

CITY OF SHELBY

112 First Street South
Shelby, MT 59474
Telephone: (406) 434-5222
FAX: (406) 434-2039
www.shelbymt.com



Mayor: Gary McDermott
Council: Sanna Clark, Joe Flesch, Pat Frydenlund, Lyle Kimmet, Bill Moritz, Jayce Yarn
Animal Control: Anthony Botts
Attorney: Logan Fehler
Finance Officer: Jade Goroski
Judge: Donna Whitt
Superintendent: Eric Kary

5/15/2025

Regarding how essential services will be financed within the proposed annexation. Below is an overview of the planned approach for each service:

Police Protection: Toole County's consolidated law enforcement system will provide law enforcement services. This ensures consistent, City-County-managed public safety coverage throughout the County.

Fire Protection: The South Toole County Volunteer Fire Department will provide fire protection.

Garbage Collection: Garbage services will be financed through direct fees from those receiving the service. These fees will be structured to support the operational costs of waste collection and disposal fully.

Street Maintenance: Maintenance of district roads will be funded through street maintenance assessments and gas tax dollars. These assessments will ensure that property owners contributing to wear and use of the infrastructure are also contributing proportionally to its upkeep.

We are confident this structure provides a sustainable and equitable method to support the essential services our community requires.

Sincerely,
Jade Goroski
Finance Officer

RESOLUTION NO. 2103

RESOLUTION ANNEXING REAL PROPERTY BY PETITION

WHEREAS, Kevin and Allyson Short are the owners of the following described real property in fee simple as joint tenants with right of survivorship:

A TRACT OF LAND LOCATED IN LOTS 11-30 OF BLOCK 10, LOTS 1-20 OF BLOCK 11, LOTS 1-20 OF BLOCK 12 AND LOTS 11-30 OF BLOCK 13 AND PORTIONS OF THIRD AVENUE, FOURTH AVENUE, FIFTH AVENUE, EIGHTH STREET NORTH AND PORTIONS OF THE ALLEYS IN BLOCK 10 AND 13 AND ALLEYS OF BLOCK 11 AND 12 OF PLEASANT VIEW TRACTS LOCATED IN THE NE1/4NE1/4 SECTION 21 AND NW1/4NW1/4 OF SECTION 22, T.32N., R.2W., P.M.MONTANA, TOOLE COUNTY; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE N1/16TH CORNER COMMON TO SAID SECTIONS 21 AND 22; THENCE N89°55'52"W 38.08 FEET ALONG THE SOUTH LINE OF SAID PLEASANT VIEW TRACTS TO THE SE CORNER OF McGUIRE PARK; THENCE N00°00'18"W, 657.00 FEET ALONG THE EAST LINE OF McGUIRE PARK AND BLOCK 16 OF SAID PLEASANT VIEW TRACTS TO THE NE CORNER OF LOT 11 OF BLOCK 16; THENCE N89°58'40"E, 354.95 FEET ALONG THE NORTH LINES OF LOTS 11 AND 30 OF BLOCK 13 TO THE CENTERLINE OF FOURTH AVENUE; THENCE N89°56'29"E, 354.81 FEET ALONG THE NORTH LINE OF LOTS 11 AND 30 OF BLOCK 10 TO THE NW CORNER OF LOT 30 OF BLOCK 7; THENCE S00°00'32"E, 299.91 FEET TO THE SW CORNER OF LOT 21 OF BLOCK 7; THENCE S00°01'32"E, 60.00 FEET TO THE NW CORNER OF LOT 20 OF BLOCK 6; S00°02'32"E, 296.56 FEET ALONG THE WEST LINE OF BLOCK 6 TO THE SW CORNER OF LOT 11 OF BLOCK 6; THENCE S89°54'30"W, 671.92 FEET ALONG THE SOUTH LINE OF SAID PLEASANT VIEW TRACTS TO THE POINT OF BEGINNING. SAID TRACT CONTAINS 10.70 ACRES MORE OR LESS AND IS SUBJECT TO ALL EXISTING EASEMENTS AND DOCUMENTS OF RECORD.

WHEREAS, Mr. and Mrs. Short submitted a petition for annexation of the above-described real property to the City of Shelby, Montana, on May 1st, 2025, bearing both of their signatures.

WHEREAS, no individuals other than Mr. and Mrs. Short own real property within the above-described exterior boundaries.

WHEREAS, Title 7, Chapter 2, Part 46, of the Montana Code Annotated provides a set of procedures for the annexation of real property by petition.

WHEREAS, the City Council of Shelby, Montana, with the advice of legal counsel, is of the position that the standards and procedures set forth in Title 7, Chapter 2, Part 46, of the Montana Code Annotated are satisfied and that the annexation of the above-described real property is warranted.

NOW, THEREFORE, BE IT RESOLVED, that the boundaries of the City of Shelby are to be extended to include the above-described real property.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF SHELBY, MONTANA, AND APPROVED BY THE MAYOR THIS 19th DAY OF MAY, 2025.

Gary McDermott, Mayor

ATTEST:

Jade Goroski, Finance Officer

PETITION FOR ANNEXATION

I/We, Kevin and Alyson Short, hereby petition the City Council of the City of Shelby to annex the real property owned by me/us described as follows to wit:

(legal description) see attached
Annexation Legal Description

Containing 10.70 acres, more or less.

DATED this 15th day of MAY, ²⁰²⁵~~2022~~.

 
(signature)

Kevin Short Alyson Short
(print name)

ANNEXATION OF REAL PROPERTY

LEGAL DESCRIPTION: See attached
Annexation Legal Description

PETITION RECEIVED: By _____
Date Received _____

1. PASS RESOLUTION OF INTENT: Resolution No. _____
Approval Date _____

2. SCHEDULE PUBLIC HEARING: Hearing Date _____

3. PUBLISH IN NEWSPAPER: 1st Publication Date: _____
2nd Publication Date: _____

4. PUBLIC HEARING AND
RESOLUTION PASSAGE: Resolution No. _____
(attach petition and map to res)
Final Approval Date _____

5. TOTAL SIZE (AREA): _____

7. LETTER TO PROPERTY OWNERS
LETTING THEM KNOW THE OUTCOME:

Date Mailed: _____

Mailed to: _____

ANNEXATION LEGAL DESCRIPTION

A TRACT OF LAND LOCATED IN LOTS 11-30 OF BLOCK 10, LOTS 1-20 OF BLOCK 11, LOTS 1-20 OF BLOCK 12 AND LOTS 11-30 OF BLOCK 13 AND PORTIONS OF THIRD AVENUE, FOURTH AVENUE, FIFTH AVENUE, EIGHTH STREET NORTH AND PORTIONS OF THE ALLEYS IN BLOCK 10 AND 13 AND ALLEYS OF BLOCK 11 AND 12 OF PLEASANT VIEW TRACTS LOCATED IN THE NE1/4NE1/4 SECTION 21 AND NW1/4NW1/4 OF SECTION 22, T.32N., R.2W., P.M.MONTANA, TOOLE COUNTY; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE N1/16TH CORNER COMMON TO SAID SECTIONS 21 AND 22; THENCE N89°55'52"W 38.08 FEET ALONG THE SOUTH LINE OF SAID PLEASANT VIEW TRACTS TO THE SE CORNER OF McGUIRE PARK; THENCE N00°00'18"W, 657.00 FEET ALONG THE EAST LINE OF McGUIRE PARK AND BLOCK 16 OF SAID PLEASANT VIEW TRACTS TO THE NE CORNER OF LOT 11 OF BLOCK 16; THENCE N89°58'40"E, 354.95 FEET ALONG THE NORTH LINES OF LOTS 11 AND 30 OF BLOCK 13 TO THE CENTERLINE OF FOURTH AVENUE; THENCE N89°56'29"E, 354.81 FEET ALONG THE NORTH LINE OF LOTS 11 AND 30 OF BLOCK 10 TO THE NW CORNER OF LOT 30 OF BLOCK 7; THENCE S00°00'32"E, 299.91 FEET TO THE SW CORNER OF LOT 21 OF BLOCK 7; THENCE S00°01'32"E, 60.00 FEET TO THE NW CORNER OF LOT 20 OF BLOCK 6; S00°02'32"E, 296.56 FEET ALONG THE WEST LINE OF BLOCK 6 TO THE SW CORNER OF LOT 11 OF BLOCK 6; THENCE S89°54'30"W, 671.92 FEET ALONG THE SOUTH LINE OF SAID PLEASANT VIEW TRACTS TO THE POINT OF BEGINNING. SAID TRACT CONTAINS 10.70 ACRES MORE OR LESS AND IS SUBJECT TO ALL EXISTING EASEMENTS AND DOCUMENTS OF RECORD.



2969 Airport Road, Suite 18
Helena, MT 59601-1201
406 449 7764
KLIENG.COM

December 3, 2024
Ron Anderson
Sanitarian
Toole County Environmental Health
PO Box 241
Cascade, MT 59421
Re: Kevin Short Non-Degradation Determination
Dear Mr. Anderson:

The following report is a Non-Degradation Determination for Kevin Short located in Toole County. The subject property is Lots 11-30, Block 13, Pleasant View Tract located in the NW1/4, Section 22, T32N, R2W, P.M. Montana, Toole County.

The property is to be annex into the City of Shelby with connection to a water main located in 3rd Avenue. The existing main will have a service tap that will serve the proposed single-family residence. In conjunction with the annexation of the property into the City Limits of Shelby, the subject property will be aggregated and the adjoining 8th Street North and Alley will be vacated. This is per request by the City of Shelby.

Per your phone call, I made a mistake in using the incorrect Categorical Exemption. Please see the revised report using Categorical Exemption 2.

Please reach out with any questions. I can be reached at justin.stefanik@klieng.com or 406-447-3353.
Thank you.

Sincerely,
KLJ

A handwritten signature in blue ink, appearing to read 'Justin Stefanik'.

Justin Stefanik
Professional Land Surveyor
Enclosure(s): Report, Site Evaluation, well sample and drainfield sizing
Project #: 2406-01478
cc: Kevin Short

Non-Degradation Determination

Per our conversation and research into well logs in the area. There are only 2 wells located in the area. This is not enough wells to determine a conductivity to calculate non-degradation calculations. The proposed wastewater treatment system proposes to use Categorical Exemption 2 per ARM 17.30.716. Listed below is the description of how the proposed absorption system meets the criteria of Categorical Exemption 2.

ARM 17.30.716(3)

- (a) the absorption systems must be 500 feet or more (200 feet or more for lots that meet the criteria in (4)(b)) from the nearest downgradient high-quality state surface water that might be impacted. Distance between the absorption system and downgradient high-quality state surface water is based on the criteria in ARM 17.30.715(4);

The nearest surface located near the subject property is Lake Shel-oole, which is located 1,600 feet NE of the absorption system. Lake Shel-oole is located up gradient of the subject property. See Appendix F – Vicinity Map for the subject property location.

- (b) the wastewater treatment systems on a lot must have a combined design flow of 600 gallons per day or less, or a combined design flow of 800 gallons per day or less if all the wastewater treatment systems on the lot are level 2;

The proposed wastewater treatment system is serving one single family residence with a 4-bedroom home. Per DEQ Circular 4 the wastewater flow for a 4-bedroom home is 350 gallons per day.

- (c) the wastewater discharge must be residential strength;

The wastewater discharge will be residential strength.

- (d) each wastewater treatment system must be located entirely on the lot where wastewater is produced;

The wastewater treatment system will be located on the lot where it was produced. See Appendix A – Lot layout for the location of the drainfield inside the aggregated lot.

- (e) each wastewater treatment system must meet the current design standards defined in ARM Title 17, chapter 36, subchapters 3 and 9, and Department Circular DEQ-4; and

The treatment system meets the design criteria of DEQ Circular 4. See Appendix D – Drainfield Sizing Calculations for design criteria.

- (f) all wastewater treatment systems on the lot must meet the requirements in this rule

There is only one wastewater treatment system proposed on the lot.

ARM 17.30.716 (4) A wastewater treatment system that meets the requirements in (3) must also meet:
(a) all the requirements in one of the categories in Table 1; or

The proposed wastewater treatment system meets Categorical Exemption number 2, see below for the description of each applicable item. Per ARM 17.30.716(4)(a) the proposed wastewater treatment must meet the requirements in one of the categories in Table 1; OR satisfy ARM 17.30.716(4)(b)(i)-(iii). Because the proposed wastewater treatment system meets ARM 17.30.716(4)(a) it does not need to satisfy ARM 17.30.716(4)(b).

ARM 17.30.716 Categorical of Activities that cause non-significant changes in water quality (July 5, 2024)
Table 1.

(i) Minimum Lot Size

The proposed lot size is 2.01 acres once Lots 11-30 are aggregated and the alley vacated. Per conversations with the City of Shelby, these are required for annexation into the City. See Appendix A – Lot Layout for the size of the subject property based on found monumentation in the field.

(ii) Maximum number of lots in common development or phases of the subdivision

Not Applicable to Categorical Exemption 2, See Appendix B – 17.30.716 Table 1 for chart determining applicable items.

(iii) Background ground water nitrate (as N) concentration(mg/L)

The ground water nitrate is 0.04 mg/L per the well sample. See Appendix C – Background Nitrates for water sample results

(iv) Pressure Distribution required for the absorption system

The proposed absorption system will be pressure dosed. See Appendix D – Drainfield Sizing for calculations and pump sizing requirements.

(v) Soil Profile has at least 6 feet of natural soil below absorption system that is fine sandy loam, loam or finer.

Not Applicable to Categorical Exemption 2, See Appendix B – 17.30.716 Table 1 for chart determining applicable items.

- (vi) Soil Profile has at least 6 feet of natural soil below absorption system that is medium sand, sandy loam or finer.

The soil profile indicates "Sandy Clay" from 6" to 120" below the surface. The chambers will be buried 24" this leaves 8 feet of "Sandy Clay" below the absorption system. See Appendix E – Test Pit Memo for the site evaluation and NRCS web soil survey for details.

- (vii) Soil Profile has at least 6 feet of natural soil below absorption system that is medium sand, sandy loam or finer or discharge is to an elevated sand mound.

Not Applicable to Categorical Exemption 2, See Appendix B – 17.30.716 Table 1 for chart determining applicable items.

- (viii) Minimum depth below natural ground surface to limiting layer in the soil profile.

Per the test pit the depth to limiting layer is at least 10 feet from the natural ground level. The minimum depth to limiting layer is 10 feet per Categorical Exemption 2. See Appendix E – Test Pit Memo for soil profile and Appendix B – 17.30.716 Table 1 for the minimum depth of 10 feet.

- (ix) Minimum depth below natural ground surface to bedrock or ground water.

Not Applicable to Categorical Exemption 2, See Appendix B – 17.30.716 Table 1 for chart determining applicable items.

- (x) Minimum distance from proposed subdivision boundary to any existing or approved wastewater treatment systems outside the subdivision boundaries.

Not Applicable to Categorical Exemption 2, See Appendix B – 17.30.716 Table 1 for chart determining applicable items.

- (xi) Level 2 wastewater treatment system

Not Applicable to Categorical Exemption 2, See Appendix B – 17.30.716 Table 1 for chart determining applicable items.

- (xii) Maximum depth of absorption system below natural ground surface (inches)

The absorption system will have a bury depth of 24 inches. See Appendix D – Drainfield Sizing Calculations for detail showing bury depth.

- (xiii) Gray water in waste segregated systems



Not Applicable to Categorical Exemption 2, See Appendix B – 17.30.716 Table 1 for chart determining applicable items.

In conclusion the proposed wastewater system does meet the Categorical Exemptions of Category 2.

Appendices

Appendix A – Lot Layout

Appendix B – 17.30.716 Table A

Appendix C – Background Nitrates

Appendix D – Drainfield Sizing Calculations

Appendix E – Test Pit Memo

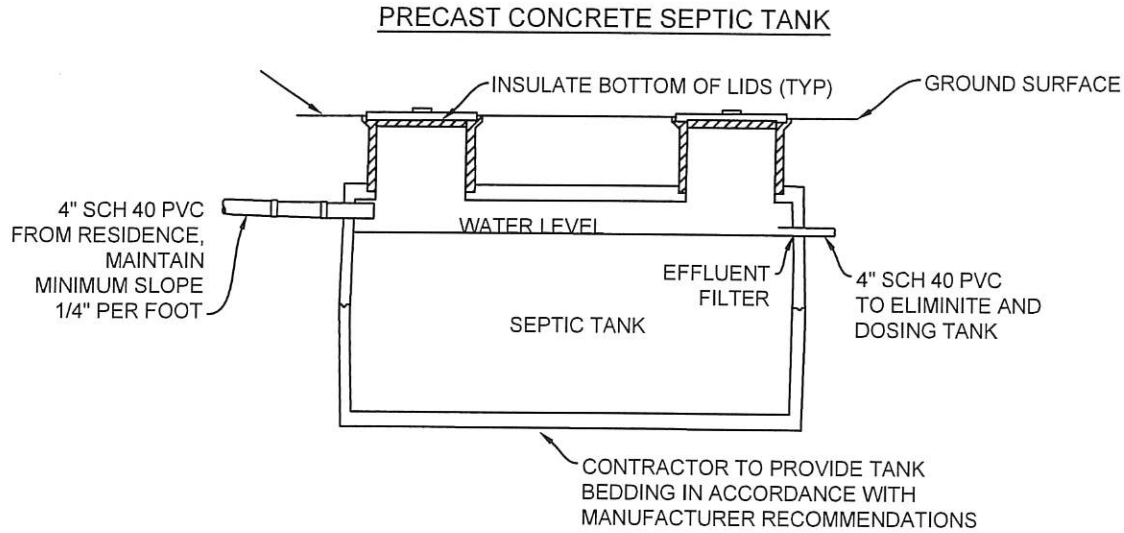
Appendix F – Vicinity Map

Appendix A – Lot Layout

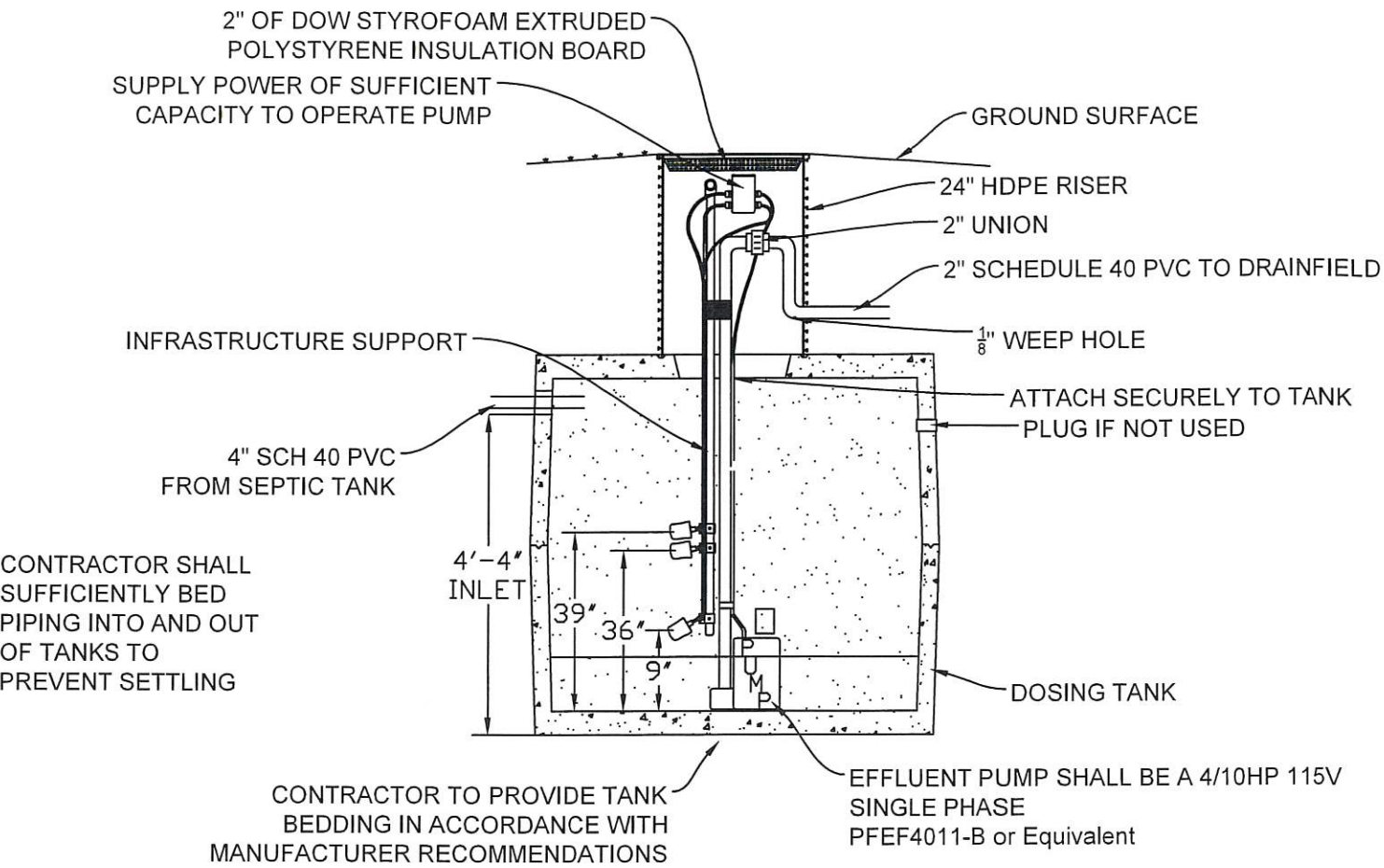
CONSTRUCTION NOTES:

1. LATERALS TO BE INSTALLED LEVEL AS DOSED.
2. THE PRESSURE DISTRIBUTION PIPE MUST BE PVC AND ALL FITTINGS MUST BE PRESSURE RATED AND AT LEAST CLASS 160 PVC PIPE.
3. THE LATERALS MUST BE FIELD TESTED TO VERIFY UNIFORM DISTRIBUTION BY VERIFYING APPROXIMATE EQUAL SQUIRT HEIGHT.
4. WHEN THE ABSORPTION TRENCH IS LESS THAN 24" DEEP A CAP ABOVE THE NATURAL GROUND IS REQUIRED TO MAINTAIN A DEPTH OF 12" OF COVER OVER THE INFILTRATORS. THE CAP MUST BE TAPERED FROM THE EDGE OF THE OUTERMOST TRENCH WALL WITH A 3:1 OR FLATTER SLOPE. THE CAP MUST BE SLOPED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE CENTER OF THE ABSORPTION TRENCHES.
5. EFFLUENT FILTER MUST MEET THE REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) CIRCULAR 4, CHAPTER 7.2.7
6. CONTRACTOR SHALL MEET THE REQUIREMENTS OF MPSWW AND DEQ CIRCULAR 4.

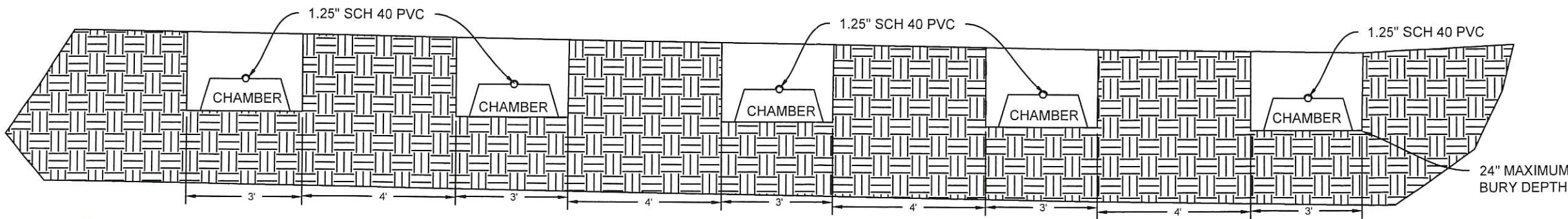
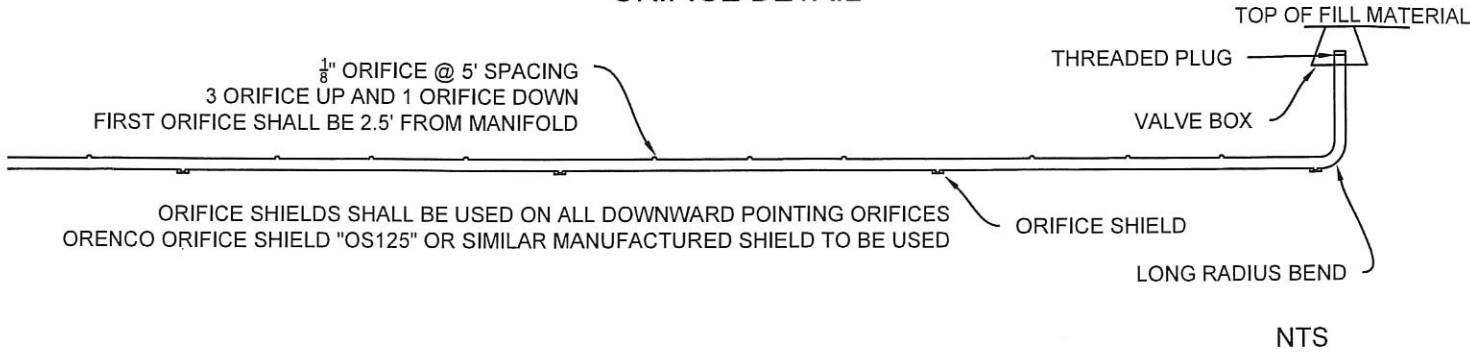
SEPTIC TANK DETAIL (TYP.)



500 GALLON PRECAST CONCRETE DOSING TANK



ORIFICE DETAIL



REVISION	DATE	NO.
DRAFTED	JWS	
REVIEWED	JWS	
PROJECT NUMBER	2406-01478	
ISSUE DATE	11/8/2024	

SHORT SEPTIC PERMIT
KEVIN SHORT
LOTS 11-30 BLOCK 13 PLEASANT VIEW TRACT, TOOLE COUNTY
PRESSURE DOSED DESIGN

SHEET
1

Appendix B – 17.30.716 Table A

17.30.716 CATEGORIES OF ACTIVITIES THAT CAUSE NONSIGNIFICANT CHANGES IN WATER QUALITY (Effective July 6, 2024)

(1) In addition to the activities listed in 75-5-317, MCA, the categories or classes of activities that are identified in this rule have been determined by the department to cause changes in water quality that are nonsignificant due to their low potential for harm to human health or the environment and their conformance with the guidance found in 75-5-301, MCA.

(2) A wastewater treatment system that does not require an MPDES or MGWPCS permit and meets the criteria in (3) and (4) is nonsignificant.

(3) The wastewater treatment system, including primary and replacement absorption systems, must meet the following criteria:

- (a) the absorption systems must be 500 feet or more (200 feet or more for lots that meet the criteria in (4)(b)) from the nearest downgradient high-quality state surface water that might be impacted. Distance between the absorption system and downgradient high-quality state surface water is based on the criteria in ARM 17.30.715(4);
- (b) the wastewater treatment systems on a lot must have a combined design flow of 600 gallons per day or less, or a combined design flow of 800 gallons per day or less if all the wastewater treatment systems on the lot are level 2;
- (c) the wastewater discharge must be residential strength;
- (d) each wastewater treatment system must be located entirely on the lot where wastewater is produced;
- (e) each wastewater treatment system must meet the current design standards defined in ARM Title 17, chapter 36, subchapters 3 and 9, and Department Circular DEQ-4; and
- (f) all wastewater treatment systems on the lot must meet the requirements in this rule.

(4) A wastewater treatment system that meets the requirements in (3) must also meet:

- (a) all the requirements in one of the categories in Table 1; or
- (b) the following requirements:
 - (i) the wastewater treatment system is in a county where the total number of subdivision lots that were reviewed pursuant to Title 76, chapter 4, part 1, MCA, and were created in that county during the previous 10 state fiscal years is fewer than 150;
 - (ii) the lot is not within one mile of the city limits of an incorporated city or town with a population greater than 500 as determined by the most recent census; and
 - (iii) the absorption system is pressure dosed.
- (c)

TABLE 1

	Requirement	Category ⁽¹⁾						
		1	2	3	4	5	6	7
(i)	Minimum lot size (acres)	2	2	1	2	1	2	20
(ii)	Maximum number of lots in common developments or phases of a subdivision	N/A	N/A	5	N/A	5	N/A	N/A
(iii)	Background ground water nitrate (as N) concentration (mg/L) ⁽²⁾	2	2	2	2	2	2	4
(iv)	Pressure distribution required for the absorption system	Yes	Yes	Yes	Yes	Yes	Yes	N/A
(v)	Soil profile has at least 6 feet of natural soil below absorption system that is fine sandy loam, loam, or finer ⁽³⁾	Yes	N/A	N/A	N/A	N/A	N/A	N/A
(vi)	Soil profile has at least 6 feet of natural soil below absorption system that is medium sand, sandy loam, or finer ⁽³⁾	N/A	Yes	Yes	N/A	Yes	Yes	N/A
(vii)	Soil profile has at least 6 feet of natural soil below absorption system that is medium sand, sandy loam, or finer ⁽³⁾ , or discharge is to an elevated sand mound	N/A	N/A	N/A	N/A	N/A	N/A	Yes
(viii)	Minimum depth below natural ground surface to limiting layer in soil profile (feet)	8	10	10	6	8	N/A	N/A
(ix)	Minimum depth below natural ground surface to bedrock and ground water (feet) ⁽⁴⁾	N/A	N/A	50	N/A	N/A	N/A	N/A
(x)	Minimum distance from proposed subdivision boundary to any existing or approved wastewater treatment systems outside the subdivision boundaries (feet)	N/A	N/A	500	N/A	N/A	N/A	N/A
(xi)	Level 2 wastewater treatment system	N/A	N/A	N/A	Yes	Yes	N/A	N/A
(xii)	Maximum depth of absorption system below natural ground surface (inches) ⁽⁵⁾	24	24	24	24	24	24	24
(xiii)	Gray water in waste segregation systems ⁽⁶⁾	N/A	N/A	N/A	N/A	N/A	Yes	N/A

⁽¹⁾ "N/A" means not applicable for purposes of this rule. Requirements in all other applicable laws, rules, and circulars must be met

⁽²⁾ The reviewing authority may require multiple ground water samples over a specified time period to determine whether seasonal variation of ground water nitrate concentrations may affect compliance with this requirement.

⁽³⁾ Soil profiles must be conducted in accordance with site evaluation requirements in Department Circular DEQ-4. Soils that contain 60% or more of a rock fragment (gravel, cobble, stone, or boulder) and are considered extremely gravelly, extremely cobbly, extremely stony or extremely bouldery as defined in Appendix B of Department Circular DEQ-4 will not meet this requirement. All soil profiles for a wastewater treatment system absorption system must meet these soil requirements. The six foot thickness of the specified soil type may be a continuous soil layer or a combination of multiple layers.

⁽⁴⁾ Depth below ground surface to ground water and bedrock can be determined using local well logs or other applicable information as approved by the reviewing authority.

⁽⁵⁾ For depths shallower than 24 inches, absorption systems must meet the requirements in Department Circular DEQ-4 for shallow-capped absorption systems.

⁽⁶⁾ Category only applies to the gray water discharge. It does not include a blackwater discharge or an alternate system required by Department Circular DEQ-4 that treats gray water and other wastewater from the lot.

ARM 17.30.716(5) A 100-foot provisional mixing zone is required for each wastewater treatment system approved as nonsignificant under this rule. Source specific provisional mixing zones are not allowed. Provisional mixing zones are subject to the same setbacks and siting requirements as mixing zones but are not subject to the requirements of ARM 17.30.715.

ARM 17.30.716(6) The department may require that on-site information be provided to verify any of the criteria required in this rule

Appendix C – Background Nitrates



ANALYTICAL SUMMARY REPORT

October 25, 2024

KLJ Helena
2969 Airport Rd Ste 1B
Helena, MT 59601-1201

Work Order: H24100454

Project Name: Not Indicated

Energy Laboratories Inc Helena MT received the following 3 samples for KLJ Helena on 10/11/2024 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H24100454-001	Short	10/10/24 8:00	10/11/24	Aqueous	Conductivity Nitrogen, Nitrate + Nitrite
H24100454-002	Shelby	10/10/24 8:00	10/11/24	Aqueous	Same As Above
H24100454-003	Heywood	10/10/24 8:00	10/11/24	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.


Project Management

Digitally signed by
Ravyn R. Sponholz
Date: 2024.10.25 11:03:16 -06:00



Trust our People. Trust our Data.
www.energylab.com

Billings, MT 406.252.6325 • Casper, WY 307.235.0515
Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: KLJ Helena
Project: Not Indicated
Lab ID: H24100454-002
Client Sample ID: Shelby

Report Date: 10/25/24
Collection Date: 10/10/24 08:00
Date Received: 10/11/24
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Conductivity @ 25 C	629	umhos/cm		5		A2510 B	10/14/24 12:07 / dpw
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	0.04	mg/L		0.01		E353.2	10/24/24 17:44 / JAR

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24100454

Report Date: 10/25/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B							Analytical Run: PHSC_101-H_241014A			
Lab ID: SC 150	Initial Calibration Verification Standard								10/14/24 08:59	
Conductivity @ 25 C	151	umhos/cm		5.0	101	90	110			
Lab ID: SC 20000							10/14/24 09:01			
Conductivity @ 25 C	19300	umhos/cm		5.0	97	90	110			
Lab ID: SC 5000							10/14/24 09:03			
Conductivity @ 25 C	4930	umhos/cm		5.0	99	90	110			
Lab ID: CCV - SC 1413							10/14/24 11:49			
Conductivity @ 25 C	1420	umhos/cm		5.0	100	90	110			
Method: A2510 B							Batch: R199448			
Lab ID: SC 1000	Laboratory Control Sample					Run: PHSC_101-H_241014A			10/14/24 09:05	
Conductivity @ 25 C	998	umhos/cm		5.0	100	90	110			
Lab ID: H24100434-014BDUP							Run: PHSC_101-H_241014A		10/14/24 11:38	
Conductivity @ 25 C	330	umhos/cm		5.0				0.0	10	
Lab ID: MBLK							Run: PHSC_101-H_241014A		10/14/24 11:54	
Conductivity @ 25 C	ND	umhos/cm		5						
Lab ID: H24100471-001BDUP							Run: PHSC_101-H_241014A		10/14/24 12:17	
Conductivity @ 25 C	45.4	umhos/cm		5.0				2.0	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Helena, MT Branch

Work Order: H24100454

Report Date: 10/25/24

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2		Analytical Run: SEAL AA500_241024B								
Lab ID: ICV	Initial Calibration Verification Standard									10/24/24 16:59
Nitrogen, Nitrate+Nitrite as N		1.02	mg/L	0.010	102	90	110			
Lab ID: CCV	Continuing Calibration Verification Standard									10/24/24 17:34
Nitrogen, Nitrate+Nitrite as N		0.981	mg/L	0.010	98	90	110			
Method: E353.2										Batch: R199834
Lab ID: ICB	Method Blank			Run: SEAL AA500_241024B						10/24/24 16:56
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.007						
Lab ID: LFB	Laboratory Fortified Blank			Run: SEAL AA500_241024B						10/24/24 17:00
Nitrogen, Nitrate+Nitrite as N		0.985	mg/L	0.011	98	90	110			
Lab ID: H24100427-001CMS	Sample Matrix Spike			Run: SEAL AA500_241024B						10/24/24 17:39
Nitrogen, Nitrate+Nitrite as N		0.996	mg/L	0.011	97	90	110			
Lab ID: H24100427-001CMSD	Sample Matrix Spike Duplicate			Run: SEAL AA500_241024B						10/24/24 17:40
Nitrogen, Nitrate+Nitrite as N		1.01	mg/L	0.011	99	90	110	1.8	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



Work Order Receipt Checklist

KLJ Helena

H24100454

Login completed by: Rebecca A. Tooke

Date Received: 10/11/2024

Reviewed by: tjones

Received by: RAT

Reviewed Date: 10/14/2024

Carrier name: Hand Deliver

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☒	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☒	Not Applicable ☐
Container/Temp Blank temperature:	12.1°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☒	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as -dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The collection time was not indicated on the chain of custody or the container label for all samples. The collection time was estimated by laboratory personnel unless further instructions are provided by the client.



Trust our People. Trust our Data.
www.energylab.com

Billings, MT 406.252.6325 • Casper, WY 307.235.0515
Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Work Order Receipt Checklist - Continued

KLJ Helena

H24100454

The sample(s) for nutrients analysis were preserved to a pH <2 with 2 mL of sulfuric acid in the laboratory.
RAT 10/11/24

Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number
Billings, MT  	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
	Florida (Primary NELAP)	E87668
	Idaho	MT00005
	Louisiana	05079
	Montana	CERT0044
	Nebraska	NE-OS-13-04
	Nevada	NV-C24-00250
	North Dakota	R-007
	National Radon Proficiency	109383-RMP
	Oregon	4184
	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
Casper, WY 	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
	Montana	CERT0002
	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
Helena, MT	Colorado	MT00945
	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090



www.energylab.com

Page _____ of _____

Account Information *(Billing information)*

Report Information (if different than Account Information)

Company/Name _____
Contact _____
Phone _____
Mailing Address _____
City, State, Zip _____
Email _____
Receive Report: ☐ Hard Copy ☐ Email
Special Report/Formats:
☐ LEVEL IV ☐ NELAC ☐ EDD/EDT (contact laboratory) ☐ Other _____

Comments



Project Information

Matrix Codes

- A - Air
W - Water
S - ~~Soils~~
 Solids
V - Vegetation
B - Bioassay
O - Other
DW - Drinking Water

Analysis Requested

[illegible]

All turnaround times are standard unless marked as RUSH.

Energy Laboratories
MUST be contacted prior to
RUSH sample submittal for
charges and scheduling –
See Instructions Page

[illegible]

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

EU-COC-06/08 v.2

MONTANA WELL LOG REPORT

Other Options

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

[Return to menu](#)
[Plot this site in State Library Digital Atlas](#)
[Plot this site in Google Maps](#)
[View scanned well log_6/19/2008 10:58:09 AM](#)

Site Name: KLEINERT WILLIAM
GWIC Id: 88811
DNRC Water Right: 62742

Section 1: Well Owner(s)

1) KLEINERT, WILLIAM (MAIL)
310 5TH ST N
SHELBY MT 59474 [10/08/1986]

Section 2: Location

Township	Range	Section	Quarter Sections
32N	02W	22	NE¼ NW¼ SE¼
County			Geocode

TOOLE

Latitude	Longitude	Geomethod	Datum
48.515336	-111.846308	TRS-SEC	NAD83
Ground Surface Altitude	Ground Surface Method	Datum	Date

Addition

Block

Lot

Section 3: Proposed Use of Water

IRRIGATION (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Wednesday, October 8, 1986

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	40	7.875

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-1.5	10	4				STEEL
10	40	4				PVC

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
10	40	4			SCREEN-CONTINUOUS-PVC

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	10	BENTONITE & PUDDLED CLAY	
0	0	GRAVEL	

Section 7: Well Test Data

Total Depth: 40
Static Water Level: 14
Water Temperature:

Unknown Test Method *

Yield 5 gpm.
Pumping water level 25 feet.
Time of recovery hours.
Recovery water level feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source

Unassigned

[illegible]

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name: TIM HLAVNICKA

Company: MONTANA DRILCO

License No: WWC-475

Date Completed: 10/8/1986

Appendix D – Drainfield Sizing Calculations

Septic Tank Sizing

(2) Septic Tank Sizing

- (a) The minimum tank sizing for residential flows is determined by the following chart:

NUMBER OF BEDROOMS	MINIMUM TANK SIZE, GALLONS
1 - 3	1000
4 - 5	1500
6 - 7	2000
8	2250
9	2500
ADD 250 GALLONS FOR EACH ADDITIONAL BEDROOM AFTER 9	

- (b) The minimum tank sizing for non-residential flows is described in Circular DEQ-4

4-bedroom home = 1500-gallon septic tank with 500-gallon dosing chamber

Drainfield Sizing

Soil Type: Sandy Clay 2.5YR Clay, 50% Gravel, 2.5YR, 6/3 (per test)

Application Rate = 0.2 (gpd/ft²) DEQ Circular 4 Table 2.1-1

4-bedroom home = 350 gpd (DEQ Circular 4 3.1.2A)

$350 \text{ GPD} / .2 \text{ GPD/ft}^2 = 1,750 \text{ ft}^2$

$1,750 \text{ ft}^2 / 3\text{-foot-wide trench} = 583 \text{ linear feet}$

$583 \text{ linear feet} * .75 \text{ (reduction for chambers)} = 438 \text{ linear feet of drainfield}$

$438 \text{ linear feet} / 5 \text{ laterals} = 88 \text{ linear feet per lateral}$

Dosing Tank Sizing

Dose line Volume (see pump chart)

Lateral Line Volume = 34.2 Gallons

Transportation Line Volume = 3.5 Gallons

Manifold Line Volume = 2.2 Gallons

Dosing Volume

342 gallons x 10 (DEQ 4 4.2.3.3D) = 342 gallons

342 + 3.5+ 2.2 = **76.7 gallons Dose Volume**

Reserve Storage Volume

350 gallons x 25% (DEQ 4 4.2.3.3H2) = **87.5 gallons**

Pump off Storage Volume

Minimum pump depth = 9 inches

9"x 5'2" x 3' 9" = **109 gallons**

Tank Volume

342 gal (dosing) + 109 gal (pump off) + 36 gal (alarm depth) = 487 gallons

4' x 3'9" x 5'2" = 579 gallons (tank volume)

579 gal - 487 gal = 92 gallons

92 gallons (actual reserve) > 87.5 gallons (min. reserve)

Float Adjustment

D x 5'2"x 3'9" = 342 gallons (7.48 gallons/ft³)

D = **28 inches effluent depth**

Pump on/off Depth

Set pump OFF at 9 inches

9" (pump off) + 28" (depth) = **36" effluent depth pump ON**

Note: Set pump OFF depth prior to pump going dry (9 inches)

Conclusion

- 1500-gallon septic tank
- 500-gallon dosing tank
- 438 linear feet of laterals of 3-foot chambers
- 5 laterals
- 88 linear feet per lateral
- maximum bury depth of 24"
- 4/10HP, 115 Volt effluent pump
- (PFEF4011-B or equivalent)

Pump Selection for a Pressurized System - Single Family Residence Project

Kevin Short

Parameters

Charge Assembly Size	2.00	inches
Transport Length	20	feet
Transport Pipe Class	40	
Transport Line Size	2.00	inches
Distributing Valve Model	None	
Max Elevation Lift	-2	feet
Manifold Length	28	feet
Manifold Pipe Class	40	
Manifold Pipe Size	1.25	inches
Number of Laterals per Cell	5	
Lateral Length	88	feet
Lateral Pipe Class	40	
Lateral Pipe Size	1.25	inches
Orifice Size	1/8	inches
Orifice Spacing	4	feet
Residual Head	5	feet
Flow Meter	None	inches
'Add-on' Friction Losses	0	feet

Calculations

Minimum Flow Rate per Orifice	0.43	gpm
Number of Orifices per Zone	115	
Total Flow Rate per Zone	50.3	gpm
Number of Laterals per Zone	5	
% Flow Differential 1st/Last Orifice	4.3	%
Transport Velocity	4.8	fps

Frictional Head Losses

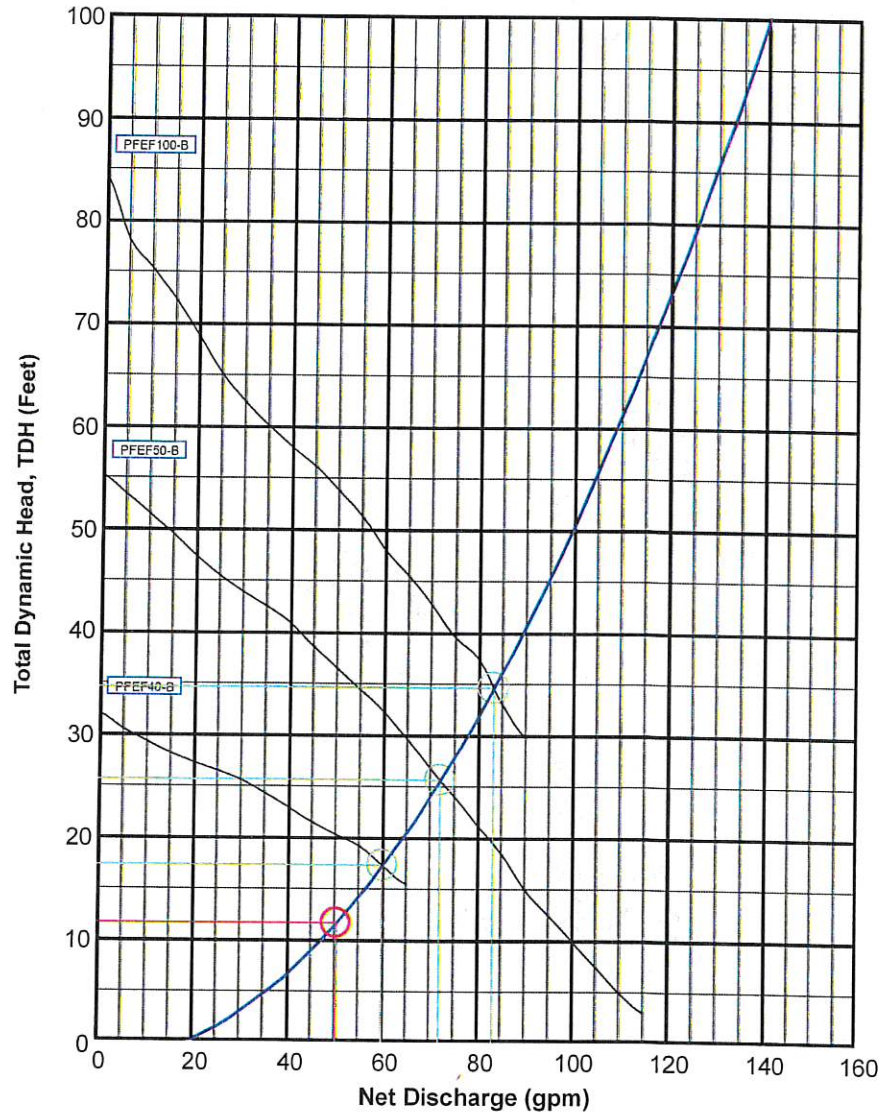
Loss through Discharge	5.1	feet
Loss in Transport	0.8	feet
Loss through Valve	0.0	feet
Loss in Manifold	2.2	feet
Loss in Laterals	0.5	feet
Loss through Flowmeter	0.0	feet
'Add-on' Friction Losses	0.0	feet

Pipe Volumes

Vol of Transport Line	3.5	gals
Vol of Manifold	2.2	gals
Vol of Laterals per Zone	34.2	gals
Total Volume	39.8	gals

Minimum Pump Requirements

Design Flow Rate	50.3	gpm
Total Dynamic Head	11.6	feet



PumpData

PFEF50 Effluent Pump
1/2HP, 115/230V 1Ø

PFEF40 Effluent Pump
4/10HP, 115/230V 1Ø

PFEF100 Effluent Pump
1HP, 230V 1Ø

Legend

System Curve:	—
Pump Curve:	—
Pump Optimal Range:	—
Operating Point:	○
Design Point:	○



PFEF Submersible Effluent Pumps

Applications

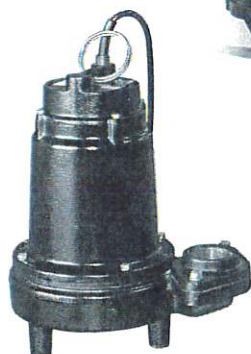
PFEF Effluent Pumps are used primarily for pumping effluent to low-pressure (gravity) dispersal areas. They can handle solids up to ¾-inch (19-mm) in diameter, and their corrosion-resistant construction makes them highly durable in wastewater applications. All PFEF units are CSA and UL listed. Manufactured by Franklin Electric.



PFEF4011-B



PFEF4012



PFEF5011-B and PFEF10012-B



Powered by

Franklin Electric

Features/Specifications

To specify this product, require the following:

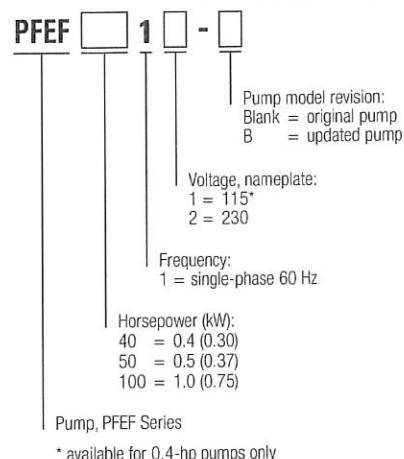
- Ability to handle liquids and solid waste materials up to ¾-inch (19-mm) in diameter
- Cast iron pump housing and cover with epoxy coating for corrosion resistance
- Oil-filled motor housing for lifetime lubrication and rapid heat dissipation
- Stainless steel screws, bolts, handle, and seal assembly
- Mechanical seals made of corrosion-resistant materials including stainless steel springs, nitrile parts, and carbon and ceramic faces
- Thermal overload protection for motor
- Rated for continuous duty
- Three-year warranty from date of manufacture

Standard Models

PFEF4011-B, PFEF4012, PFEF5011-B, PFEF5012-B, PFEF10012-B

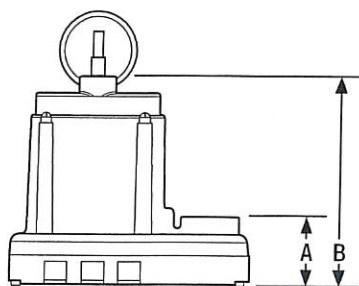
(Additional configurations available.)

Product Code Diagram

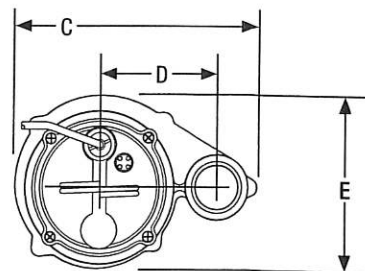


Materials of Construction

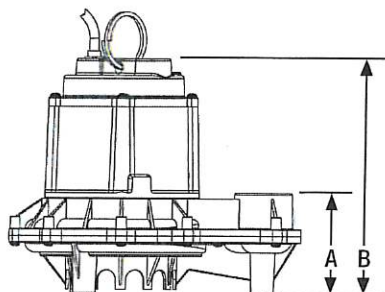
Component	PFEF4011-B	PFEF4012	PFEF50XX-B	PFEF10012-B
Motor Housing	Epoxy-coated cast iron	Epoxy-coated cast iron	Epoxy-coated cast iron	Epoxy-coated cast iron
Impeller	Thermoplastic elastomer	Polycarbonate	Epoxy-coated cast iron	Epoxy-coated cast iron
Volute	Epoxy-coated cast iron	ABS	Epoxy-coated cast iron	Epoxy-coated cast iron
Power cord	18/3, SJTW	16/3, SJTW	14/3, SJOOW	16/3, SJOOW
Mechanical shaft seal	Carbon/ceramic-faced nitrile	Carbon/ceramic-faced nitrile	Carbon/ceramic-faced nitrile	Carbon/ceramic-faced nitrile
Upper bearings	Sintered sleeve	Sintered sleeve	Ball	Ball
Lower bearings	Ball	Ball	Ball	Ball
Shaft	High-strength steel	416 stainless steel	416 stainless steel	416 stainless steel
Fasteners	Stainless steel	Stainless steel	Stainless steel	Stainless steel



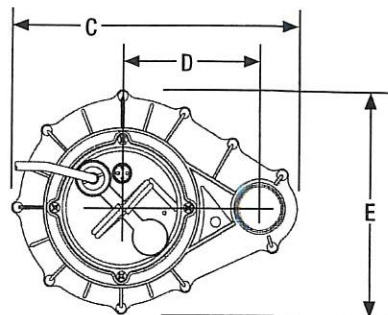
PFEF4011-B, side view



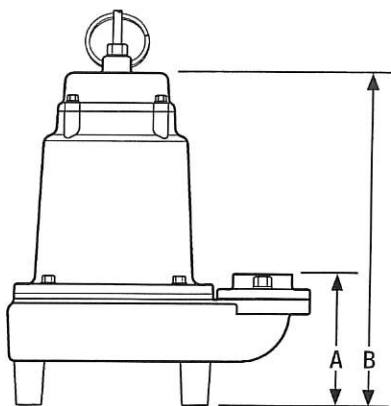
PFEF4011-B, top view



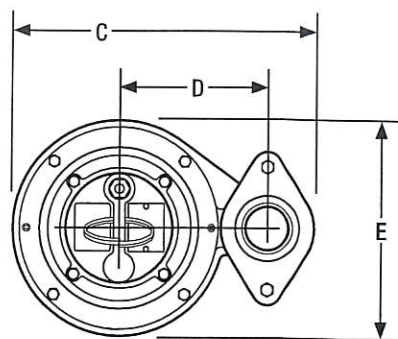
PFEF4012, side view



PFEF4012, top view



PFEF5011-B and PFEF10012-B, side view



PFEF5011-B and PFEF10012-B, top view

Specifications

Dimensions, in. (mm)	PFEF4011-B	PFEF4012	PFEF5011-B	PFEF5012-B	PFEF10012-B
A	2.9 (73)	3.9 (99)	3.8 (97)	3.8 (97)	3.8 (97)
B	9.2 (234)	9.3 (236)	13.8 (351)	13.8 (351)	13.8 (351)
C	9.6 (244)	11.7 (297)	12.3 (312)	12.3 (312)	12.3 (312)
D	4.6 (117)	5.7 (145)	5.8 (147)	5.8 (147)	5.8 (147)
E	6.8 (173)	9.0 (229)	9.5 (241)	9.5 (241)	9.5 (241)
Discharge size*	1½-inch FNPT	1½-inch FNPT	2-inch FNPT	2-inch FNPT	2-inch FNPT
Cord length, ft (m)	20.0 (6.1)	20.0 (6.1)	20.0 (6.1)	20.0 (6.1)	20.0 (6.1)
Weight, lb (kg)	26.5 (12.0)	24.0 (10.9)	56.0 (25.4)	56.0 (25.4)	57.0 (25.8)

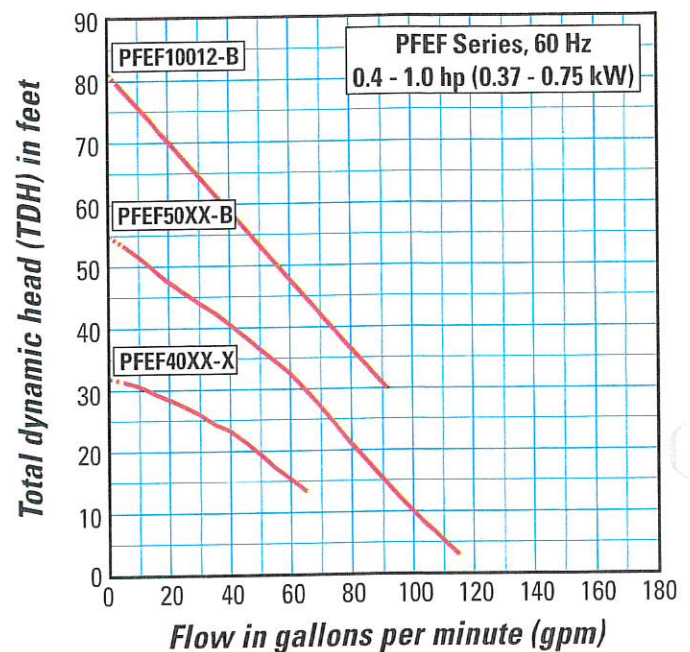
*Discharge is female NPT threaded, U.S. nominal size, to accommodate Orenco® discharge hose and valve assemblies. Consult your Orenco Distributor about fittings to connect discharge assemblies to metric-sized piping.

Performance

	PFEF4011-B	PFEF4012	PFEF5011-B	PFEF5012-B	PFEF10012-B
Horsepower (kW)	0.4 (0.30)	0.4 (0.30)	0.5 (0.37)	0.5 (0.37)	1.0 (0.75)
Nameplate voltage	115	230	115	230	230
Maximum amps	8.1	7.2	14.7	10.8	15.1
Minimum liquid level, in. (mm)	9.0 (230)	9.0 (230)	13.8 (351)	13.8 (351)	13.8 (351)
Maximum starts per day	100	100	100	100	100
Minimum off-time, minutes	1	1	1	1	1
Impeller type	Non-clog	Closed vane	Non-clog	Non-clog	Non-clog

Using a Pump Curve

A *pump curve* helps you determine the best pump for your system. Pump curves show the relationship between flow (gpm or L/sec) and pressure (total dynamic head, or TDH), providing a graphical representation of a pump's optimal performance range. At low flow rates, TDH varies from pump to pump, so it is represented as a dashed line in the pump curves. For the most accurate pump specification, use Orenco's PumpSelect™ software.



Appendix E – Test Pit Memo

2969 Airport Road, Suite 1B
Helena, MT 59601-1201
406 449 7764
KLJENG.COM

Memorandum

Date: 11/7/2024
To: Ron Anderson, R.S. Toole County Environmental Health
Copy to: Kevin Short
From: Justin Stefanik, KLJ Engineering
RE: Test Pits- Lots 11-30, Block 13 Pleasant View Tract

On October 8, 2024 Justin Stefanik (PLS) inspected the soils of a test pit located in located in the Lot 14 of Block 13 of Pleasant View Tract located North of Shelby. Please see Exhibit 1 for the approximate location of the test pit. The test pit was dug with a backhoe by the landowner to assess the application rate for the proposed new on-site subsurface wastewater treatment system. The following is summary of test pit and the soil profile along with photos.

Exhibit 1 (Test Pit Location)



Pt 114 test pit location

N48°31'16.20659"

W111°51'37.28695"

Elev - 3314.25

Test Pit

Test Pit was dug to a depth of 10 feet from existing ground level. No ground water or bedrock was encountered. The soil profile is as follows:

Horizon	Depth	Texture	Comments
A	0" – 6"	Topsoil	Dark brown organics
B	6" – 120"	Sandy Clay	2.5Y 6/3

Application Rate 0.2 gpd/ft²









Appendix F – Vicinity Map

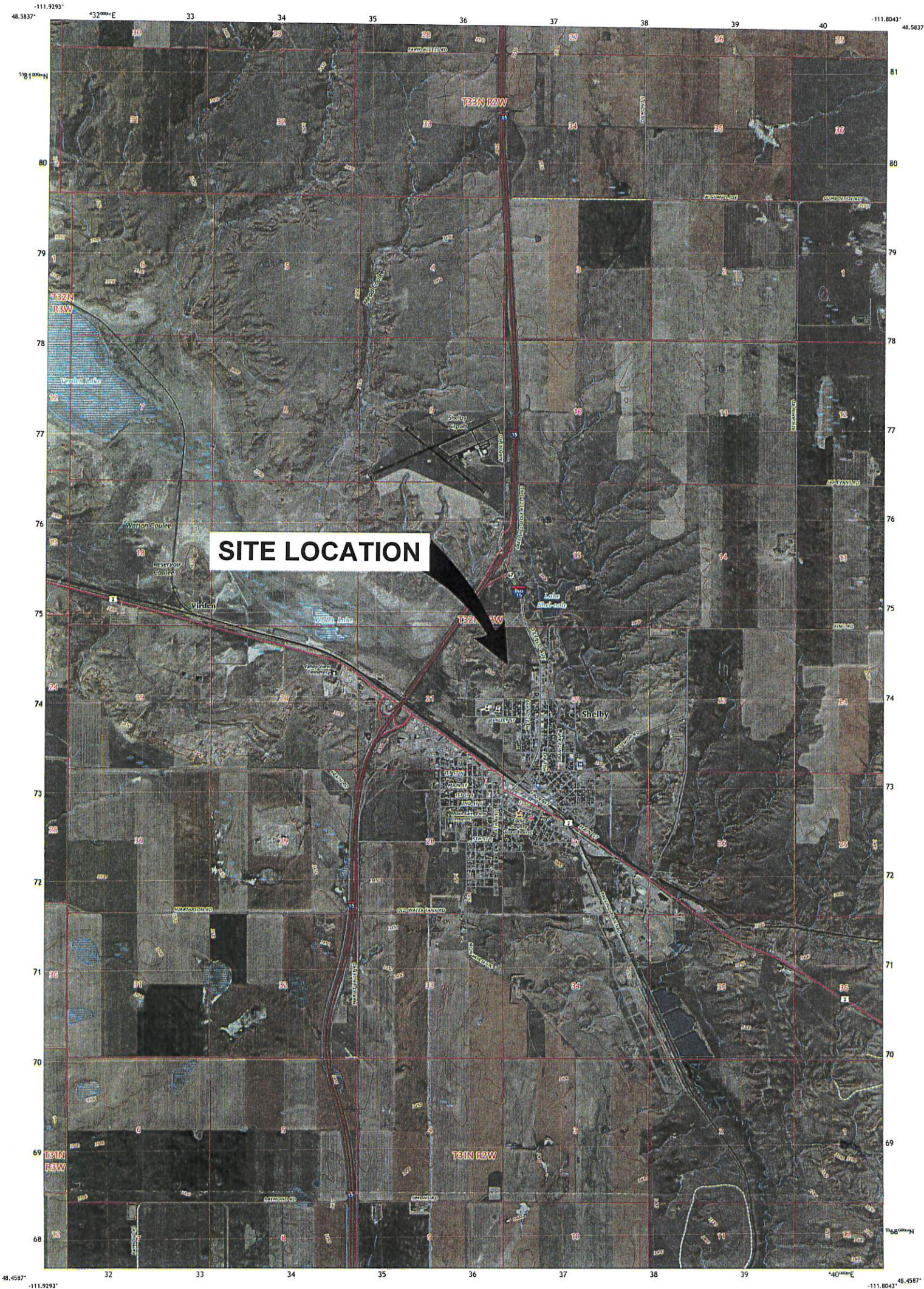
Nov 08, 2024 - 4:08pm - K:\Projects\Individual\Short_Kevin\2406-01478 Shelby CO\SACAD\Design\Model\2406-01478 Basemap SPC.dwg



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



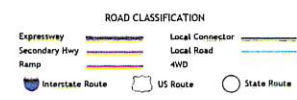
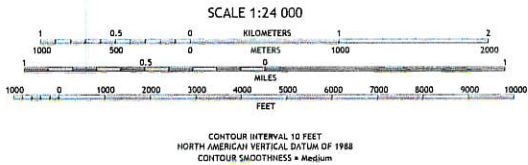
7.5-MINUTE TOPO QUADRANGLE
Custom Extent
7.5-MINUTE TOPO



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid/Universal Transverse Mercator, Zone 12U
Data is provided by The National Map (TNM), is the best available at the time of map
generation, and includes data content from supporting themes of Elevation,
Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover,
and Orthorectification. Refer to associated Federal Geographic Data Committee (FGDC)
Metadata for additional source data information.

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were collected and some data may no longer represent actual surface conditions.

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7.5-MINUTE TOPO, MT
2024

LOTS 21-30 BLOCK 007 & LOTS 11-30, BLOCK 010 & LOTS 1-20, BLOCK 011 & LOTS 1-20, BLOCK 012 &
LOTS 11-30, BLOCK 013 PLEASANT VIEW TRAIL ADDITION SECTION 22, T.32N., R.02E., P.M. MONTANA,
CASCADE COUNTY
KEVIN & ALLYSON SHORT
VICINITY MAP

PROJECT NUMBER	2406-01478
ISSUE DATE	10/15/2024
CREATED	JWS
REVIEWED	CEM

NO.	DATE	REVISION



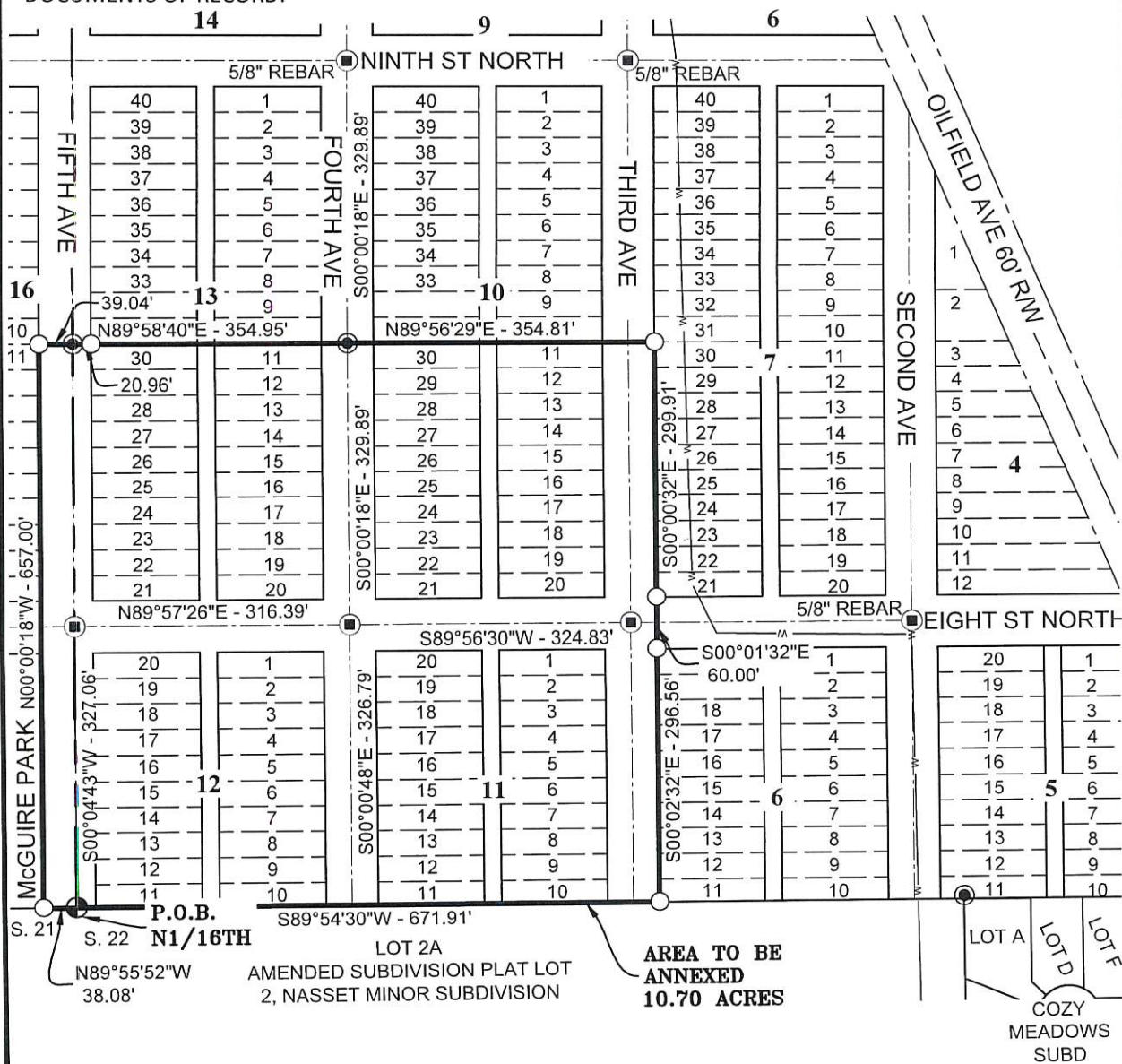
EXHIBIT A
CITY OF SHELBY ANNEXATION EXHIBIT

LAND OWNER: KEVIN SHORT AND ALLYSON SHORT
TOOLE COUNTY (ALLEYS AND STREETS)

LEGAL DESCRIPTION

A TRACT OF LAND LOCATED IN LOTS 11-30 OF BLOCK 10, LOTS 1-20 OF BLOCK 11, LOTS 1-20 OF BLOCK 12 AND LOTS 11-30 OF BLOCK 13 AND PORTIONS OF THIRD AVENUE, FOURTH AVENUE, FIFTH AVENUE, EIGHTH STREET NORTH AND PORTIONS OF THE ALLEYS IN BLOCK 10 AND 13 AND ALLEYS OF BLOCK 11 AND 12 OF PLEASANT VIEW TRACTS LOCATED IN THE NE1/4NE1/4 SECTION 21 AND NW1/4NW1/4 OF SECTION 22, T.32N., R.2W., P.M.MONTANA, TOOLE COUNTY; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE N1/16TH CORNER COMMON TO SAID SECTIONS 21 AND 22; THENCE N89°55'52"W 38.08 FEET ALONG THE SOUTH LINE OF SAID PLEASANT VIEW TRACTS TO THE SE CORNER OF McGUIRE PARK; THENCE N00°00'18"W, 657.00 FEET ALONG THE EAST LINE OF McGUIRE PARK AND BLOCK 16 OF SAID PLEASANT VIEW TRACTS TO THE NE CORNER OF LOT 11 OF BLOCK 16; THENCE N89°58'40"E, 354.95 FEET ALONG THE NORTH LINES OF LOTS 11 AND 30 OF BLOCK 13 TO THE CENTERLINE OF FOURTH AVENUE; THENCE N89°56'29"E, 354.81 FEET ALONG THE NORTH LINE OF LOTS 11 AND 30 OF BLOCK 10 TO THE NW CORNER OF LOT 30 OF BLOCK 7; THENCE S00°00'32"E, 299.91 FEET TO THE SW CORNER OF LOT 21 OF BLOCK 7; THENCE S00°01'32"E, 60.00 FEET TO THE NW CORNER OF LOT 20 OF BLOCK 6; S00°02'32"E, 296.56 FEET ALONG THE WEST LINE OF BLOCK 6 TO THE SW CORNER OF LOT 11 OF BLOCK 6; THENCE S89°54'30"W, 671.92 FEET ALONG THE SOUTH LINE OF SAID PLEASANT VIEW TRACTS TO THE POINT OF BEGINNING. SAID TRACT CONTAINS 10.70 ACRES MORE OR LESS AND IS SUBJECT TO ALL EXISTING EASEMENTS AND DOCUMENTS OF RECORD.



BASIS OF BEARING:
GEODETIC NORTH: BASED UPON G.P.S.
OBSERVATIONS AT N48°30'44.99978"
W111°50'30.51590"

LEGEND

- CALCULATED POSITION NOTHING SET OR FOUND
- FOUND 5/8" REBAR WITH YPC 4039S
- FOUND STONE BLOCK INTERSECTION MONUMENT
- ⊕ FOUND 1/16TH CORNER 5/8" REBAR YPC 4039S

P.O.B. POINT OF BEGINNING

100 0 100 200
SCALE FEET



Drawn By J. Stefanik Approved By J. Stefanik Project No. 2406-01478 Date 4/22/2025



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KEVIN SHORT ANNEXATION
KEVIN AND ALLYSON SHORT
A PORTION OF PLEASANT VIEW TRACTS
VICINITY MAP

SHEET
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