42893

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
Alaska Hydrologic Survey

WATER WELL LOG Revised 08/18/2016

Drilling Started: ___/___/_____ Completed: 7 / 6 / 2015 Pump Install: ___/___/_____

City/Borough	Subdivision	Block	Lot	Property Owner Name & Address
Matanuska-Susitna Borough	Merciful Estates		1	Drobenko Investments Llc AK,

Well location: Latitude 61.6014214 **Longitude** -149.354263
Meridian S Township 018N Range 001E Section 31 , SE 1/4 of NE 1/4 of SW 1/4 of SW 1/4

BOREHOLE DATA: (from ground surface)
Suggest T.**M. Hanna's hydrogeologic classification system***
https://my.ngwa.org/NC__Product?id=a185000000BYub3AAD

	Depth From	To
top soil	0	6
loose gravel	6	35
clay gravel	35	68
water gravel	68	87

Include description or sketch of well location (include road names, buildings, etc.):

North

Drilling method: ☒ Air rotary, ☐ Cable tool, ☐ Other _____
Well use: ☒ Public supply, ☐ Domestic, ☐ Reinjection, ☐ Hydrofracking
☐ Commercial, ☐ Observation/Monitoring, ☐ Test/Exploratory, ☐ Cooling,
☐ Irrigation/Agriculture, ☐ Grounding, ☐ Recharge/Aquifer Storage,
☐ Heating, ☐ Geothermal Exploration, ☐ Other _____
Fluids used: _____

Depth of hole: 90 ft Casing stickup: 3 ft
Casing type: STEEL Casing thickness: _____ inches
Casing diameter: _____ inches Casing depth: _____ ft
Liner type: _____ Depth: _____ ft Diameter: _____ inches
Note: _____

Well intake opening type: ☐ Open end, ☐ Open hole, ☒ Other screened
Screen type: _____, Screen mesh size: _____
Screen start: 80 ft, Screen stop: 90 ft, Perforated ☐ Yes ☒ No
Perforation description: _____ Perf from: _____ ft, Perf to: _____ ft, Perf from: _____ ft, Perf to: _____ ft
Gravel packed ☐ Yes ☒ No Gravel start: _____ ft , Gravel stop: _____ ft
Note: _____

Static water (from top of casing): 49 ft on 7 / 6 / 2015 Artesian well ☐
Pumping level & yield: _____ feet after _____ hours at _____ gpm
Method of testing: _____
Development method: _____ Duration: _____
Recovery rate: _____ gpm

Grout type: _____ Volume _____
Depth: From _____ ft, To _____ ft

Final pump intake depth: _____ ft Model: _____
Pump size: _____ hp Brand name: _____

Was well disinfected upon completion? ☐ Yes ☒ No
Method of disinfection: _____
Was water quality tested? ☐ Yes ☒ No
Water quality parameters tested: _____

Well driller name: Ed Bean
Company name: E AND D WATER WELLS
Mailing address: 3530 WEST SPENCE LN
City: WASILLA` State: AK Zip: 99623
Phone number: (907) 373 - 4598
Driller's signature: _____
Date: _____/_____/_____

AS 41.08.020(b)(4) and AAC 11 AAC 93.140(a) require that a copy of the well log be submitted to the Department of Natural Resources within **45 days of well completion**. Well logs may be submitted using the online well log reporting system available at:

https://dnr.alaska.gov/welts/

OR email electronic well logs to

dnr.water.reports@alaska.gov

Anchorage Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require that a copy of this well log be submitted to the Development Services Department/City within **30 days of well completion**.

City Permit Number: _____
Date of Issue: _____/____/_____

Parcel Identification Number: _____-_____-_____

*Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press

E & D Water Wells, LLC

3530 West Spence Ln.
Wasilla, AK 99623
(907) 373-1598 Fax: (907) 357-1598

Borough	Subdivision	Lot	Block	Section QTRS.	Section	Township	Range	Meridian
MatSu	MERCIFUL ESTATES	1						Seward

Location / Sketch

CLASS A

Well Owner

DROBENKO INV.
354-2819

Depths Measured From: ☒ Casing Top ☐ Ground Surface

Well Depth: Depth of Hole: 90 Ft. Depth of Casing: 80 Ft.

Date Of Completion 2.16.15

Borehole Data: Material Type & Color	Depth From	Depth To
Stick up	0	3
Top Soil-mixed	3	9
Loose Sandy Gravel	9	38
Clay Gravel	38	71
Water Gravel	71	90

Depth To Static Water Level: 49' Ft. Below ☐ Top of Casing ☐ Ground Surface
Date: 2.16.15

Method Of Drilling: ☒ Air Rotary ☐ Cable Tool ☐ Other:

Use Of Well: ☐ Domestic ☐ Irrigation ☐ Monitor ☒ Public Supply ☐ Other

Casing Stick-Up: 3' Ft. Dia. 6" In. to ____ Ft.
Casing Type: ASTM A53 SCH 40 Steel In. to ____ Ft.

Well Intake Opening Type: ☐ Open End ☒ Screened ☐ Perforated ☐ Open Hole

Depths Of Openings: 80' To: 90' Ft.

Screen Type: Stainless Steel In. 6"
Slot/Mesh Size: 35 Length: 10' Ft.

Gravel Pack Type: 16/30
Volume Used: ____ Depth to Top: ____

Grout Type: Bentonite Volume: ____
Depth: From 10' Ft. to ground level

Development Method: Air & Submersible
Duration: 4 hours

Pumping Level & Yield: ____ Ft. After 1 Hrs. Pumping 40 gpm

Pump Intake Depth: Ft. Horsepower:
Well Disinfected Upon Completion? ☐ Yes ☒ No

CONTRACTOR INFORMATION:

E & D WATER WELL
Registered Business Name

ED Beam 2-6-15
Signature of Authorization Representative Date

REMARKS: Bentonite was added to casing - Bentonite from 10' Around casing 3" to ground level

JOB #150076015

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF ENVIRONMENTAL HEALTH
Drinking Water Program

1700 E Bogard Rd. Bldg B. Ste 103
Wasilla, Alaska 99654
Main: 907.376.1805
Fax: 907.376.2382
www.dec.alaska.gov

March 7, 2016

Catherine Whaley
Firedance Tutoring Center
2070 N. Merciful Circle
Wasilla, AK 99654

RE: Firedance Tutoring Center
Lot 1, Merciful Estates
Drinking Water System Classification Determination: **Non-Transient Non-Community (NTNC)**
System Approval Required (PR# 9917)

Dear Ms. Whaley:

Thank you for submitting a completed *Public Water System Classification* form. According to the information submitted, this drinking water system will serve a tutoring center with up to 15 staff and 135 students. Based on a review of the submitted information, this drinking water system is classified as a Non-Transient Non-Community public water system

System Classification: Non-Transient Non-Community Water System (NTNC)	
Service Connections & Population Served	
Number of service connections	1
Number of days per year of operation	180
Residents (primary place of abode)	0
Non-transient (>6 months per year)	Up to 150
Transient (<6 months per year)	0

This drinking water system is required to be approved by the department. To request approval, please contract with a professional engineer licensed in the state of Alaska to provide engineering plans for the system to this office for review and approval. (Checklists detailing the submittal requirements are available upon request or online at:
http://dec.alaska.gov/eh/dw/Engineering/Plan_rev_checklist.htm)
The department requests submittal of engineering plans within 60 days of the receipt of this letter. Contact this office to discuss an extension of time if necessary.

Please note, in addition to the plan review and routine water quality monitoring , the Drinking Water Regulations,

18 AAC 80.007, require that this system be actively supervised as described in the Operator Certification Regulations, 18 AAC 74, by operators who are certified in accordance with AS 46.30 and 18 AAC 74. For more information on operator certification requirements contact Ken Smith, Environmental Program Specialist (907-465-5136 or Ken.Smith@alaska.gov.)

The basis for this determination is information submitted by the owner of the system. If the summary above is inaccurate, please contact this office. You are required to contact the department to update this information when it changes. Changes to the water source, treatment (if provided), number of service connections, population served, or number of days of operation may result in a change to the system classification and the associated plan review and monitoring requirements. Contact this office for more information regarding classification determinations.

Appeal Process

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195- 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Requests for an adjudicatory hearing or informal review may be made by mail, electronic mail, or facsimile. Informal review requests must be delivered to the Division Director at 555 Cordova St., Anchorage, Alaska 99501, within 15 days of receipt of this decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, Larry Hartig, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days of this decision. If a hearing is not requested within 30 days, the right to appeal is waived. More information on the Department's administrative appeals process can be found at the following website: http://www.dec.state.ak.us/commish/ReviewGuidance.htm.

If you have any questions or concerns, please don't hesitate to contact me at 376-1805, or via email at gary.ellis@alaska.gov

Sincerely,

Gary Ellis, E.I.T.
Environmental Engineering Associate
Drinking Water Program, Wasilla Office

cc: Scott Forgue and Amy Hill, DEC, Drinking Water Program – via email
Breanna Bullock, DEC, Food Safety & Sanitation – via email
Oran Woolley, DEC, Engineering Support & Plan Review – via email
Ken Smith, DEC, Facilities Group – via email
Mike Erdman, P.E. (Erdman & Associates) – via email

ERDMAN & ASSOCIATES
Consulting Engineers / Water Testing Laboratory

5200 Dunbar Drive
Wasilla, AK 99654

Phone 907-376-6989
Fax 907-373-2157

August 4, 2015

Alaska Department of Environmental Conservation
Attn: Mr. Oran Woolley
1701 N Bogard Road
Wasilla, AK 99654

Re: Firedance Tutoring Center; L1 Merciful Estates; Proposed Onsite Wastewater Disposal System; E&A Project #08092; REQUEST FOR APPROVAL TO CONSTRUCT

Mr. Woolley,

Attached for your review and approval are design drawings, ADEC plan review checklists and owner's statement, as well as a check for the ADEC plan review fee of $360.

Project Description

The proposed project is a conventional onsite septic tank/drainfield. The facility served is a tutoring center, which will have a maximum of 10 staff members, and will serve a maximum of 120 students. Students do not attend full time, but rather have scheduled appointments for tutoring sessions.

Our design criteria and calculations are as follows:

Design Wastewater Flows:

Staff	15 gpd * 10 =	150
Students	10 gpd * 120 =	1,200
Total (Q)		**1,250 GPD**

Septic Tank Sizing:

V = 0.75Q + 1,125 = 0.75(1,250) + 1,125 = 2,063 gallons
Design – 2,500 gallon 2-comp tank

Soil Absorption System Sizing:

Subsurface soils are clean gravel with sand, visually classified as GP-GW
Assumed percolation rate faster than 1 minute/inch
Design calls for ADEC-Approved filter sand – Design Application Rate 0.8 gpd/sq ft

Minimum SAS Size = 1,250 gpd/(0.8 gpd/sq ft) = 1,563 sq ft
Design SAS Size – 30' x 55' = 1,650 sq ft

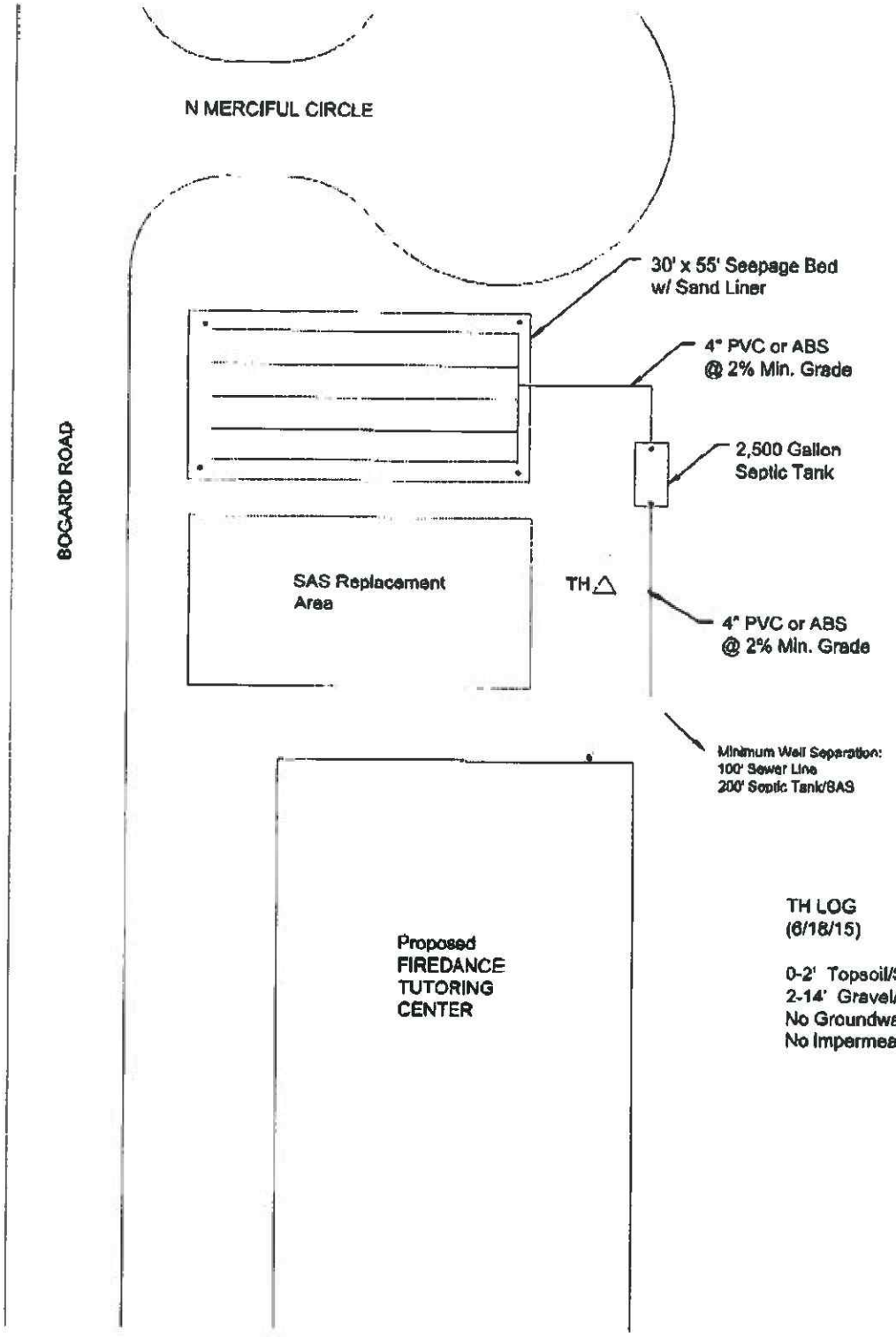
Summary

At this time we are requesting issuance of "Approval to Construct". Thank you for your assistance, and please call or email if you have any questions or need additional information.

Sincerely,

Michael R. Erdman, P.E.

cc: Alex Drobenko
Catherine Whaley

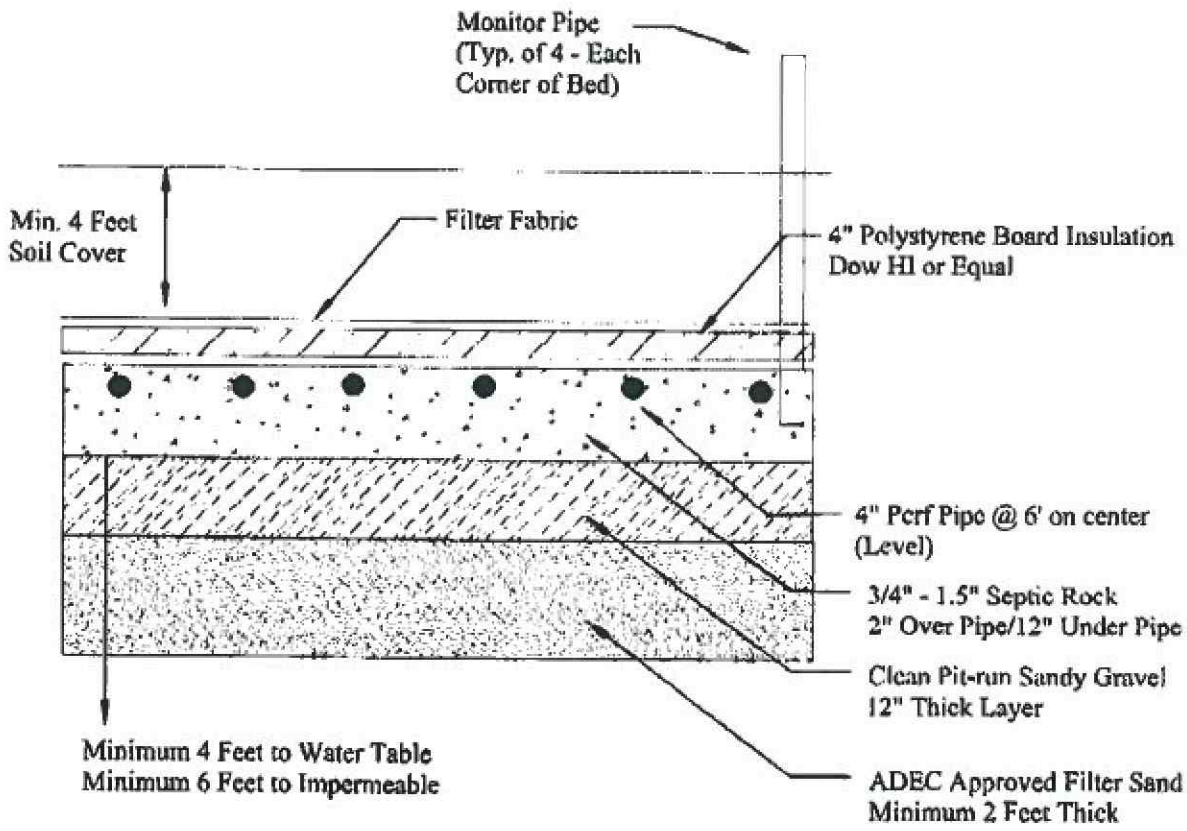


SEPTIC SYSTEM PLAN VIEW

NTS

SEPTIC DESIGN DRAWING Firedance Tutoring Center Wasilla, Alaska		ERDMAN & ASSOCIATES 5200 Dunbar Drive Wasilla, AK 99654	
Sheet 1 of 2	Scale As Noted	Project #15110	4 August 2015

STATE OF ALASKA
49th
Michael P. Erdman
CE 6252
8/4/15
REGISTERED PROFESSIONAL ENGINEER



SEEPAGE BED SECTION

NTS

NOTES:

1. Construction shall be in conformance with ADEC regulations and construction standards (Certified Installer Manual).
2. Contractor shall coordinate with Engineer to allow for inspection of all work prior to burial.
3. Contractor shall be responsible for construction site safety.

SEPTIC DESIGN DRAWING Firedance Tutoring Center Wasilla, Alaska		ERDMAN & ASSOCIATES 5200 Dunbar Drive Wasilla, AK 99654	
Sheet 2 of 2	Scale As Noted	Project #15110	4 August 2015

ALASKA PUBLIC WATER SYSTEM LOCATIONAL DATA COLLECTION FORM

Public Water System Name: Firedance Tutoring Center	**PWS ID#:**
Name of Person Determining Lat/Long: Michael R. Erdman, PE	**Phone:** (907) 232-3140
Name of Person Completing Form: Michael R. Erdman	**Phone** (907) 232-3140
Local Facility Name: Well	**Date Collected:** **Date Completed:**

1) Facility Type. *(Check one)*

Sources: ☑ Wellhead ☐ Surface Water Intake ☐ Treatment Plant

2) The date the latitude and longitude were researched or collected. Example: 06/30/2007

0 3 / 2 4 / 2 0 1 6

3) Latitude in decimal degrees. Must be recorded in WGS 84. For Alaska, latitudes are between 51 and 80 North. Give data to available accuracy. *Example: +56.234230*

\+ 6 1 . 6 0 1 4 2 1

4) Longitude in decimal degrees. Must be recorded in WGS 84. For Alaska, longitudes are generally +126 to -180 West. The minus sign means "West." Use + for "East." *Example: -136.23423*

\- 1 4 9 . 3 5 4 2 7

5) Are the latitude/longitude coordinates taken at the Wellhead /Intake? ☑ Yes ☐ No
If No, describe the proximity to the wellhead/intake ***(for example, 30 feet NW of the wellhead or intake)***

6) Type of GPS Unit used to determine latitude and longitude. (Describe unit and model number)

Samsung Galaxy S5

7.) Lat/long accuracy in meters. GPS accuracy is typically encoded in the unit's display. The datum used must be in WGS 84. *Example: 30. (meters)*

☐ ☐ ☐ 3 0 . Meters

8.) Site map or aerial image identifying the location of the facility must be provided to assist DEC Staff verify the lat/long location in the State geospatial database. (As-build, Google Maps, Google Earth, MSN Live Earth, Yahoo Maps are all acceptable.)

☑ Yes a map with approximate location has been provided.