STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION

# GENERAL PERMIT for SEWER EXTENSION CONSTRUCTION

The Missouri Department of Natural Resources hereby issues a permit to:

| | |
|---|---|
| Construction Permit ID: | MOGC00758 |
| Title of Project: | MDNR, Meramec State Park WWTF |
| Owner: | MDNR, Division of State Parks |
| Address: | PO Box 176<br>Jefferson City, MO 65102 |

The project will also include general site work appropriate to the scope and purpose of the project and will include all the necessary appurtenances to make a complete and usable collection system. The construction of this project will be in the vicinity of the county below and discharge to Receiving Permit ID below:

County: Franklin Receiving Permit ID: MO0098281

for the construction of (described construction project):

Meramec State Park Wastewater Improvements -Construction of approximately 14,788 lf of 4-inch HDPE SDR-11 force main with cleanouts and air release valves, 2 duplex lift stations. Pumps in the first lift station are capable of operating at 66 gpm at 236 feet of TDH, and pumps in the second lift station are capable of operating at 74 gpm at 232 TDH. System is to serve 200 PE and a design average flow of 19,919 gpd. The project is located along Meramec State Park Road and MO Highway 185. The continuing authority will be the City of Sullivan.

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department) As the Department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.
This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

January 13, 2025
Issue Date

John Hoke, Director
Water Protection Program

January 12, 2027
Expiration Date

## APPLICABILITY

1. This permit authorizes the construction of gravity sewer extensions, force mains, and lift stations. Non-earthen flow equalization storage basins at lift stations and inline storage, which flows back into the lift station or collection system, are also included.

2. The Missouri Department of Natural Resources may require a site-specific sewer extension construction permit due to compliance and enforcement actions in accordance with 10 CSR 20-6.010(13)(C).

3. This permit does not apply to:
   A. Earthen storage basins;
   B. Exempt projects in accordance with 10 CSR 20-6.010(1)(B), 10 CSR 20-6.010(5)(B), and RSMo 644.051 unless requested by the applicant or required by enforcement.

## PREREQUISITES:

1. The Sewer Extension Construction Permit application, appropriate fee, and documentation in accordance with 10 CSR 20-6.010(5)(G).

2. Submit the Sewer Extension Construction Permit application at least sixty (60) days in advance of the start of construction in accordance with 10 CSR 20-6.010(5)(F).

3. Submit an electronic copy of the construction permit application and documents to DNR.WPPEngineerSection@dnr.mo.gov in accordance with 10 CSR 20-6.010(5)(G)3.

4. The plans and specifications, each signed, sealed, and dated by a professional engineer registered in the State of Missouri in accordance with 10 CSR 20-8 and 10 CSR 20-6.010.

5. The Design Certification form, Engineering Report, or Summary of Design, signed, sealed, and dated by a professional engineer registered in the State of Missouri, certifying the design of the system is in accordance with 10 CSR 20-6 and 10 CSR 20-8.

6. A statement from the continuing authority, as defined in 10 CSR 20-6.010, accepting the wastewater for treatment and indicating the permitted treatment facility has the available capacity.

7. A statement from the continuing authority, as defined in 10 CSR 20-6.010, accepting responsibility for the operation and maintenance of these facilities.

## PERMIT CONDITIONS:

1. This permit authorizes the activities and scope of work detailed in the plans and specifications submitted with the request.

2. The construction must be in accordance with the final plans and specifications received by the Department. Revisions that affect capacity, flow, or system layout must be approved by the Department prior to construction.

**PERMIT CONDITIONS: (continued)**

3. If construction will incorporate minor changes from previously submitted plans and specifications (i.e., changes that do not affect the capacity, flow, or system layout), submit an electronic copy of the as-built plans and specifications in accordance with 10 CSR 20-8.110(11).

4. State and Federal Law does not permit bypassing of raw wastewater; therefore, the applicant must take steps to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the Department's regional office per 10 CSR 20-7.015(9)(E) or through the Online Bypass/SSO Reporting service on the Missouri Gateway for Environmental Management (MoGEM) portal found at https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem.

   See https://dnr.mo.gov/document-search/missouri-gateway-environmental-management-mogem-frequently-asked-questions-pub2988/pub2988 for more information.

5. Protection of drinking water supplies must meet the requirements of 10 CSR 20-8.120(5).
   A. There shall be no physical connections between a public or private potable water supply system and a sewer or appurtenance that would permit the passage of any wastewater or polluted water into the potable supply.
   B. Lay sewers at least 50 feet (50') in a horizontal direction from any existing or proposed public water supply well or other water supply sources or structures.

6. Position manholes so that the top access is at or above grade level.

7. In addition to the requirements for a construction permit, see 10 CSR 20-6.200 for land disturbance requirements to obtain a Missouri State Operating Permit to discharge stormwater. The permit requires Best Management Practices sufficient to control runoff and sedimentation to protect waters of the state. Applicants shall obtain land disturbance permits through the Department's ePermitting system, available online at https://dnr.mo.gov/data-e-services/water/electronic-permitting-epermitting.

   See https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/stormwater/construction-land-disturbance for more information.

8. Entities applying for funding under 10 CSR 20-4, "Grants and Loans" will need to comply with those requirements in addition to the requirements of 10 CSR 20-8.

**PERMIT CONDITIONS: (continued)**

9. The Department may require a United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) or a permit waiver for the activities described in this permit. If construction activity will disturb any land below the ordinary high water mark of Jurisdictional Waters of the U.S., then a 404/401 is required. Fulfillment of these requirements is necessary before the permit is considered valid. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Operating Permits Section at 573-522-4502 for more information.

   See https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/section-401-water-quality for more information.

10. If this project eliminates a wastewater treatment facility under the jurisdiction of the Department, then the applicant shall submit a full closure plan with a Facility Closure Request Form, Form – MO 780-2512, to the Department's appropriate regional office for review and approval. In accordance with 10 CSR 20-6.010(12), the closure plan must meet the requirements outlined in Standard Conditions Part III of the Missouri State Operating Permit. Closure shall not commence until the Department approves the submitted closure plan.

11. If this project is part of a project to resolve an enforcement action or is receiving funding from the Department, submit a statement of work complete following the completion of construction.

12. Applicants may submit, prior to the expiration date of this permit, a written request that additional time is needed in accordance with 10 CSR 20-6.010(5)(H)3.

Recd 6/27/24

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

# APPLICATION FOR CONSTRUCTION PERMIT – SEWER EXTENSION

| FOR DEPARTMENT USE ONLY | |
|---|---|
| APP NO. | CP NO. |
| FEE RECEIVED | CHECK NO. |
| DATE RECEIVED | |

**NOTE ▶ Please Read the accompanying instructions before completing this form**

**1.0 APPLICATION INFORMATION** (Note – If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

1.1 Is this a Federal/State funded project? ☑ YES ☐ N/A Funding Agency: State of Missouri Project #: X2306-03

1.2 Has the Department of Natural Resources approved the proposed project's engineering report*?
☐ YES Date of Approval: ☑ NO ☐ N/A

1.3 Is a copy of the appropriate plans* and specifications* included with this application? ☑ YES ☐ NO

If the project is using standard specifications, name of community: _____

1.4 Is a summary of design* included with this application? ☑ YES ☐ NO

1.5 Is the appropriate fee or JetPay confirmation included with this application? ☐ YES ☑ NO
See Section 7.0

* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

**2.0 PROJECT INFORMATION**

2.1 NAME OF PROJECT
Meramec State Park Wastewater Improvements

| ADDRESS | CITY | STATE | ZIP CODE | COUNTY |
|---|---|---|---|---|
| 115 Meramec Park Drive | Sullivan | MO | 63080 | Fanklin |

2.2 Legal Description: ¼, S ¼, N ¼, Sec. 13 , T 40 , R 2W

2.3 Project Components (check all that apply):
☐ Gravity sewers ☑ Pumping stations ☑ Force mains ☐ Alternative sewer system ☐ Other (Describe below.)

2.4 PROJECT DESCRIPTION
Project involves the regionalization of the Meramec SP WWTF (MO-0098281) with the City of Sullivan WWTF (MO-0104736). Two submersible grinder pump stations shall be installed. Lift Station No. 1 (LS1)shall be constructed approximately 1,400 FT north of the Missouri Highway 185 Meramec River Bridge. All wastewater generated within the State Park shall be collected at the LS1 and conveyed to Lift Station No. 2 via a 11,400 FT, 4 IN SDR-11 IPS HDPE force main. Lift Station No. 2 (LS2)shall be located at the southern extent of the intersection of Missouri Highway 185 and the Missouri Highway 185 Spur. The LS2 shall convey all wastewater from to the City of Sullivan collection system via 3,388 FT, 4 IN SDR-11 IPS HDPE force main. A chemical feed system shall be installed at the LS2 site for the dosing of calcium nitrate for odor control.

2.5 DESIGN INFORMATION
A. Population or number of lots to be served by this extension: 199 PE
B. Estimated flow to be contributed by this extension: Design Average Flow: gpd Design Peak Hourly Flow: gph
C. Industrial Wastes: Type: N/A Flow: gpd
D. Receiving Sewer: Size: 8 inches Capacity: 600 gpm
E. Does this project (check all that apply):
☑ Connect to an existing treatment plant ☐ Resolve enforcement issue ☑ Eliminate or consolidate an existing treatment plant
F. Estimated number of onsite systems being removed: N/A
G: Estimated costs associated with piping: $ 1588963 Estimated costs associated with lift station(s): $ 1248470

**3.0 PROJECT OWNER**

| NAME | TELEPHONE NUMBER WITH AREA CODE | EMAIL ADDRESS |
|---|---|---|
| Missouri Department of Natural Resorces | 573-751-5360 | nathan.graessle@dnr.mo.gov |

| ADDRESS | CITY | STATE | ZIP CODE |
|---|---|---|---|
| P.O. Box 176 | Jefferson City | MO | 65102 |

CHARTER NUMBER (SECRETARY OF STATE) or REGISTERED AGENT

**4.0 CONTINUING AUTHORITY:** A continuing authority is a company, business, entity, or person(s) that will be legally responsible for ensuring compliance with the permit requirements and provide continuous stable oversight of the permitted facility or activity. The Continuing authority should be a relatively permanent entity responsible for the ongoing operation, maintenance and modernization, when needed, of the permitted facility or activity. A continuing authority is not, however, an entity or individual that is contractually hired by the permittee to sample or operate and maintain the system for a defined time period, such as a certified operator or analytical laboratory. To access the regulatory requirement regarding continuing authority, 10 CSR 20-6.010(2), please visit Clean Water Commission Chapter 6. A continuing authority's name must be listed exactly as it appears on the Missouri Secretary of State's (SoS's) webpage: Missouri Secretary of State, unless the continuing authority is an individual(s), government entity, or otherwise not required to register with the SoS.

| NAME | TELEPHONE NUMBER WITH AREA CODE | EMAIL ADDRESS |
|---|---|---|
| Missouri Department of Natural Resources | 573-751-5360 | nathan.graessle@dnr.mo.gov |

| ADDRESS | CITY | STATE | ZIP CODE |
|---|---|---|---|
| P.O. Box 176 | Jefferson City | MO | 65102 |

CHARTER NUMBER (SECRETARY OF STATE)

4.1 Has appropriate continuing authority acceptance been provided as follows:
A letter from the continuing authority accepting responsibility for continued maintenance of the sewer (if the continuing authority is different than the original owner of the construction), or a properly executed "Continuing Authority and Receiving Wastewater Treatment Facility Acceptance" Form 780-2584. ☐ YES ☐ NO ☐ N/A

**5.0 ENGINEER**

| ENGINEER NAME / COMPANY NAME | TELEPHONE NUMBER WITH AREA CODE | EMAIL ADDRESS |
|---|---|---|
| Archer-Elgin Engineering & Surveying | 573-364-6362 | kcampbell@cmarcher.com |

| ADDRESS | CITY | STATE | ZIP CODE |
|---|---|---|---|
| 310 E. 6th St | Rolla | MO | 65401 |

**6.0 RECEIVING WASTEWATER TREATMENT FACILITY**

| NAME | TELEPHONE NUMBER WITH AREA CODE | EMAIL ADDRESS |
|---|---|---|
| Sullivan WWTP | 573-468-8975 | rschaffer@sullivan.mo.us |

| MISSOURI STATE OPERATING PERMIT # | COUNTY | REMAINING CAPACITY (GPD) |
|---|---|---|
| MO-0104736 | Franklin | 300,000 |

6.1 If different from the owner, has a letter been provided from the receiving treatment facility demonstrating that they agree to accept the expanded flow **or** has a properly executed Continuing Authority and Receiving Wastewater Treatment Facility Acceptance MO 780-2584 form been provided? ☐ YES ☑ NO ☐ N/A

6.2 A letter from the receiving wastewater treatment facility, if different than the continuing authority, is included with this application. ☐ YES ☑ NO ☐ N/A

6.3 If the receiving treatment plant or continuing authority is regulated by the Public Service Commission (PSC) for sewer activities, a Certificate of Convenience and Necessity has been received? ☐ Yes – Date: ☐ No ☑ N/A

**OPTIONAL QUESTIONS REGARDING MILITARY SERVICE**

| | | |
|---|---|---|
| Have you or an immediate family member ever served in the U.S. Armed Forces? | ☐ Yes | ☐ No |
| If yes, would you like information about military-related services in Missouri? | ☐ Yes | ☐ No |

**7.0 Application Fee**

☐ Check Number ☐ JetPay Confirmation Number

**8.0 PROJECT OWNER:** I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

PROJECT OWNER SIGNATURE

| PRINTED NAME | DATE |
|---|---|
| Nathan Graessle | 6/27/24 |

| TITLE OR CORPORATE POSITION | TELEPHONE NUMBER WITH AREA CODE | EMAIL ADDRESS |
|---|---|---|
| | 573-751-5360 | nathan.graessle@dnr.mo.gov |

Mail completed copy to:

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
PO BOX 176
JEFFERSON CITY, MO 65102-0176

Submit completed electronic copy to:

Missouri Department of Natural Resources
at **DNR.WPPEngineerSection@dnr.mo.gov**

MO 780-1632 (10-22)

| 9.0 SEWER EXTENSION CHECKLIST | | | | |
|---|---|---|---|---|
| **SEWER EXTENSION DESIGN CERTIFICATION:** Answer all questions yes or N/A. Answer N/A only if the question is clearly not applicable to the design of the proposed sewer extension. | | | | |
| | REGULATION | | YES | N/A |
| 1. | 8.110(3)(A) | Is the design flow based on actual flow data for an existing system? | ☐ | ☐ |
| 2. | 8.110(3)(B) | Are average design flows, peak hourly flows and I&I contributions for new systems calculated? | ☐ | ☐ |
| 3. | 8.110(9)(B) | Is there a detailed plan showing tributary area, boundaries, pertinent elevations, topography, existing and proposed facilities? | ☐ | ☐ |
| 4. | 8.120(2) | Does the sewer exclude water from roofs, streets, groundwater from foundation drains and combined wastewater? | ☐ | ☐ |
| 5. | 8.120(3)(A) | Is the pipe installation, embedment and backfill designed to prevent damage to the pipe and its joints? | ☐ | ☐ |
| 6. | 8.120(3) (A)1 | Is all sewer pipe constructed with a slope to obtain mean velocities of not less than 2 feet per second? | ☐ | ☐ |
| 7. | 8.120(3)(A)2 | Is the pipe covered with at least 36" of soil or sufficiently insulated to prevent freezing? | ☐ | ☐ |
| 8. | 8.120(3)(B) | Is deflection testing specified to ensure no pipe exceeds a deflection of 5% of the inside diameter? | ☐ | ☐ |
| 9. | 8.120(4)(A) | Are manholes located at the end of each line, at all changes in grade, size or alignment and at all intersections? | ☐ | ☐ |
| 10. | 8.120(4)(C) | Are manholes at least 42 inches in diameter with a clear opening of 22 inches on sewer line larger than 8"? | ☐ | ☐ |
| 11. | 8.120(4)(C) | Where cleanouts are used at the end of a lateral instead of a manhole, they are a minimum diameter of 8 inches or larger and equal to the diameter for pipes < 8"? | ☐ | ☐ |
| 12. | 8.120(4)(E) | Are the manholes watertight, constructed and installed in accordance with the manufacturer's recommendations and procedures? | ☐ | ☐ |
| 13. | 8.120(4)(F) | Do the specifications include a requirement for inspection and testing for manholes? | ☐ | ☐ |
| 14. | 8.120(5)(A) | Is the sewer free from physical connections to a potable water supply system and no water pipes come in contact with a sewer manhole? | ☐ | ☐ |
| 15. | 8.120(5)(B) | Are sewers and manholes located at least 50 feet horizontally from any existing or proposed water supply well, sources, structures? | ☐ | ☐ |
| **10.0 PRESSURE SEWERS, GRINDER PUMP, STEP AND STEG SEWER CHECKLIST** | | | | |
| | REGULATION | | YES | N/A |
| 16. | 8.125(5)(A)1. | Does the cleaning velocity of ≥ 2 ft/s happen more than once per day? | ☐ | ☐ |
| 17. | 8.125(5)(A)2. | Is the diameter of the pressure sewer main pipe at least 1.5"? | ☐ | ☐ |
| 18. | 8.125(5)(B) | Are appurtenances compatible with the piping system? | ☐ | ☐ |
| 19. | 8.125(5)(B)2. | Are isolation valves located: upstream of major pipe intersections; both sides of stream, bridge and RR crossings; at terminal end of system? | ☐ | ☐ |
| 20. | 8.125(5)(C) | Do service line pipes have a minimum diameter of 1.25"? | ☐ | ☐ |
| 21. | 8.125(5)(D)1.A. | Do simplex grinder pump stations service only a single equivalent dwelling unit (EDU)? i.e. 1 residence – 1 grinder pumpt. | ☐ | ☐ |
| 22. | 8.125(5)(D)1.B. | Are multiple unit pump stations owned, operated and maintained by an approved continuing authority? | ☐ | ☐ |
| 23. | 8.125(5)(D)3. | Is there at least 70 gallons of storage in the grinder pump unit? | ☐ | ☐ |
| 24. | 8.125(5)(D)4. | Do grinder pump stations have shutoff valves, check valves and anti-siphon valves (where siphoning could occur) that are accessible from the ground surface? | ☐ | ☐ |
| 25. | 8.125(5)(D)7., 8.130(3)(B)2. | Are units serviceable and replaceable under wet conditions without electrical hazard and is electrical equipment suitable for hazardous locations (National Electrical Code, Class I, Group D, Division 1 location)? | ☐ | ☐ |
| 26. | 8.125(5)(D)8., 8.125(2)(F)6. | Are provisions in place to avoid interruption of service due to mechanical or power failure by providing standby power, storage capacity, or interconnection with another disposal system? | ☐ | ☐ |
| 27. | 8.125(6)(D) | In a STEP system is at least one septic tank (1,000 gallons or more) provided for each EDU with 20% of tank volume dedicatied to freeboard and ventillation? | ☐ | ☐ |
| 28. | 8.125(6)(F) | Are duplex pumps provided for the design flow of 1,500 gallons or greater? | ☐ | ☐ |

| 11.0 PUMP STATION CHECKLIST | | | | |
|---|---|---|---|---|
| | REGULATION | | YES | N/A |
| 29. | 8.125(7)(C) | Is the minimum diameter sewer main pipe and service line of STEG sewer at least 4"? | ☑ | ☐ |
| 30. | 8.130(2)(A)<br>8.140(2)(B) | Is the pump station designed to withstand the 100-year flood? | ☑ | ☐ |
| 31. | 8.130(3)(A) | Is the dry well completely separate from the wet well and is a suitable and safe means of access provided to each? | ☐ | ☑ |
| 32. | 8.130(3)(B) | If the design flow is 1,500 gpd or more, are there at least 2 pumps or pneumatic ejectors provided? | ☑ | ☐ |
| 33 | 8.130(3)(D) | Are valves located outside wet well unless integral to a pump or its housing? | ☑ | ☐ |
| 34. | 8.130(3)(F)<br>8.140(8)(J) | Do wet and dry wells have separate ventilation systems? | ☐ | ☑ |
| 35. | 8.130(3)(G) | Does all potable water brought to pump stations comply with 8.140(7)(D)? | ☐ | ☑ |
| 36. | 8.130(6) | Is an alarm system provided with uninterrupted power? | ☑ | ☐ |
| 37. | 8.130(7)(A) | Is there 2 hours retention of the peak hourly flow for a design flow > 100,000 gpd or 4 hrs retention of the peak hourly flow for a design flow < 100,000 gpd? | ☑ | ☐ |
| 38. | 8.130(7)(B) | Are there independent utility substations provided for emergency power capable of starting and operating the pump station at its rated capacity? | ☐ | ☑ |
| 39. | 8.130(8)(A) | Is the force main velocity of ≥ 2 ft/s maintained? | ☑ | ☐ |
| 40. | 8.130 | Are there complete operation instructions for the pumpting stations provided that include emergency procedures, maintenance schedules, special tools and spare parts that may be necessary? | ☑ | ☐ |

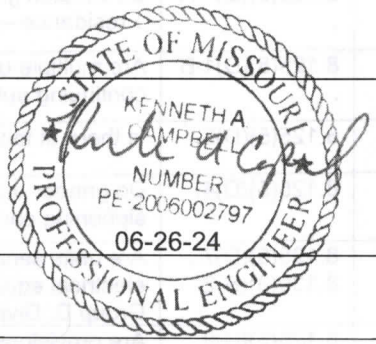
| 12.0 SUCTION LIFT PUMP AND SUBMERSIBLE PUMP STATION CHECKLIST | | | | |
|---|---|---|---|---|
| | REGULATION | | YES | N/A |
| 41. | 8.130(4) | Are the suction lift pumps of the self priming or vacuum priming type? | ☐ | ☑ |
| 42. | 8.130(4)(A) | Is the combined total of dynamic suction lift at the "pump off" elevation and required net positive suction head at design operating conditions less than or equal to 22 feet? | ☐ | ☑ |
| 43. | 8.130(4)(B) | Are there dual vacuum pumps capable of removing air from the suction lift pump? | ☐ | ☑ |
| 44. | 8.130(5)(A) | Are submersible pumps readily removable and replaceable without personnel entering, or disconnecting any pipe in the wet well? | ☑ | ☐ |

**13.0 SEWER EXTENSION CHECKLIST -- CERTIFICATION STATEMENT**

For any questions answered "N/A" provide an explanation. Also provide any useful general comments regarding design for review engineer.

Item No. 30 - No dry well shall be provided. Pumps shall be submersible rated.
Item No. 34 - No dry well is present within the scope of the current design.
Item No. 35 - No potable water supply shall be installed at the lift station sites.
Item No. 38 - No redundant electrical circuits are available at the site.
Item No. 41 - Pumps shall be submersible rated, installed below the normal water surface elevation in the wetwell.
Item No. 42 - Pump shall be submersible rated, installed below the normal water surface elevation in the wetwell.
Item No. 43 - Pumps shall be submersible rated. Each pump shall be rated to convey the peak flow affording one (1) firm and one (1) standy pump.

Missouri Professional Engineer's seal, signature and date:

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City: Rolla | State: MO | ZIP Code: 65401

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