

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

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| Cooper Land Development 903 N.47th Street Rodgers, Arkansas 72756 |
|---|

for the construction of (described facilities):

| |
|---------------|
| See attached. |
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Permit Conditions:

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|---------------|
| See attached. |
|---------------|

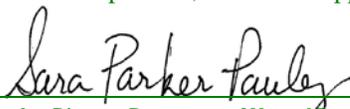
Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department).

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.

A representative of the Department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the Department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

December 23, 2014
Effective Date


Sara Parker Pauley, Director, Department of Natural Resources

December 22, 2016
Expiration Date


John Madras, Director, Water Protection Program

CONSTRUCTION PERMIT

COLLECTION SYSTEM:

This project consists of the installation and construction of approximately 498 linear feet (lf) of 8-inch polyvinyl chloride (PVC) Standard Dimension Ratio (SDR)-35 gravity sewer lines with approximately 3 manholes to serve 16 home sites and a low pressure sewer system (partially existing), with 2 HP Myers WG20 (or equal) grinder pumps at each connection, approximately 374 linear feet (lf) of 2-inch PVC, SDR-21 force main with cleanouts and air release valves, to serve 11 home sites, and all necessary appurtenances to make a complete and usable wastewater collection system to serve an estimated design average flow of 8510 gallons per day. The project will also include general site work appropriate to the scope and purpose of the project.

These activities will be in Westbrook Subdivision in the vicinity of Serenity Court, and Mayfair Lane in the City of Raymore, Cass County and discharge to an existing sewer system to be treated at the Little Blue Valley Sewer District, Atherton Wastewater Treatment Facility, Missouri State Operating Permit No. MO-0101087. Mr. David Lilly, P.E. District Engineer, with Little Blue Valley Sewer District provided an acceptance letter dated September 9, 2014.

PERMIT CONDITIONS:

1. All construction shall be in accordance with the plans and specifications submitted by Warger Associates, LLC, as follows:
 - Plans and Specifications received on November 26, 2014, and signed and sealed by S. M. Warger, P.E. on November 21, 2014.
 - Revised Plan sheet # 3 received on December 10, 2014, and signed and sealed by S. M. Warger, P.E. on December 9, 2014.
2. The Department must be contacted in writing prior to making any changes to the approved plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(8).
3. State and Federal Law does not permit bypassing of raw wastewater, therefore steps must be taken 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 Kansas City Regional Office per 10 CSR 20-7.015(9)(E)2.
4. This Construction Permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-4, "Grants and Loans".
5. Protection of drinking water supplies shall be in accordance with 10 CSR 20-8.120(10). "There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole."

- A. Sewers in relation to water works structures shall meet the requirements of 10 CSR 23-3.010 with respect to minimum distances from public water supply wells or other water supply sources and structures.
 - B. Sewer mains shall be laid at least ten feet (10') horizontally from any existing or proposed water main. The distances shall be measured edge-to-edge. In cases where it is not practical to maintain a ten foot (10') separation, the Department may allow a deviation on a case-by-case basis, if supported by data from the design engineer. Such a deviation may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on either side of the sewer and at an elevation so the bottom of the water main is at least 18 inches above the top of the sewer. If it is impossible to obtain proper horizontal and vertical separation as described above for sewers, the sewer must be constructed of slip-on or mechanical joint pipe or continuously encased and be pressure tested to 150 pounds per square inch to assure water tightness.
 - C. Manholes should be located at least ten feet (10') horizontally from any existing or proposed water main.
 - D. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. When it is impossible to obtain proper vertical separation as stipulated above, one (1) of the following methods must be specified:
 - 1) The sewer shall be designed and constructed equal to the water pipe and shall be pressure tested to assure water tightness prior to backfilling; or
 - 2) Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends ten feet (10') on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be of materials approved by the Department for use in water main construction.
6. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of one (1) acre or more 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. Land disturbance permits may only be obtained by means of the Department's ePermitting system available online at www.dnr.mo.gov/env/wpp/epermit/help.htm. See www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.

7. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the Department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of Jurisdictional Waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Water Protection Program at 573-751-1300 for more information. See www.dnr.mo.gov/env/wpp/401/ for more information.
8. In accordance with 10 CSR 20-6.010(6)(B), submit the enclosed form Application for Letter of Authorization – Sewer Extension to the Department following completion of construction. Submit an electronic copy of the as-built drawings with this form if the project was not constructed in accordance with previously submitted plans and specifications.
9. Upon completion of construction, the City of Raymore will become the continuing authority for operation, maintenance, and modernization of the gravity sewer lines. Upon completion of construction, the Creekmoor Property Owners Association will become the continuing authority for operation, maintenance, and modernization of the low pressure sewer system.

Review Engineer
Andrew Appelbaum, P.E.
Andy.Appelbaum@dnr.mo.gov

RECEIVED

OCT 2 2014



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
APPLICATION FOR CONSTRUCTION PERMIT -
SEWER EXTENSION

WATER PROTECTION PROGRAM FOR DEPARTMENT USE ONLY

| | |
|--------------------------|------------------|
| APP NO | CP NO |
| SEE RECEIVED \$300.00 | CHECK NO 1482 |
| DATE RECEIVED 10/2/14 | SR |

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: _____ Project #: _____
- 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
- 1.4 Is a summary of design* included with this application? YES NO
- 1.5 Is the appropriate fee included with this application? (See instructions for appropriate fee.) YES NO

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

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT

Westbrook 10th

| | | | | |
|------------------------------|---------|-------|----------|--------|
| ADDRESS | CITY | STATE | ZIP CODE | COUNTY |
| Melfield and creekmoor drive | Raymore | MO | 64068 | Cass |

2.2 Legal Description: NE ¼, NE ¼, SE ¼, Sec. 5, T 46, R 32

2.3 Project Components (check all that apply):

- Gravity sewers Pumping stations Force mains Alternative sewer system Other (Describe below.)

2.4 PROJECT DESCRIPTION

Construct 498 feet of 8" sanitary sewer main and related appurtenances

2.5 DESIGN INFORMATION

- A. Population or number of lots to be served by this extension: 26
- B. Estimated flow to be contributed by this extension: Design Average Flow: 8510 gpd Design Peak Hourly Flow: 425 gph
- C. Industrial Wastes: Type: _____ Flow: _____ gpd
- D. Receiving Sewer: Size: 8 inches Capacity: _____ gpm

3.0 PROJECT OWNER

| | | | |
|-------------------------|---------------------------------|------------------------|----------|
| NAME | TELEPHONE NUMBER WITH AREA CODE | E-MAIL ADDRESS | |
| Cooper Land Development | (479) 246-6500 | Edeaton@cooperland.com | |
| ADDRESS | CITY | STATE | ZIP CODE |
| 903 N 47th Street | Rogers | Arkansas | 72756 |

4.0 CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system.

| | | | |
|---------------------|---------------------------------|----------------|----------|
| NAME | TELEPHONE NUMBER WITH AREA CODE | E-MAIL ADDRESS | |
| City of Raymore | (816) 991-1852 | | |
| ADDRESS | CITY | STATE | ZIP CODE |
| 101 Municipal Court | Raymore | Mo | 64068 |

4.1 A letter from the continuing authority, if different than the owner, is included with this application. YES NO N/A

5.0 ENGINEER

| | | | |
|------------------------------------|---------------------------------|----------------------------|----------|
| ENGINEER NAME / COMPANY NAME | TELEPHONE NUMBER WITH AREA CODE | E-MAIL ADDRESS | |
| Steve Warger/Warger Associates LLC | (816) 769-6132 | steve@wargerassociates.com | |
| ADDRESS | CITY | STATE | ZIP CODE |
| 1617 Swift | North Kansas City | mo | 64116 |

6.0 RECEIVING WASTEWATER TREATMENT FACILITY

| | | |
|--|---------------------------------|------------------|
| NAME | TELEPHONE NUMBER WITH AREA CODE | E-MAIL ADDRESS |
| Little Blue Valley Sewer District Alherton | (816) 796-9191 | lilly@lbvdsd.org |

| | | | |
|--|--|---|-------------------------|
| MISSOURI STATE OPERATING PERMIT # MO 101087 | | REMAINING CAPACITY (GPD) 22 mgd | |
| 6.1 Has the receiving treatment facility agreed to accept the additional wastewater flow? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| 6.2 A letter from the receiving wastewater treatment facility, if different than the continuing authority, is included with this application. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A | | | |
| 7.0 PROJECT OWNER: I hereby certify that I am familiar with the information contained in this application and to the best of my knowledge and belief such information is true, complete, and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders, and decisions, subject to any legitimate appeal available to applicant under Missouri Clean Water Law. | | | |
| PROJECT OWNER SIGNATURE  | | | |
| PRINTED NAME Jody Latham | | DATE 2/15/14 | |
| TITLE OR CORPORATE POSITION President | | TELEPHONE NUMBER WITH AREA CODE (479) 246-6500 | E-MAIL ADDRESS jlath |
| Mail completed copy to: | | MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176 | |



LITTLE BLUE VALLEY SEWER DISTRICT

H.A. Jones Administration Building
21101 East 78 Highway
Independence, MO 64057
(816) 796-7660
FAX: (816) 796-5910

Atherton Wastewater Treatment Plant
21208 East Old Atherton Road
Independence, MO 64058
(816) 796-9191
FAX: (816) 796-3500

September 9, 2014

Steve Warger
Warger Associates, LLC
1617 Swift
North Kansas City, MO 64116

Re: Westbrook 10th, Creekmoor, Raymore, Cass County, MO

Dear Mr. Warger,

This letter is to inform you that the Little Blue Valley Sewer District has reviewed the plans for the above referenced project. The new sewer line associated with this work will connect to an existing City of Raymore sanitary sewer which feeds into the District's interceptor sewer to be treated at the District's Atherton Wastewater Treatment Plant. The District agrees to receive and treat the wastewater from the proposed sewer.

The Little Blue Valley Sewer District Atherton Wastewater Treatment Plant permit number is MO 0101087. The plant is rated for 52 million gallons per day (MGD). The average dry weather flow is 30 MGD, which gives an average excess capacity of 22 MGD.

If you have any further questions, please give me a call at (816) 796-9191 Ext. 216.

Sincerely,

David Lilly, PE
District Engineer

Cc, Jeff Shook, LBVSD
file

MISSION:

"Our mission is to provide excellent wastewater services which protect the public health and improve the environment of our region."

VISION:

"The Little Blue Valley Sewer District will be a strong partner in regional planning and resource sharing, anticipating and responding to both environmental and economic needs"