

**STATE OF MISSOURI**  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**CONSTRUCTION PERMIT**

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

Fox C-6 School District  
748 Jeffco Boulevard  
Arnold, MO 63010

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

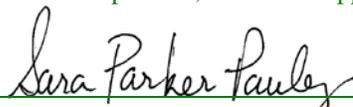
Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department).

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.

April 7, 2015  
Effective Date

  
Sara Parker Pauley, Director, Department of Natural Resources

April 6, 2017  
Expiration Date

  
John Madros, Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **I. CONSTRUCTION DESCRIPTION**

This project consists of the installation and construction of approximately 2,113 linear feet (lf) of 8-inch (8") polyvinyl chloride (PVC) gravity sewer lines with nine (9) manholes and all the necessary appurtenances to make a complete and usable wastewater collection system to serve an estimated population equivalent of 495 people and an estimated design average of 6,930 gallons per day. The project will also include general site work appropriate to the scope and purpose of the project.

The sewer will connect Meramec Heights Elementary School to the Northeast Public Sewer District (NPSD) system in the Willow Glen Phase III development located off of Konert Road in Jefferson County. The wastewater will be treated at the Northeast Public Sewer District - Saline Creek Treatment Facility, Missouri State Operating Permit No. MO-0128490.

### **II. CONSTRUCTION PERMIT CONDITIONS**

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.
2. All construction shall be in accordance with the plans and specifications submitted by Civil Design, Inc. on March 24, 2015.
3. 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).
4. 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.
5. This construction permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-4, "Grants and Loans"
6. 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."

7. 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.
  - A. Sewer mains shall be laid at least 10 feet 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 10 foot 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.
  - B. Manholes should be located at least 10 feet horizontally from any existing or proposed water main.
  - C. Manholes shall be located with the top access at or above grade level.
  - 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 of the following methods must be specified:
    - a. 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
    - b. Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends 10 feet 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.
8. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of one 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 will 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.

9. 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.
10. A full closure plan shall be submitted to the department's St. Louis Regional Office for review and approval of any permitted wastewater treatment system being replaced. 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 No. MO-0128490. Closure shall not commence until the submitted closure plan is approved by the department. Form J – Request for Termination of a State Operating Permit, shall be submitted to the Water Protection Program for termination of any existing Missouri state operating permit, once closure is completed in accordance with the approved closure plan.
11. Upon completion of construction;
  - A. The Northeast Public Sewer District will become the continuing authority for operation, maintenance, and modernization of these facilities;
  - B. Submit the enclosed form Statement of Work Completed to the department in accordance with 10 CSR 20-6.010(5)(D);
  - C. Submit an electronic copy of the as builts if the project was not constructed in accordance with previously submitted plans and specifications; and
  - D. Submit a full closure plan to the department's St. Louis Regional Office for review and approval of any permitted wastewater treatment system being replaced. 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 No. MO-0128490. Closure shall not commence until the submitted closure plan is approved by the department. Form J – Request for Termination of a State Operating Permit, shall be submitted to the Water Protection Program for termination of any existing Missouri state operating permit, once closure is completed in accordance with the approved closure plan.

### **III. REVIEW SUMMARY**

#### **1. AMMONIA**

The Water Protection Program is providing this notice to inform permittees that EPA's published ammonia criteria for aquatic life protection is lower than the current Missouri criteria. The department has initiated stakeholder discussions on this topic and at this time, there is no firm target date for starting the rulemaking to adopt new standards. More information can be found at <http://dnr.mo.gov/pubs/pub2481.pdf>.

Meramec Heights Elementary School is joining the Northeast Public Sewer District system through this construction project.

**2. CONSTRUCTION PURPOSE**

The Meramec Heights Elementary School is installing a new 8-inch PVC gravity sewer which will allow for the connection to the NPSD system. The new sewer line will extend from the existing manhole at the Meramec Heights Elementary School to an existing downstream manhole located in the Willow Glen Subdivision. The gravity sewer will replace the school's existing sewage lagoon located west of the school.

**3. FACILITY DESCRIPTION**

The Meramec Heights Elementary School is located at 1340 W. Outer 21 Road in Arnold, MO. It currently has a wastewater treatment system provided by a septic tank and a two-cell sewage lagoon. The school supports a student and staff population of 495. The construction of a new sanitary sewer line from the school to a nearby neighborhood will eliminate the need for the lagoon.

**4. COMPLIANCE PARAMETERS**

The joining of the Meramec Heights Elementary School sewer to the Northeast Public Sewer District will result in better wastewater treatment and eliminate the operation and maintenance costs of the lagoon the school was utilizing for wastewater treatment.

**5. REVIEW of MAJOR TREATMENT DESIGN CRITERIA**

Concrete collars must be installed on any slope greater than 20 percent or those which result in velocities greater than 15 feet per second, as shown in the plans.

1400128770

RECEIVED

CP5E01032  
AP 20688 C14454



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM

APPLICATION FOR CONSTRUCTION PERMIT FEB 23 2015  
SEWER EXTENSION

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED \$2300.00	CHECK NO. 9034
DATE RECEIVED 2-23-15	

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

Meramec Heights Sanitary Sewer

ADDRESS	CITY	STATE	ZIP CODE	COUNTY
1340 W Outer 21 Road	Arnold	MO	63010	Jefferson

2.2 Legal Description: NE <sup>Portion of</sup> 1/4, 1/4, 1/4, Sec. 22, T 43, R 5 East & Portion of SE 1/4 of SE 1/4 Sec. 15

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

2.4 PROJECT DESCRIPTION

Construction of 2,113 linear feet of 8-inch diameter sanitary sewers with 6 manholes and three cleanouts, including 1,269 linear feet of 8-inch diameter public sanitary sewer and 844 linear feet of 8-inch diameter private sewer lateral.

2.5 DESIGN INFORMATION

- A. Population or number of lots to be served by this extension: 495 Students & staff
- B. Estimated flow to be contributed by this extension: Design Average Flow: 6,930 gpd Design Peak Hourly Flow: 1,155 gph
- C. Industrial Wastes: Type: \_\_\_\_\_ Flow: \_\_\_\_\_ gpd
- D. Receiving Sewer: Size: 8 inches Capacity: 408 gpm

**3.0 PROJECT OWNER**

NAME Fox C-6 School District	TELEPHONE NUMBER WITH AREA CODE (636) 296-8000	E-MAIL ADDRESS N/A
ADDRESS 748 Jeffco Boulevard	CITY Arnold	STATE MO
		ZIP CODE 63010

**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 Northeast Public Sewer District	TELEPHONE NUMBER WITH AREA CODE (636) 343-5090	E-MAIL ADDRESS N/A
ADDRESS 1041 Gravois Road	CITY Fenton	STATE MO
		ZIP CODE 63026

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 Christina Willson / Civil Design, Inc.	TELEPHONE NUMBER WITH AREA CODE (314) 880-4431	E-MAIL ADDRESS cwillson@civildesigninc.com
ADDRESS 1552 S. Seventh Street	CITY St. Louis	STATE MO
		ZIP CODE 63104

6.0 RECEIVING WASTEWATER TREATMENT FACILITY		
NAME Interim Saline Creek	TELEPHONE NUMBER WITH AREA CODE (636) 343-5090	E-MAIL ADDRESS N/A
MISSOURI STATE OPERATING PERMIT # MO-0128490	REMAINING CAPACITY (GPD) 4 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 type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A		
<b>7.0 PROJECT OWNER:</b> 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 TIM CRUTCHLEY	DATE 2/3/15	
TITLE OR CORPORATE POSITION ACTING SUPERINTENDENT	TELEPHONE NUMBER WITH AREA CODE 636-296-8000	E-MAIL ADDRESS Crutchley@fox.k12.mo.us
Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176		