



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER RESOURCES DIVISION

**PERMIT APPLICATION FOR WASTEWATER SYSTEMS**

Construction - Alteration - Addition or Improvement as Described Herein

Required under the Authority of Part 41, Sewerage Systems, of 1994 PA 451, as amended (Act 451)

This application becomes a Part 41 Construction Permit only when signed and issued by authorized DEQ staff.

**INSTRUCTIONS:** Complete items 1 through 32 on this form and complete the Project Basis of Design (attached form EQP-4600A) or provide same information. Print or type all information except for signatures. Complete the Streamlined Checklist (EQP5937) for sewer projects that qualify; checklist available at [www.michigan.gov/deq](http://www.michigan.gov/deq) (select Water; then select Wastewater Construction). Complete the Non-Governmental Ownership Checklist (attached form EQP-4600C) for non-governmentally owned projects. Deliver complete application, plans and specifications, and attachments to the DEQ district office having jurisdiction for the project.

**PROCESSING TIME FRAME:** Part 13, Permits, of Act 451 allows 150 days for processing of an administratively complete Part 41 permit application, with extensions available when requested by the applicant. However, permits are generally processed within 45 days or less for routine projects. For information regarding recent permit processing time frames, refer to the [WRD Metrics Web page](#) (refer to metric B-9). For a fee, an expedited permit review process is available for applicants seeking quicker review time frames; information about this process is available at [www.michigan.gov/deq](http://www.michigan.gov/deq) (select Water; then select Wastewater Construction) or click [here](#).

**REQUIRED NOTIFICATIONS:** The permittee shall provide Startup Notification (just prior to excavation) including permit number and date of issuance and Completion Notification (upon completion of the project) including permit number and date of issuance to the DEQ district office having jurisdiction for the project (attached form EQP-4600B).

<b>PERMIT NUMBER (DEQ USE ONLY)</b> P41002050		<b>DATE OF ISSUANCE (DEQ USE ONLY)</b> MAY 21, 2019	
<b>1. Municipality or Organization Name and Address</b> that will own the wastewater facilities to be constructed. This permit is to be issued to: City of Muskegon Department of Public Works 1350 E. Keating Avenue Muskegon, Michigan 49442		<b>DEPARTMENT OF ENVIRONMENTAL QUALITY</b> Permit Stamp Area (DEQ use only)  <b>PERMIT NUMBER</b>  <b>P4 1 0 0 2 0 5 0 MAY 21 2019</b>  <b>AUTHORIZING SEWERAGE SYSTEM CONSTRUCTION</b> <b>IN ACCORDANCE WITH ACT 451 PA 1994, PART 41</b>	
<b>2. Owner's Contact Person</b> (provide name for questions) Contact: Leo Evans, P.E. Phone: 231-724-6920			
<b>3. Project Name</b> (Provide phase number if project is segmented) 9 <sup>th</sup> Street Area Sanitary Sewer Improvements & Getty Street Force-main Replacement		<b>4. Project Location</b> City of Muskegon	<b>5. County</b> (location of project) Muskegon

ISSUED UNDER THE AUTHORITY OF THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY

cc: Muskegon County Health Department  
cc/enc: Mr. Don DeVries, P.E., Fleis & Vandenbrink Engineering, Inc.

Issued by: KRZ/PE

Reviewed by: KRZ/PE

☐ If this box is marked see special conditions attached to this permit.

**GENERAL PERMIT CONDITIONS**

- This PERMIT only authorizes the construction, alteration, addition, or improvement of the wastewater system as described herein and is issued solely under the authority of Part 41 of Act 451.
- Issuance of this PERMIT does not authorize any violation of federal, state, or local laws or regulations, nor does it obviate the need to obtain other permits or approvals from the DEQ or other units of government as may be required by law.
- This PERMIT expires two (2) years after the above date of issuance unless construction starts prior to the expiration date in accordance with R 299.2939(2) of the Part 41 Administrative Rules.
- Any portion of the herein described facilities constructed prior to the date of issuance is not authorized by this PERMIT and is a violation of Act 451.
- No sewer shall be placed into service unless and until the outlet sewer has been constructed, tested, and placed into service.
- Failure to meet any condition of this PERMIT or any requirement of Act 451 constitutes a violation of Act 451.
- The applicant must provide notice of impending construction to public utilities and comply with the requirements of the Protection of Underground Facilities Act, 1974 PA 53, as amended (MISS DIG).
- All earth changing activities must be conducted in accordance with Part 91, Soil Erosion and Sedimentation Control, of Act 451.
- All construction activity impacting wetlands shall be conducted in accordance with Part 303, Wetlands Protection, of Act 451.
- Intentionally providing false information in this application constitutes a violation of Section 249 of the Michigan Penal Code, 1931 PA 328, as amended.



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6. **Facilities Description** In the space below, provide a detailed description of the proposed project in the format shown in the examples at the bottom of this page. Applications with inadequate facilities descriptions **will be returned**. Use additional sheets if needed.

**SANITARY SEWERS:**

2,000 FEET OF 18" PVC SANITARY SEWER IN 9<sup>TH</sup> STREET FROM HOUSTON AVENUE NORTHWEST 1,100 FEET TO CLAY AVENUE

450 FEET ON CLAY AVENUE NORTHEAST TO 8<sup>TH</sup> STREET, AND 450 FEET ON 8<sup>TH</sup> STREET NORTHWEST TO WESTERN AVENUE.

172 FEET OF 24" PVC SANITARY SEWER UNDER SHORELINE DRIVE TO HERITAGE LANDING AND 324 FEET OF 30" PVC SANITARY SEWER NORTH CONNECTING TO A 42" TRUCK SEWER.

ADDITIONALLY, 1600 FEET OF 8" PVC SANITARY SEWER IN AN ALLEY WAY BETWEEN CLAY & WEBSTER FROM 5<sup>TH</sup> STREET SOUTHWEST TO 9<sup>TH</sup> STREET.

ALONG WITH 18 CONCRETE MANHOLES, AND SANITARY LATERALS.

FORCEMAIN: 216 FEET OF 8" DUCTILE IRON FORCEMAIN ON GETTY STREET FROM LEONARD AVE TO JUST SOUTH OF THE FOURMILE CREEK BRIDGE, CONNECTING INTO AN EXISTING MANHOLE.

**EXAMPLES OF FACILITIES DESCRIPTIONS**

Sanitary Sewers and/or Force Mains	250 feet of 10" sanitary sewer in Mark Avenue between John and Lincoln Streets. <b>OR</b> 250' of 10" sewer in an easement from the intersection of Mark Avenue and John Street to the north.
Pumping Stations	A wetwell/drywell, suction lift, submersible, etc. pumping station rated for 250 gpm at a TDH of 34' located at the northeast corner of Mark Avenue and Lincoln Street, and equipped with two pumps, backup power, pump around capability, and all other equipment as required for proper operation.
Wastewater Treatment Facilities	A 10 million gpd (avg. flow) facility located at the north end of Ronald Street including a 2.0 million gallon equalization basin, six 0.5 million gallon primary clarifiers, four 0.75 million gallon aeration basins with fine bubble aerators, four 0.8 million gallon circular secondary clarifiers, ultraviolet disinfection, and all necessary appurtenances and piping as shown on the plans and described in the specifications for the proper operation of the treatment facility to provide a discharge quality in compliance with the facility's discharge permit.

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**GENERAL PROJECT INFORMATION – Complete All Boxes Below**

7. Design engineer's name, engineering firm, address, phone no., and e-mail address:

Don DeVries, PE  
Fleis & Vandenbrink Engineering, Inc.  
2960 Lucerne Drive SE  
Grand Rapids, MI 49546  
ddevries@fveng.com 616.977.1000

8. Indicate who will prepare "as-built" plans for this project:

☒ Design Engineer in Box 7

☐ Other - name, organization, address, and phone no.:

9. Indicate who will provide project construction inspection:

☒ Engineering firm listed in Box 7

☐ Other - name, organization, address, and phone no.:

10. Is groundwater dewatering expected for this project?

☒ YES ☐ NO

If YES, provide dewatering specifications.

If YES, will water wells or water bodies be impacted?

☐ YES ☒ NO

NOTE: If groundwater dewatering is expected, and especially if it may result in a large quantity withdrawal (greater than 70 gallons per minute), registration with the DEQ is required and a permit may be necessary. For more information, please contact the [Water Use Program staff](#). If a Part 327 permit is required, it may cause delay in issuance of a Part 41 permit, and/or result in project design revisions.

11. To which wastewater collection system will the project connect? City of Muskegon

12. To which wastewater treatment system will the project connect? Muskegon County

Final discharge is to: ☒ Groundwater ☐ Surface Water

13. Will this project be within 50 ft. of a private water well?  
☐ YES ☒ NO If YES, locate on plans.

14. Will this project be within 200 ft. of a public water well?  
☐ YES ☒ NO If YES, locate on plans.

15. Is the project construction activity within a wetland (as defined by Section 30301(p) of Part 303 of Act 451)?

☐ YES ☒ NO

If YES, has application been made for a wetland permit?

☐ YES ☐ NO

16. Is the project construction activity within a 100-year floodplain (as defined by Section 3101 of Part 31, Water Resources Protection, of Act 451, and the associated Administrative Rules)?

☐ YES ☒ NO

If YES, has application been made for a floodplain permit?

☐ YES ☐ NO

17. Is the project construction activity below the ordinary high water mark of an inland lake or stream (as defined by Section 30101(f) of Part 301 of Act 451)?

☐ YES ☒ NO

If YES, has application been made for an inland lakes and streams permit? ☐ YES ☐ NO

18. Is the project construction activity within 500 ft. of a lake, reservoir, or stream? ☒ YES ☐ NO

If YES, has application been made for a Soil Erosion and Sedimentation Control Permit? ☒ YES ☐ NO

Is owner listed in box 2 of this application an Authorized Public Agency (Section 9110 of Part 91 of Act 451)?

☐ YES ☒ NO

19. Will the proposed construction activity be part of a project involving the disturbance of five (5) or more acres of land?

☐ YES ☒ NO Please contact 517-284-5587 with questions regarding the storm water regulations.

If YES, is project regulated by the National Pollutant Discharge Elimination System (NPDES) storm water regulations?

☐ YES: Attach copy of application or NPDES authorization to discharge storm water from construction activities.

☐ NO: Describe why activity is not regulated:

20. Is the project in or adjacent to a site of known soil or groundwater contamination? ☒ YES ☐ NO

If YES, attach a copy of a plan acceptable to the DEQ for handling contaminated soils and/or groundwater disturbed during construction. Contact the local DEQ office for listings of Michigan sites of environmental contamination.

**SEWER SYSTEM CAPACITY**

21. Are there any known capacity concerns in the collection system downstream of the proposed project? ☐ YES ☒ NO If YES, include a full explanation with the application.

Flow Rate Units

22. Proposed project peak design flow rate:

3,655 gpm

23. Total capacity of the existing outlet sewer:

8,600 gpm

24. Current peak hour flow into the existing outlet sewer:

3,655 gpm

25. Design capacity of nearest downstream pumping station (largest pump out of service):

N.A. ☐ 55 MGD

26. Current peak hour flow into nearest downstream pump station:

N.A. ☐ 26.6 MGD

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**OVERFLOWS AND BASEMENT FLOODING** – For Proposed Sewer Projects, Mark All Boxes That Apply

27. Has the downstream collection system overflowed or flooded basements in the past five years? ☐ YES ☒ NO  
If YES, attach a listing of events in the past five years including date, location, cause, and corrective action.

28. Has the downstream collection system owner entered into an agreement satisfactory to the DEQ to address sanitary sewer overflows and flooding of basements? ☐ YES ☒ NO

If YES, enter agreement name and number:

**29. TREATED WASTEWATER DISCHARGE AUTHORIZATION** – Mark Boxes As Appropriate

A. Does project include a new treatment facility or expansion, a change in discharge method, or a new discharge location?  
☐ YES – Complete B below ☒ NO – skip to item 30

B. If A is marked YES, indicate discharge authorization and provide the requested information:

1. NPDES or Groundwater Discharge Permit No: \_\_\_\_\_ Permit Authorized Flow Rate: \_\_\_\_\_ Units: \_\_\_\_\_

2. Local health department approval. **Include a copy of the approval with this application.**

**30. OWNERSHIP** – Mark A or B as Appropriate Below

☒ A. Ownership will be by a governmental entity before the sewer is placed in service.

☐ B. Ownership will be by a non-governmental entity, and a **completed Non-Governmental Ownership Checklist** is included with this application.

**Note:** A completed **Non-Governmental Ownership Checklist** (EQP-4600C) must be included with the application for **non-governmentally owned projects**. The checklist is attached to this application and the supporting information is available at [www.michigan.gov/deq](http://www.michigan.gov/deq) (select Water; then select Wastewater Construction).

**31. COMPLETE APPLICATION CHECKLIST** – Please confirm that this application is complete by using this checklist. Mark the box if the condition is met. This will help reduce DEQ review time and speed permit issuance.

☒ A. Items 1 to 30 of the application are completed.

☐ B. A contamination management plan is included for sites with known contamination (item 20). ☒ N.A.

☐ C. For projects with local health department discharge authorization, a copy of the health department authorization is included (item 29). ☒ N.A.

☐ D. For non-governmentally owned projects, provide the Non-Governmental Ownership Checklist and all documents required by the checklist (item 30). ☒ N.A.

☒ E. Owner's certification signed and complete (item 32).

☒ F. A detailed basis of design is included with the application. Form EQP-4600A (attached) or similar form is completed providing information required by Rule 35(3) of the Part 41 Administrative Rules of Act 451.

☒ G. Final plans and specifications sealed and signed by a Michigan licensed professional engineer are provided.

**32. OWNER'S CERTIFICATION** – The owner of the proposed facilities or the owner's authorized representative shall complete the following owner's certification:

I, Leo Evans (name), acting as the DPW Director (title/position) for City of Muskegon (entity owning proposed facilities) certify that the information provided in and with this application is true and accurate to the best of my knowledge, and I certify that the plans and specifications and other documents submitted to the DEQ with the Part 41 Permit Application accurately represent what I intend to construct under the terms of the Part 41 Permit, once issued. Also, I certify that this proposed project as detailed in the plans and specifications submitted under this application is in compliance with the requirement of Rule 41(a) of the Part 41 Administrative Rules of Act 451, which states that "Proper devices are or will be available and are in satisfactory operation for the collection, transportation and treatment before discharge into any public watercourse, lake, drain, ditch or groundwater, of the sewage or wastes collected or conveyed by such systems, or a definite program or agreement satisfactory to the department leading to the construction and operation of such collection, transportation or treatment devices shall have been officially adopted by the applicant for such permit and filed in the offices of the department." Further, I hereby acknowledge the requirement to provide Startup Notification (just prior to excavation) with the permit number and date of issuance and Completion Notification (upon completion of the project) with the permit number and date of issuance to the DEQ district office having jurisdiction for the project.

SIGNATURE: \_\_\_\_\_

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DATE: 4/29/19

NAME (TYPED): LEO EVANS

PHONE: (231) 724-6920

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**PROJECT BASIS OF DESIGN**

PROJECT NAME: 9<sup>th</sup> Street Sanitary Sewer Improvements

For this PROJECT the following information must be provided per Rule 35(3) of the Part 41 Administrative Rules of Act 451. Attach additional sheets as necessary.

- A. A general map of the initial and ultimate service areas  
☒ Included on engineering plans \_\_\_\_\_ Attached separately
- B. The design service area in acres Initial 17.2 Ultimate 18
- C. The design population densities per acre Initial 18 Ultimate 18
- D. 1. The ultimate design population 324 or total Residential Equivalent Units (REU) \_\_\_\_\_  
2. The design per capita sewage contribution 90 (gpd) or design contribution per REU \_\_\_\_\_ (gpd)
- E. The design commercial and industrial flow Initial 29,160 gpd avg  
Ultimate 29,160 gpd avg
- ☐ Mark this box if any commercial or industrial user(s) served by this project are subject to the federal categorical pretreatment standards or may discharge substances with the potential to interfere with the operation of the wastewater collection and/or treatment system.
- F. Wastewater flow rates for proposed project
- |   |                |                  |
|---|----------------|------------------|
| 1. Initial design average flow              | <u>29,160</u>  | Units <u>gpd</u> |
| 2. Initial design peak flow                 | <u>116,640</u> | Units <u>gpd</u> |
| 3. Ultimate design average flow             | <u>29,160</u>  | Units <u>gpd</u> |
| 4. Ultimate design maximum flow (peak hour) | <u>116,640</u> | Units <u>gpd</u> |
- G. An analysis, including calculations and/or flow monitoring, of the effect of the proposed additional flows on the receiving collection system. N/A
- H. For proposed pump stations and treatment facilities, attach a detailed explanation of steps to be taken in case of power failure or equipment breakdown, including a description of special reserve units available for emergency treatment, storage, and/or transportation of the wastewater.

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