIED BY PUMP SUPPLIER. E.C. RESPONSIBLE FOR ELECTRICAL CONNECTIONS AND CONDUIT. REFER TO SPECIFICATION 1105 SUBMERSIBLE WELL PUMP FOR CONTROL BOX.
3. CONTRACTOR RESPONSIBLE FOR IDAHO POWER APPROVED METER BASE AND ALL CONDUIT AND WIRING ON LOAD SIDE OF METER BASE. E.C. ALSO RESPONSIBLE FOR WEATHERHEAD, CONDUIT AND WIRE FROM WEATHERHEAD TO METER BASE AND AN SUFFICIENT EXTRA CONDUCTOR FOR DRIP LOOP. E.C. RESPONSIBLE FOR POINT OF ATTACHMENT, AND ALL SUPPORT BRACKETS. E.C. TO COORDINATE WITH IDAHO POWER FOR ADDITIONAL REQUIREMENTS INCLUDING METER GROUNDING.
4. LEVEL SENSOR RELAY PANEL, SEE SHEET E-3.
5. TRENCHING, CONDUIT AND WIRE FROM CONTROL BOX TO JUNCTION BY BY E.C. SEE ONE-LINE DIAGRAM.
6. LOW VOLTAGE WIRING TO EMERGENCY LAMPS IN EXTERIOR BUILDING FIXTURE. RUN WIRING IN 1/2"C.



LIGHTING PLAN

SCALE: 1/2" = 1'

3 E-2



WELL SITE PLAN

SCALE: 1" = 5'

4 E-2

PERMIT SET - NOT FOR CONSTRUCTION

CTA ARCHITECTS & ENGINEERS

NO.	DATE	BY	REVISION

NOTICE: 0 1 — IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SHANEC DESIGNED
GREGB DRAWN
DARINY CHECKED

PROFESSIONAL ENGINEER 9881 STATE OF IDAHO GARY GLASSFORD 6/16/2009

Murray, Smith & Associates, Inc.
Engineers/Planners
950 W. Bannock, Suite 910
Boise, Idaho 83702
PHONE 208.388.2250
FAX 208.388.2251

WARM LAKE RECREATIONAL WATER DISTRICT
2009 WATER SYSTEM UPGRADES

ELECTRICAL
POWER AND LIGHTING

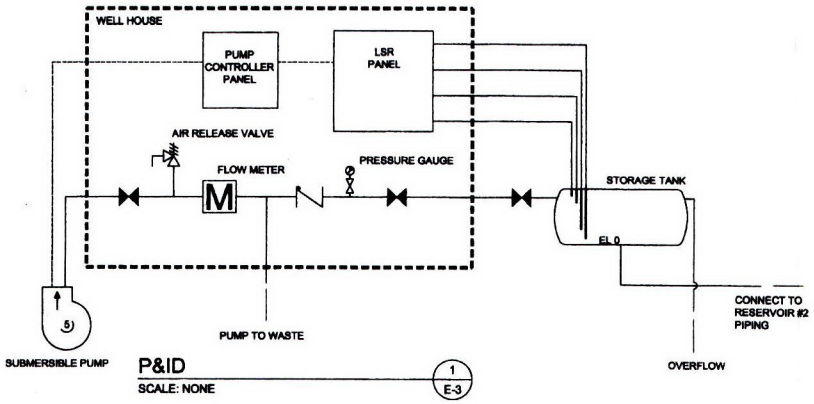
SHEET E-2

17 of 18

PROJECT NO.: 08-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

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SCANNED OCT 31 2022



P&ID
SCALE: NONE
1 E-3

SHEET WORK NOTES	
1.	VERIFY SENSOR PROBE LENGTHS WITH CIVIL DRAWINGS.
2.	PUMP CONTROLLER SEE SHEET E2 .
3.	EC TO PROVIDE ALL NECESSARY EQUIPMENT FOR MOUNTING, WIRING AND PROPER FUNCTION OF RELAYS.
4.	COORDINATE LOCATION OF ALARM BEACON W/ OWNER.
5.	PROVIDE SPARE #16MB1A0 RELAY.
6.	LEVEL SENSOR RELAY PANEL SEE SHEET E-2 FOR LOCATION.
7.	SEE CIVIL SHEETS FOR ROUTING OF CONTROL CABLE FROM WELL HOUSE TO STORAGE TANK.
8.	COORDINATE EXACT MOUNTING CONFIGURATION IN THE FIELD.

LEGEND	
LVN, LVLL, LVWL	WARRICK #16ML1A0
LVHH, LVSPARE	WARRICK #16MB1A0
TANK FITTING	WARRICK #3GSC1
PROBES X	WARRICK #3R0CD LENGTH OF PROBE
PROBE WIRE X	WARRICK #3R0CD LENGTH OF WIRE
ALARM BEACON	EDWARDS BEACON #S2R-NS-40WH-WBR
LSR PANEL	WEIGMANN #S101008CH OR APPROVED EQUAL

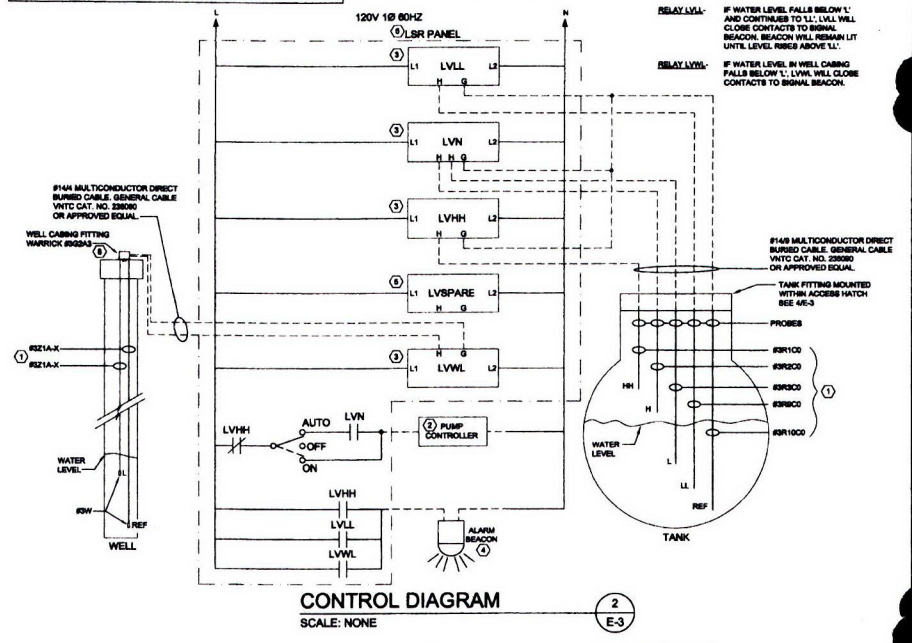
SEQUENCE OF OPERATION

RELAY LVN- IF WATER LEVEL DROPS BELOW 'L', RELAY LVN WILL CLOSE CONTACTS STARTING PUMP. AS WATER LEVEL REACHES 'H' RELAY LVN WILL OPEN CONTACTS TURNING PUMP OFF.

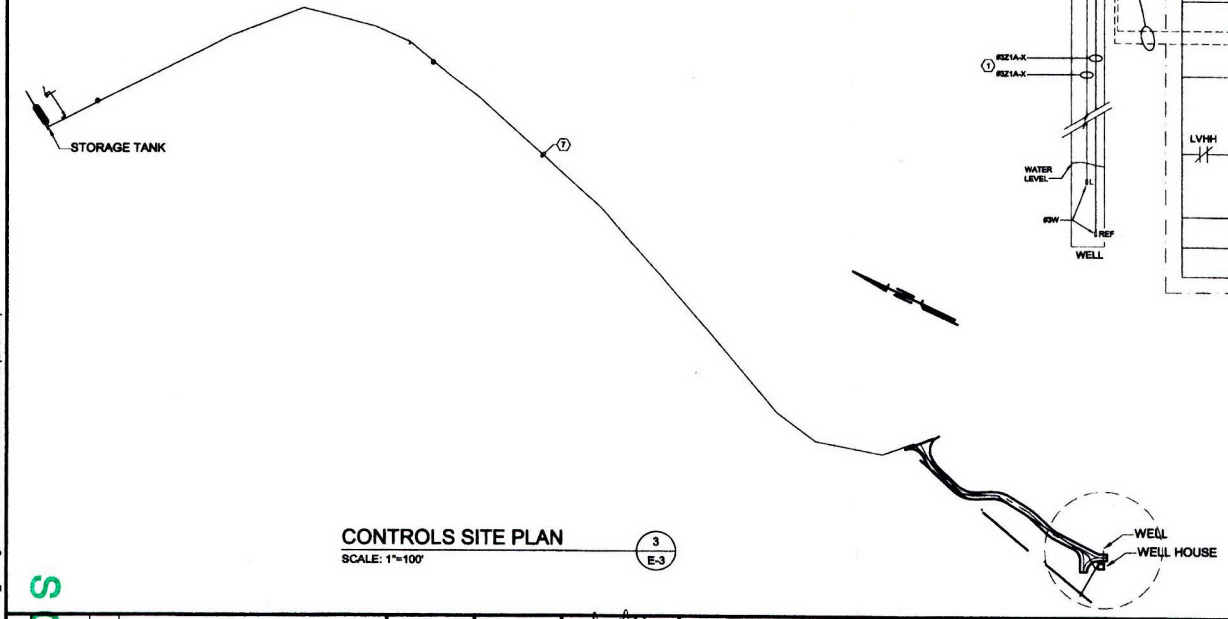
RELAY LVHH- IF WATER LEVEL EXCEEDS 'H' AND CONTINUES TO 'HH', LVHH WILL OPEN NORMALLY CLOSED CONTACTS TURNING THE PUMP OFF AND CLOSING CONTACTS TO SIGNAL BEACON. PUMP WILL REMAIN OFF AND BEACON WILL REMAIN LIT UNTIL LEVEL DROPS BELOW 'H'.

RELAY LVLL- IF WATER LEVEL FALLS BELOW 'L' AND CONTINUES TO 'LL', LVLL WILL CLOSE CONTACTS TO SIGNAL BEACON. BEACON WILL REMAIN LIT UNTIL LEVEL RISES ABOVE 'LL'.

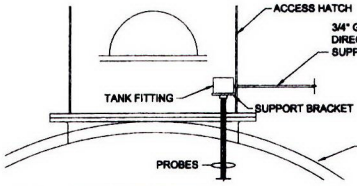
RELAY LVWL- IF WATER LEVEL IN WELL CASING FALLS BELOW 'L', LVWL WILL CLOSE CONTACTS TO SIGNAL BEACON.



CONTROL DIAGRAM
SCALE: NONE
2 E-3



CONTROLS SITE PLAN
SCALE: 1"=100'
3 E-3



TANK FITTING DETAIL
SCALE: NONE
4 E-3

PERMIT SET - NOT FOR CONSTRUCTION

CTA ARCHITECTS & ENGINEERS

NO.	DATE	BY	REVISION

NOTICE: IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

JEREMY L. DESIGNED
JEREMY L. DRAWN
DARIN Y. CHECKED

10614 REGISTERED ENGINEER GARY G. ASSING STATE OF IDAHO 7/17/09

Murray, Smith & Associates, Inc.
Engineers/Planners
350 W. Bannock, Suite 310
Boise, Idaho 83702
PHONE 208.384.2250
FAX 208.384.2251

WARM LAKE RECREATIONAL WATER DISTRICT
2009 WATER SYSTEM UPGRADES

CONTROLS PLAN

SHEET E-3

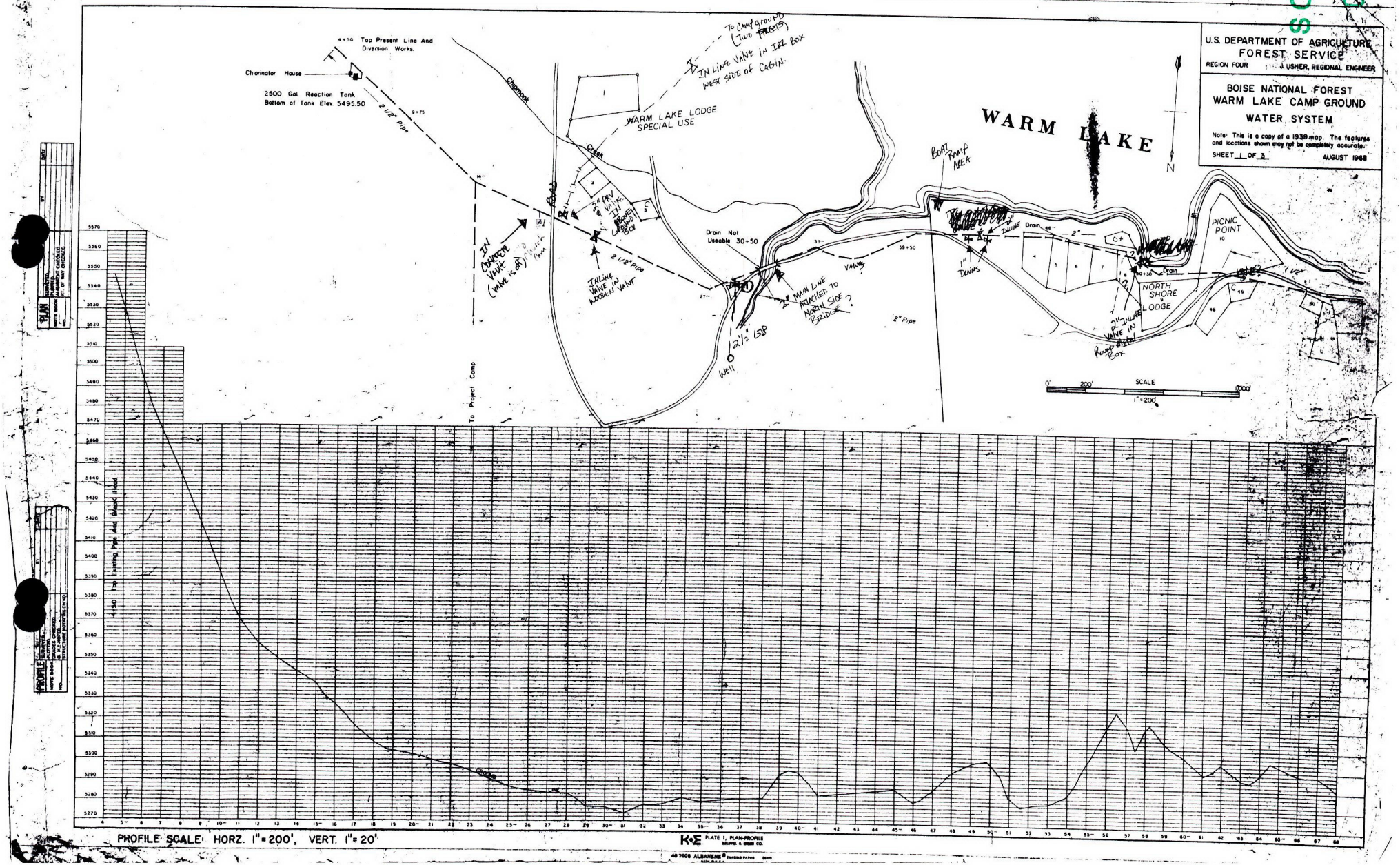
PROJECT NO.: 08-1021.201 | SCALE: AS SHOWN | DATE: MAY 2009

18 of 18

G:\MSA\MLW1\CADD\Sheets\MSW1_E-3.dwg E-3 7/13/2009 11:09 AM JEREMYL 17.2s (LMS Tech)

SCANNED OCT 31 2022

SCANNED
OCT 31 2022



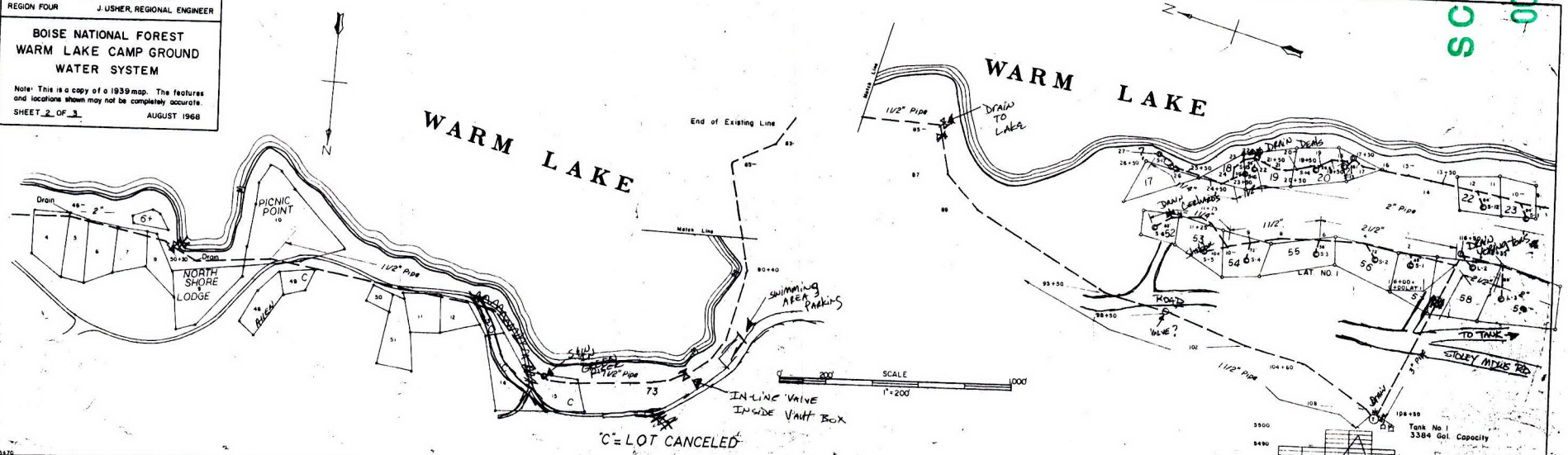
SCANNED
OCT 31 2022

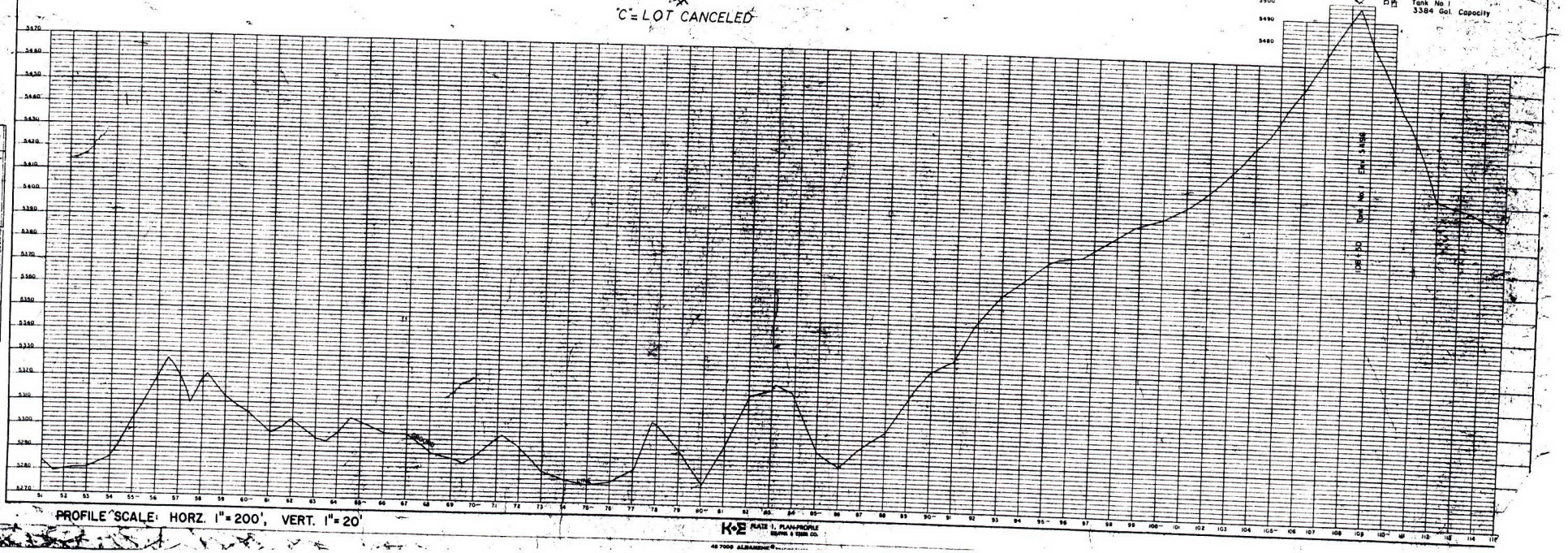
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
REGION FOUR J. USHER, REGIONAL ENGINEER

BOISE NATIONAL FOREST
WARM LAKE CAMP GROUND
WATER SYSTEM

Note: This is a copy of a 1939 map. The features and locations shown may not be completely accurate.

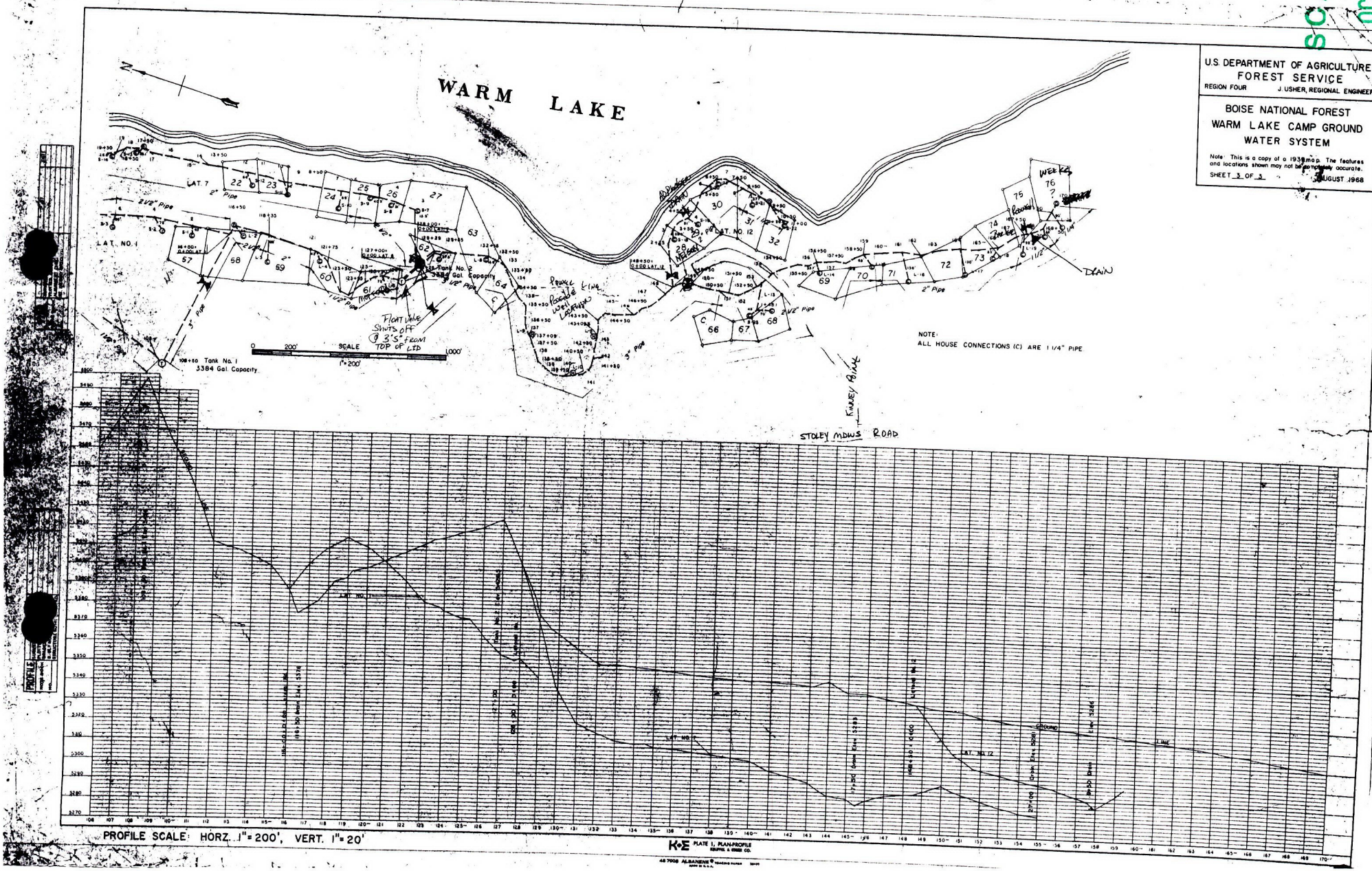
SHEET 2 OF 3 AUGUST 1968





K+E PLATE 1, PLAN-PROFILE

SCANNED
OCT 31 2022



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
REGION FOUR J. USHER, REGIONAL ENGINEER

BOISE NATIONAL FOREST
WARM LAKE CAMP GROUND
WATER SYSTEM

Note: This is a copy of a 1938 map. The features and locations shown may not be completely accurate.

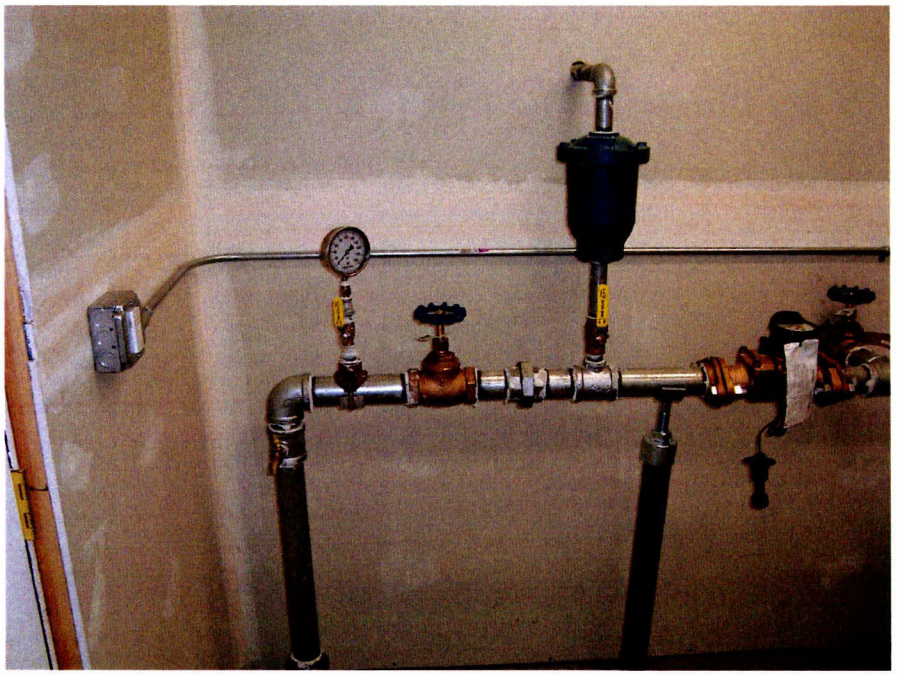
SHEET 3 OF 3

AUGUST 1968





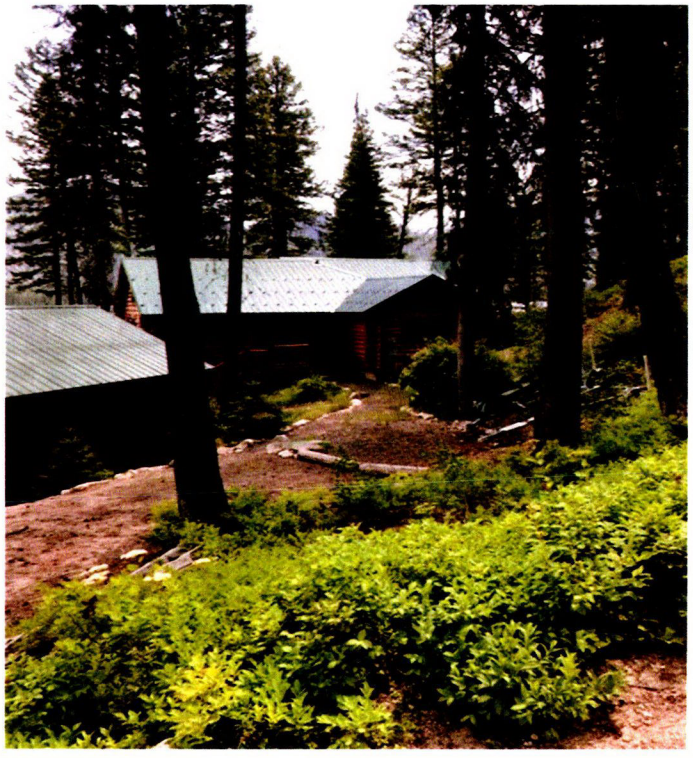
SCANNED
OCT 31 2022





SCANNED
OCT 31 2022





SCANNED
OCT 31 2022

State of [redacted]ho [redacted]
DEPARTMENT OF WATER RESOURCES
Western Region • 2735 W AIRPORT WAY • BOISE, ID 83705-5082
Phone: (208)334-2190 • Fax: (208)334-2348 • Website: www.idwr.idaho.gov

Brad Little
Governor

Gary Spackman
Director

March 12, 2021

UNITED STATES OF AMERICA
USDA FOREST SERVICE
1249 S VINNELL WAY STE 200
BOISE ID 83709-1663

COPY

RE: Water Right Permit No. 77-14317

Dear Permit Holder(s):

The Department of Water Resources is reviewing the permit(s) referenced above prior to issuing water right license(s). By issuing a license, the Department confirms the extent of development that has been established in compliance with the terms of the permit.

The examiner who verified your water use reported that certain elements of the permit(s) have been developed differently than described on your permit(s). Changes that do not increase the authorized use of water under the permit(s) can be requested and approved in accordance with Idaho Code § 42-211. Before license(s) can be issued, your permit(s) must be amended to depict your water use as it was actually developed.

Based on the examiner's report, the following elements were developed differently than described on your permit(s):

__x__ Point(s) of Diversion

_____ Place(s) of Use

_____ Other

The enclosed Application for Amendment form(s) depicts the elements of the water right(s) as they will appear on the license(s) when issued. Please review the amendment form(s) carefully. If you concur with the information presented, please sign and return the form(s) with the filing fee of $100.00 within fourteen (14) days.

If you have any questions, please call me at (208) 605-4627.

Sincerely,

Justin Shearer
Water Resource Agent, Senior

Enclosure(s): Application for Amendment

SCANNED
OCT 31 2022

State of Idaho
DEPARTMENT OF WATER RESOURCES
Western Region • 2735 W Airport Way • Boise ID 83705-5082
Phone: (208) 334-2190 • Fax: (208) 334-2348
Website: idwr.idaho.gov • Email: westerninfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

April 29, 2019

COPY

UNITED STATES OF AMERICA
USDA FOREST SERVICE
1249 S VINNELL WAY STE 200
BOISE, ID 83709-1663

RE: Scheduling Field Exam for Water Right Permit No. 77-14317

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season.** An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **0.200 CFS** from **GROUND WATER** for **DOMESTIC** uses. If **you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable $25 processing fee.

Please contact me within the next thirty (30) days at (208) 334-2190 to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Sincerely,

Justin Shearer
Water Resource Agent, Sr.

Enclosures: Relinquishment of Permit form
Assignment of Permit form
Water Permit Report and Map

SCANNED
OCT 31 2022