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: Title of Project: Owner: Address:	MOGC00697 Innsbrook Estates WWTP INNSBROOK OWNERS ASSOCIATION, INC. 596 Aspen Way Dr Innsbrook, MO 63390
	site work appropriate to the scope and purpose of the project and will include all the necessary in usable collection system. The construction of this project will be in the vicinity of the county must ID below:
County: Warren Re	ceiving Permit ID: MO0098906
for the construction of (described con	astruction project):
air release valves, one duplex lift s portable generator, to provide a Ph	ruction of approx 11,620 lf of 3-inch through 6-inch DR-11 HDPE force main with tation with each pump capable of operating at 225 gpm at 79 feet of TDH, and a ase 0 pipe with no added flow but that will eventually serve an additional for an 810 PE. Lift station includes ~127 ft of 60-inch polypropylene pipe, 1 DR-35 PVC.
	n Way Drive, south of Innsbrook, in Warren County, and discharges to an sbrook Estates WWTF, MO-0098906.
RSMo, and regulation promulgated the As the Department does not examine permit does not include approval of the	ies shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, hereunder, or this permit may be revoked by the Department of Natural Resources (Department) structural features of design or the efficiency of mechanical equipment, the issuance of this hese features. Pruction of water pollution control components; it does not apply to other environmentally
March 06, 2024 Issue Date	John Holee, Director Water Protection Program

March 05, 2026 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 <a href="https://dnr.mo.gov/data-e-services/water/electronic-permitting-ep

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 <u>statement of work complete</u> 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.

MISSOURI DEPARTMENT OF NATURAL RESOURCES

WATER PROTECTION PROGRAM APPLICATION FOR CONSTRUCTION PERMIT – SEWER EXTENSION

FOR DEPARTMENT USE ONLY			
APP NO.	CP NO.		
FEE RECEIVED	CHECK NO.		
DATE RECEIVED			

<u>(*</u>			DATE RECEIVED	
NOTE ► Please Read the accompanying	instructions before completing	this form	,	
1.0 APPLICATION INFORMATION (Note – considered incomplete and returned.)	If any of the questions in this sect	tion are answ	ered NO, this appli	cation may be
1.1 Is this a Federal/State funded project?	☐ YES 🗹 N/A Funding Ag	ency: N/A	Pr	oject #: 231880
1.2 Has the Department of Natural Resource YES Date of Apple		t's engineerin ☑ NO	g report*?	□ N/A
1.3 Is a copy of the appropriate plans* and	specifications* included with this a	application?	✓ YES □ NO	
If the project is using standard specifica	tions, name of community: Innsbr	ook, MO		
1.4 Is a summary of design* included with the	his application? 🗹 YES 🗌 N	10		
1.5 Is the appropriate fee or JetPay confirm See Section 7.0	ation included with this application	n? ☑ YES	□NO	
* Must be affixed with a Missouri registered	professional engineer's seal, signa	ature and dat	e.	
2.0 PROJECT INFORMATION 2.1 NAME OF PROJECT				
Innsbrook Water/Sewer Extension Design				
ADDRESS 596 Aspen Way Dr	CITY Innsbrook	STATE MO	ZIP CODE 63390	COUNTY Warren
	1/4, Sec. 8		, R 1W	38°44'05.63"N 91°04'13.88"W
2.3 Project Components (check all that apply Gravity sewers Pumping statio 2.4 PROJECT DESCRIPTION A- Total number of Manholes: 1 for the access B- 45.5' of 12" PVC Gravity Sewer C- 1 lift station (PS17): Design Average Flow D- 4,700' of 3" HDPE Forcemain, 5,850' of 4' E- N/A 2.5 DESIGN INFORMATION	ns Force mains Alternates to the emergency overflow tanks: 105,000 GPD, Peak hourly flow:	: 25,000 gallo	ted gravity lines.	(Describe below.)
A. Population or number of lots to be served	d by this extension: 0			
B. Estimated flow to be contributed by this e	extension: Design Average Flow:	0 gpd	Design Peak Hou	rly Flow: 0 gph
C. Industrial Wastes: Type: N/A	Flow: 0 gpd			
D. Receiving Sewer: Size:6 inches	s Capacity: 0 gpm			
E. Does this project (check all that apply):				
✓ Connect to an existing treatment plant	Resolve enforcement issue	☐ Eliminate o	r consolidate an ex	isting treatment plant
F. Estimated number of onsite systems being	ng removed: 0			
G: Estimated costs associated with piping:	\$ 1,812,400 Estimated costs	associated w	vith lift station(s): \$2	276,000
3.0 PROJECT OWNER				
NAME Innsbrook Owners Association, Inc.	TELEPHONE NUMBER WITH 636-497-5124		=	sbrook-resort.com
ADDRESS 596 Aspen Way Dr	Innsbrook	MO STATE	ZIP CODE 63390	
CHARTER NUMBER (SECRETARY OF STATE) or REGISTERED Warren Wobbe - N00035265) AGENT			

4.0 CONTINUING AUTHORITY: A continuing authority is a company, business, entity, or person(s) that will be legally responsible for ensuring compliance with the permit requirements and provide continuous stable oversight of the permitted facility or activity. The Continuing authority should be a relatively permanent entity responsible for the ongoing operation, maintenance and modernization, when needed, of the permitted facility or activity. 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 Clean Water Commission Chapter 6. A continuing authority's name must be listed exactly as it appears on the Missouri Secretary of State's (SoS's) webpage: Missouri Secretary of State, unless the continuing authority is an individual(s), government entity, or otherwise not required to register with the SoS. TELEPHONE NUMBER WITH AREA CODE EMAIL ADDRESS Same as above Same as above Same as above ADDRESS ZIP CODE STATE Same as above MO Innsbrook 63390 CHARTER NUMBER (SECRETARY OF STATE) Warren Wobbe - N00035265 4.1 Has appropriate continuing authority acceptance been provided as follows: A letter from the continuing authority accepting responsibility for continued maintenance of the sewer (if the continuing authority is different than the original owner of the construction), or a properly executed "Continuing Authority and Receiving Wastewater Z YES □ N/A Treatment Facility Acceptance" Form 780-2584. _ NO 5.0 ENGINEER ENGINEER NAME / COMPANY NAME TELEPHONE NUMBER WITH AREA CODE EMAIL ADDRESS _isa E. Fennewald Lefennewald@hornershifrin.com (314) 335-8666 CITY STATE ZIP CODE 401 S 18th St Ste. 400 St. Louis MO 63103 **6.0 RECEIVING WASTEWATER TREATMENT FACILITY** TELEPHONE NUMBER WITH AREA CODE EMAIL ADDRESS Innsbrook Estates Wastewater Treatment Facility 636-928-3366 information@innsbrook-resort.com MISSOURI STATE OPERATING PERMIT # COUNTY REMAINING CAPACITY (GPD) MO-0098906 Warren 6.1 If different from the owner, has a letter been provided from the receiving treatment facility demonstrating that they agree to accept the expanded flow or has a properly executed Continuing Authority and Receiving Wastewater Treatment Facility Acceptance MO 780-2584 form been provided? ☐ YES □ NO 🗹 N/A 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 6.3 If the receiving treatment plant or continuing authority is regulated by the Public Service Commission (PSC) for sewer activities, a Certificate of Convenience and Necessity has been received? ☐ Yes – Date: ■ N/A OPTIONAL QUESTIONS REGARDING MILITARY SERVICE Have you or an immediate family member ever served in the ☐ Yes ✓ No U.S. Armed Forces? If yes, would you like information about military-related services ☐ Yes ✓ No in Missouri? 7.0 Application Fee ✓ JetPay Confirmation Number 20050529 ☐ Check Number 8.0 PROJECT OWNER: I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing PROJECT OWNER SIGNATURE PRINTED NAME DATE 1/25/2024 Joe Kueper TITLE OR CORPORATE POSITION EMAIL ADDRESS TELEPHONE NUMBER WITH AREA CODE Utility Manager 636-497-5124 Joe-Kueper@innsbrook-resort.com Mail completed copy to: Submit completed electronic copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES Missouri Department of Natural Resources WATER PROTECTION PROGRAM at DNR.WPPEngineerSection@dnr.mo.gov **PO BOX 176** JEFFERSON CITY, MO 65102-0176

MO 780-1632 (10-22)

9.0 SE	WER EXTENSIO	N CHECKLIST		
		ESIGN CERTIFICATION: Answer all questions yes or N/A. Answer N/A only if the question is of the proposed sewer extension.	clearly ı	not
	REGULATION		YES	N/A
1.	8.110(3)(A)	Is the design flow based on actual flow data for an existing system?	V	
2.	8.110(3)(B)	Are average design flows, peak hourly flows and I&I contributions for new systems calculated?	<u></u>	
3.	8.110(9)(B)	Is there a detailed plan showing tributary area, boundaries, pertinent elevations, topography, existing and proposed facilities?	V	
4.	8.120(2)	Does the sewer exclude water from roofs, streets, groundwater from foundation drains and combined wastewater?	✓	
5.	8.120(3)(A)	Is the pipe installation, embedment and backfill designed to prevent damage to the pipe and its joints?	V	
6.	8.120(3) (A)1	Is all sewer pipe constructed with a slope to obtain mean velocities of not less than 2 feet per second?	\	
7.	8.120(3)(A)2	Is the pipe covered with at least 36" of soil or sufficiently insulated to prevent freezing?	✓	
8.	8.120(3)(B)	Is deflection testing specified to ensure no pipe exceeds a deflection of 5% of the inside diameter?	✓	
9.	8.120(4)(A)	Are manholes located at the end of each line, at all changes in grade, size or alignment and at all intersections?	✓	
10.	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"?	V	
11.	8.120(4)(C)	Where cleanouts are used at the end of a lateral instead of a manhole, they are a minimum diameter of 8 inches or larger and equal to the diameter for pipes < 8"?	\	
12.	8.120(4)(E)	Are the manholes watertight, constructed and installed in accordance with the	\	
13.	8.120(4)(F)	manufacturer's recommendations and procedures? Do the specifications include a requirement for inspection and testing for manholes?	<u> </u>	
14.	8.120(5)(A)	Is the sewer free from physical connections to a potable water supply system and no water pipes come in contact with a sewer manhole?	V	
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?	V	
10.0 F	RESSURE SEWE	ERS, GRINDER PUMP, STEP AND STEG SEWER CHECKLIST	l	
	REGULATION		YES	N/A
16.	8.125(5)(A)1.	Does the cleaning velocity of ≥ 2 ft/s happen more than once per day?	✓	
17.	8.125(5)(A)2.	Is the diameter of the pressure sewer main pipe at least 1.5"?	V	
18.	8.125(5)(B)	Are appurtenances compatible with the piping system?	V	
19.	8.125(5)(B)2.	Are isolation valves located: upstream of major pipe intersections; both sides of stream, bridge and RR crossings; at terminal end of system?	V	
20.	8.125(5)(C)	Do service line pipes have a minimum diameter of 1.25"?	✓	
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 pumpt.		V
22.	8.125(5)(D)1.B	Are multiple unit pump stations owned, operated and maintained by an approved continuing authority?	V	
23.	8.125(5)(D)3.	Is there at least 70 gallons of storage in the grinder pump unit?	V	
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?	V	
25.	8.125(5)(D)7., 8.130(3)(B)2.	Are units serviceable and replaceable under wet conditions without electrical hazard and is electrical equipment suitable for hazardous locations (National Electrical Code, Class I, Group D, Division 1 location)?	V	
26.	8.125(5)(D)8., 8.125(2)(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?	V	
27.	8.125(6)(D)	In a STEP system is at least one septic tank (1,000 gallons or more) provided for each EDU with 20% of tank volume dedicatied to freeboard and ventillation?		V
28.	8.125(6)(F)	Are duplex pumps provided for the design flow of 1,500 gallons or greater?		

MO 780-1632 (10-22)

11.0 P	UMP STATION C	HECKLIST							
	REGULATION					YES	N/A		
29.	8.125(7)(C)	Is the minimum diameter sewer main pipe and service line of STEG sewer at least 4"?			V				
30.	8.130(2)(A) 8.140(2)(B)	Is the pump statio	n designed to withstand	d 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?			V				
32.	8.130(3)(B)	If the design flow is 1,500 gpd or more, are there at least 2 pumps or pneumatic ejectors provided?			V				
33	8.130(3)(D)	Are valves located	d outside wet well unles	s integral to a pump or	r its housing?	1			
34.	8.130(3)(F) 8.140(8)(J)	Do wet and dry we	ells have separate vent	ilation systems?		~			
35.	8.130(3)(G)	Does all potable w	vater brought to pump s	stations comply with 8.	140(7)(D)?		V		
36.	8.130(6)	Is an alarm syster	n provided with uninter	rupted power?		V			
37.	8.130(7)(A)		etention of the peak hou eak hourly flow for a de		ow > 100,000 gpd or 4 hrs	V			
38.	8.130(7)(B)	Are there indepen		provided for emergence	cy power capable of starting		~		
39.	8.130(8)(A)		velocity of ≥ 2 ft/s maint			1	П		
40.	8.130				ons provided that include and spare parts that may be	V			
12.0 S	UCTION LIFT PU		SIBLE PUMP STATIO	N CHECKLIST					
	REGULATION					YES	N/A		
41.	8.130(4)	Are the suction lift	pumps of the self prim	ing or vacuum priming	type?	V			
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 22 feet?				V			
43.	8.130(4)(B)	Are there dual vac	cuum pumps capable o	f removing air from the	suction lift pump?	П	7		
44.	8.130(5)(A)		numps readily removab pipe in the wet well?	le and replaceable with	nout personnel entering, or	V			
13.0 S	EWER EXTENSION		CERTIFICATION STAT	TEMENT					
For any questions answered "N/A" provide an explanation. Also provide any useful general comments regarding design for review engineer. As stated in the attached engineering report, the scope of design for this project is to construct a common forcemain sewer system and lift station in which future development communities can tie into upon construction of that particular development phase. Under the scope of this project, there will be no additional flows added to the existing system. Future design and construction contracts will be tasked with re-evaluating the existing treatment plant capacity to account for the additional flow from new developments.									
-8.125(5)(D)1.A: No EDU or simplex grinder pumps/pump stations are associated with this project. Only the Duplex lift station (PS17)8.125(6)(D): No STEP systems or septic tanks are associated with this project8.130(3)(G): The pump stations will not be handling any potable water of any kind8.130(7)(B): Utility substations will not be utilized for emergency power. The pump stations will have hookups for an emergency generator8.130(4)(B): Vacuum pumps will not be utilized. As shown on the drawings. Air release valves will be utilized in the Pump Station Valve Vault.									
Missouri Professional Engineer's seal, signature and date: LISA/E. FENINEWALD I/25/303 E-29310									
Name: Lisa E. Fennewald									
Address: 401 S 18th St Ste. 400									
City: S	t. Louis		State: MO		ZIP Code: 63103				
Telephone Number with Area Code: (314) 335-8666 Email:Lefennewald@hornershifrin.com									
MO 700 46	0 780-1632 (10-22)								