



April 15, 2025
Job. No. S-25-251

Attention: Mark Overdevest
801-440-6140

Re: Summary Letter
Existing Waste Water System Review

2680 North Highway 39
Parcel# 231140001

Lot 1
Kathy Park Subdivision

1. INTRODUCTION

1.1 GENERAL

This Letter Summarizes the results of a review of an existing on-site wastewater system for the above described lot/parcel located in Weber County, Utah. The data collection was performed by Nathan Bseiso (02891-OSP-III) on April 24th, 2024.

1.2 OBJECTIVE AND SCOPE

The objectives and scope of our services were developed in discussions between Mr. Mark Overdevest and Mr. Nathan Bseiso (Johanson Surveying). At the time the original intent was to perform a topographic survey for possible future development, however knowing septic would be an issue in the future, Johanson surveying did collect available septic data at the time.

On March 21st, 2025 Nathan Bseiso (Johanson Surveying) had a phone conversation with Summer Day (Weber County Health Department). During that conversation, it was discussed the need to have the existing system reviewed for sizing to verify adequate absorption area and sizing. Likewise, we discussed offering my professional advice into possible improvements to avoid future issues.

The objectives of our services were to:

1. Review existing system for sizing restrictions
2. Review system for possible malfunction or failures.
3. Determine system sizing requirements
4. Write report summarizing findings.

In accomplishing the above objectives, our scope included:

1. Review site and collect sizing and location data on available septic tanks and absorption area on site.
2. Review existing site and records
3. Determine possible areas of concern.
4. Calculate required absorption area for proposed site improvements
5. Preparation of this summary letter.

1.3 AUTHORIZATION

Authorization was provided by Mark Overdevest via multiple phone conversations and email.

1.4 PROFESSIONAL STATEMENTS

Supporting data upon which our recommendations are based are presented in subsequent sections of this report as well as provided data from Weber County Health Department and Mark Overdevest. Recommendations presented herein are governed by the provided data and the available data of the existing system and no further testing has been performed on the physical properties of the soils, projected groundwater conditions, bedrock depth, and the layout and design of the system absorption area. If subsurface conditions other than those described in this report are encountered and/or if design and layout changes are encountered or implemented, Johanson Surveying and Waste Water Engineering must be informed so that recommendations can be reviewed and amended, if necessary.

This system review is for a 4 Temporary RV Units (max.) single family dwelling . Failure to uses the system appropriately or over surge of the system could cause a short circuit and system failure.

Our Professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted engineering principals and practices in use at this time in this area.

2. REVIEW OF THE EXISTING SYSTEM

Septic and Pump Tank

Based upon County records and field verification, this site does have an existing septic tank. On the date reviewed the Septic tank was recently pumped, with measured dimensions in engineering scale being....

- Inside Tank Width = 5.4'
- Inside Tank Length = 9.4'
- Fill Depth to I.E. out = 4.0'

Calculated tank size as 1,500 Gal.

	Total Capacity	Filled Volume*
88.9% Full		
U.S. Gallons	1,708.70	1,518.84
Imp. Gallons	1,422.79	1,264.70
Liters	6,468.13	5,749.45
Cubic Meters	6.4681	5.7495
Cubic Feet	228.4200	203.0400

- Supporting Evidence found in A1 pumping Septic System Report dated October 10th, 2023 showing 1,250 gallons and a sludge depth of only 2”.

Absorption Area

Based upon County records and field verification, this site does have an existing Absorption Area. On the date reviewed, the absorption area was not connected to the existing septic tanks. Location was collected but size verification was not possible. Records indicate the available absorption area provided with the design is **1,440 sq./ft** (Reeve and Reeve, Inc septic design; dated June 3rd, 1994).

Effluent Loading Rate

The Loading Rate utilized in original design (Reeve and Reeve, Inc septic design; dated June 3rd, 1994) was **0.35 Gal/Ft/Day**.

3. REVIEW OF REQUIRED SYSTEM

Required Septic System

To best determine the required septic system design calculations for a 4 RV unit development, Johanson Surveying is using the gallons per day rate of 125 (R-317-4 Recreation Vehicle Park-temporary or transient with sewer connection). Utilizing this rate, Johanson Surveying calculations are as follows...

- Daily Wastewater flow
 - $125 \text{ (GPD)} \times 4 \text{ (UNITS)} = 500 \text{ (GPD)}$
- Septic Tank Volume
 - 1,250 Gallon (min.)
- Application Rate (from original design) (Reeve and Reeve, Inc septic design; dated June 3rd, 1994)
 - 0.35
- Minimum required absorption area
 - 1,429 sq/ft.

4. SUMMARY

Based upon the review of the records, provided receipts, and the found onsite data, it is the opinion of Johanson Surveying that **the sizing of the existing system will satisfy the installation of 4 temporary RV pads** (see Professional Statement).

4.1 RECOMMENDATIONS

1. Connect absorption area to tanks

2. Install effluent screen
3. Install/update system alarm for pump tank
4. Secure and protect any water crossing with a metal pipe, securely fastened and grounded on both sides of crossing to protect in case of flooding

We appreciate the opportunity to perform this service for you, If you have any questions, please do not hesitate to call us.

Respectfully submitted,

Nathan Bseiso (02891-OSP-III)



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