STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION

GENERAL PERMIT for SEWER EXTENSION CONSTRUCTION

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

Construction Permit ID:	MOGC00978
Title of Project:	Sechrest 4th Plat at Loch Lloyd
Owner:	Trident Real Estate
Address:	1920 W 143rd Street Suite 150 Leawood, MO 66224

The project will also include general site work appropriate to the scope and purpose of the project and will include all the necessary appurtenances to make a complete and usable collection system. The construction of this project will be in the vicinity of the county below and discharge to Receiving Permit ID below:

County: Receiving Permit ID:

for the construction of (described construction project):

Sechrest 4th Plat at Loch Lloyd -Construction of a low pressure sewer with grinder pumps at each connection and approximately 1548 lf of 2-inch through 3-inch IPS HDPE DR-11 force main to serve 21 new residential lots and design average flow of 4000 gpd. Install four cleanout flush valve manholes, one end of line cleanout, and one air release manhole. The simplex grinder pumps at each lot are home owners responsibility.

Project is approximately 650 ft south of the intersection of Grace Dr. and Loch Lloyd Parkway in Loch Lloyd, Cass County and discharges to an existing system to be treated at Blue River Main Sewer District No. 1 WWTF, KS-0092738. Gordon Rames, P.E., New Development Engineer, Johnson County Kansas Wastewater provided acceptance letter dated December 12, 2025.

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

March 03, 2026
Issue Date

Heather S Peters, Director
Water Protection Program

March 02, 2028
Expiration Date

APPLICABILITY

1. This permit authorizes the construction of gravity sewer extensions, force mains, and lift stations. Non-earthen flow equalization storage basins at lift stations and inline storage, which flows back into the lift station or collection system, are also included.

2. The Missouri Department of Natural Resources may require a site-specific sewer extension construction permit due to compliance and enforcement actions in accordance with 10 CSR 20-6.010(13)(C).

3. This permit does not apply to:
   A. Earthen storage basins;
   B. Exempt projects in accordance with 10 CSR 20-6.010(1)(B), 10 CSR 20-6.010(5)(B), and RSMo 644.051 unless requested by the applicant or required by enforcement.

PREREQUISITES:

1. The Sewer Extension Construction Permit application, appropriate fee, and documentation in accordance with 10 CSR 20-6.010(5)(G).

2. Submit the Sewer Extension Construction Permit application at least sixty (60) days in advance of the start of construction in accordance with 10 CSR 20-6.010(5)(F).

3. Submit an electronic copy of the construction permit application and documents to DNR.WPPEngineerSection@dnr.mo.gov in accordance with 10 CSR 20-6.010(5)(G)3.

4. The plans and specifications, each signed, sealed, and dated by a professional engineer registered in the State of Missouri in accordance with 10 CSR 20-8 and 10 CSR 20-6.010.

5. The Design Certification form, Engineering Report, or Summary of Design, signed, sealed, and dated by a professional engineer registered in the State of Missouri, certifying the design of the system is in accordance with 10 CSR 20-6 and 10 CSR 20-8.

6. A statement from the continuing authority, as defined in 10 CSR 20-6.010, accepting the wastewater for treatment and indicating the permitted treatment facility has the available capacity.

7. A statement from the continuing authority, as defined in 10 CSR 20-6.010, accepting responsibility for the operation and maintenance of these facilities.

PERMIT CONDITIONS:

1. This permit authorizes the activities and scope of work detailed in the plans and specifications submitted with the request.

2. The construction must be in accordance with the final plans and specifications received by the Department. Revisions that affect capacity, flow, or system layout must be approved by the Department prior to construction.

PERMIT CONDITIONS: (continued)

3. If construction will incorporate minor changes from previously submitted plans and specifications (i.e., changes that do not affect the capacity, flow, or system layout), submit an electronic copy of the as-built plans and specifications in accordance with 10 CSR 20-8.110(11).

4. State and Federal Law does not permit bypassing of raw wastewater; therefore, the applicant must take steps 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 regional office per 10 CSR 20-7.015(9)(E) or through the Online Bypass/SSO Reporting service on the Missouri Gateway for Environmental Management (MoGEM) portal found at https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem.

   See https://dnr.mo.gov/document-search/missouri-gateway-environmental-management-mogem-frequently-asked-questions-pub2988/pub2988 for more information.

5. Protection of drinking water supplies must meet the requirements of 10 CSR 20-8.120(5).
   A. There shall be no physical connections between a public or private potable water supply system and a sewer or appurtenance that would permit the passage of any wastewater or polluted water into the potable supply.
   B. Lay sewers at least 50 feet (50') in a horizontal direction from any existing or proposed public water supply well or other water supply sources or structures.

6. Position manholes so that the top access is at or above grade level.

7. In addition to the requirements for a construction permit, see 10 CSR 20-6.200 for land disturbance requirements 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. Applicants shall obtain land disturbance permits through the Department's ePermitting system, available online at https://dnr.mo.gov/data-e-services/water/electronic-permitting-epermitting.

   See https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/stormwater/construction-land-disturbance for more information.

8. Entities applying for funding under 10 CSR 20-4, "Grants and Loans" will need to comply with those requirements in addition to the requirements of 10 CSR 20-8.

PERMIT CONDITIONS: (continued)

9. The Department may require a United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) or a permit waiver for the activities described in this permit. If construction activity will disturb any land below the ordinary high water mark of Jurisdictional Waters of the U.S., then a 404/401 is required. Fulfillment of these requirements is necessary before the permit is considered valid. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Operating Permits Section at 573-522-4502 for more information.

   See https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/section-401-water-quality for more information.

10. If this project eliminates a wastewater treatment facility under the jurisdiction of the Department, then the applicant shall submit a full closure plan with a Facility Closure Request Form, Form – MO 780-2512, to the Department's appropriate regional office for review and approval. 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. Closure shall not commence until the Department approves the submitted closure plan.

11. If this project is part of a project to resolve an enforcement action or is receiving funding from the Department, submit a statement of work complete following the completion of construction.

12. Applicants may submit, prior to the expiration date of this permit, a written request that additional time is needed in accordance with 10 CSR 20-6.010(5)(H)3.

5.0 ENGINEER

ENGINEER NAME / COMPANY NAME	TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS
Brett Hauglannd Continental Consulting Engineers, Inc	913 642 6642	bh@ccengineers.com

ADDRESS	CITY	STATE	ZIP CODE
9000 State Line Road	Leawood	Kansas	66206

6.0 RECEIVING WASTEWATER TREATMENT FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS
Johnson County Kansas Wastewater	913 715 8520	1181 S Sunset Dr. Ste 2500 Olathe KS

MISSOURI STATE OPERATING PERMIT #	REMAINING CAPACITY (GPD)
NA	

6.1 Has the receiving treatment facility agreed to accept the additional wastewater flow? ☑ YES ☐ NO

6.2 A letter from the receiving wastewater treatment facility, if different than the continuing authority, is included with this application.
☑ YES ☐ NO ☐ N/A

7.0 Application Fee

☑ Check Number ☐ JetPay Confirmation Number

8.0 PROJECT OWNER: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

PROJECT OWNER SIGNATURE

PRINTED NAME	DATE
Dale Brouk	12-15-25

TITLE OR COPORATE POSITION	TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS
Development Officer	816 509 7754	daleb@tridentrealestate.com

Mail completed copy to:

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

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

APPLICATION FOR CONSTRUCTION PERMIT – SEWER EXTENSION

RECEIVED
DEC 22 2025
Water Protection Program

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED $300	CHECK NO. 15334
DATE RECEIVED 12/22/25	

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 or JetPay confirmation included with this application? ☑ YES ☐ NO
See Section 7.0 $300.00

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

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT
Sechrest 4th Plat at Loch Lloyd

ADDRESS	CITY	STATE	ZIP CODE	COUNTY
	Village of Loch Lloyd	Missouri	64012	Cass

2.2 Legal Description: ¼, East ¼, Half ¼, Sec. 8 , T 46N , R 33W

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

2.4 PROJECT DESCRIPTION
Force Main Extension to serve 21 new residential lots - each with an e-one grinder pump: Refer cover sheet for quantities
202 LF 2" force main
1346 LF 3" force main
4 clean out flush valve assembly manholes - 1 end of line cleanout
1 Air release vault manholes

2.5 DESIGN INFORMATION
A. Population or number of lots to be served by this extension: 21 20 lots @200 gpd per lot avg flow

B: Estimated flow to be contributed by this extension: Design Average Flow: 4,000 gpd Design Peak Hourly Flow: 3300 gph

C. Industrial Wastes: Type: N/A Flow: N/A gpd min. for 21 lots at connection 20*55 = 1100 gpm

D. Receiving Sewer: Size: 3 inches Capacity: 1100 gpm max flow 55 gpm x 60 min. = 3300 gph

3.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS
Dale Brouk - Trident Real Estate	816 509 7754	daleb@tridentrealestate.com

ADDRESS	CITY	STATE	ZIP CODE
1920 W 143rd Street Suite 150	Leawood	Kansas	66224

4.0 CONTINUING AUTHORITY: A continuing authority is a company, business, entity or person(s) that will be operating the facility or ensuring compliance with the permit requirements. A continuing authority is not, however, an entity or individual that is contractually hired by the permittee to sample or operate and maintain the system for a defined time period, such as a certified operator or analytical laboratory. To access the regulatory requirement regarding continuing authority, 10 CSR 20-6.010(2), please visit https://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf. A continuing authority's name must be listed exactly as it appears on the Missouri Secretary of State's (SoS's) webpage: https://bsd.sos.mo.gov/BusinessEntity/BESearch.aspx?SearchType=0, unless the continuing authority is an individual(s), government, or otherwise not required to register with the SoS.

NAME	TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS
Northwest Cass County Sewer District	816 916 9365	Heath Rose - htrdvm@yahoo.com

ADDRESS	CITY	STATE	ZIP CODE
16940 Meadow Lane	Village of Loch Lloyd	Missouri	64012

4.1 A letter from the continuing authority or the Continuing Authority and Receiving Wastewater Treatment Facility Acceptance form, if different than the owner, is included with this application. ☑ YES ☐ NO ☐ N/A

SEWER EXTENSION DESIGN CERTIFICATION

Answer all questions yes, no, or N/A. Answer N/A only if the question is clearly not applicable to the design of the proposed sewer extension **OR** if a deviation was previously allowed by the Department in the approval of Standard specifications or Standard Detail Sheets.

9.0 SEWER EXTENSION CHECKLIST					
	REGULATION	As it relates to a force main system	YES	NO	N/A
1	8.110(9)(B)	Are detailed plans showing tributary area, boundaries, pertinent elevations, topography, existing and proposed facilities provided?	☑	☐	☐
2	8.110(3)(A)	Is the design flow based on actual flow data for an existing system?	☐	☐	☑
3	8.110(3)(B)	Are average design flows, peak hourly flows, and I&I contributions for new systems calculated. no I&I anticipated in closed force main system	☑	☐	☐
4	8.120(2)	Does the sewer exclude water from roofs, streets, groundwater from foundation drains, and combined wastewater?	☑	☐	☐
5	8.120(3)(C)	Is ASTM C969-17 leakage test specified to ensure water tight joint seals and appropriate exfiltration and infiltration rates?	☑	☐	☐
6	8.120(4)(A)	Are manholes located at all changes in grade, size or alignment, and all intersections? No Manholes - only cleanouts	☐	☐	☑
7	8.120(3)(A)1	Are all sewer pipes constructed with a slope to obtain mean velocities of not less than 2 feet per second?	☐	☐	☑
8	8.120(3)(A)2	Is the pipe covered with at least 36" of soil or sufficiently insulated to prevent freezing?	☑	☐	☐
9	8.120(3)(A)	Is the pipe installation, embedment, and backfill designed to prevent damage to the pipe and its joints?	☑	☐	☐
10	8.120(3)(B)	Is deflection testing specified to ensure no pipe exceeds a deflection of 5% of the inside diameter? fused HDPE pipe used	☐	☐	☑
11	8.120(4)(C)	Are manholes at least 42 inches in diameter with a clear opening of 22 inches on sewer line larger than 8"? No Manholes - only cleanouts	☐	☐	☑
12	8.120(4)(C)	Where cleanouts are used at the end of a lateral instead of a manhole, are they a minimum diameter of 8 inches or larger and equal to the diameter for pipes < 8"? End of line sized per force main	☐	☐	☑
13	8.120(4)(E)	Are the manholes specified to be watertight, constructed, installed in accordance with the manufacturer's recommendations and procedures?	☐	☐	☑
14	8.120(4)(F)	Do the specifications include a requirement for inspection and testing for manholes?	☑	☐	☐
15	8.120(5)(B)	Are sewers and manholes located at least 50 feet horizontally from any existing or proposed water supply well, sources, structures?	☐	☐	☑
16	8.120(5)(A)	Is the sewer free from physical connections to a potable water supply system with no water pipes coming in contact with a sewer manhole?	☑	☐	☐

10.0 PRESSURE SEWERS, GRINDER PUMP, STEP AND STEG SEWER CHECKLIST					
	REGULATION		YES	NO	N/A
17	8.125(5)(A)1.	Does the cleaning velocity of ≥ 2 ft/s happen at least once per day?	☑	☐	☐
18	8.125(5)(A)2.	Is the diameter of the pressure sewer main pipe at least 1.5"?	☑	☐	☐
19	8.125(5)B	Are appurtenances compatible with the piping system?	☑	☐	☐
20	8.125(5)(C)	Do service line pipes have a minimum diameter of 1.25 in.?	☑	☐	☐
21	8.125(5)(D)1. A	Do simplex grinder pump stations service only a single equivalent dwelling unit (EDU)? i.e. 1 residence – 1 grinder pump station.	☑	☐	☐
22	8.125(5)(D)1. B	Are multiple unit pump stations owned, operated, maintained by an approved continuing authority?	☑	☐	☐
23	8.125(5)(D)3	Is there at least 70 gallons of storage in the grinder pump unit?	☑	☐	☐
24	8.125(5)(D)4	Do grinder pump stations have shutoff valves, check valves, and anti-siphon valves (where siphoning could occur) that are accessible from the ground surface?	☑	☐	☐
25	8.125(5)(D)7 8.130(3)(B)2	Are units serviceable and replaceable under wet conditions without electrical hazard and electrical equipment suitable for hazardous locations (National Electrical Code, Class I, Group D, Division 1 location)?	☑	☐	☐
26	8.125(5)(D)8 8.125(6)(F)6	Are provisions in place to avoid interruption of service due to mechanical or power failure by providing standby power, storage capacity or interconnection with another disposal system?	☐	☐	☑
27	8.125(6)(D) 8.180(2)	Does each EDU have at least one septic tank with a minimum of 1,000 gallon capacity with 20% of tank volume dedicated to freeboard and ventilation?	☐	☐	☑
28	8.125(6)(F)	Are pump vaults designed with duplex pumps for STEP sewer systems with design flow of 1,500 gallons per day or greater?	☐	☐	☑
29	8.125(7)(A) 8.125(7)(C)	Is the minimum STEG sewerservice line at least 4" in diameter?	☐	☐	☑
11.0 PUMP STATION CHECKLIST					
	REGULATION		YES	NO	N/A
30	8.130(2)(A) 8.140(2)(B)	Is the pump station designed to withstand the 100-year flood?	☐	☐	☑
31	8.130(3)(A)	Is the dry well completely separate from the wet well and is a suitable and safe means of access provided to each?	☐	☐	☑
32	8.130(3)(B)	If the design flow is 1,500 gpd or more, are at least 2 pumps or pneumatic ejectors provided?	☐	☐	☑
33	8.130(3)(D)	Are valves located outside wet well unless integral to a pump or its housing?	☐	☐	☑
34	8.130(3)(F) 8.140(8)(J)	Do wet and dry wells have separate ventilation systems?	☐	☐	☑
35	8.130(3)(G)	Does all potable water brought to the pump station comply with 8.140 (7) D?	☐	☐	☑
36	8.130(6)	Is an alarm system provided with uninterrupted power?	☐	☐	☑
37	8.130(7)(A)	Is there 2 hours retention of the peak hourly flow for a design flow > 100,000 gpd or 4 hrs retention of the peak hourly flow for a design flow < 100,000 gpd?	☐	☐	☑
38	8.130(7)(B)	Is there an independent utility substation provided for emergency power that is capable of starting and operating the pump station at its rated capacity?	☐	☐	☑
39	8.130(8)(A)	Is the force main velocity of ≥ 2 ft/s maintained?	☐	☐	☑
40	8.130	Are there complete operation instructions for the pumping stations provided that include emergency procedures, maintenance schedules, special tools and spare parts that may be necessary?	☐	☐	☑

12.0 SUCTION LIFT PUMP AND SUBMERSIBLE PUMP STATION CHECKLIST					
	REGULATION		YES	NO	N/A
41	8.130(4)	Are the suction lift pumps of the self priming or vacuum priming type?	☐	☐	☑
42	8.130(4)(A)	Is the combined total of dynamic suction lift at the "pump off" elevation and required net positive suction head at design operating conditions less than or equal to twenty-two feet (22')?	☐	☐	☑
43	8.130(4)(B)	Are there dual vacuum pumps capable of removing air from the suction lift pump?	☐	☐	☑
44	8.130(5)(A)	Are submersible pumps readily removable and replaceable without personel entering, or disconnecting any pipe in the wet well?	☐	☐	☑

13.0 CERTIFICATION STATEMENT

I hereby certify that the design plans and specifications for this project, to the best of my knowledge, conform to the requirements listed above. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

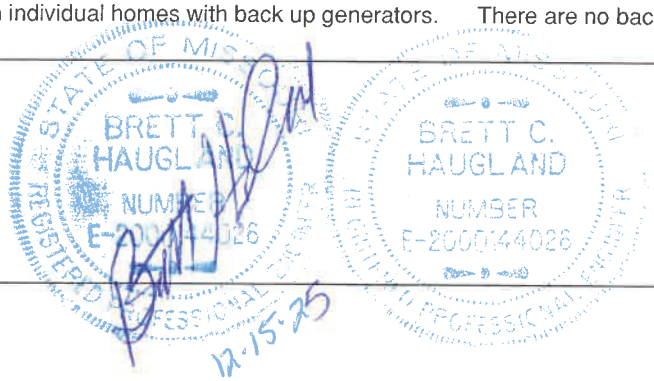
I hereby certify that this plan, specification, and/or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Missouri.

For any question answered "NO" provide explanation. Provide any useful comments on design for review engineer:

This is part of a phased development - design is based on the e-one pressure sewer system design manual. All development within Loch Lloyd is served by two lift stations that force sewage to the Johnson County Kansas Wastewater Treatment facility. An agreement is in place that allows sewage to be delivered to the treatment facility. The entire Loch Lloyd Village is served by this force main system. For this phase there are 25 residential lots in Missouri and 6 residential lots in Kansas on the system - along with 1 unmanned security building - the calculations for flow above are based on the 31 lots as the security building was equipped with a pump but will not be used indefinitely. If the security building pump was activated the system is capable of the added flow.

Pump operation during Power Outages would be dependent on individual homes with back up generators. There are no backup septic systems associated with these pumps.

Missouri Professional Engineer's Seal:



Name: Brett Haugland
Street Address: 9000 State Line road
City: Leawood State: Kansas ZIP Code: 66206

Phone Number: 913 642 6642 Email: bh@ccengineers.com