



STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

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

www.dnr.mo.gov

May 12, 2014

Mr. Monte Cannon, President
Cannon Builders, Inc.
193 N. Lincoln Drive
Troy, MO 63379

RE: AP17634 Stone Crossing – Troy Southeast Wastewater Treatment Facility (WWTF),
MO-0131296, Construction Permit No. CPSE00874

Dear Mr. Cannon:

The Missouri Department of Natural Resources' Water Protection Program has reviewed and approved the plans and specifications submitted by Fitch & Associates, LLC for Cannon Builders, Inc. Please find enclosed Construction Permit No. CPSE00874 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.

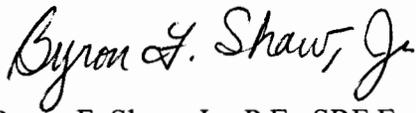
Mr. Monte Cannon, President
May 12, 2014
Page 2

If you have any questions concerning this matter, please contact Mrs. Emily Carpenter, of the Water Protection Program, at 573-751-6569 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:ecc

Enclosures

c: Mr. Todd Criswell, P.E., Fitch & Associates, LLC
The Honorable Mark Cross, City of Troy
St. Louis Regional Office
Mrs. Emily Carpenter, Water Protection Program, Financial Assistance Center

*Celebrating 40 years of taking care of Missouri's natural resources.
To learn more about the Missouri Department of Natural Resources visit dnr.mo.gov.*

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

Cannon Builders, Inc.
193 N. Lincoln Drive
Troy, MO 63379

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).

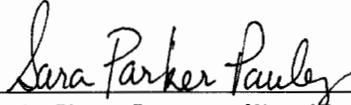
As the Department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

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 12, 2014
Effective Date

May 11, 2015
Expiration Date


Sara Parker Pauley, Director, Department of Natural Resources


Director, Water Protection Program

CONSTRUCTION PERMIT

COLLECTION SYSTEM:

The proposed wastewater collection system will consist of a conventional gravity sewer system with lift stations and force mains, which will carry raw wastewater to the receiving wastewater treatment facility.

Construction and installation of approximately 3,591 linear feet (lf) of eight-inch (8") polyvinyl chloride (PVC) gravity sewer with twenty (20) manholes, 1,070 lf of two-inch (2") PVC force mains with cleanouts and air release valves, one (1) duplex pump station with each pump capable of operating at 120 gallons per minute (gpm) at 53 feet of total dynamic head (TDH), and all necessary appurtenances to make a complete and usable wastewater collection system to serve an estimated population equivalent of 448 and an estimated design average flow of 44,770 gallons per day (gpd). 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 Elm Tree Drive, in the city of Troy, MO, Lincoln County, and discharge to an existing sewer system to be treated at the Troy Southeast Wastewater Treatment Facility, Missouri State Operating Permit No. MO-0131296.

PERMIT CONDITIONS:

1. All construction shall be in accordance with the plans and specifications submitted by Fitch & Associates as follows:
 - Specifications received on February 4, 2014 and signed and sealed by Mr. Todd A. Criswell, P.E. on September 17, 2013 (Title Page) and September 22, 2013 (Certification Page).
 - Plans received on April 4, 2014 and signed and sealed by Mr. Todd A. Criswell, P.E. as follows:
 - Lift Station and Force Main Plans:
 - Sheet 1 dated March 31, 2014
 - Sheets 2 through 10 dated September 13, 2013
 - Phase I Plans:
 - Sheet 1 dated March 31, 2014
 - Sheets 2 through 11 and 13 dated January 17, 2014
 - Sheets 12 and 14 through 19 dated October 5, 2013
 - And approved by the Department on May 12, 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 St. Louis 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 with this form.
9. Upon completion of construction, the city of Troy will become the continuing authority for operation, maintenance, and modernization of these facilities.

RECEIVED

2/6/14 (P)



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

FEB 04 2014

WATER PROTECTION PROGRAM

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED 300.00	CHECK NO. 35950
DATE RECEIVED 2/4/14	J.S.

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

STONE CROSSING

ADDRESS	CITY	STATE	ZIP CODE	COUNTY
193 N. LINCOLN DR.	TROY	MO	63379	LINCOLN

2.2 Legal Description: ¼, ¼, ¼, Sec. 1, T 48N, R 1W

2.3 Project Components (check all that apply):

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

2.4 PROJECT DESCRIPTION

SUBDIVISION CONTAINING 121 LOTS
APPROXIMATELY 3,581.54' OF 8" GRAVITY
20 MANHOLES
1070' FORCE MAIN

PLEASE SEND COPIES OF ALL CORRESPONDENCE TO:
FITCH & ASSOCIATES
360 E. CHERRY ST.
TROY, MO 63379

2.5 DESIGN INFORMATION

- A. Population or number of lots to be served by this extension: 121
- B. Estimated flow to be contributed by this extension: Design Average Flow: _____ gpd Design Peak Hourly Flow: 6540 gph
- C. Industrial Wastes: Type: 0 Flow: _____ gpd
- D. Receiving Sewer: Size: 8" inches Capacity: >1000 gpm

3.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS	
CANNON BUILDERS	(636) 462-8277		
ADDRESS	CITY	STATE	ZIP CODE
193 N. LINCOLN DR.	TROY	MO	63379

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 TROY	(636) 528-4712		
ADDRESS	CITY	STATE	ZIP CODE
800 CAP AU GRIS	TROY	MO	63379

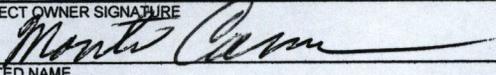
4.1 A letter from the continuing authority, if different than the owner, is included with this application. YES NO N/A

5.0 ENGINEER

ENGINEER NAME / COMPANY NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS	
FITCH & ASSOCIATES	(636) 528-6180		
ADDRESS	CITY	STATE	ZIP CODE
360 E. CHERRY ST.	TROY	MO	63379

6.0 RECEIVING WASTEWATER TREATMENT FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
CITY OF TROY	(636) 528-4712	

MISSOURI STATE OPERATING PERMIT # MO-6040798 MO-0054623		REMAINING CAPACITY (GPD)	
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 MONTE CANNON		DATE 01-28-2014	
TITLE OR COPORATE POSITION PRESIDENT		TELEPHONE NUMBER WITH AREA CODE (636) 462-8277	E-MAIL ADDRESS mocannon@cannoncompanies.com
Mail completed copy to:		MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176	

PLEASE SEND COPIES OF ALL CORRESPONDENCE TO:

FITCH & ASSOCIATES
360 E. CHERRY ST.
TROY, MO. 63379