

BK: 2024 PG: 2561
Recorded: 10/18/2024 at 2:45:44.0 PM
Pages 23
County Recording Fee: \$0.00
Iowa E-Filing Fee: \$0.00
Combined Fee: \$0.00
Revenue Tax: \$0.00
BRANDY L. MACUMBER, RECORDER
Madison County, Iowa

REAL ESTATE TRANSFER - GROUNDWATER HAZARD STATEMENT
TO BE COMPLETED IN FULL BY TRANSFEROR

If the transaction is exempt from filing a declaration of value pursuant to Iowa Code 428A.1(2), **STOP HERE**. Pursuant to Iowa Code section 558.69(1), when no declaration of value is submitted during a transaction, you are not required to submit a groundwater hazard statement or include the statutory language in Iowa Code section 558.69(8A). Please consult your realtor or legal counsel for further advice, including on whether a declaration of value is required. The Department provides this information for statutory reference only.

Instructions for this document can be found at:
<https://www.iowadnr.gov/Portals/idnr/uploads/forms/5420960%20Instructions.pdf>

Attachment 1, if required, can be found at: <https://www.iowadnr.gov/Portals/idnr/uploads/forms/5420960a.pdf>

TRANSFEROR:

Name Kerry Feldmann
Address 4705 Aspen Drive, West Des Moines, IA 50265
Number and Street or RR City, Town or PO State Zip

TRANSFeree:

Name Ethan S Gwinn
Address 3112 Pleasant View Trail, Preu, IA 50222
Number and Street or RR City, Town or PO State Zip

Address of Property Transferred:

2636 Settlers Trail, Saint Charles, IA 50240
Number and Street or RR City, Town or PO State Zip

Legal Description of Property: (Attach if necessary)

See attached

1. Wells (check one)

- No Condition - There are no known wells situated on this property.
 Condition Present - There is a well or wells situated on this property. The type(s), location(s) and legal status are stated below or set forth on an attached separate sheet, as necessary.

2. Solid Waste Disposal (check one)

- No Condition - There is no known solid waste disposal site on this property.
 Condition Present - There is a solid waste disposal site on this property and information related thereto is provided in Attachment #1, attached to this document.

3. Hazardous Wastes (check one)

- No Condition - There is no known hazardous waste on this property.
- Condition Present - There is hazardous waste on this property and information related thereto is provided in Attachment #1, attached to this document.

4. Underground Storage Tanks (check one)

- No Condition - There are no known underground storage tanks on this property. (Note exclusions such as small farm and residential motor fuel tanks, most heating oil tanks, cisterns and septic tanks, in instructions.)
- Condition Present - There is an underground storage tank on this property. The type(s), size(s) and any known substance(s) contained are listed below or on an attached separate sheet, as necessary.

5. Private Burial Site (check one)

- No Condition - There are no known private burial sites on this property.
- Condition Present - There is a private burial site on this property. The location(s) of the site(s) and known identifying information of the decedent(s) is stated below or on an attached separate sheet, as necessary.

6. Private Sewage Disposal System (check one)

- No Condition - All buildings on this property are served by a public or semi-public sewage disposal system.
- No Condition - This transaction does not involve the transfer of any building which has or is required by law to have a sewage disposal system.
- Condition Present - There is a building served by private sewage disposal system on this property or a building without any lawful sewage disposal system. A certified inspector's report is attached which documents the condition of the private sewage disposal system and whether any modifications are required to conform to standards adopted by the Department of Natural Resources. A certified inspection report must be accompanied by this form when recording.
- Condition Present - There is a building served by private sewage disposal system on this property. Weather or other temporary physical conditions prevent the certified inspection of the private sewage disposal system from being conducted. The buyer has executed a binding acknowledgment with the county board of health to conduct a certified inspection of the private sewage disposal system at the earliest practicable time and to be responsible for any required modifications to the private sewage disposal system as identified by the certified inspection. A copy of the binding acknowledgment is attached to this form.
- Condition Present - There is a building served by private sewage disposal system on this property. The system is failing to ensure effective wastewater treatment or is otherwise improperly functioning, and the buyer has executed a binding acknowledgment with the county board of health to install a new private sewage disposal system on this property within an agreed upon time period. A copy of the binding acknowledgment is provided with this form.
- Condition Present - There is a building served by private sewage disposal system on this property. The building to which the sewage disposal system is connected will be demolished without being occupied. The buyer has executed a binding acknowledgment with the county board of health to demolish the building within an agreed upon time period. A copy of the binding acknowledgment is provided with this form. [Exemption #7]
- Condition Present - There is a building served by private sewage disposal system on this property. This property is exempt from the private sewage disposal inspection requirements pursuant to the following Exemption [Note: for exemption #7 use prior check box]: _____
- Condition Present - There is a building served by private sewage disposal system on this property. The private sewage disposal system has been installed within the past two years pursuant to permit number: _____

Review the following two directions carefully:

- A. If you selected a box stating "No Condition" for every numbered section above, **STOP HERE**. Do not submit this form. Instead, pursuant to Iowa Code section 558.69(8A), you must include the following language on the first page of the recorded deed, instrument, or other writing:

"There is no known private burial site, well, solid waste disposal site, underground storage tank, hazardous waste, or private sewage disposal system on the property as described in Iowa Code section 558.69, and therefore the transaction is exempt from the requirement to submit a groundwater hazard statement."

Please consult your realtor or legal counsel for further advice on this exemption. By law, the owner of the property is responsible for the accuracy of this statement, and the Department provides this information for statutory reference only.

- B. If you checked any box stating "Condition Present" for any of the numbered sections above, continue below. You must complete this form, including providing all required information, and you must submit this form to the county recorder's office with declaration of value.

Information required by statements checked above should be provided here or on separate sheets attached hereto:

I HEREBY DECLARE THAT I HAVE REVIEWED THE INSTRUCTIONS FOR THIS FORM AND THAT THE INFORMATION STATED ABOVE IS TRUE AND CORRECT.

Signature:  Telephone No.: 515-480-6556
(Transferor or Agent)

Legal attachment

Parcel "B" located in the Southwest Quarter (1/4) of Section Thirty (30) in Township Seventy-five (75) North, Range Twenty six (26) West of the 5th P.M., Madison County, Iowa, containing 17.00 acres, as shown in Plat of Survey filed in Book 2006, Page 5189 on December 14, 2006, in the Office of the Recorder of Madison County, Iowa.

Locally known as 2636 Settlers Trail, Saint Charles, IA 50240

TIME OF TRANSFER INSPECTION TOT# 12325 SETH BROWN CERT # 13190

Site Information

Parcel Description: **500093060024000**
Address: **2636 Settlers Trl, St. Charles, IA 50240** County: **Madison**

Owner Information

Property is owned by a business: **No**
Business Name:
Owner Name: **Kerry Feldmann**
Email Address: **kerryafeldmann@gmail.com**
Address: **2636 Settlers Trl, St. Charles, IA 50240**
Phone No: **515-450-6556**

Additional Contact Information

| Name | Email Address | Affiliate Type |
|--------------------|------------------------------|----------------|
| David Avery | dave@daveryrealty.com | Realtor |

Site related information

| | |
|---|--|
| No Of Bedrooms: 5 | Inspection Date: 09/25/2024 |
| Facility Type: Residential | Currently Occupied: No |
| Last Occupied: 09/25/2024 | System Installation Date: |
| Permit issued by County: No | Permit Number: |
| All plumbing fixtures enter septic system: Yes | County contacted for records: Yes |
| Property Information Comments: | |

Primary Treatment

Tank 1

| | | |
|--------------------------------|------------------------------------|--|
| Tank Name: Tank 1 | Type: Septic Tank | Tank Size (Gal): 2000 |
| Tank Material: Concrete | Tank Corrosion Type: Slight | Liquid Level Type: Normal |
| No. of Compartments: 2 | Pump Tank Chamber: No | Licensed Pumper Name: Rogers Septic |

| | | | |
|-------------------------------|-------------------------------------|-----------------------------------|-------------------------------------|
| Date Pumped: 9/25/2024 | Meets Setback to Well: N/A | Well Type: | |
| Distance To Well (Ft.): | Is Accessible: Yes | Lid Intact: Yes | |
| Risers Intact: Yes | Effluent Filter Present: Yes | Watertight: Yes | |
| Tank/Vault Pumped: Yes | Inlet Baffle Present: Yes | Outlet Baffle Present: Yes | Functioning as Designed: Yes |
| Tank Comments: | | | |

General Primary Treatment Comments:

Distribution Type

Drop Box 1

| | | |
|------------------------------------|-----------------------------------|------------------------|
| Label: Drop Box 1 | Material Type : Plastic | Accessible: Yes |
| Box Opened: Yes | Speed Levelers Present: No | Watertight: No |
| Functioning As Designed: No | | |

Distribution Box 1

| | | |
|----------------------------------|-------------------------------------|------------------------------------|
| Label: Distribution Box 1 | Material Type: Plastic | Accessible: Yes |
| Box Opened: Yes | Baffle Present: Yes | Speed Levelers Present: Yes |
| Watertight: Yes | Functioning As Designed: Yes | |

Distribution Box 2

| | | |
|----------------------------------|-------------------------------------|------------------------------------|
| Label: Distribution Box 2 | Material Type: Plastic | Accessible: Yes |
| Box Opened: Yes | Baffle Present: No | Speed Levelers Present: Yes |
| Watertight: Yes | Functioning As Designed: Yes | |

General Distribution System Comments : **Outlet pipe goes out into a splitter box/dropbox, distributing water to two distribution boxes. This splitter box is cracked/broken on the bottom indicating the box is not watertight. Also one of the plugs is not fully sealed in box. Lid is cracked as well. No baffle and only 1 speed leveler. I put another speed leveler on there so I could continue testing properly.**

Secondary Treatment

Lateral Field1&2

| | | |
|--|--|--|
| Distribution Type: Distribution Box | Material Type: Leaching Chamber | Trench Width: 36 |
| Lines: 10 | Total Length of Absorption Line: 1000 | System Hydraulic Loaded: Yes |
| Gallons Loaded: 200 | Meets Setback to Well: N/A | Well Type: |
| Distance To Well (Ft.): | Lateral Lines Probed: Yes | Saturation or Ponding Present: No |
| Grass Cover Present: Yes | Lateral Lines Equal Length: Yes | System Located on Owner Property: Yes |
| Easement Present: N/A | Functioning as Designed: Yes | |

Comments:

General Secondary Treatment Comments:

Narrative Report

TOT Inspection Report Overall Narrative Comments: **All wastewater goes to septic. 2000 gallon watertight concrete septic tank in working with slight deterioration. Accessible by inlet and outlet risers and lids to ground surface. Inlet and outlet baffles present, outlet filter present. Outlet pipe goes out into a splitter box, equaling distributing water to two distribution boxes. This splitter box is cracked/broken on the bottom indicating the box is not watertight. Also one of the plugs is not fully sealed in box. Lid is cracked as well. No baffle and only 1 speed leveler. I put another speed leveler on there so I could continue testing properly. 1st distribution box in working condition. Baffle and speed levelers present. 5 laterals going out of dbox. 2nd distribution box in working condition. No baffle present, speed levelers present. Hydraulic load tested(via house) 10x100 equaling 1000 ft of chambered laterals with 200 gallons. Each lateral took water, probed dry and clean.**

TIME OF TRANSFER INSPECTION TOT# 12325 SETH BROWN CERT # 13190

Owner Name: **Kerry Feldmann**

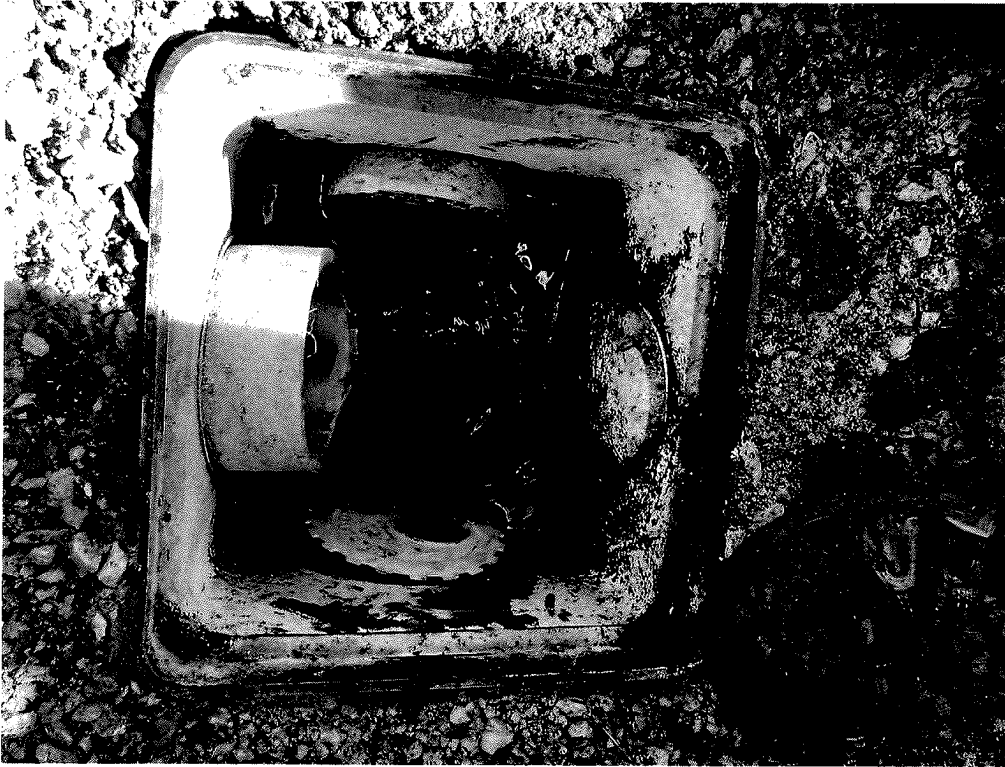
Address: **2636 Settlers Trl , St. Charles , IA 50240**

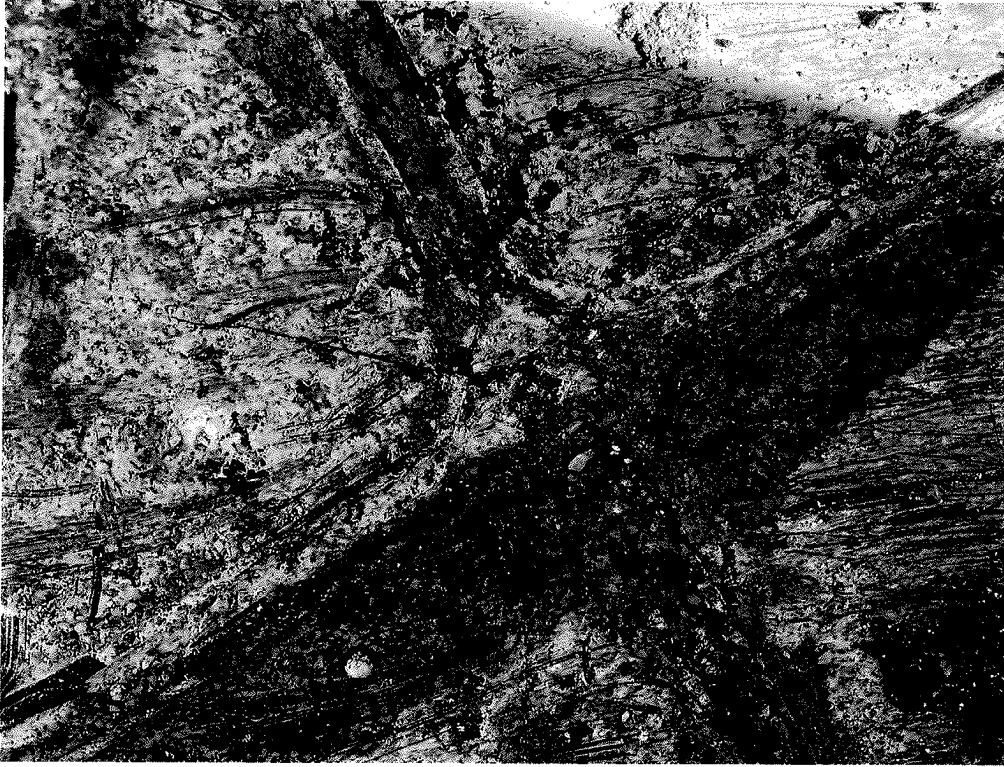
County: **Madison**

Inspection Date: **09/25/2024**

Submitted Date: **9/25/2024**

This page certifies a Time of Transfer inspection was conducted and submitted for the property listed above in accordance with Subrule 567 IAC 69.2(8).





Madison County
Office of Zoning and
Environmental Health

**Authorization to Construct a
Private On-site Wastewater
Treatment System (POWTS)**

112 N. John Wayne Drive
P.O. Box 152
Winterset, IA 50273-0152
Telephone: (515) 462-2636

Permit Number: 003-07

Date Issued: 1/25/07

Issued to: **Jeremy & Kerry Feldmann**
Address: ~~306 SW Carraige~~
Ankeny, IA 50023

*2636 Settlers Trl.
PID # 500093060024000*

Legal Description: **Parcel B SW Section 30-75-26 South Twp.**

POWTS Components Specifications: **2000 gal. Septic Tank & 1000 ft. of 36" Chamber**

General Conditions:

1. System must be constructed in conformance with attached system layout, profiles, and cross-sections.
2. Structures must be constructed in conformance with 567 IAC Chapter 69 and the Madison County Environmental Health Regulations.
3. Permit shall be null and void if system is not constructed within one year of permit issuance. The Environmental Health Officer must approve any request for extension of permit.
4. The Environmental Health Officer must approve any design modifications to the permitted system prior to construction.
5. Once constructed, all system components must be uncovered for inspection and the system must be approved before it can be put into operation. Notice for inspection must be received with 24 hours in advance (8 a.m. through 4:30 p.m., Monday - Friday). If weather necessitates the need to cover the system components, then the system owner or contractor must notify and follow the procedures given by the Environmental Health Officer.

Special Conditions: **Maximum Trench Depth is 24 inches, Effluent filter required by engineer.**



**Environmental Health Officer
Madison County
Office of Zoning and Environmental Health**

Application to Construct
Private On-Site Wastewater Treatment
System (POWTS)

| Office Use Only | | | | | Temp E911 | 2336 Settlers Trl | |
|-----------------|---------------|----------|-------------|----------------|---------------|-------------------|-----------------------|
| Tracking No | Date Received | Fee Paid | Date Issued | Date Inspected | Date Approved | Section/Township | NPDES Authorization # |
| 003-07 | 1-25-07 | \$150 | 1-25-07 | | | 30 South | |

Application will not be accepted until site and soil analysis/percolation information, and two diagrams of the system layout, profiles and cross-sections have been received; and fee has been paid. For systems requiring an NPDES General Permit #4 (surface discharge), its application must be submitted to this office and appropriate forms recorded before a permit will be issued.

Please Print All Information.

| 1. Owner Information (Applicant) | | | 2. Contractor Information | | |
|----------------------------------|-----------------------------|-----------------------------------|---------------------------|--|-------------------------------|
| First Name <i>JEREMY</i> | Last Name <i>Feldman</i> | Address <i>306 SW Carnegie</i> | First Name <i>Self</i> | Last Name <i>(Luke Dudley helped)</i> | Address |
| City <i>Arkley</i> | State <i>IA</i> | Zip <i>50023</i> | City | State | Zip |
| Phone Number (area code) | Fax or E-mail | Cell Phone | Phone Number (area code) | Fax or E-mail | Cell Phone <i>238-0339</i> |

| 3. System Requirement Information | 4. Site and Soil Evaluator (Percolation Test) |
|---|---|
| IAC CHAPTER 69 DOUBLE COMPARTMENT TANK REQUIRED | PERCOLATION TEST MUST BE COMPLETED AND APPROVED PRIOR TO THE ISSUANCE OF PERMIT |
| Minimum Tank Size Required | Date test taken _____ Test taken by _____ |
| 1-3 Bedroom 1000 | Test Results: Hole 1 _____ min/in Hole 2 _____ min/in |
| 4 Bedroom 1250 | Hole 3 _____ min/in Hole 4 _____ min/in |
| 5 Bedroom 1500 | Average _____ min/in Depth of Test Holes _____ |
| 6 Bedroom 1750 | Number of Laterals Required _____ |
| | Length of Laterals Required _____ ft. ea |

| | |
|---|---|
| 5. Type of Submittal <input checked="" type="checkbox"/> New <input type="checkbox"/> Revision <input type="checkbox"/> Repair, Tank <input type="checkbox"/> Repair, Treatment Area <input type="checkbox"/> System Replacement Previous Permit #: | 6. Address Information Location, Number & Street of project (if unknown, indicate nearest road): <i>Settlers Trl</i> Legal Description: <i>Parcel B SW 30-75-26</i> |
|---|---|

| | | | |
|---|------------------------------|--|--|
| 7. Type of Building (Completed by Owner) | | Use: | |
| <input checked="" type="checkbox"/> Residential | Number of Bedrooms: <i>6</i> | <input type="checkbox"/> Commercial/Other Non-Residential | |
| Other buildings served by this system: <i>None</i> | | <input checked="" type="checkbox"/> Garbage Disposal | |
| | | <input type="checkbox"/> High Water Usage Appliance (i.e. whirlpool bath, water softener) Qty: _____ | |

| | | | | |
|---|-----------------------|---------------------------|--------|-------------------------|
| Your contractor or system designer should complete the remaining portion of this application. | | | | |
| 8. Primary and/or Mechanical Treatment | Type: <i>Concrete</i> | Manufacturer: <i>Spaw</i> | Model: | Size (gal): <i>2000</i> |
| | Type: | Manufacturer: | Model: | Size (gal): |
| 9. Pump/Siphon <input type="checkbox"/> Not Applicable | Type: | Manufacturer: | Model: | Dosing Frequency: |

| | | | | |
|--|--------------------|-----------------------|-------|---|
| 10. Secondary Treatment Area Type: <input type="checkbox"/> Not Applicable | | | | |
| Type of Laterals | Number of Laterals | Length of ea. Lateral | Other | Maximum Trench Depth (inches): <i>24"</i> |
| <i>36" Chamber</i> | <i>10</i> | <i>100</i> | | |

| | | |
|---|-------------------------|---|
| I hereby attest the truth and accuracy of all facts and information presented on this application. Request for inspection of the system must be made 24 hours in advance. Water at the site to test the distribution box must be available. Mechanical systems require use of a free-access sand filter and must be covered by a maintenance agreement, which must be recorded in the Madison County Records Office. Discharge from mechanical systems and sand filters require periodic testing as set forth in IAC Chapter 69 and the results submitted to BOH. | | It is unlawful to start construction, reconstruction, or repair of any POWTS prior to issuance of a POWTS permit by the Environmental Health Officer. |
| Applicant Signature: <i>Jeremy Feldman</i> | Date: <i>1-25-07</i> | |

January 24, 2007

TEAM Services
Soil, Environmental and Material Consultants

The Rognes Corporation
2005 S Ankeny Blvd
Ankeny, IA 50021-5427

Attn.: Jeremy Feldman

Re: Soil Profile Analysis for New 6 Bedroom Residence
2630 Settlers Trail
St. Charles, Iowa
TEAM No. 1-1890

Dear Mr. Feldman:

On January 19, 2007, TEAM Services performed a soil profile analysis for the subject project, in general accordance with Madison County Health Department regulatory requirements. Please refer to the attached sketch for approximate boring locations. Following are the soil strata descriptions encountered during our testing:

| Boring No. | Depth (ft) | Soil Description |
|------------|------------|--|
| 1 | 0-1 | Silty loam, trace organic matter, very dark brown, trace grayish brown |
| | 1-2 | Silty clay loam, trace organic matter, dark grayish brown and dark brownish gray |
| | 2-4 | Clay, trace organic matter, dark grayish brown |
| | 4-6 | Clay, trace coarse sand, dark grayish brown and dark gray |
| 2 | 0-1 | Silty loam, yellowish brown |
| | 1-2 | Silty clay loam, yellowish brown and grayish brown |
| | 2-5 | Sandy clay, trace organic matter, brown |
| | 5-6 | Sandy clay, trace mottling, dark brown |
| 3 | 0-1 | Silt loam, trace organic matter, yellowish brown |
| | 1-3 | Sandy clay loam, trace organic matter, light grayish brown and dark gray |
| | 3-4 | Sandy clay, trace organic matter, brown |
| | 4-5 | Sandy clay, brown |
| | 5-6 | Sandy clay, dark grayish brown ad dark gray and dark brown |

Soil Profile Analysis for New 3 Bedroom Residence
2630 Settlers Trail
St. Charles, Iowa
TEAM No. 1-1980
January 24, 2007

TEAM Services

changes for 6 Bed instead of 3 Bed

No groundwater was encountered in our soil borings. Based on soil mottling, it appears the seasonal high groundwater is on the order of 5 or more feet below grade. Soil is clay loam texture with moderate structure. A soil loading rate of 0.3 gallons/day/square foot will be used.

A traditional lateral system may be used at this site. We recommend that ¹⁰five 100 foot runs be located in the area of the soil borings. Standard Infiltrator® Chamber 36 is recommended. Lines should be 3 feet wide and placed 12 to 24 inches below grade. Lines should be located no closer than 10 feet on center, and individual lateral runs should be relatively level throughout their length. The lines may be stepped or curved in accordance with manufacturer's recommendations to follow the contour of the ground and maintain the required burial depth. The lateral field should be connected to the septic tank via a distribution box. The proposed lateral field should be staked off-limits from construction traffic, and no fills should be placed in this area. A ¹²⁵⁰2000 gallon septic tank, fitted with a 4" Biotube Model FTSP0444-36MA discharge filter, is recommended.

QUALIFICATION

The evaluation of subsurface conditions in this report is based in part upon data obtained from soil tests performed at the indicated locations. Evaluation of the subsurface at the site is made from a limited number of observation points and may vary away from the data points utilized in this investigation. Additional exploration and data collection can reduce the inherent uncertainties associated with this type of investigation. However, this would result in a higher fee for our services. In relying upon a limited exploration, the client is charged a lower fee but must recognize and accept the risk that different, potentially adverse conditions may be present away from the locates explored, or he should order more detailed evaluation. If variations in subsurface conditions become evident during construction, it may be necessary to reevaluate the recommendations contained in this report. In the event that any changes in the type, location or design of the system as shown in this report are planned, the recommendations contained herein shall not be considered valid unless the changes are reviewed and approved in writing by the Engineer prior to such changes being constructed. We warrant only that our work has been performed in accordance with normal engineering practice in this region. As part of our services, we did not include research for locating easements at the site, which may require relocation of the soil absorption system. Information on utility, drainage, and other easements shall be verified by others prior to construction. The engineer does not represent nor warrant the operation or proper functioning of this system for any period of time.

Campbell Residence, Willow Point Subdivision, Lot 3
12541 Maffitt Lake Drive
Cumming, IA
TEAM No. 1-1203
March 25, 2003

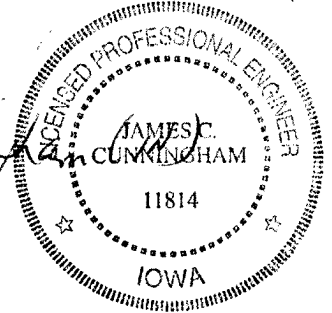
TEAM Services

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service to you in any way, please do not hesitate to contact us.

Sincerely,
TEAM Services

Neal Gould (nd)
Neal Gould
Engineering Technician

Colby Cunningham (nd)
Colby Cunningham, P.E.
Iowa No. 11814



Attachment: Site Evaluation & Boring Plan (1 page)

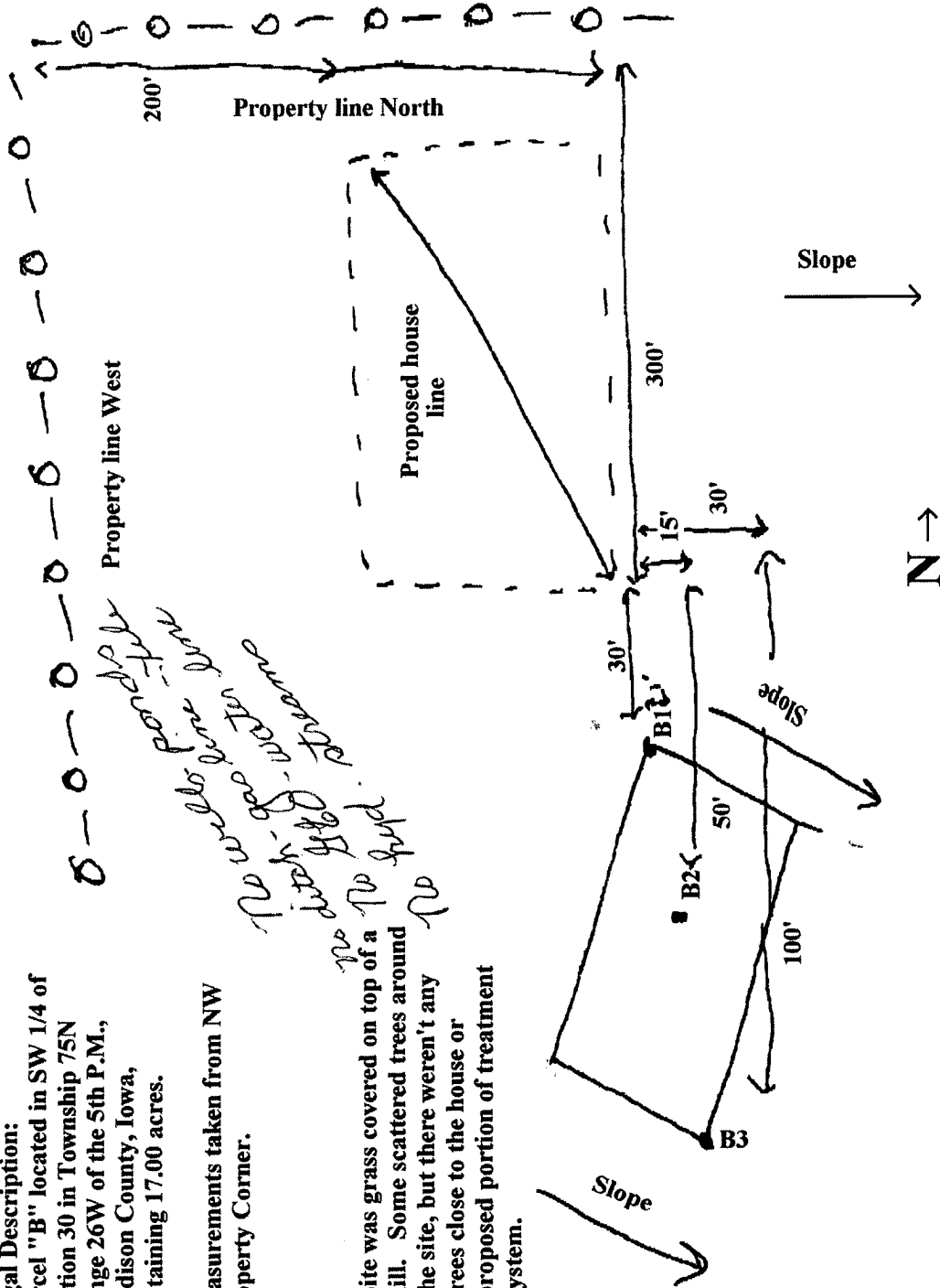
*Jim Cuvol
226 3846*

Legal Description:

Parcel "B" located in SW 1/4 of Section 30 in Township 75N Range 26W of the 5th P.M., Madison County, Iowa, containing 17.00 acres.

Measurements taken from NW Property Corner.

Site was grass covered on top of a hill. Some scattered trees around the site, but there weren't any trees close to the house or proposed portion of treatment system.



TEAM Services
455-F SW 5th Street
Des Moines, IA 50309

2630 Settlers Trail
St. Charles, Iowa
SOIL PROFILE TEST LOCATIONS

Project No. 1-1980
January 24, 2007
No Scale

Permit No 003-07 Name: Feldmann 911 Sign Locate

Date of Inspection: 8/17/07 Inspected by: Elton Root

Contractor: Self

Dwelling under construction or moved in Yes No

Setbacks

Meets required setbacks.

- Rural Water Yes No
- Private wells/Groundwater heat pump bore holes/suction water lines/lakes
 - Outside required 50-foot setback for tank Yes No
 - Outside required 100-foot setback for laterals Yes No
- Streams/ponds (25-25 ft)-ditches (10-10 ft) Yes No
- Indications of water lines under pressure Yes No

Comments:

Building Sewer

- Clean outs – one right outside of house Yes No
- **location of cleanout inside house and set requirement**
- Pipe is sch 40 and has a 4-inch diameter. Yes No
- Grade – has adequate fall. Yes No

Comments:

Tank

- Tank. Manufacture Lister Concrete Plastic
- Capacity 2000 -gallon
- Two compartments, both meet the specs for capacity. Yes No
- Baffle Yes No
- Inlet/Outlet tees are ok. Yes No
- Effluent filter in the outlet. Yes No Manuf. Poly Lock Ball
- Tank depth. 12 inches
- Risers Yes No
- Lids above grade screwed on Yes No Will be

Comments:

Distribution Box

- Brand Tuf-Tite Other
- Bedded in cement. Yes No Will be
- Has required inlet baffle. Yes No Will be
- Outlet levels –are level. Yes No Unknown

Comments:

Laterals

- Distribution lines: 4 -inch PVC pipe – SCH40
- Distribution lines screwed to laterals. Yes No Will be
- Lateral used. 36" Chamber Reduction? Yes No
- Lateral depth. 24 inches Perc depth 24 inches
- Laterals were level. Yes No
- Adequate amount of undisturbed soil between laterals. Yes No
- Distance 6 feet between laterals.

Comments: 20 degree slope engineer had to approve (see attached)



Courthouse at Winterset
Madison County, Iowa
Built in 1876 of native limestone.

**Madison County
Office of Zoning and Environmental Health**

C.J. (Jeff) Nicholl, Environmental Health & Zoning Administrator

NOTICE OF VIOLATION

April 22, 2008

Jeremy & Kerry Feldmann
2636 Settler Trail
St Charles, Iowa 50240

Dear Mr. & Mrs. Feldmann:

On August 7, 2007 during a new installation inspection, you were advised that the private on-site wastewater treatment system on your property failed to pass the requirements as set forth by Iowa Administrative Code 567 Chapter 69 and Madison County General Environmental Health Regulations. During this inspection you were advised of the remedial action required and instructed to contact my office upon completion to obtain another inspection. At the time this inspection occurred, you were not residing in the newly constructed home this septic system serviced.

Recently it has been brought to my attention that you have completed construction of your home and moved into it. Since you failed to perform the remedial action to bring the failed septic system into compliance, you are considered to have an illegal septic system on your property and the residence is considered "not fit for human habitation"

The Madison County General Environmental Health Regulations contain the following;

2.02 GENERAL REQUIREMENTS.

1. **Update of Failed Systems.** In the event an on-sight wastewater treatment and disposal system should fail, or otherwise be found to cause a nuisance, said system shall be made to conform to these regulations. If subject system is not made to conform to the aforementioned regulations, habitation of the contributing structure shall be discontinued.

Failure to contact this office and make arrangements to correct this violation within 14 days of the date of this letter will result in further action that may include the issuance of a civil citation and assessment of a fine, or other legal action and will result in your residence being deemed "not fit for human habitation" that will result in you vacating the property until it is in compliance. Each day that you are determined to be in violation constitutes a separate offense.

If you have any questions regarding the content of this notice, please feel free to contact me.

Sincerely,

C.J. Nicholl, Administrator
Madison County Environmental Health & Zoning

4-25-08
Eng Tony Belezzi
calls etc.



VEENSTRA & KIMM, INC.
3000 Westown Parkway • West Des Moines, Iowa 50266-1320
515-225-8000 • 515-225-7848(FAX) • 800-241-8000(WATS)

May 2, 2008

Elton Root
Madison County
Office of Zoning and Environmental Health
P.O. Box 152
Winterset, Iowa 50273

FELDMANN RESIDENCE
ST. CHARLES, IOWA
REVIEW OF ON-SITE TREATMENT SYSTEM

This letter report is provided in response to the Notice Of Violation from the Madison County Office of Zoning and Environmental Health received by the Feldmann's dated April 22, 2008 with regards to the inspection of their on-site wastewater treatment system serving their property at 2636 Settler Trail, St. Charles, Iowa.

The Madison County Office of Zoning and Environmental Health was contacted by Veenstra & Kimm, Inc. on April 25, 2008 on behalf of the Feldmann's as required in the notice. Veenstra & Kimm, Inc. requested 30 days to review the on-site treatment system and provide a response to Madison County. Madison County concurred with this request.

This report presents Veenstra & Kimm, Inc.'s evaluation of the on-site treatment system in accordance with the requirements of the Iowa Administrative Code (IAC) 567 Chapter 69. The evaluation is based in part on information provided by the Feldmann's about their residence and construction of the treatment system, and the professional soils analysis performed by Team Services dated February 5, 2007.

The Feldmann's received a permit to construct the on-site treatment system on January 25, 2007. The permit was approved based on the Team Services report provided to Madison County.

Veenstra & Kimm, Inc. has reviewed the professional soils report prepared by Team Services dated February 5, 2007. The report provides a detailed soil profile analysis based on soil borings taken at the site. One of the conclusions of the report is that a "traditional lateral system may be used at this site". It is not clear from the report what estimated soil absorption rate was used. However, based on Chapter 69 of the IAC, a traditional system can only be used if the percolation rate is less than 1 minute per inch or greater than 60 minutes per inch. Therefore, based on Table IIIa in Chapter 69, worst-case scenario would be a percolation rate between 46-60 minutes per inch.

The soils report prepared by Team Services was completed prior to the final design and start of construction of the Feldmann residence. The recommendations of the report were based on a six-bedroom residence. Final design and construction of the residence resulted in a five-bedroom house with a common office area attached to the master bedroom.

Veenstra & Kimm, Inc. also conducted a review of the construction of the on-site treatment system for conformance with 567 IAC Chapter 69. Details of construction were provided by the Feldmann's and from recommendations in the Team Services report. The system was found to be compliant with the following pertinent code related items:

1. The on-site treatment system was constructed for a 5-bedroom house.
2. The system meets the required separation distances in Chapter 69, Table I.
3. The home has no high volume water fixtures.
4. The home has no water softener or kitchen garbage disposal.
5. The system has a 2000 gal septic tank, which meets the minimum size requirement for septic tank (1500 gal.)
6. A traditional secondary treatment system was utilized as recommended in the Team Services report.
7. Seasonal high groundwater is at least 3 feet below the bottom of the soil absorption trenches as indicated by the borings in the Team Services report.
8. No structures of any kind are constructed over the system.
9. No types of access including driveways are constructed over the system.
10. A 36-inch chamber system was utilized for secondary treatment as recommended in the Team Services report.
11. A total of ten lateral trenches were constructed at two-foot depth.
12. The lengths of each of the laterals were 100 feet, which meets the required maximum.
13. The laterals were constructed along the elevation contours meeting the slope requirements in the code.
14. The trenches were constructed approximately 36 inches wide.
15. The soil absorption areas served by each outlet of the distribution boxes are equal.

The following items were found to be non-compliant based on our review of the constructed on-site treatment system and the requirements of the IAC:

1. The secondary treatment system is constructed on a sloped area of approximately 18-20% from level. The laterals were constructed at 10-feet on center. The area of undisturbed soil between the trenches is approximately 7-feet. This meets the required separation distance for a level site. However, Chapter 69, Section 69.6(3)c. requires an additional 2 feet of separation distance for each 5% increase in slope from level.

Based on the code requirements for the slope on the site, the laterals should be constructed at approximately 18-feet on center with approximately 15 feet of undisturbed soil between the trenches.

Team Services was contacted by Veenstra & Kimm, Inc. to determine the estimated percolation rate for the soils on the site. Based on the soil types provided in the Madison County soils report, it appears the average soil permeability is 1.37inches per hour or approximately 44 min/inch. The actual permeability at the site may vary more or less from this average. Therefore, we have assumed the percolation rate to be from 31-60 min/inch.

Table IIIa of IAC 567 Chapter 69 provides the linear feet of absorption trench required based on the percolation rate and the number of bedrooms of the residence. Based on the information in Table IIIa, a five-bedroom house with a percolation rate of 31-45 min/inch would require 800 feet of laterals. If the percolation rate were between 46-60 min/inch, then 900 feet of laterals would be required.

The lateral field on the Feldmann property utilizes 36-inch chambers in lieu of standard 4-inch piping. IAC 567 Chapter 69, Section 69.6(6)c. allows for a 25% reduction in total length of laterals required in Table IIIa if chambers greater than 33 inches are used. This would reduce the total length requirement for the system from 800-900 feet to 600-675 feet.

Veenstra & Kimm, Inc. has prepared an illustration attached as Figure 1, which shows the footprint of the actual lateral field as constructed (green) and the footprint of the lateral field as required (red) by the IAC. The existing lateral field has 10 laterals, 100 feet in length, spaced 10 feet on center. The required lateral field has 6-7 laterals, 100 feet in length, spaced 18 feet on center.

As shown in Figure 1, the footprint of the actual lateral field and the required lateral field are the same for 600 feet, and slightly different for 675 feet. In comparing the loading rates, the required lateral length would yield a loading rate of 0.370 - 0.417 gallons/day/square foot. The actual lateral field has a loading rate of 0.250 gallons/day/square foot.

Assuming the total length of the required lateral field is 600 feet, the loading rate over the entire lateral footprint area is exactly the same as the lateral field constructed on the site utilizing 1000 feet of laterals at a closer spacing. Assuming the total length of the required lateral field is 675 feet, the loading rates over the footprints are still very similar at .07 gallons per square foot for the required and .08 gallons per square foot for the actual.

Elton Root
May 2, 2008
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CONCLUSIONS

Veenstra & Kimm, Inc.'s conclusions developed for review of the on-site wastewater treatment system serving the Feldmann's property are based on information provided by Team Services and the Feldmann's as described hereinbefore, and conformance with 567 IAC Chapter 69. Our conclusions represent our opinion based on the information provided. The following conclusions are offered:

1. The on-site wastewater treatment system appears to be in compliance with the IAC with the exception of the spacing of the laterals due to the increased spacing requirement for sloped lateral fields.
2. The lateral field was installed conservatively with 325 – 400 feet more than that required by the IAC.
3. Although the laterals were installed to close together because of slope requirements, the additional length of laterals increases the loading area available over virtually the same footprint. The increase in loading area provides for a reduced loading area per square foot over that required in the IAC, and an equivalent total loading over the footprint of the lateral field.
4. In this case, the construction of additional laterals at a closer spacing provides for virtually the same loading over the lateral field area at a more evenly distributed loading over the entire footprint of the lateral field providing more direct contact area for the same loading which should improve the chances of success of the system.
5. It is our opinion that the lateral field as constructed with 1000 feet of laterals at closer spacing will perform as well as 600-675 feet of laterals spaced as required by the IAC.

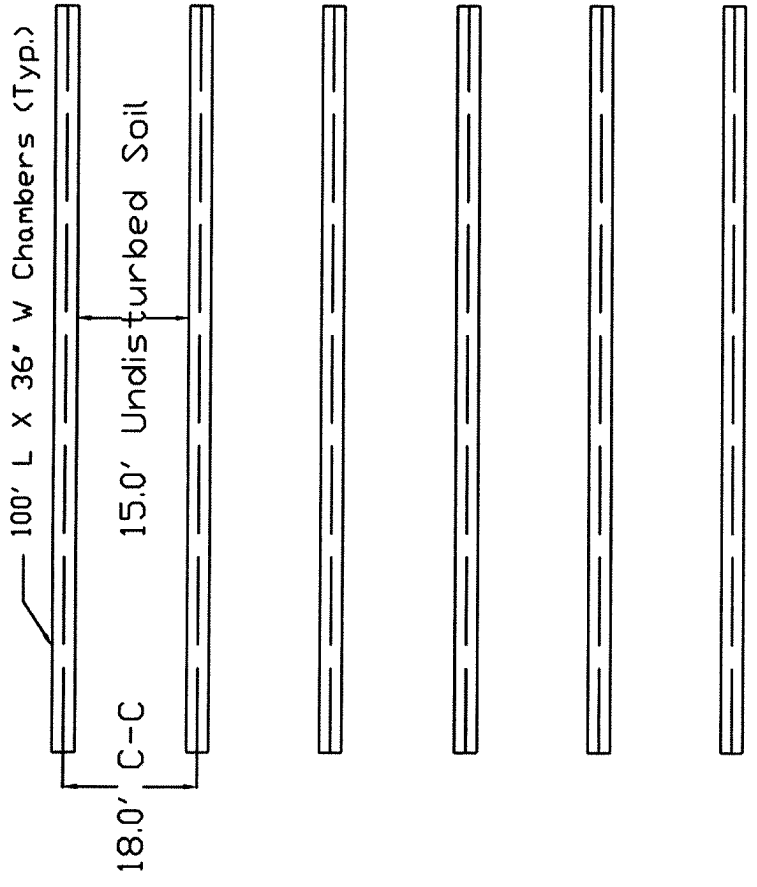
If you have any questions or comments concerning this report, please contact us at 515-225-8000.

VEENSTRA & KIMM, INC.

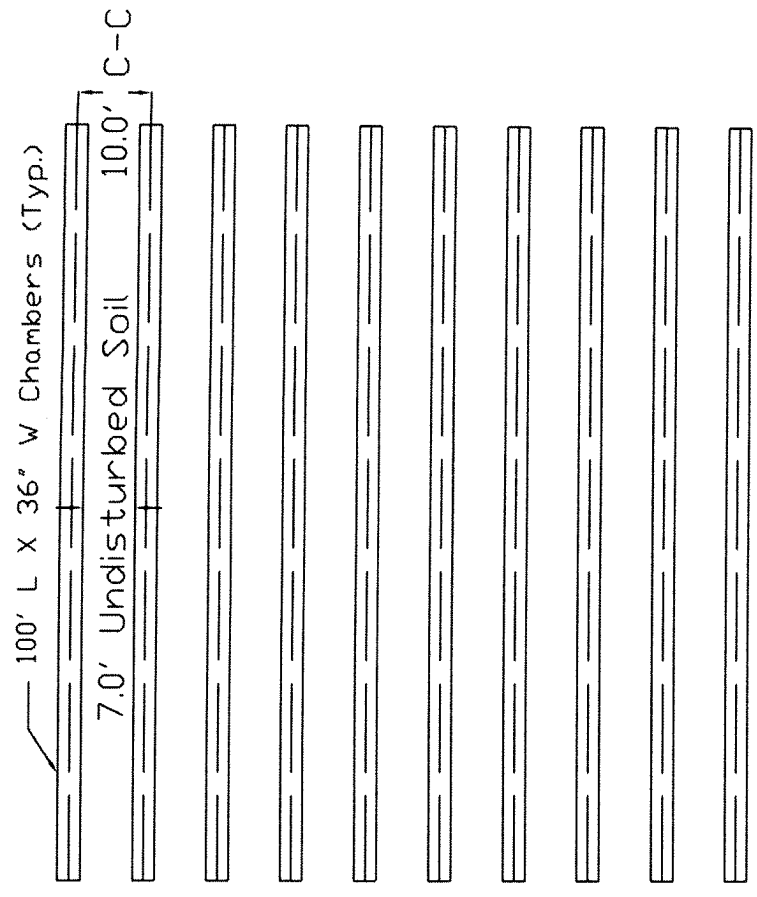


Anthony J. Bellizzi, P.E.

cc: Jeremy & Kerry Feldmann



Max. Required Footprint
 on 18-20% Slope
 (675' of 36" Chambers)



Actual Footprint
 (1000' of 36" Chambers)

SECONDARY TREATMENT - SOIL ABSORPTION SYSTEM

(Five Bedroom, 750gal/day, 45-60min/in.)

Figure 1