



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

May 14, 2014

Mr. Pat Foglesong  
Century Developers, LLC  
1200 N. Baltimore  
Kirksville, MO 63501

RE: AP18056 Sunset Cove Subdivision – Kirksville Wastewater Treatment Facility (WWTF),  
MO-0049506, Construction Permit No. CPSE00895

Dear Mr. Foglesong:

The Missouri Department of Natural Resources' Water Protection Program has reviewed and approved the plans and specifications submitted by Shafer, Kline & Warren, Inc. for Century Developers, LLC. Please find enclosed Construction Permit No. CPSE00895 and one (1) set of approved plans and specifications.

This permit will terminate 12 months from the date of issuance. In accordance with 10 CSR 20-6.010(4)(G), the Department may grant an extension only one (1) time. If you believe that an extension is necessary, you must submit a request and a justification in writing for the extension at least 30 days prior to the permit expiration date.

Nothing in this permit removes any obligations to comply with county or other local ordinances or restrictions.

If you were adversely affected by this decision, you may appeal to have the matter heard by the Administrative Hearing Commission. To appeal, you must file a petition with the Administrative Hearing Commission within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the Administrative Hearing Commission.



Recycled Paper

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If you have any questions concerning this matter, please contact Ms. Cynthia M. Smith, P.E., of the Water Protection Program, at 573-522-9723 or Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176.

Thank you for your efforts to help ensure clean water in Missouri.

Sincerely,

WATER PROTECTION PROGRAM



Byron F. Shaw, Jr., P.E., SRF Engineering Unit Chief  
Financial Assistance Center

BFS:csc

Enclosures

c: Mr. Gerald C. Johnson, P.E., Shafer, Kline & Warren, Inc.  
Mr. Alan K. Griffiths, Public Works Director, City of Kirksville  
Northeast Regional Office  
Ms. Cynthia M. Smith, P.E., Water Protection Program, Financial Assistance Center

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



## CONSTRUCTION PERMIT

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

Century Developers, LLC  
1200 N. Baltimore  
Kirksville, MO 63501

for the construction of (described facilities):

See attached.

Permit Conditions:

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).

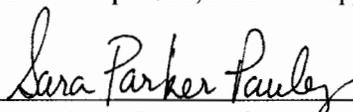
As the Department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

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.

May 14, 2014  
Effective Date

May 13, 2015  
Expiration Date

  
Sara Parker Pauley, Director, Department of Natural Resources

  
Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **COLLECTION SYSTEM:**

This project consists of the installation and construction of approximately 1,304 linear feet (lf) of eight-inch (8") polyvinyl chloride (PVC) Standard Dimension Ratio (SDR)-35 gravity sewer lines with approximately four (4) manholes and one (1) lamphole and all the necessary appurtenances to make a complete and usable wastewater collection system to serve 13 lots and an estimated design average flow of 4,810 gallons per day. The project will also include general site work appropriate to the scope and purpose of the project.

These wastewater facilities will be in the vicinity of West Shepard Avenue, Adair County and discharge to an existing sewer system and be treated at the Kirksville Wastewater Treatment Facility, Missouri State Operating Permit No. MO-0049506.

### **PERMIT CONDITIONS:**

1. All construction shall be in accordance with the plans and specifications submitted by Shafer, Kline & Warren, Inc. on April 3, 2014 and approved by the Department on May 14, 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 Northeast 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](http://www.dnr.mo.gov/env/wpp/epermit/help.htm).

See [www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm](http://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/](http://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 builts with this form.
9. Upon completion of construction, the city of Kirksville will become the continuing authority for operation, maintenance, and modernization of these facilities.

RECEIVED

4/4/14 (10)



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

APR 3 2014

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED 4300.00	CHECK NO. 12729
DATE RECEIVED 4/3/14	813

WATER PROTECTION PROGRAM

**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

Sunset Cove Subdivision

ADDRESS	CITY	STATE	ZIP CODE	COUNTY
W. Shepherd Avenue	Kirkville	MO	63501	Adair

2.2 Legal Description: ¼, SW ¼, SW ¼, Sec. 16, T 62N, R 15W

2.3 Project Components (check all that apply):

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

2.4 PROJECT DESCRIPTION

The construction of 1,304 LF of 8" SDR35 gravity sewer main to serve 13 lots in a newly constructed subdivision. There will be 4 - 4" diameter concrete manholes and one lamphole at the end of the line.

2.5 DESIGN INFORMATION

- A. Population or number of lots to be served by this extension: 13
- B. Estimated flow to be contributed by this extension: Design Average Flow: 1,300 gpd <sup>4810</sup> Design Peak Hourly Flow: 81 gph
- C. Industrial Wastes: Type: N/A Flow: \_\_\_\_\_ gpd
- D. Receiving Sewer: Size: 8" inches Capacity: 310 gpm

**3.0 PROJECT OWNER**

NAME Century Developers - Pat Foglesong		TELEPHONE NUMBER WITH AREA CODE (660) 665-3889	E-MAIL ADDRESS pkf@cd11.net	
ADDRESS 1200 N. Baltimore	CITY Kirkville	STATE MO	ZIP CODE 63501	

**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 City of Kirkville		TELEPHONE NUMBER WITH AREA CODE (660) 627-1291	E-MAIL ADDRESS agriffiths@kirkvillecity.com	
ADDRESS 201 S. Franklin Street	CITY Kirkville	STATE MO	ZIP CODE 63501	

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 Shafer, Kline & Warren, Inc.		TELEPHONE NUMBER WITH AREA CODE (660) 385-6441	E-MAIL ADDRESS ausmus@skw-inc.com	
ADDRESS 107 Butler Street, P.O. Box 366	CITY Kirkville	STATE MO	ZIP CODE 63501	

**6.0 RECEIVING WASTEWATER TREATMENT FACILITY**

NAME Kirkville WWTP		TELEPHONE NUMBER WITH AREA CODE (660) 665-2861	E-MAIL ADDRESS dwilliams@kirkvillecity.com	
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MISSOURI STATE OPERATING PERMIT # Mo-0049506		REMAINING CAPACITY (GPD) 3.16 mg/day
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 type="checkbox"/> YES <input checked="" 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 <i>Pat K. Foglesong</i>		
PRINTED NAME Pat Foglesong		DATE 03-26-14
TITLE OR COPORATE POSITION Owner	TELEPHONE NUMBER WITH AREA CODE (660) 665-3889	E-MAIL ADDRESS pkf@cdl1.net
Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176		