

**STATE OF MISSOURI**  
**DEPARTMENT OF NATURAL RESOURCES**  
**MISSOURI CLEAN WATER COMMISSION**



**CONSTRUCTION PERMIT**

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

National Cart  
3125 Boschertown Rd.  
St. Charles, MO 63301

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.

August 16, 2018  
Effective Date

  
Edward B. Galbraith, Director, Division of Environmental Quality

August 15, 2020  
Expiration Date

  
Chris Wieberg, Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **I. CONSTRUCTION DESCRIPTION**

A no-discharge, drip irrigation system is being constructed at this commercial building site. Components of the system include primary treatment tanks, a pump tank, and aerated media plants for secondary treatment.

This project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater treatment facility.

### **II. COST ANALYSIS FOR COMPLIANCE**

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a “finding of affordability” on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

The Department is not required to complete a cost analysis for compliance because the facility is not a combined or separate sanitary sewer system for a publically-owned treatment works.

### **III. 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 Ganey Engineering LLC on July 31, 2018.
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. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of 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 will only be obtained by means of the Department's ePermitting system available online at [dnr.mo.gov/env/wpp/epermit/help.htm](http://dnr.mo.gov/env/wpp/epermit/help.htm). See [dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm](http://dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm) for more information.
6. 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 [dnr.mo.gov/env/wpp/401/](http://dnr.mo.gov/env/wpp/401/) for more information.
7. Upon completion of construction:
  - A. The Septic Services will become the continuing authority for operation, maintenance, and modernization of these facilities;
  - B. Submit an electronic copy of the as built if the project was not constructed in accordance with previously submitted plans and specifications; and
  - C. Submit the enclosed form Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(D) and request the MOG823 operating permit be issued. The application for the MOG823 must be submitted 30 days prior to operation of the facility in accordance with 10 CSR 20-6.010(5)(B).

## **REVIEW SUMMARY**

### **8. CONSTRUCTION PURPOSE**

The existing conventional treatment system at this business is failing and needs to be replaced to be protective of water quality. This system will be removed when the drip system is installed.

## **9. FACILITY DESCRIPTION**

This is a new wastewater treatment facility that has a non-permitted wastewater treatment system. National Cart is a manufacturing and distribution center for food service products and store fixtures. Domestic waste is the only source of wastewater and is from a maximum population equivalent of 400 with all flow coming from bathroom facilities. Design flow is 6800 gallons per day.

## **10. COMPLIANCE PARAMETERS**

This is a no-discharge facility.

This system is planned for meeting the required 50' setback distance from property lines.

## **11. REVIEW of MAJOR TREATMENT DESIGN CRITERIA**

The planned construction will include the installation of two 3000 gallon pretreatment tanks; one 3500 gallon pump tank; five Jet Wastewater Treatment Solutions J-1500 aeration treatment tanks; two 5000 gallon dosing tanks; and a 48,000 sf drip irrigation field. Drip dispersal will occur in 12 zones of drip line at a rate compatible with the soils' hydraulic and treatment potential. Flow rate of emitters is 0.53 gph and dosing rate will be 0.15 gallons/sq ft/day. System will be dosed 12 times per 24 hours, each zone receiving an average of 5 minutes per dose.

Imported soils will be used from an area immediately adjacent to the dispersal field. Soils investigation was completed by John Bauer, Certified Soil Scientist. The existing clay layer as discussed in the geohydrologic report will be protective of the alluvial aquifer and likely would cause lateral water movement within the soil profile, not allowing for migration to groundwater. With the use of imported soils, the depth of the soil column is being increased by an average of 1.5', giving an additional volume of soil material for final treatment of the effluent effectively creating better conditions for treatment than with only using the in-place soil material.

Soil test pit #3, located in the borrow area, had a surface soil that was described as silt loam with an application rating of 0.25 gallons per square foot per day. Specifications for placement of the fill prescribe a specific range of acceptable soil moisture content and the type of construction equipment (tracked) to be used to avoid over compaction. Hydraulic loading rate used in the design was conservative at 0.15 gallons per square foot per day. Vortex screen filters will be used above the manifold with 1.25" supply lines and ½" ID geoflow lines installed 8" deep.

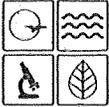
**12. OPERATING PERMIT**

Submit a general permit application requesting an MOG823 operating permit, and permit fee to the Department 30 days prior to operation of the facility in accordance with 10 CSR 20-6.010(5)(B). Certification is needed that system was conducted in accordance with plans and specifications submitted by Ganey Engineering on July 31, 2018.

Diane Reinhardt  
Engineering Section  
[Diane.reinhardt@dnr.mo.gov](mailto:Diane.reinhardt@dnr.mo.gov)

AP30357  
CP0002020

RECEIVED



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM

APPLICATION FOR CONSTRUCTION PERMIT  
WASTEWATER FACILITY

JUL 31 2018

WATER PROTECTION PROGRAM

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED 41000.00	CHECK NO. 56996
DATE RECEIVED 7-31-18	

**APPLICATION OVERVIEW**

The Application for Construction Permit – Wastewater Facility form is for construction pertaining to domestic wastewater treatment facilities, agrichemical facilities, and components thereof. This form has been developed in a modular format and consists of Part A and B. **All applicants must complete Part A.** Part B should be completed for applicants who currently land-apply wastewater or propose land application for wastewater treatment. **Please read the accompanying instructions before completing this form. Submittal of an incomplete application may result in the application being returned.**

**PART A – BASIC INFORMATION**

**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 Is this an application for an agrichemical?  YES (See instructions.)  N/A
- 1.3 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?  
 YES Date of Approval: \_\_\_\_\_
- 1.4 Has the department approved the proposed project's facility plan\*?  
 YES Date of Approval: 07/05/2018  NO  N/A (If Not Applicable, complete No. 1.5.)
- 1.5 [Complete only if answered Not Applicable on No. 1.4] Is a copy of the engineering report\* for wastewater treatment facilities with a design flow less than 22,500 gpd included with this application?  
 YES  NO
- 1.6 Is a copy of the appropriate plans\* and specifications\* included with this application?  
 YES Denote which form is submitted:  Hard copy  Electronic copy (See instructions.)  NO
- 1.7 Is a summary of design\* included with this application?  YES  NO
- 1.8 Is a general operating permit applicable?  
 YES Submit the appropriate operating permit application to the Regional Office at least 60 days prior to operation.  
 NO Enclose the appropriate operating permit application and fee submittal. Denote which form:  B  B2
- 1.9 Is the facility currently under enforcement with the department or the Environmental Protection Agency?  YES  NO
- 1.10 Is the appropriate fee included with this application?  YES  NO (See instructions for appropriate fee.)

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

**2.0 PROJECT INFORMATION**

2.1 NAME OF PROJECT

National Cart

2.2 PROJECT DESCRIPTION

Proposed Drip Irrigation System for Commercial business. Flow records consist of a max daily flow of 17 gal/person, max usage of 400 people equates to 6800 gal/day flow. Proposed treatment area of 48,000 sf drip field per loading rate of 0.15 gal/sf/day.

2.3 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION

5 Class #1 NSF 40 aeration treatment tanks, sludge shall be hauled off and disposed of as necessary from tanks

2.4 DESIGN INFORMATION

- A. Current population: 300; Design population: 400
- B. Actual Flow: 5100 gpd; Design Average Flow: 6800 gpd;  
Actual Peak Daily Flow: 5100 gpd; Design Maximum Daily Flow: 6800 gpd;  
Design Wet Weather Event: \_\_\_\_\_

2.5 ADDITIONAL INFORMATION

- A. Is a topographic map attached?  YES  NO
- B. Is a process flow diagram attached?  YES  NO

2.6 ESTIMATED PROJECT CONSTRUCTION COST

\$ 300,000.00

**3.0 WASTEWATER TREATMENT FACILITY**

NAME		TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS	
ADDRESS (PHYSICAL)		CITY	STATE	ZIP CODE
ADDRESS (PHYSICAL)		CITY	STATE	ZIP CODE
Wastewater Treatment Facility: Mo-		(Outfall Of )		
3.1 Legal Description: $\frac{1}{4}$ , $\frac{1}{4}$ , $\frac{1}{4}$ , Sec. , T , R (Use additional pages if construction of more than one outfall is proposed.)				
3.2 UTM Coordinates Easting (X): Northing (Y): For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)				
3.3 Name of receiving streams:				

**4.0 PROJECT OWNER**

NAME		TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS	
Tom Rattini		(636) 947-3800	tom.rattini@nationalcart.com	
ADDRESS		CITY	STATE	ZIP CODE
3125 Boschertown Rd		St. Charles	MO	63301

**5.0 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	EMAIL ADDRESS	
Septic Services		(636) 583-5564	Install@septic serv.com	
ADDRESS		CITY	STATE	ZIP CODE
7059 State Hwy 47		Union	MO	63084

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

5.2 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A MISSOURI PUBLIC SERVICE COMMISSION REGULATED ENTITY.

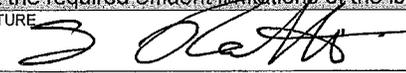
A. Is a copy of the certificate of convenience and necessity included with this application?  YES  NO

5.3 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A PROPERTY OWNERS ASSOCIATION.

A. Is a copy of the as-filed restrictions and covenants included with this application?  YES  NOB. Is a copy of the as-filed warranty deed, quitclaim deed or other legal instrument which transfers ownership of the land for the wastewater treatment facility to the association included with this application?  YES  NOC. Is a copy of the as-filed legal instrument (typically the plat) that provides the association with valid easements for all sewers included with this application?  YES  NOD. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application?  YES  NO**6.0 ENGINEER**

ENGINEER NAME / COMPANY NAME		TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS	
Ganey Engineering LLC		(314) 973-0377	ganeyengineering@yahoo.com	
ADDRESS		CITY	STATE	ZIP CODE
P.O. Box 308		Arnold	MO	63010

**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. I also understand the issuance of the construction permit does not guarantee the proposed wastewater treatment will meet the required effluent limitations of the issued Missouri State Operating Permit for this facility.

PROJECT OWNER SIGNATURE PRINTED NAME Tom Rattini DATE 7/27/18

TITLE OR CORPORATE POSITION		TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS
VP operations		636 947 3800	tom.rattini@nationalcart.com

Mail completed copy to:  
 MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM  
 P.O. BOX 176  
 JEFFERSON CITY, MO 65102-0176

**END OF PART A**  
**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHETHER PART B NEEDS TO BE COMPLETE.**