OHIO ENVIRONMENTAL PROTECTION AGENCY

GENERAL PERMIT TO INSTALL GRAVITY SEWER EXTENSIONS UNDER OHIO ADMINISTRATIVE CODE 3745-42 AND OHIO REVISED CODE CHAPTER 6111

In compliance with the Ohio Water Pollution Control Act (Ohio Revised Code Chapter 6111), the applicant, as defined in Part VI of this permit, is authorized by the Ohio Environmental Protection Agency, hereafter referred to as "Ohio EPA," to install a sewer extension(s) in locations identified in the applicant's Notice of Intent (NOI) on file with Ohio EPA in accordance with conditions specified in Parts I through VI of this permit.

An applicant's permit coverage shall expire if ongoing construction has not been initiated by the applicant within eighteen months of the date of the Director's notification letter. A one-time extension may be granted pursuant to Part I of this permit. By accepting coverage under this permit, the applicant acknowledges that this eighteen month period shall not be considered or construed as extending or having any effect whatsoever on any compliance schedule or deadline set forth in any administrative or court order issued to or binding upon the permit applicant and the applicant shall abide by such compliance schedules or deadlines to avoid the initiation of additional legal action by the Ohio Environmental Protection Agency.

Ohio Environmental Protection Agency

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PART I. COVERAGE UNDER THIS PERMIT

A. Permit Area

This permit covers the entire State of Ohio.

B. Eligibility

1. Activities covered by this permit

This permit covers the installation of gravity sewers that connect to existing sewage treatment works with a National Pollutant Discharge Elimination System (NPDES) permit.

2. Limitations on coverage

This permit does not cover the following situations:

a. Any installation, other than sewer extensions, as required by chapter 6111 of the ORC or any other rule or regulation.

b. Sewer extensions in conflict with area wide 208 water quality management plans.

c. Sewer extensions that meet the antidegradation eligibility requirements of OAC Chapter 3745-1-05(B).

d. Sewer extensions that are within 25 feet of a Category III wetland, as defined by the Ohio Rapid Assessment Method for Wetlands (ORAM).

e. Sewer extensions that are proposed within 150 feet of a stream shall fill out the Stream Evaluation Addendum. The Stream Evaluation Addendum is included with the NOI application forms. If the proposed sewer extension meets any of the following criteria, it is not eligible for this permit:

1. Scores a 60 or higher on the stream evaluation addendum.

2. The sewer extension is proposed for 3 or more stream crossings, or 2 stream crossings in less than 1 mile. Multi-phase sewer extensions should submit the proposed alignments for the entire sewer extension so that Ohio EPA can evaluate all of the proposed

stream crossings, instead of only reviewing the 1 or 2 crossings that occur in each project phase.

3. The sewer extension is proposed to cross a stream that is designated as a Coldwater Habitat, Seasonal Salmonid Habitat, or Outstanding National Resource Waters, Outstanding State Resource Waters, or Superior High Quality Waters of the State.

f. Sewer extensions that are tributary to a sewerage system with a Combined Sewer Overflow (CSO) or a Separate Sanitary Overflow (SSO) unless the operator/owner of the sewage treatment system accepting the waste is listed in Attachment 2 or Attachment 3 of this permit and Ohio EPA has determined that satisfactory progress is being made in implementing that community's Long Term Control Plan (LTCP) or that community is working to eliminate overflows or bypasses from the sewage collection and/or treatment system. NOIs for any sewer extension within a sewerage system with a CSO or SSO proposing to discharge to a sewage treatment system listed in Attachment 2 or Attachment 3 of this permit where the Attachment indicates that flow trade-offs are needed must include documentation of flow reductions calculated in accordance with Attachment 4 of this permit or in accordance with a methodology previously accepted by Ohio EPA.

g. Sewer extensions that are less than 8 inches in diameter or greater than 12 inches in diameter.

h. The applicant has a documented history of noncompliance with the conditions of this permit.

i. Projects where construction was initiated prior to receipt of an approved PTI.

j. PTIs required pursuant to Director's Final Finding and Orders or Judicial Consent Decrees with the State of Ohio.

k. Coverage under this permit is not available to proposed projects in Big Darby Creek Watershed.

l. Sewer extensions where all downstream sewers of the proposed sewer extension have not been approved by the Ohio EPA and installed and/or are not operating as intended.

3. Requiring an individual PTI

a. The director may require an individual permit. The director has the authority to require any applicant eligible for this permit to apply for and obtain either an individual permit to install or an alternative general permit in accordance with ORC Chapter 6111 and OAC Chapter 3745-42. Any interested person has the right to petition the Director to take action under this paragraph.

The appropriate Ohio EPA District Office-Division of Surface Water will send written notification that an individual permit to install is required. If this written notification is sent as a result of a deficient NOI application, the notice shall include a brief statement of the reasons for this decision. Upon receipt of the written notification, the applicant has the right to choose to withdraw the NOI and submit a new NOI after making the changes described in the written notification with the applicable fees, or the applicant can apply for an individual permit. The applicant is not permitted to start construction without an individual permit to install or the director's authorization to install a sewer under this general permit.

b. Applicants have the right to request an individual permit to install. Any applicant eligible for this permit has the right to apply for an individual permit to install. The applicant is not required to request coverage under this general permit. The applicant shall submit the individual PTI application to the appropriate Ohio EPA district office.

c. Applicants are not authorized to install sewer extensions, unless and until the applicant receives a written "Approved for Coverage under General Permit to Install for Sewer Extensions" signed by the Director of Ohio EPA.

C. Authorization

1. Authorized site visits. The director of the Ohio Environmental Protection Agency, or his authorized representatives, have the authority to enter upon the premises of the above named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records for the purpose of making inspections, construction, modification, or installation of the above-described source of environmental pollutants.

2. Permit duration. Pursuant to OAC 3745-42, this permit is authorized for 5 years. Any applicant that has obtained coverage or an extension pursuant to OAC 3745-42 and paragraph D of this section of the permit and commenced construction shall be covered until such time that the project is completed or the director revokes an applicant's coverage, whichever occurs first.

D. Permit Coverage Extension.

1. Any applicant that has obtained coverage under this permit has the right to request, from the Director, a one-year extension of that coverage if construction has not commenced on the project. This request for an extension shall be received by the Ohio EPA at least 60 days prior to the expiration of coverage. The request shall be submitted to the appropriate district office and shall reference the approval of coverage number and the applicant's name and include the reason for the extension request.

2. The Director will take an action concerning the request and will notify the applicant of the decision.

E. Submittal Requirements

To obtain coverage under this permit, an applicant shall submit to Ohio EPA:

1. The appropriate application fees, pursuant to ORC Section 3745.11;

2. One copy of a complete and accurate Notice of Intent (NOI) to install sanitary sewers signed by the applicant on the form provided by the director. The application shall also include:

   a. The Certification Statement signed by the sewerage authority that owns the treatment facility receiving the proposed wastewater and the sewerage authority where the proposed sewers shall be installed (if the sewer authority that owns the treatment facility does not own the area where the sewers shall be installed), the Certification Statement from the applicant's design engineer, and the Stream Evaluation Addendum as described in part B above when necessary;

   b. Calculations to demonstrate compliance with Part III of this permit;

c. If required by Attachment 2 or 3, applications for sewer extensions tributary to a CSO or a SSO must include calculations of flow trade-off projections or actual reductions;

d. Four complete sets of detailed plans submitted in accordance with the following:

i. Detail plans shall be easily legible and submitted on engineering paper eleven inches by seventeen inches, twenty-two inches by thirty-four inches, or twenty-four inches by thirty-six inches, with a one inch margin and a complete title block. The plans shall have the name of the engineer preparing the plans, the original signature of the engineer and the date, and the engineer's stamp affixed to the plans. All drawings shall be of sufficient quality for scanning.

ii. The four sets of detail plans shall include:

a. The name and type of building or project;

b. The owner's name and address including the political subdivision, township, county, and/or municipality;

c. Typical trench diagrams;

d. Plan and profile views of all proposed sewers. All views shall be drawn to scale and clearly labeled;

e. The profile view shall include a hydraulic profile and indicate stream crossing details;

f. The dimensions and relative elevations of structures (manholes, sewers, cleanouts, etc.);

g. The location and outline of equipment, and the location and size of piping and joints;

h. Engineering specifications identified in this permit (e.g. approved project specifications, ASTM or other national consensus standard for pipe, joint, installation, and testing listed in Attachment 5) to be

used for the proposed project. These specifications shall include a detail for storing plastic pipe and the duration it is exposed to the sun. If the pipe is to be stored on-site, the pipe shall be covered from direct sunlight.

iii. A site plan showing:

a. Adjacent properties, storage areas, contours, existing and final grades and drainage courses, property lines, existing and proposed buildings, parking areas, drives, elevations, locations of proposed and existing treatment facilities, and existing sewers within the site plan including the existing sewers that the new extension will connect to;

b. Sanitary sewers, storm sewers, and water lines (and/or locations of water wells), including manholes;

c. Location of entry to the public sewer, if applicable;

d. Existing and proposed public and private water supply lines, other public water sources, isolation distance from public and private wells and isolation distances from property lines;

e. Local wetlands, dewatering wells, and streams within 200 feet; and

f. All storm water retention ponds and other storm water Best Management Practice (BMP) units.

iv. A vicinity map showing surrounding roadways, railroad tracks, and major water courses.

PART II. NOTICE OF INTENT REQUIREMENTS

A. Deadline for notification

Applicants who intend to obtain coverage for the installation and construction of

gravity sewer extension(s) under this general permit must submit a complete and accurate NOI application form, the Engineer's Certification and the Sewerage Authority Certification, the Stream Evaluation Addendum if appropriate, four paper sets of detail plans, the appropriate fee, and calculations of flow tradeoffs if appropriate at least 60 days prior to the commencement of sanitary sewer construction activities.

B. Failure to notify

Owners who install gravity sewer extension(s) without a permit to install are in violation of ORC Chapter 6111.

C. Where to submit an NOI

Applicants seeking coverage under this permit shall submit a signed NOI form, provided by Ohio EPA, and the fee and other associated documents referred to in paragraph II.A., to the address found in the associated instructions.

D. Additional notification

The permittee shall make calculation sheets and other detail design information available on request of the Ohio EPA.

PART III. DESIGN STANDARDS

Design specifications referenced in this section are taken from or are modified specifications of the *Recommended Standards for Wastewater Facilities, Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers,* 2004 edition. The following design standards in Part III of this permit shall be considered minimums. Where local authority standards are more stringent, the local authority standards shall prevail over the standards in this permit.

The minimum design flows in Table A-1 of the Ohio EPA design flow rules under Ohio Administrative Code 3745-42-05 shall be used to design sewer extensions. The only exception to the design flow requirements in Table A-1 shall be that domestic flow for free standing homes shall be estimated at 100 gallons per capita per day or 400 gpd/home. Apartments shall follow the design criteria in Table A-1. If the development use of the area is undetermined then local standards shall be used to design the sewers.

Design of the sewer extension shall be based on the peak daily design flow for the service areas and shall meet or exceed the following criteria. For the purpose of this general permit, peak

daily design flow shall be defined as the final flow that will occur in the sewer extension when the entire sewer extension has been constructed.

A. Domestic flow

Domestic flow shall be estimated at 100 gallons per capita per day or 400 gpd/home. Industrial and commercial flows shall be estimated by utilizing flow data in Table A-1 of OAC 3745-42-05. The peak daily design flow is determined by adding together the domestic peak daily design flow, commercial peak daily design flow, and industrial peak daily design flow for the proposed sewer extension.

B. Minimum peaking factor

The peak daily design flows shall be determined by the method described in Attachment 1 of this permit.

C. Pipe design

Sewers shall be designed to flow full during peak flows. The sewers shall also be designed to have at least a 2 foot per second velocity when flowing full.

1. The following shall be the minimum design grades for various pipe sizes:

Size	Minimum Grade
8"	0.40%
10"	0.28%
12"	0.22%

A pipe with a larger diameter than what is needed to handle the calculated flow cannot be installed solely for the purpose of meeting minimum grade requirements. If a larger pipe is desired, the applicant may apply for an individual permit to install.

D. Sewer size and depth

1. Sewers shall be a minimum of 8 inches nominal diameter and shall not exceed 12 inches nominal diameter.

2. The sewers shall have at least 4 feet of cover in order to prevent freezing and protect against frost heave.

3. Sewers shall be designed at a depth that will allow for service connections to flow by gravity into the collection system.

4. Larger diameter sewers shall not be installed upstream of smaller diameter sewers.

5. Buoyancy of sewers shall be considered and flotation of the pipe shall be prevented with appropriate construction where high ground water conditions are anticipated.

E. Manhole Locations

Manholes shall be located outside ponding areas, swales, flood routes, etc.

1. Manholes shall be constructed where:

   a. Pipe sizes change;

   b. Pipe slopes change;

   c. Pipe alignment changes;

   d. Pipe material changes (e.g. PVC to concrete);

   e. Sewers change direction;

   f. At intermediate intervals not exceeding 400 feet;

   g. At the ends of sewer extensions where a service line is located between the manhole and the end of the sewer extension; and

   h. At the ends of sewer extensions 50 feet or more in length, regardless of the number of service line connections.

F. Manhole design

1. Drop manholes shall be provided for a sewer entering a manhole at an elevation of 24 inches (610 mm) or more above the manhole invert and shall be secured to the manhole structurally. Where the difference in elevation between the incoming sewer and the manhole invert is less than 24 inches (610 mm), the invert shall be filleted to prevent solids deposition.

2. Drop manholes shall be constructed with an outside drop connection. The entire outside drop connection shall be encased in concrete or controlled density fill (CDF). Inside drop connections are allowed on existing manholes only.

3. The manholes shall have a minimum diameter of 48 inches. A minimum access diameter of 24 inches shall be provided.

4. The flow channel straight through a manhole shall be made to conform as closely as possible in shape and slope to that of the connecting sewers. The channel walls shall be formed or shaped to the full height of the inside crown of the outlet sewer in such a manner to not obstruct maintenance, inspection or flow in the sewers. When curved flow channels are specified in manholes, including branch inlets, minimum slopes indicated in paragraph III.C.1 shall be increased to maintain acceptable velocities.

5. A bench shall be provided on each side of any manhole channel when the pipe diameter(s) are less than the manhole diameter. The bench shall be sloped no less than one-half inch (13 mm) per foot (305 mm) or 4 percent. No lateral sewer, service connection, or drop manhole pipe shall discharge onto the surface of the bench.

6. Manholes shall be pre-cast concrete, poured-in-place concrete, or HDPE manholes meeting the specification identified in Attachment 5.

7. Manhole lift holes and grade adjustment rings shall be sealed with non-shrinking mortar or other material approved by Ohio EPA.

8. Inlet and outlet pipe shall be joined to the manhole with a gasketed flexible watertight connection or any watertight connection arrangement that allows differential settlement of the pipe and manhole wall to take place.

9. Watertight manhole covers shall be used whenever the manhole tops may be flooded by street runoff or high water.

10. All manholes shall include an internal or external manhole chimney seal to reduce infiltration and inflow.

11. Applicants who propose a manhole specification not identified in this permit shall file an application for an individual PTI.

G. Pipe material

Only pipes that meet the specifications outlined in Attachment 5 shall be permitted to be installed by this permit. Applicants who propose pipe specifications not identified in Attachment 5 shall file an application for an individual PTI.

H. Installation

1. The alignment of the sewer extension shall be verified with a laser level or transit.

2. Type, depth and existing soil conditions shall be considered in selecting the type, strength, and stiffness of pipe. The applicant shall provide justification that the pipe strength and bedding are suitable for any installations involving excessive dead or live loads. Installation details shall comply with the manufacturer's specifications, except bedding for rigid pipe shall comply with Class A, B, or C in ASTM C-12, and bedding for flexible pipe shall comply with class IA or IB, II or III in ASTM D-2321. All bedding material shall have 100 percent passing a one inch sieve.

3. Bedding material for flexible sanitary sewers shall extend from a point 4 inches below the pipe to 12 inches above the crown of the pipe. Bedding material for rigid sanitary sewers shall extend from a point 4 inches below the bottom of the pipe to the springline of the pipe. Rigid sanitary sewers shall have select backfill (backfill free from debris, organic, or frozen material, and rocks greater than 2" in any one dimension) placed from the springline of the pipe to a point 12" above the pipe. For sanitary sewers that will be installed within public right-of-ways, the backfill shall conform to the local authority standards.

4. Commercial fittings shall be used when joining different type (e.g. schedule 40 to schedule 35 PVC) of pipe.

I. Isolation distances

1. Sewer lines shall be laid at least 10 feet horizontally from any existing or proposed water main. This distance shall be calculated from the edge of the water pipe to the edge of the sewer pipe. Deviation from this distance may be allowed provided that the water main is laid in a separate trench

from the sewer line and the top of the sewer line is 18" below the bottom of the water main.

2. Where sewers cross water mains, there shall be at least 18 inches vertically between the bottom edge of the water main and the crown of the sewer line. If it is not possible to install the water main above the sewer, an individual PTI is required.

3. Sewers shall not be laid within 200 feet of public water supply wells, or other public water supply sources and structures and within 50 feet of private wells or private water supplies.

4. There shall be no physical connection 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 water supply.

5. No water pipe shall pass through or come in contact with any part of a sanitary sewer manhole.

6. Sanitary sewers shall not pass through any storm sewer and shall maintain a 10 foot horizontal separation from normal water elevation of storm water retention ponds. Where sanitary sewers cross storm sewers, there shall be at least 18 inches vertically between the bottom edge of one pipe and the crown of the other pipe.

PART IV. STANDARD PERMIT CONDITIONS

A. The proposed wastewater disposal system shall be constructed in strict accordance with the plans and application approved by the director of the Ohio Environmental Protection Agency. There shall be no deviation from these plans without the prior express, written approval of the agency. Any deviations from these plans or the above conditions may lead to such sanctions and penalties as provided for under Ohio law. Approval of these plans and issuance of this permit does not constitute an assurance by the Ohio EPA that the proposed facilities will operate in compliance with all Ohio Laws and regulations. Additional facilities shall be installed upon orders of the Ohio EPA if the proposed sources are inadequate or cannot meet applicable standards.

B. Roof drains, foundation drains, and other clean water connections to the disposal system are prohibited.

C. No liquids, sludges, or toxic or hazardous substances other than those set forth in the NOI and the approved permit shall be accepted for disposal without the prior written approval of the Ohio EPA.

D. All wastewater discharges that will adversely affect the operation, maintenance, or treatment capabilities of the sanitary sewer and/or wastewater treatment systems are prohibited.

E. If the construction area for this project is one acre or more, or is part of a larger development that is one acre or more, the applicant must submit an NOI for coverage under the general construction storm water permit to Ohio EPA in compliance with the proposed project's individual basin storm water general permit prior to the start of construction of this project.

F. For projects involving construction or placement of fill in a stream or wetland, the applicant shall contact the appropriate district of the U.S. Army Corps of Engineers for a determination regarding potential impacts to waters of the state as well as the requirements for obtaining, if necessary, a Clean Water Act Section 404 water quality certification. The applicant shall acquire a Section 404 permit and 401 water quality certification, if needed, before impacting any waters of the state as part of this project.

G. Coverage of this project under this permit does not relieve the applicant of the duty of complying with all applicable federal, state and local laws, ordinances, and regulations.

H. Any well, well point, pit, or other device used for the purpose of lowering the ground water level to facilitate construction of this project shall be properly abandoned in accordance with the provisions of Section 3745-9-10 of the Ohio Administrative Code or as directed by the director or his representative.

I. This permit to install applies only to the wastewater disposal system listed in the NOI. The installation of drinking water supplies, air contaminant sources, or solid waste disposal facilities will require the submittal of a separate application to the director.

J. All gravity sanitary sewers which are located in well field areas shall comply with and be tested as specified in Ohio Environmental Protection Agency Guideline, Gravity Sewers in Well Field Areas, February 1983.

K. The owner of the sewer system shall be responsible for proper operation and maintenance of the sanitary sewer system.

L. The permit to install is not an authorization to discharge pollutants to waters of the state. Pursuant to Chapter 6111 of the Ohio Revised Code, the applicant shall apply for a permit to discharge (NPDES) 180 days prior to any discharge of pollutants to waters of the state.

M. Fugitive dust generated by this sewer construction project will be controlled as specified in OAC 3745-17-08 (B).

N. Sewer and manhole construction joints shall conform to standards of the Ohio Environmental Protection Agency.

O. All pipe, flexible and rigid, shall be subject to a leakage test. The leakage exfiltration/infiltration test shall be a hydrostatic or air test. The hydrostatic leakage test shall not exceed 100 gallons per inch of pipe diameter per mile per day for any section of the system. The low air pressure testing shall follow the procedure outlined in ASTM C-828 for clay pipe, ASTM C-924 for concrete pipe, or ASTM F-1417 for plastic pipe. The leakage and deflection test shall be conducted under the supervision of a professional engineer. A representative of the professional engineer may supervise the deflection and leakage tests, but the professional engineer must sign off on the results of the deflection and leakage tests. Results of the deflection and leakage tests shall be kept on file at least 180 days by the entity responsible for the sewerage system, and shall be available upon request by the Ohio Environmental Protection Agency. Any lines which fail the deflection or leakage test must be repaired and retested until they meet the requirements which have been set forth within this condition. When flexible pipe (PVC, ABS, HDPE, etc.) is used it must be tested for maximum deflection of 5 percent after the final backfill has been in place no less than 30 days to permit stabilization of the soil-pipe system. Pipe with a stiffness of 200 p.s.i. or greater need not be tested for deflection if all pipe between manholes is less than 12 feet below final grade. The rigid ball or mandrel used for the deflection test shall have a diameter not less than 95 percent of the base inside diameter or average inside diameter of the pipe depending on which is specified in the ASTM specification, including the appendix, to which the pipe is manufactured. The test shall be performed without mechanical pulling devices.

P. All manholes shall be inspected and tested for watertightness or damage by air/hydrostatic tests prior to placing into service. Air testing of concrete sewer manholes shall conform to ASTM C-1244 test procedures.

PART V. REOPENER CLAUSE

A. If there is deviation from the plans considering extensions that were submitted with the NOI or the project was not started within 18 months of the effective date of the permit or the design criteria significantly changes, the appropriate Ohio EPA District Office shall notify the applicant that they are required to obtain an individual PTI or reapply for coverage under the general permit.

B. Permit modifications or revocation will be conducted in accordance with Ohio Administrative Code 3745-42-02(E).

PART VI. DEFINITIONS

"ABS" means acrylonitrile butadiene-styrene.

"AC" means asbestos cement.

"Applicant" means the person applying for the permit to install.

"Bypass" means the intentional diversion of waste streams from any portion of the treatment facility.

"Controlled Density Fill (CDF)" is a self-compacting, cementitious material used primarily as a backfill in lieu of compacted backfill. Several terms are currently used to describe this material, including flowable fill, controlled low-strength material, flowable mortar, plastic soil-cement, soil-cement slurry, and K-Krete. CDF is defined as a material that results in a compressive strength of 1200 psi (8 MPa) or less.

"DI" means ductile iron.

"Director" means the director of Ohio EPA or an authorized representative.

"Engineer" means someone who is registered in the State of Ohio as a professional engineer.

"Excessive" means an amount or degree too great to be reasonable or acceptable.

"National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and enforcing pretreatment requirements, under Section 307, 402, 318, and 405 of the Clean Water Act. The term includes an "approved program".

"NOI" means notice of intent to be covered by a general permit.

"NOT" means notice of termination.

"PE" means polyethylene.

"POTW" means Publicly Owned Treatment Works.

"PRC" means polymer reinforced concrete pipe.

"Process wastewater" means any water which, during manufacturing or processing, comes into contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product, except non-contact cooling water and sanitary wastewater. (Definition from 3745-3-01)

"PTI" is permit to install. A permit to install gives the regulated community permission to install sewerage items and must be obtained from Ohio EPA before any work is done on a sewer project.

"PVC" means polyvinyl chloride.

"RTR" means reinforced thermosetting resin.

"Storm Water" means water from storm runoff, snow melt runoff, and surface runoff and drainage.