



WATER & SANITATION REPORT  
for

**CARRERA COMMONS SUBDIVISION**

Legally described as: The South 110' of Lot 5 of Curtis & Major's Addition, as described in Bk. 1088, Pg. 547, Micro Records of Missoula County, located in the (SW 1/4) of S20, T13 N, R19 W, P.M.M., Missoula County, Montana; containing 1.58 acres, more or less.

Published: March 2024

**Prepared For:**  
Homes for Missoula, LLC  
P.O. Box 373,  
Frenchtown, MT 59834

**Prepared By:**  
IMEG Corp.  
1817 South Ave. West, Suite A  
Missoula MT, 59801

**J.1 - Map.** A vicinity map or plan that shows:

- a. The location, within 100 feet outside of the exterior property line of the subdivision and on the proposed lots, of floodplains; surface water features; springs; irrigation ditches;  
***A Vicinity Map is included in Appendix A showing the location of the property in relation to the surrounding area. A more detailed and extensive exhibit is provided in the Supplemental Data Sheets included in Section A showing all the required information outlined in section J.1, J.2, and J.3 of the subdivision application.***

***The property contains an existing irrigation ditch responsible for delivering irrigation water for agricultural purposes to the surrounding properties. This irrigation ditch will be contained within a proposed 10' Irrigation Ditch Easement that runs along the western property line of the proposed subdivision. This irrigation ditch is responsible for delivering irrigation water for agricultural purposes to surrounding properties year-round. In addition, an existing private branch extends off this irrigation ditch along the western property line. Further, a private branch is known to exist along the northern portion of this property according to the ditch company that is planned to be capped/removed prior to final plat approval. The exact location, length, size, and condition of this branch is unknown as the ditch company does not keep record of private branches and correspondence with the previous landowner has not allowed permission for the ditch company to observe or cap this line. The approximate location of the private irrigation lateral along the northern property boundary has been shown on the Existing Conditions exhibit within the Supplemental Data Sheets in Section A. This lateral will be capped and abandoned prior to final plat approval. Please see the Orchard Homes Ditch Company Correspondence email in Section E for further clarification. There are no other floodplains; surface water features; springs; irrigation ditches within 100 feet of the proposed subdivision.***

- b. Existing, previously approved, and, for parcels fewer than 20 acres, proposed water wells and wastewater treatment systems; for parcels less than 20 acres, mixing zones;  
***All existing and previously approved water wells and wastewater treatment systems have***

*been shown within 100 feet of the property boundary on the Existing Conditions exhibit included in Appendix B herein. The previous sewer connection has been capped off the eastern property line, reference Permit #2023-MSS-SWR-00837. An existing well has been abandoned that had been serving the recently demolished single-family home built in 1935, according to publicly available data. Therefore, the well has been appropriately abandoned according to the Missoula City-County Health Code, Regulation 1 reasonably minimizing potentially significant adverse impacts to water supply. Please reference GWIC ID #329990 included in Appendix A herein.*

*The proposed subdivision will be served by the City of Missoula municipal systems. A new water main will be extended from the existing 6" steel water main located in S. Curtis Street into the subdivision. The proposed water main extension will be constructed within the right-of-way of the newly proposed Pit Lane. A new sewer service will be proposed for each residential home through the existing sewer main adjacent to the southern property line. This sewer facility will provide individual services to all lots within the proposed subdivision.*

*These facilities will be expanded to serve all lots within the proposed subdivision. The proposed extension is subject to Montana Department of Environmental Quality (DEQ) standards and local ordinances which it will adhere to.*

- c. The representative drainfield site used for the soil profile description; and  
*Onsite wastewater systems utilizing drainfields are not proposed for this site.*
- d. The location, within 500 feet outside of the exterior property line of the subdivision, of public water and sewer facilities.  
*The location of existing public water and sewer facilities adjacent and surrounding the subdivision have been shown on the Supplemental Data Sheets in Section A.*

**J.2 - Description.** A description of the proposed subdivision's water supply systems, storm water systems, solid waste disposal systems, and wastewater treatment systems, including whether the water supply and wastewater treatment systems are individual, shared, multiple users, or public as those systems are defined in rules published by the Montana Department of Environmental Quality (DEQ).

*Impacts to groundwater quality are not anticipated as the proposed connection is to the City of Missoula Wastewater and Water Facilities. A review of soil conditions was observed by Pilch Engineering during a site visit on November 30, 2023. The report states no groundwater was observed during field explorations. While adjacent well logs (GWIC ID #329990, #189526 and #282851) indicate groundwater to be 21' - 26' below the ground surface, the LaFave Potentiometric Surface Exhibit shows groundwater elevation to be approximately 3142' mean sea elevation at this location, which is approximately 16.5' below the surveyed elevation of the subject property. Based on the LaFave study, geotechnical investigation, and surrounding well logs, the maximum and minimum depths to water table can conservatively noted at 15' - 80' below existing the sites existing grade. The well log data is further substantiated by the LaFave Map included in Section D showing the aquifer classification for the subject property is "shallow" which means it is less than 80' below the surface. The referenced well logs are included in Appendix C herein.*



**Generally, the storm water system will include onsite mitigation and infiltration based on the Missoula City requirements. See the Grading, Drainage, and Engineering Design Report in Section D of this application for more details on the storm water system. Stormwater runoff generated by the new impervious surfaces (roads, sidewalks, parking lane, buildings, etc.) will be subject to the regulations required of a Stormwater Pollution Prevention Plan SWPPP which will be reviewed by the City Engineering as part of the As-Built documentation.**

**Wastewater from this subdivision will be processed and discharged using public facilities managed by the Missoula Wastewater Treatment facility. A new sewer service will be proposed for each residential home through the existing 8" sewer main adjacent to the southern property line. Garbage collection in Missoula is provided by private businesses, therefore, Republic Services is proposed to provide solid waste collection and disposal.**

**J.3 - Lot Layout.** A drawing of the conceptual lot layout at a scale no smaller than 1 inch equal to 200 feet that shows all information required for a lot layout document in rules adopted by the Montana Department of Environmental Quality pursuant to 76-4-104, MCA.

**A drawing of the Utility Construction Plans at a scale of 1-inch equals 200 feet that shows all the information required pursuant to 76-4-104, MCA is included in Section D of this submittal.**

**J.4 - Suitability.** Evidence of suitability for new on-site wastewater treatment systems that, at a minimum, include:

- e. A soil profile description from a representative drain-field site identified on the vicinity map that complies with standards published by the Montana Department of Environmental Quality;

**No drainfields are proposed; this requirement is not applicable.**

- f. Demonstration that the soil profile contains a minimum of 4 feet of vertical separation distance between the bottom of the permeable surface of the proposed wastewater treatment system and a limiting layer; and

**No drainfields are proposed; this requirement is not applicable.**

- g. In cases in which the soil profile or other information indicates that ground water is within 7 feet of the natural ground surface, evidence that the ground water will not exceed the minimum vertical separation distance of 4 feet.

**No drainfields are proposed; this requirement is not applicable.**

**J.5 - Water Quantity.** For new water supply systems, unless cisterns are proposed, evidence of adequate water availability:

- h. obtained from well logs or testing of onsite or nearby wells;

**This is not applicable as Missoula Water, a regulated public water supply, is providing water to this proposed subdivision.**

- i. obtained from information contained in published hydro-geological reports; or

**This is not applicable as Missoula Water, a regulated public water supply, is providing water to this proposed subdivision.**



j. as otherwise specified by rules adopted by the Montana Department of Environmental Quality pursuant to 76-4-104, MCA.

***This is not applicable as Missoula Water, a regulated public water supply, is providing water to this proposed subdivision.***

k. Demonstration that the soil profile contains a minimum of 4 feet of vertical separation distance between the bottom of the permeable surface of the proposed wastewater treatment system and a limiting layer; and

***No drainfields are proposed; this requirement is not applicable.***

l. In cases in which the soil profile or other information indicates that ground water is within 7 feet of the natural ground surface, evidence that the ground water will not exceed the minimum vertical separation distance of 4 feet.

***No drainfields are proposed; this requirement is not applicable.***

**J.6 - Water Quantity.** For new water supply systems, unless cisterns are proposed, evidence of adequate water availability:

m. obtained from well logs or testing of onsite or nearby wells;

***This is not applicable as Missoula Water, a regulated public water supply, is providing water to this proposed subdivision.***

n. obtained from information contained in published hydro-geological reports; or

***This is not applicable as Missoula Water, a regulated public water supply, is providing water to this proposed subdivision.***

o. as otherwise specified by rules adopted by the Montana Department of Environmental Quality pursuant to 76-4-104, MCA.

***This is not applicable as Missoula Water, a regulated public water supply, is providing water to this proposed subdivision.***

**J.7 - Water Quality.** Evidence of sufficient water quality in accordance with rules adopted by the Montana Department of Environmental Quality pursuant to 76-4-104, MCA.

***This is not applicable as Missoula Water, a regulated public water supply, is providing water to this proposed subdivision.***

**J.8 - Impacts to groundwater quality.** Preliminary analysis of potential impacts to ground water quality from new wastewater treatment systems, using as guidance rules adopted by the board of environmental review pursuant to 75-5-301, MCA and 75-5-303, MCA related to standard mixing zones for ground water, source specific mixing zones, and non-significant changes in water quality. The preliminary analysis may be based on currently available information and must consider the effects of overlapping mixing zones from proposed and existing wastewater treatment systems within and directly adjacent to the subdivision. Instead of performing the preliminary analysis, the sub-divider may perform a complete non-degradation analysis in the same manner as is required for an application that is reviewed under Title 76, Chapter 4.

***This section generally applies to non-degradation due to the installation of on-site wastewater disposal and drainfields. This residential subdivision will be served by city facilities. Therefore, this section is not applicable as wastewater from this subdivision will be processed and***



***discharged to surface water at the Missoula Wastewater Treatment facility.***

Sincerely,  
**IMEG Corp.**

Prepared By:



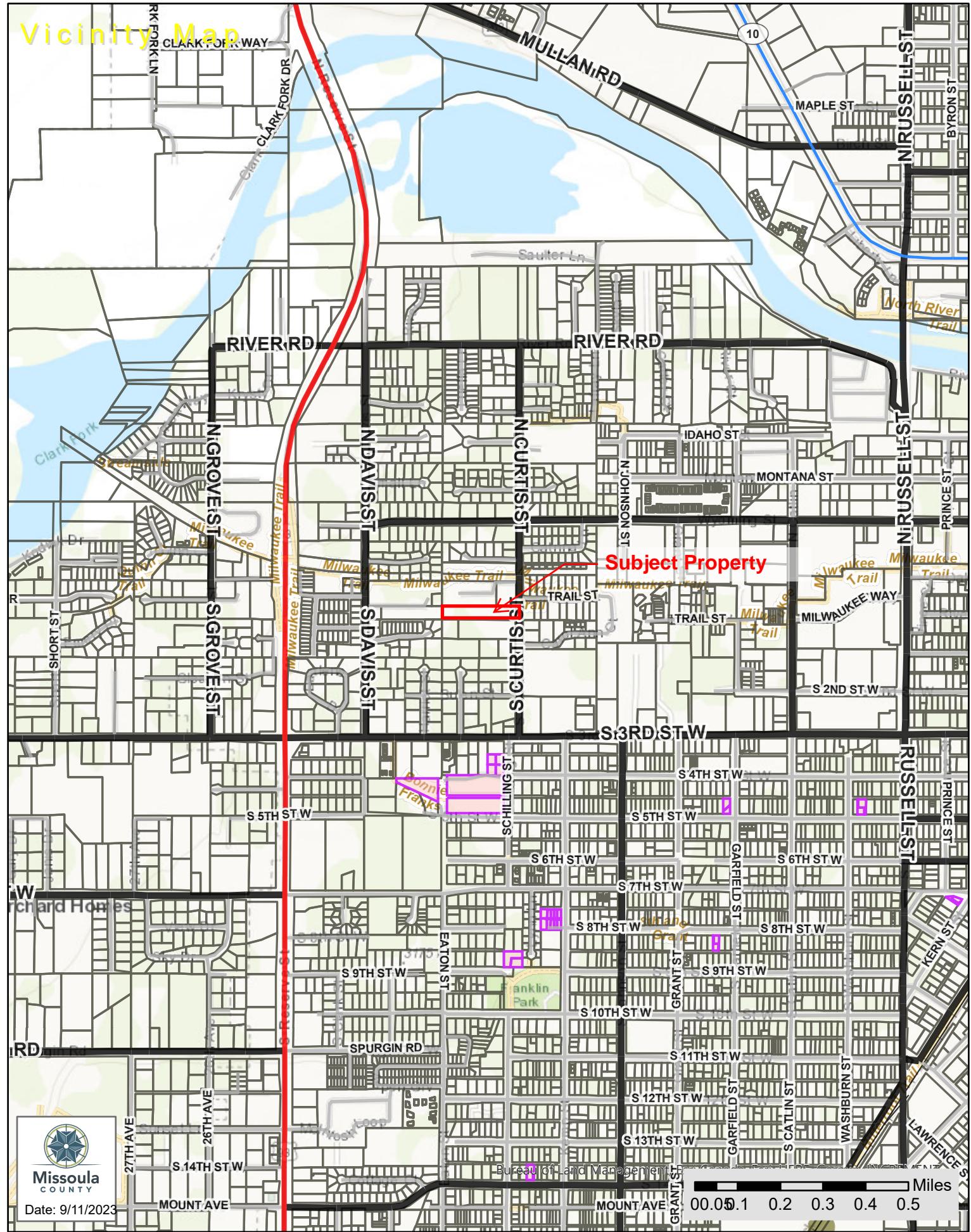
Tamara R. Ross  
Civil Designer / Planning Technician  
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# APPENDIX A

- Vicinity Map

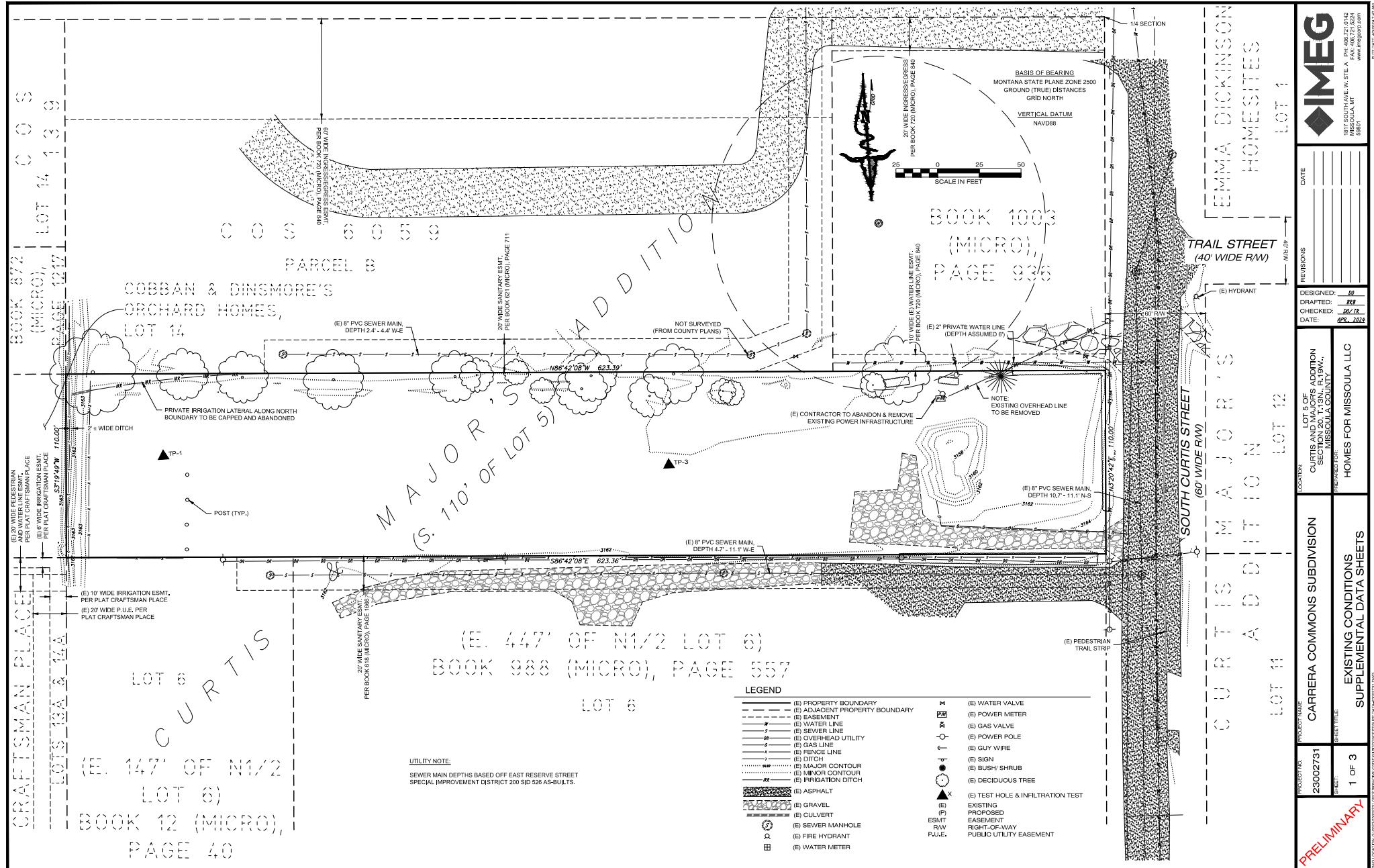
# Vicinity Map



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# APPENDIX B

## -Existing Conditions



# APPENDIX C

**- Well Logs in the Vicinity**









