

**CITY COMMISSION REGULAR MEETING  
MONDAY, AUGUST 4, 2025  
226 N. MICHIGAN AVENUE  
BIG RAPIDS, MI 49307  
6:30 P.M.**

**Information and minutes are available from the City Clerk's Office, 226 N. Michigan Avenue, Big Rapids, MI 49307 Phone: 231-592-4020.**

**AGENDA FOR REGULAR MEETING OF THE CITY COMMISSION**

1. CALL TO ORDER.
2. ROLL CALL.
3. PLEDGE OF ALLEGIANCE.
4. APPROVAL OF THE AGENDA
5. APPROVAL OF MINUTES. Act on the minutes of the regular meeting of July 21, 2025.
6. SPECIAL ORDERS OF THE DAY
7. STUDY SESSION – City of Big Rapids Secondary Logo concepts, Steve Gove, Communications Coordinator
8. PUBLIC COMMENT NOT RELATED TO ITEMS ON THE AGENDA.
9. PUBLIC HEARINGS – None
10. GENERAL BUSINESS. (Regarding public comment, anyone may speak on an item of general business. Please rise and wait to be recognized.)
  - a. Resolution Appointing Official Representative to the Michigan Municipal League Annual Meeting
  - b. Resolution Amending Republic Services Contract
  - c. Resolution Amending Fiscal Year 2024/2025 General Appropriations – 2025/2026 Carry Forwards
  - d. Resolution Approving the Wastewater Treatment Agreement Between the City of Big Rapids and the Charter Township of Big Rapids
  - e. Resolution Accepting the 2024 Big Rapids Wastewater User Charge System Report

- f. Resolution Approving the Purchase of Wetland Credits and Surety Bond for the Roben Hood Airport Extension Project

- 11. UNSCHEDULED BUSINESS – (Commission Concerns/Reports)
- 12. WORK SESSION – None
- 13. ADJOURNMENT.

\*\*\*Agenda items requiring a 4/5 Vote.

**The City of Big Rapids will provide necessary reasonable auxiliary aids and services to individuals with disabilities at a meeting or hearing upon one-week notice to the City. Individuals with disabilities requiring auxiliary aids or services should contact the City by writing or calling the ADA Coordinator, Jamie Aris, 226 N. Michigan Avenue, Big Rapids, MI 49307 (231-592-4007). TRS users may dial 711 for service.**

**The City of Big Rapids is an Equal Opportunity Provider and Employer**



Prepared For

City of Big Rapids

Project

City of Big Rapids  
Secondary Logo





## Table of Contents

|                         |    |
|-------------------------|----|
| Brand Positioning Recap | 3  |
| Brand Identity Concepts | 11 |
| Identity Comparison     | 33 |
| Concept Revisions       |    |



---

# Brand Positioning

# Big Rapids

## Brand Keywords

Captured from the brand survey and workshop, the following is a list of keywords that speak to the unique vision, traits, and strengths of the Big Rapids brand, culture, and community.

|              |           |               |
|--------------|-----------|---------------|
| Professional | Unity     | Eye-catching  |
| Attractive   | Community | Credible      |
| Modern       | Cohesive  | Intentional   |
| Prosperous   | Welcoming | Reputable     |
| Classic      | Inclusive | Multi-faceted |
| Minimal      | Artistic  | Timeless      |
| Simple       | Natural   | Thoughtful    |
| Clean        | Original  |               |



# Big Rapids Brand Attributes

Elemental descriptors that form a foundation for the Big Rapids brand's narrative, describing how it is intended to be perceived.



## Simple

Never busy or complex, expressing a clear, genuine message; championing authentic and important character traits such as nature, community, and creativity.

## Natural

Signifying both an unembellished, genuine brand narrative as well as a strong connection to the city's natural surroundings and resources.

## Eye-catching

A stand-out visual expression of the city's character and unique community offerings; expressing city pride for residents and calling out its unique character to visitors.

# Big Rapids Brand Values

Key principles that describe how  
Big Rapids thrives and defines its brand  
personality and culture.



## Welcoming

Taking pride in its residents and professional community, cherishing its abundant natural surroundings, and always inviting others to share in them.

## Professional

Always serious in its aim to grow and maintain a safe, prosperous, and reliable community for all.

## Artistic

Possessing a strong current of creativity, expression, and worldly culture that sets it apart from other rural municipalities in the region and beyond.

## Intentional

Thoughtful in its messaging and communications, drawing on values such as simplicity and professionalism to express its authentic character.



---

## Big Rapids Brand Purpose

In effect, a statement that describes the purpose of the Big Rapids brand narrative.

**To inspire connection, awareness, and unity, enabling the city and community of Big Rapids to grow and prosper.**



**Big Rapids strives to ensure a thriving residential culture and prosperous professional community, while promoting awareness for its outstanding offerings in recreation, creative culture, and commerce.**





# Michigan Cities' Brand Identities

A quick look at what neighbors and other municipalities in Michigan are doing in terms of brand identity.



Holland  
MICHIGAN



Experience  
GRAND RAPIDS



PURE  
#LUDINGTON





## BIG RAPIDS





---

# Brand Identity



**Drawing elemental influences from aspects of the existing Big Rapids brand identity, direction 1 aims to makes a connection a with the present while building a new vision for the future.**

**Type, color, and shape are re-imagined and repurposed, launching an identity system that can be used as a whole or deconstructed to create unique identity assets across all city touchpoints.**



**Big Rapids**  
**MICHIGAN**

OPTION A — FULL COLOR



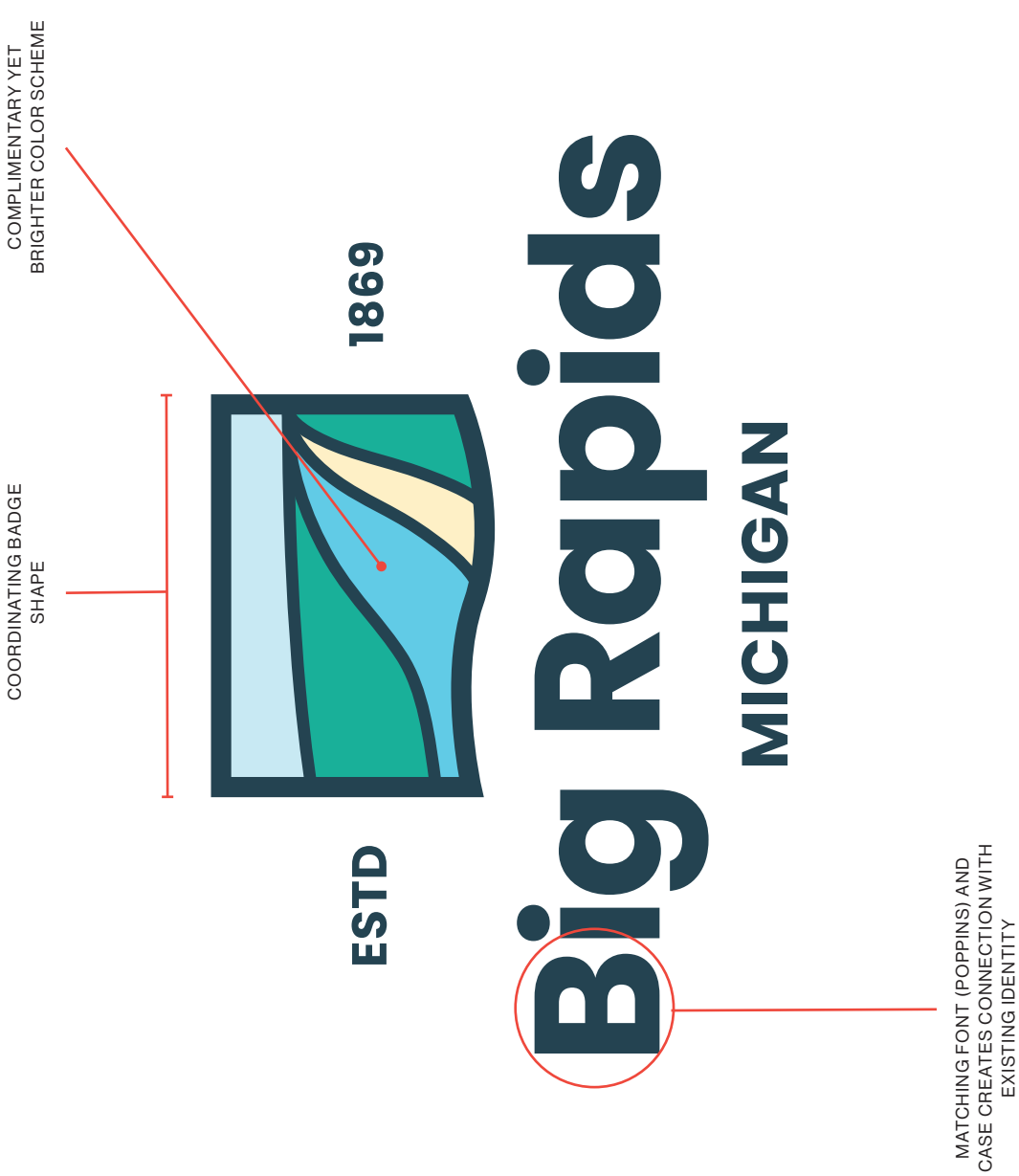
OPTION A — 1-COLOR



OPTION B — FULL COLOR



CURRENT IDENTITY (WEBSITE)







ESTD

1869

# Big Rapids

MICHIGAN













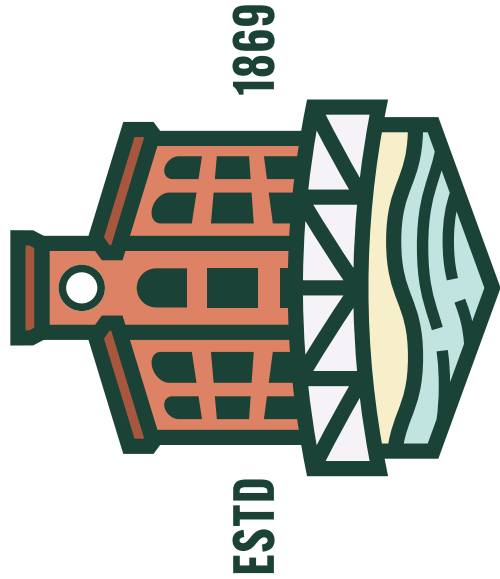






**With an increased focus on building connections and recognition for the unique character and landmarks of Big Rapids, direction 2 takes a more illustrative approach.**

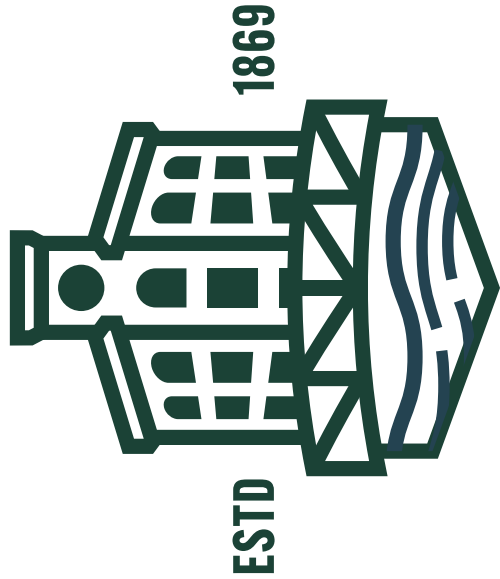
**The design merges elements of nature and architecture to create an identity that can express the breadth of Big Rapids' dynamic offerings.**



# BIG RAPIDS

MICHIGAN

FULL COLOR



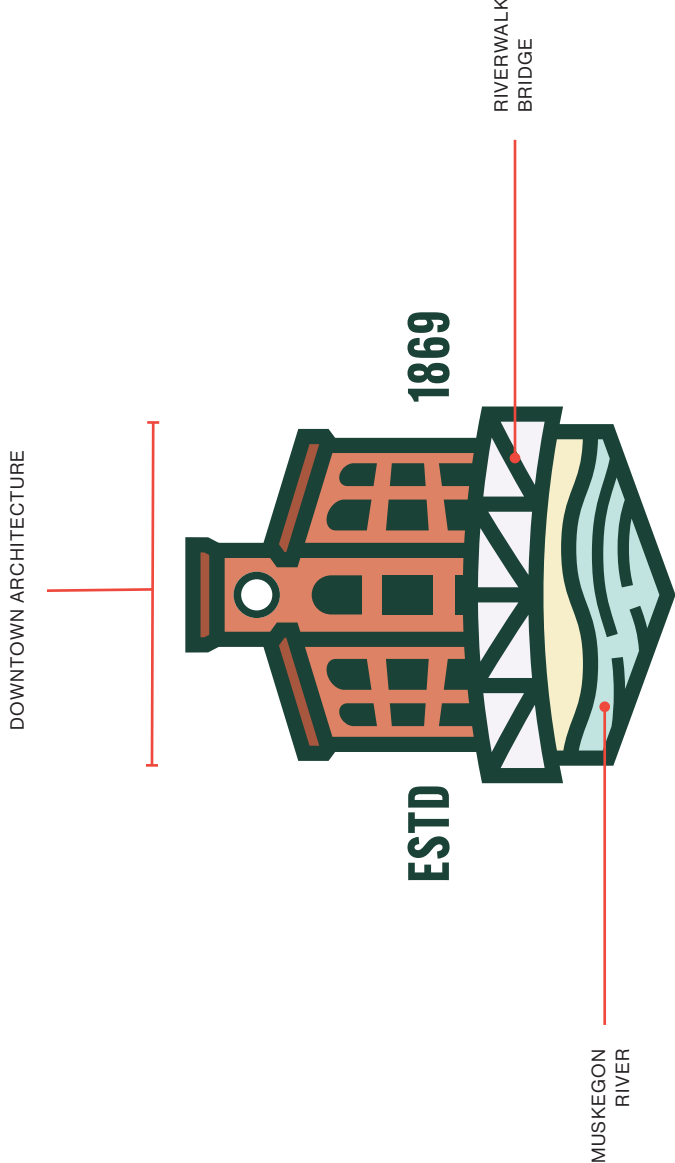
# BIG RAPIDS

MICHIGAN

1-COLOR



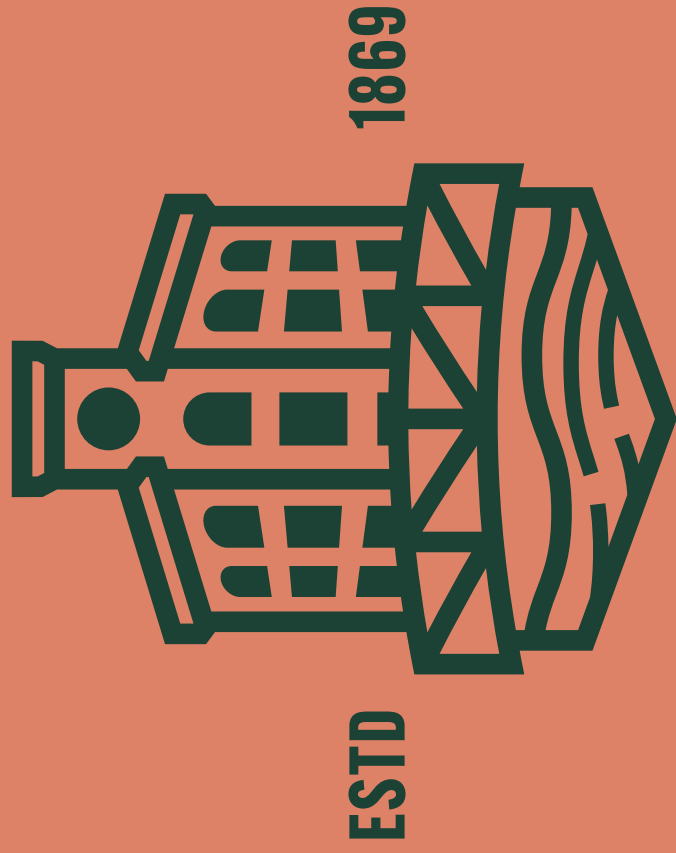
LANDMARK REFERENCES



# BIG RAPIDS

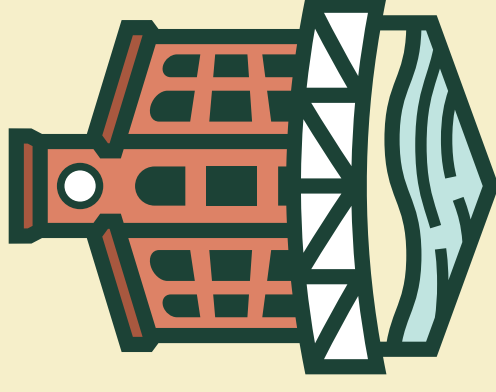
## MICHIGAN





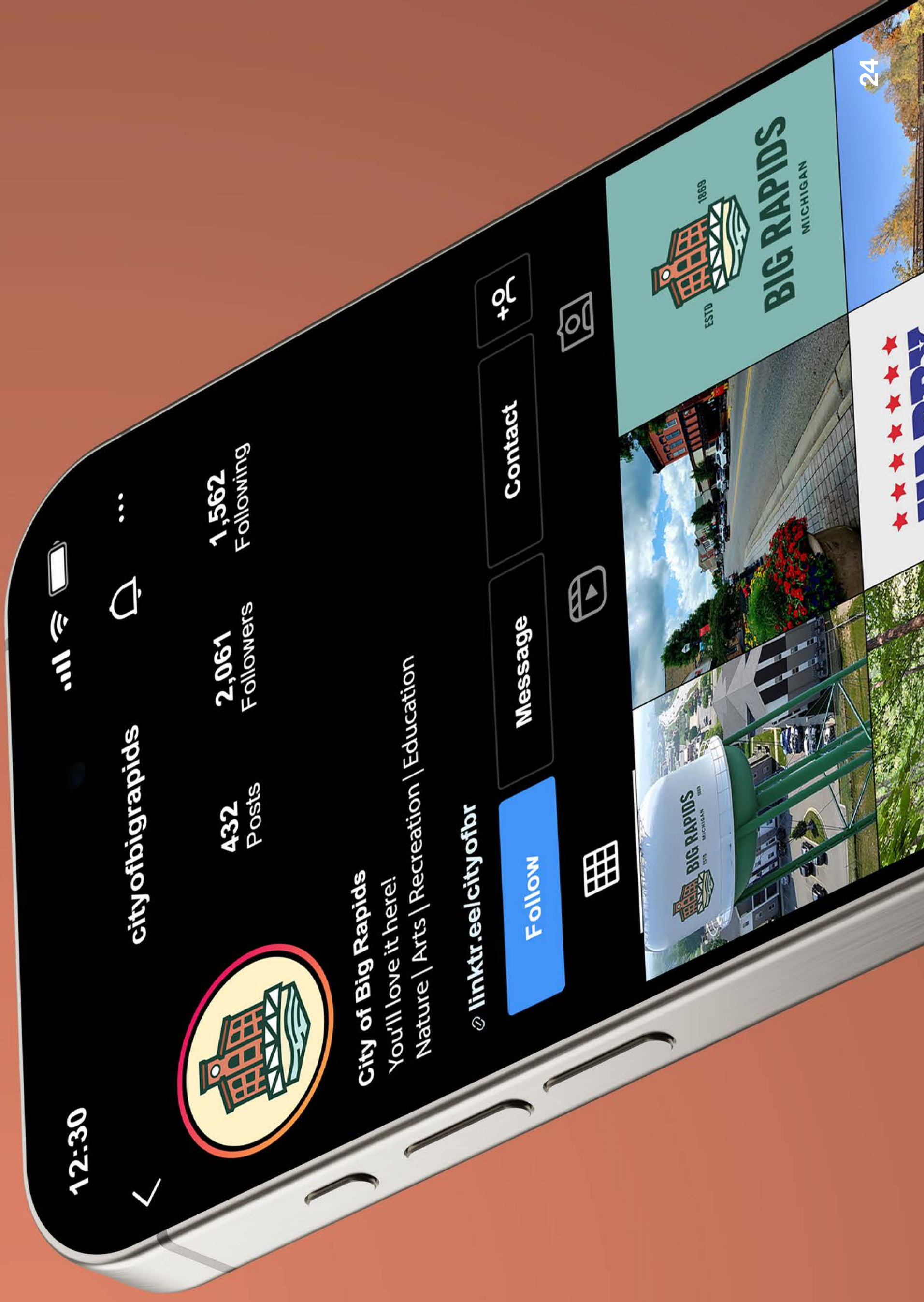
# BIG RAPIDS

MICHIGAN









12:30

cityofbigrapids



City of Big Rapids  
You'll love it here!  
Nature | Arts | Recreation | Education

linktr.eelcityofbr

Follow

Message

Contact





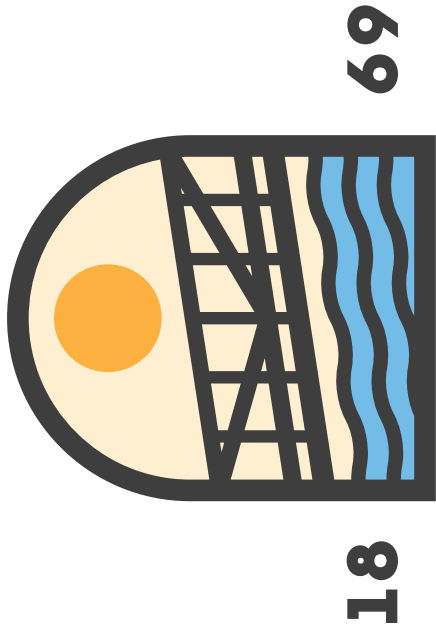






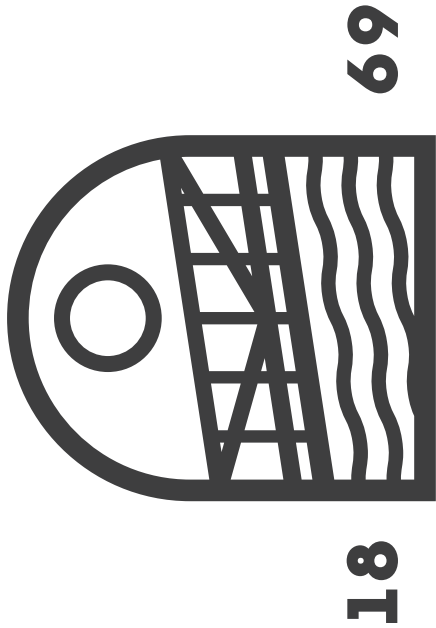
**Direction 3 takes a more playful approach, drawing in bright colors and a light, uplifting vibe that expresses the upbeat culture of Big Rapids—recreation, arts, community, and nature.**

**With subtle references to the riverwalk and the rapids themselves, this design is both energetic and engaging.**



**BIG RAPIDS**  
MICHIGAN

FULL COLOR



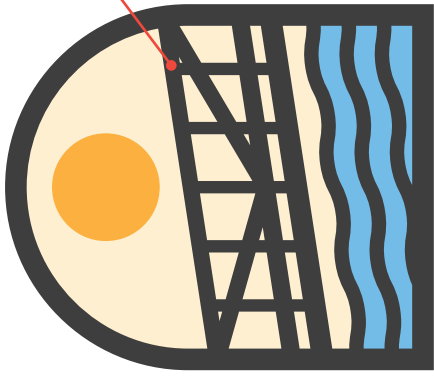
**BIG RAPIDS**  
MICHIGAN

1-COLOR





BADGE REFERENCES  
CITY ARCHITECTURAL DETAILS



18

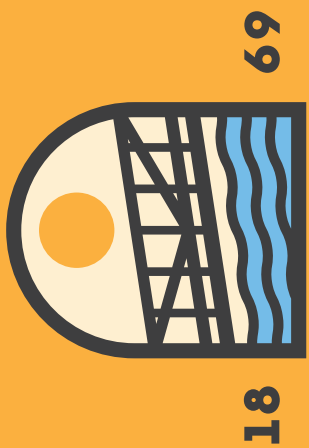
69

# BIG RAPIDS

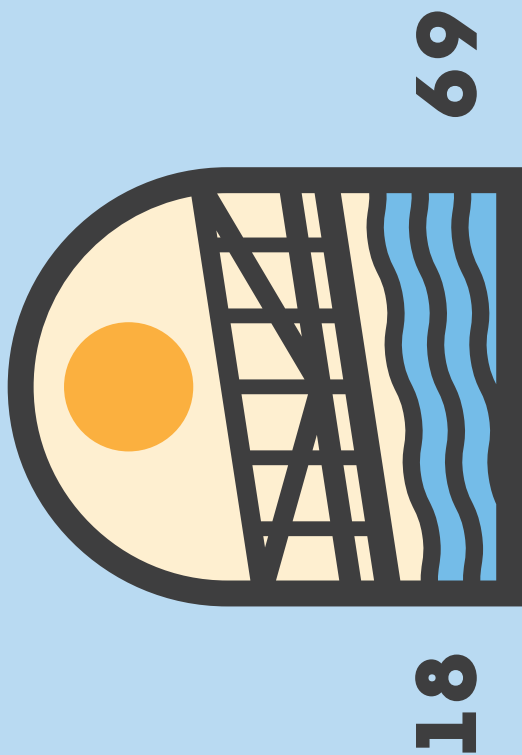
## MICHIGAN



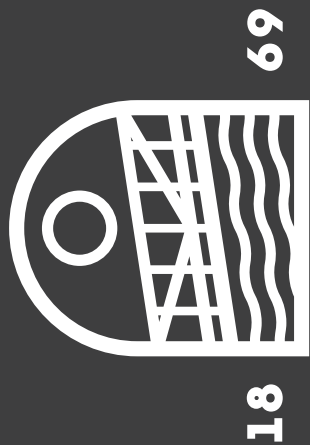
LANDMARK REFERENCES



**BIG RAPIDS**  
MICHIGAN



**BIG RAPIDS**  
MICHIGAN

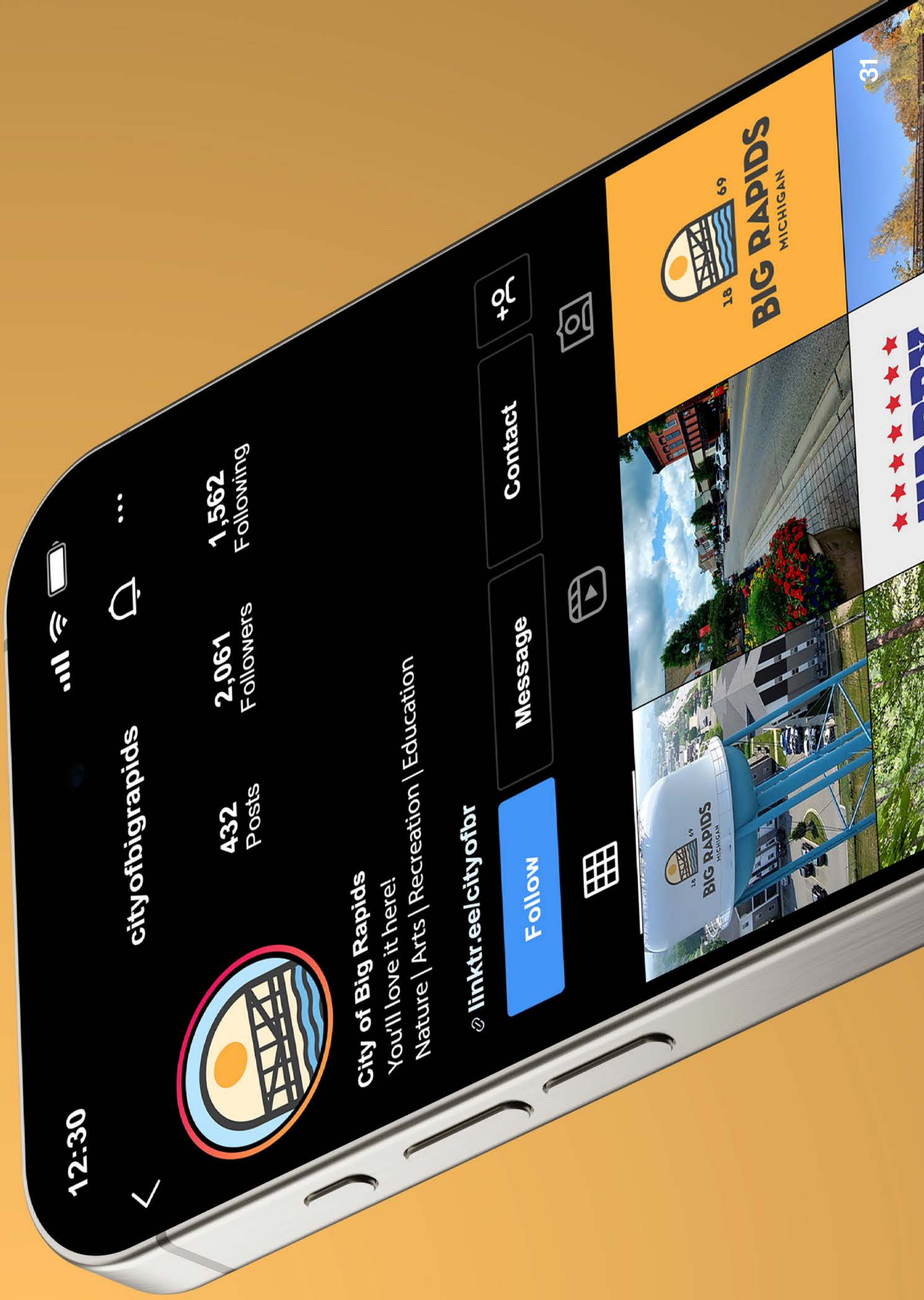


**BIG RAPIDS**  
MICHIGAN











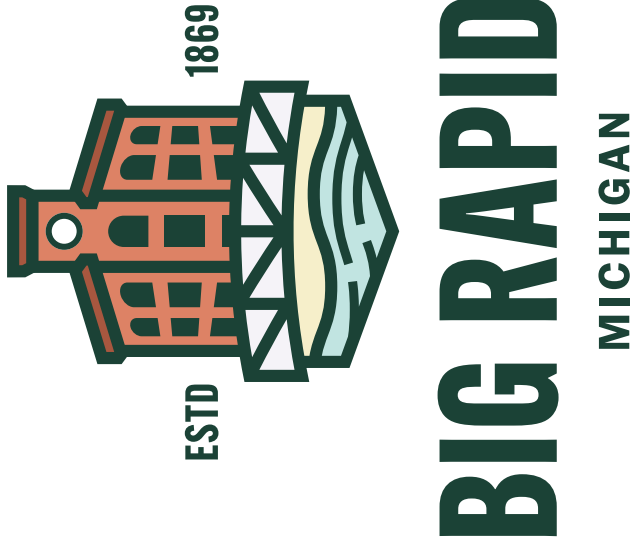




# Brand Identity Comparison



BRAND IDENTITY DIRECTION 1



BRAND IDENTITY DIRECTION 2



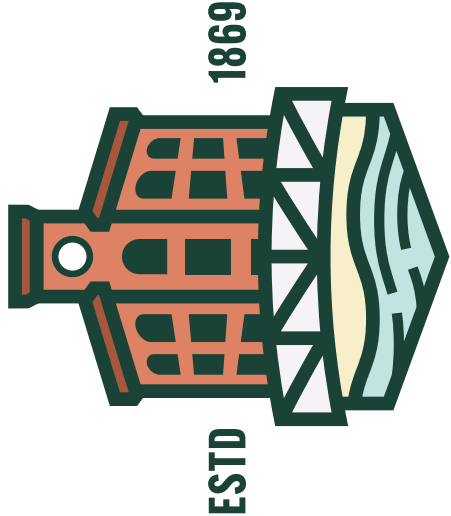
BRAND IDENTITY DIRECTION 3



---

# Concept Revisions

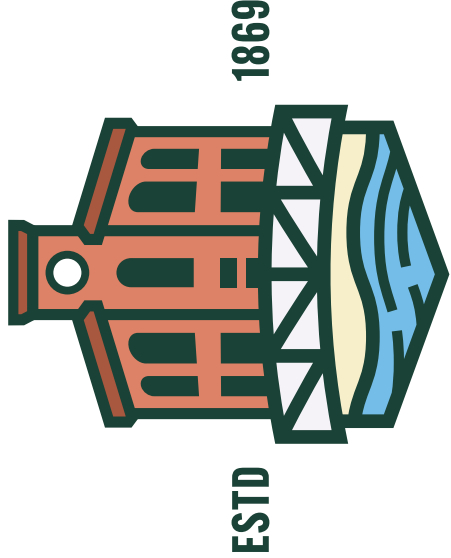




# BIG RAPIDS

MICHIGAN

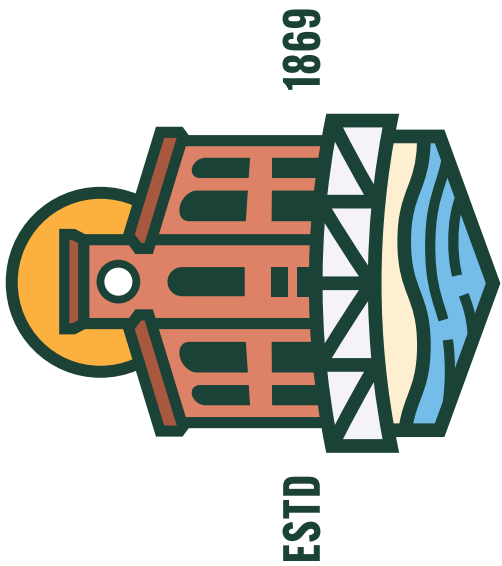
DIRECTION NO. 2  
ORIGINAL



# BIG RAPIDS

MICHIGAN

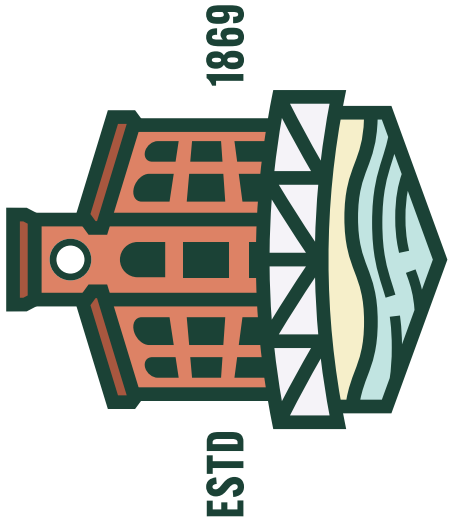
DIRECTION NO. 2A  
FEWER WINDOWS / BLUE WATER A



# BIG RAPIDS

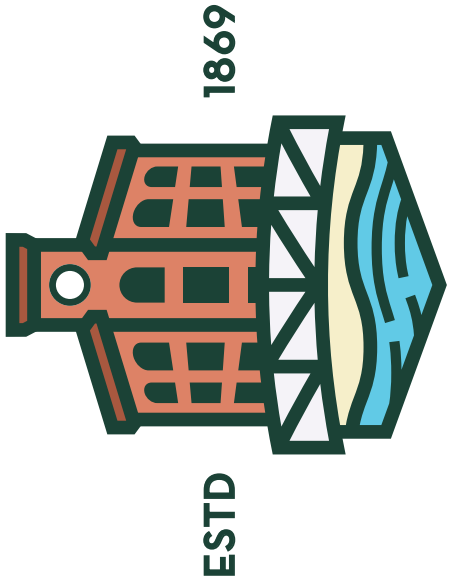
MICHIGAN

DIRECTION NO. 2B  
FEWER WINDOWS / BLUE WATER A / SUNSET



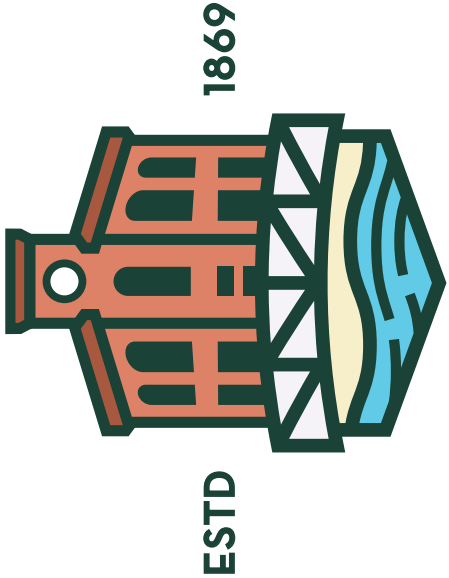
**BIG RAPIDS**  
MICHIGAN

DIRECTION NO. 2  
ORIGINAL



**BIG RAPIDS**  
MICHIGAN

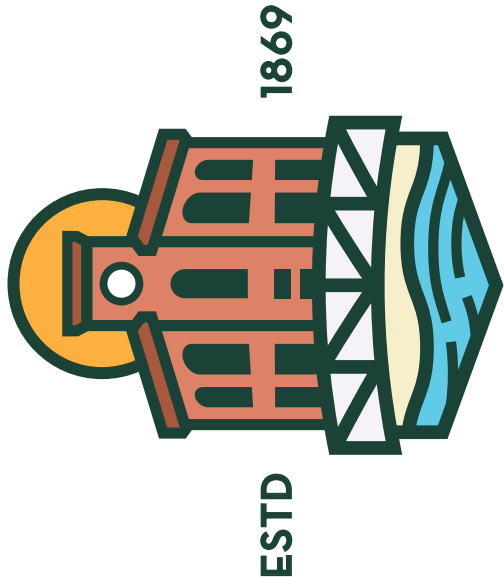
DIRECTION NO. 2C  
ORIGINAL WINDOWS / BLUE WATER B / DIRECTION NO. 3 FONT, NO ARCH



**BIG RAPIDS**  
MICHIGAN

DIRECTION NO. 2D  
FEWER WINDOWS / BLUE WATER B / DIRECTION NO. 3 FONT, NO ARCH





**BIG RAPIDS**  
MICHIGAN

DIRECTION NO. 2  
ORIGINAL

DIRECTION NO. 2E  
FEWER WINDOWS / BLUE WATER B  
DIRECTION NO. 3 FONT, NO ARCH / SUNSET

# Thank you.



**Jamie Latendresse Design**

[jamie@jamielatendresse.com](mailto:jamie@jamielatendresse.com)

[www.jamielatendresse.com](http://www.jamielatendresse.com)

📞 313.657.3579

📷 @jamielatendresse.design

🌐 @jldesign313

📺 jamielatendresse



**RESOLUTION NO. 25-**

Commissioner \_\_\_\_\_ moved, seconded by Commissioner \_\_\_\_\_, the adoption of the following:

**RESOLUTION APPOINTING OFFICIAL REPRESENTATIVE TO THE  
MICHIGAN MUNICIPAL LEAGUE ANNUAL MEETING**

BE IT RESOLVED, that \_\_\_\_\_, be appointed as the official representative to the Michigan Municipal League annual meeting to be held on September 17-29, 2025, in Grand Rapids, Michigan.

Yeas:

Nays:

The Mayor declared the resolution \_\_\_\_\_.

Dated:

June 27, 2025

**Michigan Municipal League Annual Meeting Notice**

(Please present at the next Council, Commission or Board Meeting)

Dear Official:

The Michigan Municipal League Annual Convention will be held in Grand Rapids, September 17-19, 2025. The League's **"Annual Meeting"** is scheduled for 4:30 pm on Wednesday, September 17 in the Pantlind Ballroom at the Amway Grand Plaza Hotel. The meeting will be held for the following purposes:

1. Election of Trustees. To elect five members of the Board of Trustees for terms of four years each (see #1 on page 2).
2. Policy. A) **To vote on the Core Legislative Principles document.**

In regard to the proposed League Core Legislative Principles, the document is available on the League website at <https://mml.org/resources-research/delegate/>. If you would like to receive a copy of the proposed principles by fax, please call Monica Druks at the League at 800-653-2483.

**B) If the League Board of Trustees has presented any resolutions to the membership, they also will be voted on.** (See #2 on page 2.)

In regard to resolutions, member municipalities planning on submitting resolutions for consideration by the League Trustees are reminded that under the Bylaws, they must be submitted to the Trustees for their review by **August 17, 2025**.

3. Other Business. To transact such other business as may properly come before the meeting.

**Designation of Voting Delegates**

Pursuant to the provisions of the League Bylaws, you are requested to designate by action of your governing body one of your officials who will be in attendance at the Convention as your official representative to cast the vote of the municipality at the Annual Meeting, and, if possible, to designate one other official to serve as alternate. Please submit this information through the League website by visiting <https://mml.org/resources-research/delegate/> **no later than August 17, 2025.**

We love where you live.





Regarding the designation of an official representative of the member to the annual meeting, please note the following section of the League Bylaws:

“Section 4.4 - Votes of Members. Each member shall be equally privileged with all other members in its voice and vote in the election of officers and upon any proposition presented for discussion or decision at any meeting of the members. Honorary Members shall be entitled to participate in the discussion of any question, but such members shall not be entitled to vote. The vote of each member shall be cast by its official representative attending the meeting at which an election of officers or a decision on any proposition shall take place. Each member shall, by action of its governing body prior to the annual meeting or any special meeting, appoint one official of such member as its principal official representative to cast the vote of the member at such meeting, and may appoint one official as its alternate official representative to serve in the absence or inability to act of the principal representative.”

#### 1. Election of Trustees

Regarding election of Trustees, under Section 5.3 of the League Bylaws, five members of the Board of Trustees will be elected at the annual meeting for a term of four years. The regulations of the Board of Trustees require the Nominations Committee to complete its recommendations and post the names of the nominees for the Board of Trustees on a board at the registration desk at least four hours before the hour of the business meeting.

#### 2. Statements of Policy and Resolutions

Regarding consideration of resolutions and statements of policy, under Section 4.5 of the League Bylaws, the Board of Trustees acts as the Resolutions Committee, and “no resolution or motion, except procedural and incidental matters having to do with business properly before the annual meeting or pertaining to the conduct of the meeting, shall be considered at the annual meeting unless it is either (1) submitted to the meeting by the Board of Trustees, or (2) submitted in writing to the Board of Trustees by resolution of the governing body of a member at least thirty (30) days preceding the date of the annual meeting.” Thus, the deadline this year for the League to receive resolutions is **August 17, 2025**. Please submit resolutions to the attention of Daniel P. Gilmartin, Executive Director/CEO at 1675 Green Rd., Ann Arbor, MI 48105. **Any resolution submitted by a member municipality will go to the League Board of Trustees, serving as the resolutions committee under the Bylaws, which may present it to the membership at the Annual Meeting or refer it to the appropriate policy committee for additional action.**

Further, “Every proposed resolution submitted to the Board of Trustees by a member shall be stated in clear and concise language and shall be accompanied by a statement setting forth the reasons for recommending the proposed resolution. The Board shall consider the proposal at a Board meeting prior to the next annual meeting and, after consideration, shall make a recommendation as to the advisability of adopting each such resolution or a modification thereof.

We love where you live.



### 3. Posting of Proposed Resolutions and Core Legislative Principles

The proposed Michigan Municipal League Core Legislative Principles and any new proposed Resolutions recommended by the Board of Trustees for adoption by the membership will be available on the League website, or at the League registration desk to permit governing bodies of member communities to have an opportunity to review such proposals and delegate to their voting representative the responsibility for expressing the official point of view of the member at the Annual Meeting.

The Board of Trustees will meet on Tuesday, September 16, 2025, at the Amway Grand Hotel for the purpose of considering such other matters as may be requested by the membership, in addition to other agenda items.

Sincerely,



Donald Gerrie  
President  
Mayor, Sault Sainte Marie



Daniel P. Gilmartin  
Executive Director & CEO

We love where you live.





**RESOLUTION NO. 25-**

Commissioner \_\_\_\_\_ moved, seconded by Commissioner \_\_\_\_\_, the adoption of the following:

**RESOLUTION AMENDING REPUBLIC SERVICES CONTRACT**

WHEREAS, the City of Big Rapids has a contract with Republic Services for sanitation services, and

WHEREAS, Republic Services would like to replace Section 4J of said contract with “upon request from the City, provide the City with an audit on tons of trash going to the landfill. Upon request, Republic Services will also provide the number of containers and tons processed of recycled materials,” and

WHEREAS, Republic Services would like to amend Schedule A of the contract to include a Recycle Processing Charge, a fee based on recycling tons collected, and

WHEREAS, the current recycling processing charge is \$75/ton, and if the processing facility increases this per ton rate, Republic Services will give the City a 60-written notice.

NOW, THEREFORE, BE IT RESOLVED, that the City Commission approves the amendment to the Republic Services contract to include the update to Section 4J to include “upon request,” and Schedule A. Collection Costs to include Recycle Processing Charge of \$75/ton.

BE IT FURTHER RESOLVED, that the City Commission authorizes Mayor Frederick Guenther to sign said amendment.

Yeas:

Nays:

The Mayor declared the resolution \_\_\_\_\_.

Dated:



21545 Cannonsville Rd. Pierson, MI 49339  
www.republicservices.com

## AMENDMENT TO CONTRACT FOR REFUSE COLLECTION & DISPOSAL City of Big Rapids, Michigan

This amendment (the "Amendment") is made by City of Big Rapids (the "City") and Allied Waste Systems, Inc. dba Republic Services of Pierson (the "Contractor")., parties to the contract dated July 1, 2023.

### AMENDMENTS

The Contract is amended as follows:

A. Section 4.J of Contract to be replaced with:

"Upon request from the City, provide the City with an audit of tons of trash going to the landfill. Upon request from the City, also provide the City with the number of containers and tons processed of recycled materials. City's right to audit shall be subject to include advance reasonable notice and appropriate limitations as to the scope and frequency of the audit. Contractor is obligated to maintain such records for a period of two years after the completion of services under this agreement.

B. Schedule A. Collection Costs to include Recycle Processing Charge:

"Recycle Processing Charge is what the materials processing facility charges the Contractor for delivered recyclable material to cover the costs associated with processing materials such as sorting, cleaning, and preparing materials for manufacturing. Recycle Processing Charges are a fee based on recycling tons collected within The City of Big Rapids and is a direct pass through from the materials processing facility. Contractor will bill the City monthly, in arrears, on the last day of the month, for all recycle tons processed at the



materials processing facility during that month. The current recycling processing charge is \$75/ton. If materials processing facility increases this per ton rate, the new rate will be assessed in recycle tonnage billing to the City after a 60-day written notice."

#### NO OTHER CHANGES

Except as set forth in this Amendment, the Contract is unaffected and shall continue in full force and effect in accordance with its terms. If there is conflict between this amendment and the Contract or any earlier amendment, the terms of this amendment will prevail.

This amendment is accepted by both parties to become active on the contract year starting August 1, 2025.

#### CITY OF BIG RAPIDS

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Frederick Guenther, Mayor

#### REPUBLIC SERVICES OF PIERSON

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Todd Harland, General Manager

**RESOLUTION NO. 25-**

Commissioner \_\_\_\_\_ moved, seconded by Commissioner \_\_\_\_\_, the adoption of the following:

**RESOLUTION AMENDING FISCAL YEAR 2024/2025  
GENERAL APPROPRIATIONS- 2025/2026 CARRY FORWARDS**

WHEREAS, the City of Big Rapids adopted FY 2025/2026 General Appropriations on June 2, 2025, per Resolution No. 25-56, and

WHEREAS, budget carry forwards are needed when a budgeted purchase does not take place, when a project does not commence, or is not complete by the end of the fiscal year, and

WHEREAS, budget carry forward requests allow departments to move these budgeted items into the succeeding fiscal year, and several items from fiscal year 2024/2025 need to be carried forward into this fiscal year 2025/2026.

NOW, THEREFORE, BE IT RESOLVED, that the Big Rapids City Commission hereby approves the following budget adjustments to carry forward to the 2025/2026 budget:

|                     |                                      | FY25-26  | Carryforward |         |
|---------------------|--------------------------------------|----------|--------------|---------|
| <b>Expenditures</b> | GENERAL FUND                         | Original |              | Amended |
| Account Number      | Account Description                  | Budget   | Amount       | Budget  |
| 101-101-732.101     | SUPPLIES-CHARTER REVISION            | 6,000    | 3,900        | 9,900   |
| 101-101-801.000     | CONTRACTED SERVICES-CHARTER REVISION | 10,000   | 8,000        | 18,000  |
| 101-228-930.001     | OPERATIONAL MAINTENANCE-SOFTWARE     | 175,000  | 20,000       | 195,000 |
| 101-228-977.900     | NETWORK SWITCH REPLACEMENT           | 15,000   | 22,000       | 37,000  |
| 101-228-977.901     | SECURITY CAMERAS                     | 5,000    | 20,000       | 25,000  |
| 101-228-984.000     | SOFTWARE                             | 35,000   | 7,500        | 42,500  |
| 101-336-738.000     | PROTECTIVE CLOTHING                  | 20,000   | 9,200        | 29,200  |
| 101-444-967.016     | BIRCH ALLEY PROJECT                  | 0        | 54,000       | 54,000  |
| 101-444-967.046     | ALLEY PAVING                         | 0        | 32,000       | 32,000  |
| 101-444-967.702     | ALLEY APPROACH                       | 0        | 8,000        | 8,000   |
| 101-443-971.006     | PARKING LOT PURCHASE                 | 0        | 90,000       | 90,000  |
| 101-756-920.410     | PUBLIC UTILITIES-SPLASH PAD          | 50,000   | 70,000       | 120,000 |
| 101-756-967.914     | SECURITY PARKS                       | 0        | 10,000       | 10,000  |
|                     |                                      | 316,000  | 354,600      | 670,600 |

| <b>Expenditures</b>   | MAJOR STREETS            | Original |         | Amended |
|-----------------------|--------------------------|----------|---------|---------|
| Account Number        | Account Description      | Budget   | Amount  | Budget  |
| 202-451-989.000-P0066 | DARWIN ST RECONSTRUCTION | 0        | 190,000 | 190,000 |

|                               |                               |        |         |         |
|-------------------------------|-------------------------------|--------|---------|---------|
| 202-451-989.000-P0094         | FULLER AVE WATERMAIN & PAVING | 70,000 | 105,000 | 175,000 |
| <b>Fund Expenditure Total</b> |                               | 70,000 | 295,000 | 365,000 |

|                               |                                |          |        |         |
|-------------------------------|--------------------------------|----------|--------|---------|
| <b>Expenditures</b>           | DOWNTOWN DEVELOPMENT AUTHORITY | Original |        | Amended |
| Account Number                | Account Description            | Budget   | Amount | Budget  |
| 248-729-782.248               | DUMPSTER SCREENING MATERIALS   | 0        | 25,000 | 25,000  |
| 248-729-977.000-P0062         | DOWNTOWN SIGNS                 | 0        | 50,000 | 50,000  |
| <b>Fund Expenditure Total</b> |                                | 0        | 75,000 | 75,000  |

|                               |                     |          |        |         |
|-------------------------------|---------------------|----------|--------|---------|
| <b>Expenditures</b>           | HISTORICAL BUILDING | Original |        | Amended |
| Account Number                | Account Description | Budget   | Amount | Budget  |
| 270-249-943.000               | EQUIPMENT RENTAL    | 0        | 4,000  | 4,000   |
| <b>Fund Expenditure Total</b> |                     |          |        | 4,000   |

|                               |                                  |          |         |         |
|-------------------------------|----------------------------------|----------|---------|---------|
| <b>Expenditures</b>           | MECHANIC ST DEVELOPMENT          | Original |         | Amended |
| Account Number                | Account Description              | Budget   | Amount  | Budget  |
| 409-249-802.000-P0088         | MECHANIC ST PHASE II ENGINEERING | 0        | 110,000 | 110,000 |
| <b>Fund Expenditure Total</b> |                                  | 0        | 110,000 | 110,000 |

|                               |                                      |          |        |         |
|-------------------------------|--------------------------------------|----------|--------|---------|
| <b>Expenditures</b>           | SEWER                                | Original |        | Amended |
| Account Number                | Account Description                  | Budget   | Amount | Budget  |
| 590-560-930.007               | ULTRAVIOLET LAMPS                    | 20,000   | 6,000  | 26,000  |
| 590-560-989.000-P0095         | FEASIBILITY STUDY-DIGESTER, AERATION | 0        | 40,000 | 40,000  |
| 590-560-989.000-P0096         | REPLACE EQ BASIN BLOWER MOTOR        | 0        | 14,000 | 14,000  |
| 590-561-967.068               | SEWER TELEVISIONING & LINING         | 125,000  | 28,000 | 153,000 |
| <b>Fund Expenditure Total</b> |                                      | 145,000  | 88,000 | 233,000 |

|                               |                         |          |         |         |
|-------------------------------|-------------------------|----------|---------|---------|
| <b>Expenditures</b>           | WATER                   | Original |         | Amended |
| Account Number                | Account Description     | Budget   | Amount  | Budget  |
| 591-560-802.048               | WATER ASSET PROGRAM     | 0        | 14,000  | 14,000  |
| 591-560-802.709               | WATER RELIABILITY STUDY | 0        | 10,000  | 10,000  |
| 591-560-989.000-P0100         | WTP SCADA UPGRADE       | 0        | 220,600 | 220,600 |
| 591-561-989.000-P0101         | VALVE TURNER            | 0        | 100,000 | 100,000 |
| <b>Fund Expenditure Total</b> |                         | 0        | 344,600 | 344,600 |

|                     |                   |          |  |         |
|---------------------|-------------------|----------|--|---------|
| <b>Expenditures</b> | WATER REPLACEMENT | Original |  | Amended |
|---------------------|-------------------|----------|--|---------|



| Account Number                | Account Description           | Budget  | Amount    | Budget    |
|-------------------------------|-------------------------------|---------|-----------|-----------|
| 599-560-989.000-P0099         | PAINT CLARIFIERS              | 0       | 537,100   | 537,100   |
| 599-561-989.000-P0016         | BIRCH ALLEY                   | 150,000 | 100,000   | 250,000   |
| 599-561-989.000-P0015         | LEAD & COPPER SERVICE LINES   | 0       | 116,000   | 116,000   |
| 599-561-989.000-P0077         | DARWIN ST RECONSTRUCTION      | 0       | 188,800   | 188,800   |
| 599-561-989.000-P0094         | FULLER AVE WATERMAIN & PAVING | 250,000 | 580,000   | 830,000   |
| 599-561-989.000-P0098         | HMC UPGRADES                  | 10,000  | 640,900   | 650,900   |
| <b>Fund Expenditure Total</b> |                               | 410,000 | 2,162,800 | 2,572,800 |

| Expenditures                  | MOTOR POOL             | Original |        | Amended |
|-------------------------------|------------------------|----------|--------|---------|
| Account Number                | Account Description    | Budget   | Amount | Budget  |
| 661-524-981.312               | DUMP TRUCK             | 65,500   | 45,100 | 110,600 |
| 661-524-702.000               | SALARIES-CLOSE OUT PAY | 177,600  | 35,000 | 212,600 |
|                               |                        |          |        | 0       |
| <b>Fund Expenditure Total</b> |                        | 243,100  | 80,100 | 323,200 |

| Expenditures                  | RIVERWALK                      | Original |        | Amended |
|-------------------------------|--------------------------------|----------|--------|---------|
| Account Number                | Account Description            | Budget   | Amount | Budget  |
| 760-249-967.024               | RIVERWALK TRAIL HAZARDOUS IMPR | 40,000   | 3,000  | 43,000  |
| <b>Fund Expenditure Total</b> |                                | 40,000   | 3,000  | 43,000  |

BE IT FURTHER RESOLVED, that City Manager Mark Gifford is authorized to amend the FY 2025/2026 City of Big Rapids budget accordingly.

Yeas:

Nays:

The Mayor declared the resolution \_\_\_\_\_.

Dated:

---

## POSITION PAPER

---

TO: City Commission  
FROM: Carla Staffen, City Treasurer  
DATE: July 25, 2024

---

**Issue:**

2024/2025 Budget Carry Forwards to 2025/2026

**Background:**

The purpose of a budget carry forward is to move a budgeted acquisition or project from one fiscal period to another. Budget carry forwards are needed when a budgeted purchase does not take place, or when a project does not commence or is not complete by the end of the fiscal year. Budget carry forward requests allow departments to move these budgeted items into the succeeding fiscal year.

**Desired Action:**

Please approve the attached Fiscal Year 2024/2025 carry forward requests to Fiscal Year 2025/2026.

**RESOLUTION NO. 25-**

Commissioner \_\_\_\_\_ moved, seconded by Commissioner \_\_\_\_\_, the adoption of the following:

**RESOLUTION APPROVING THE WASTEWATER TREATMENT AGREEMENT  
BETWEEN THE CITY OF BIG RAPIDS AND THE  
CHARTER TOWNSHIP OF BIG RAPIDS**

WHEREAS, a proposed Wastewater Treatment Agreement by and between the City of Big Rapids (the "City") and the Charter Township of Big Rapids (the "Township") in the form attached, has been submitted, and

WHEREAS, the Wastewater Treatment Agreement includes the User Charge Report setting forth the methodology by which applicable rates, charges and fees will be determined for use of, operation, maintenance, repair, replacement, and improvements to the Township Collection System, City Collection System, and the City's Wastewater Treatment Plant (all terms are defined in the Wastewater Treatment Agreement).

NOW, THEREFORE, BE IT RESOLVED, that the City Commission approves the Wastewater Treatment agreement between the City of Big Rapids and the Charter Township of Big Rapids effective August 4, 2025, through August 4, 2050, and the Mayor and City Clerk are authorized to sign said agreement.

BE IT FURTHER RESOLVED, that this agreement shall be in effect for a period of twenty-five (25) years and reviewed every five (5) years to address changing conditions, state and federal laws or other issues which require the updating of or modification to this agreement.

Yeas:

Nays:

The Mayor declared the resolution \_\_\_\_\_.

Dated:

I hereby certify that the foregoing resolution is a true and complete copy of a resolution of the City of Big Rapids duly adopted at a regular meeting of the City Commission of said City held on August 4, 2025.

I further certify that said resolution has been recorded in the Minute Book of the City of Big Rapids and that such recording has been authenticated by the signatures of the Mayor and City Clerk.

\_\_\_\_\_  
Karen Manoski, City Clerk  
Dated:



Big Rapids Charter Township

**AMENDED AND RESTATED WASTEWATER TREATMENT  
AGREEMENT BETWEEN THE CITY OF BIG RAPIDS AND THE  
CHARTER TOWNSHIP OF BIG RAPIDS**

Sewer Contract

## TABLE OF CONTENTS

| Paragraph                                                                                            | Page |
|------------------------------------------------------------------------------------------------------|------|
| Definitions                                                                                          | (iv) |
| RECITALS                                                                                             | 1    |
| 1. City to Provide Sewage Treatment Services on a Wholesale Basis                                    | 4    |
| 2. City Responsibility for Collection System                                                         | 4    |
| 3. Township responsibility for Township Collection System                                            | 4    |
| 4. Shared or Delegated Control Over Wastewater Collection Facilities                                 | 5    |
| 5. Use of and Access to the City Collection and Township Collection Systems and WWTP                 | 5    |
| 6. Availability of System Records and Plans                                                          | 8    |
| 7. Entry Point Master Meters                                                                         | 9    |
| 8. Inflow and Infiltration ("I & I")                                                                 | 10   |
| 9. Entry Point Sampling Devices                                                                      | 11   |
| 10. City's Right to Inspection Township Collection System                                            | 11   |
| 11. Township Wastewater Ordinance                                                                    | 12   |
| 12. Notice of Damage, Hazard or Violation: Notice and Claim Procedures for Sewer Backup and Overflow | 12   |
| 13. Discontinuance of Service in the Event of Emergency                                              | 13   |
| 14. Force Majeure                                                                                    | 14   |
| 15. Liability for Damaging Waste                                                                     | 14   |
| 16. User Charge System                                                                               | 15   |
| 17. Elements of the User Charge Report                                                               | 17   |
| 18. Payment Terms                                                                                    | 18   |
| 19. Industrial Pretreatment Program/Surcharges                                                       | 19   |
| 20. Township Right to Audit City Charges                                                             | 20   |

|                                                  |    |
|--------------------------------------------------|----|
| 21. Arbitration/Conflict Resolution              | 20 |
| 22. Township-City Communication                  | 22 |
| 23. Improvements/Expansion of City System        | 22 |
| 24. Inter-Township Sewer Lines                   | 23 |
| 25. Ownership                                    | 24 |
| 26. Authorization Term                           | 24 |
| 27. Notice and Binding Effect                    | 25 |
| 28. Definition of Sanitary Sewage and Wastewater | 26 |
| 29. Effect of Agreement                          | 26 |
| 30. Miscellaneous                                | 26 |
| FIRST ADDENDUM                                   | 29 |



1 **Definitions**

2  
3 **ACT (the Act)**

4 The Federal Water Pollution Control Act of 1972, also known as the Clean  
5 Water Act, as amended, 33 USC 1251, et. Seq.

6  
7 **ADMINISTRATIVE COST**

8 For this agreement administrative cost will refer to the salaries of the  
9 personnel that do not directly oversee the wastewater operation but have  
10 broad oversight. This will include the city manager, city treasurer, public works  
11 director and the two city engineer techs that are employed/contracted by the  
12 City.

13  
14 **ARBITRATION/CONFLICT RESOLUTION COMMITTEE**

15 A committee of three, one appointed by the township board, one appointed  
16 by the city mayor, and one to be selected by the first two on the committee.

17  
18 **AS-BUILT PLANS**

19 Plans relating to any portion of the collection systems or waste water  
20 treatment plant that have been verified as to the actual locations of an  
21 installation.

22  
23 **AUTOMATIC SAMPLING DEVICE**

24 Automatic Samplers collect and store unbiased representative waste water  
25 samples for laboratory analysis.

26  
27 **BASE AGREEMENT**

28 The original waste water agreements between the city and each township  
29 (Green Township dated October 1977 and Big Rapids Township dated December  
30 1978) and amendments to same.

31  
32 **BIOCHEMICAL OXYGEN DEMAND (BOD)**

33 A unit of measure to quantify plant loading describing the quantity of oxygen  
34 utilized in the biochemical oxidation of organic matter under standard  
35 laboratory

procedure in five days at 20° C, expressed in terms of weight and concentration (milligrams per liter-mg/l).

### **BIOLOGICAL CAPACITY**

The calculated biological capacity for which the treatment plant is designed.

### **BIOSOLIDS**

The accumulated solids separated from liquids, such as water or wastewater, during processing.

### **CHEMICAL OXYGEN DEMAND (COD)**

The oxygen consuming capacity of inorganic and organic matter present in wastewater.

### **CITY COLLECTION SYSTEM**

The wastewater collection within the city that includes all transmission lines, manholes, lift stations, and force mains.

### **CITY COLLECTION SYSTEM O & M**

The operation and maintenance cost to operate and maintain the city collection system.

### **CITY SEWER USE ORDINANCE**

Chapter 52 of the Big Rapids City Code of Ordinances.

### **CITY SYSTEM**

The city system in this agreement will refer to the wastewater treatment plant and the city collection system.

### **COMMERCIAL USERS**

Any user whose premises are used to offer services and/or products including, but not limited to, such things as gasoline stations, restaurants, hotels, motels, warehouses, private clubs, theaters, retail, and wholesale stores.

### **CONVENTIONAL POLLUTANTS**

Those pollutants that are compatible with the existing treatment works, including but not limited to BOD, total suspended solids, phosphorus, and PH.

#### **COST CHARE PERCENTAGE**

The cost that each municipality will share based on the amount of wastewater generated in each municipality (including I & I from each municipality) divided by the overall amount processed at the wastewater treatment plant.

#### **CUSTOMER**

The customer is the end user, residential, institutional, industrial, or commercial facility where the wastewater begins and enters one of the municipalities' collection systems.

#### **EGLE**

Michigan Department of Environment, Great Lakes and Energy.

#### **ENDPOINTS**

A telecommunication device that transmits its water usage data. This may be used to bill the individual users for wastewater based on the amount of water used.

#### **ENTRY POINT FLOW**

The flow entering the city collection system from the township system. This is usually measured by master meters at the lift stations where the wastewater leaves the township system.

#### **USEPA (UNITED STATES ENVIRONMENTAL PROTECTION AGENCY)**

The United States Environmental Protection Agency, established in 1970 to consolidate in one agency a variety of federal research, monitoring, standard-setting and enforcement activities to ensure environmental protection.

#### **FORCE MAINS**

Wastewater lines from lift stations that are under pressure and carry wastewater to a higher elevation so they can again flow by gravity.



**GRAVITY LINES**

Pipes of various sizes that carry wastewater from customers on a downward grade toward either a lift station or the wastewater plant.

**HYDRAULIC CAPACITY**

The flow or load, in millions of gallons per day (or portion thereof), that a treatment plant is designed to handle.

**IPP (INDUSTRIAL PRETREATMENT PROGRAM)**

Industrial Pretreatment Program includes all non-residential accounts and is designed to fairly distribute the treatment cost of contaminates.

**INDUSTRIAL USER**

A customer where wastewater emanates from an industrial process or establishment. Industrial customers may, by nature of their volume or use, have a discharge that has a greater potential impact on the wastewater treatment plant than residential users.

**I&I (INFLOW AND INFILTRATION)**

Water getting into the wastewater collection system that does not belong there. Inflow from storm pipes, ground water, and storm drainage are illustrations of this problem coming from cracks and leaks in the pipes themselves, downspouts, deteriorating manhole construction, and other causes. This is usually measured by the difference from the master sewer meters and the amount billed the customer.

**INSTITUTIONAL USER**

Institutional users include schools, government buildings, churches, and entities exempt from property taxes.

**LIFT STATION**

A receiving underground tank that receives wastewater from gravity lines of various sizes and transports the sewage by pumping it out through a force main to a higher elevation so that the sewage may flow by gravity to another lift station or the wastewater treatment plant. The lift station may have one

or two pumps, valves, and meters included in them.

#### **METERED USER**

A customer that has a meter, usually on the water line going into a facility. This is in contrast to an unmetered customer that usually has its own well and has not put a meter on it.

#### **MIOSHA (MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)**

The Michigan Occupational Safety and Health Administration **that** has jurisdiction over the implementation of safety practices coming from the Federal OSHA offices as well as those implemented within the State of Michigan.

#### **NON-RESIDENTIAL USERS**

All customers that are not one or two family residential units.

#### **NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM}**

The NPDES permit regulates the efficiency of operation of the treatment plant and provides fines and penalties for failure to comply with provisions of the permit. Operation of the wastewater treatment plant requires state certified operators to perform a variety of skilled tasks necessary to ensure proper and efficient operation of the various system components.

#### **O&M (OPERATION AND MAINTENANCE)**

The labor, utilities, and all other costs necessary to operate and maintain the necessary equipment.

#### **OSHA (United States Occupational Safety and Health Administration)**

The United States Occupational Safety and Health Administration that has jurisdiction over safety, operation, construction, and practices used by all parties in the activities of plant, collection system, and management practices.

#### **pH**

A measure of acidity and alkalinity of a solution that is a number on a scale on which a value of 7 represents neutrality and lower numbers indicate increasing

acidity and higher numbers increasing alkalinity and on which each unit of change represents a tenfold change in acidity or alkalinity and that is the negative logarithm of the effective hydrogen-ion concentration or hydrogen-ion activity in gram equivalents per liter of the solution; also: the condition represented by a pH number.

## **PHOSPHORUS**

A chemical element regulated within the NPDES permit.

## **PLANT FLOW**

Plant flow is measured by influent and effluent amounts, raw sewage coming into the plant, and treated water exiting the plant.

## **PLANT LOADING**

Biological treatment capacity quantified in BOD mg/l.

## **PROHIBITED DISCHARGES**

The following shall not be discharged into any sewer system:

1. any liquid or vapor having a temperature higher than 104°F (40°C).
2. any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas.
3. any garbage that has not been properly shredded.
4. any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure, or any other solid or viscous substance capable of causing obstruction to the flow in the sewer lines of other interference with the proper operation of the sewage works.
5. any waste having any other corrosive properties capable of causing damage or hazard to structures, equipment and personnel of the sewage works.
6. any grease, oil or other substance that will become solid or viscous at temperatures between 32°F and 140°F, including mineral oils from the viscosity range of kerosene on up.

## **PRIVATE SECTOR**

A private business or user that is requesting a large flow into the system or



outside of the collection system boundaries that would pay for additional services.

## **RESIDENTIAL USERS**

Residential users are typical domestic households discharging primarily residential household type wastewater from sanitary conveniences such as sinks, lavatories, showers, and dishwashers. Residential wastewater is considered to be relatively free of hazardous materials and easily treatable.

## **REU's**

Residential Equivalent Unit equaling 1000 gallons.

## **SEWAGE**

A combination of the water-carried waste from residences, business buildings, institutions and industrial establishments.

## **SUSPENDED SOLIDS**

Solids that either float on the surface of, or are in suspension in water, sewage or other liquids and which are removable by the wastewater treatment process.

## **TOWNSHIP COLLECTION SYSTEM**

The gravity pipes, lift stations, manholes, and force mains located within the political boundaries of the township. There may be wastewater from other jurisdictions flowing through the collection system.

## **TOWNSHIP COLLECTION SYSTEM O & M COST**

The labor, utilities, and all other costs necessary to operate and maintain the necessary lines and equipment in the Township collection system.

## **TOWNSHIP WASTEWATER ORDINANCE**

Each Township has its own ordinance for wastewater. For Big Rapids Township it would be Chapter 50 of Ordinances of Big Rapids Charter Township. For Green Charter Township it would be Sewer Use, Connection and Rate Ordinances of Green Charter Township (Numbered 182012 as amended Sept 11, 2012).

**TRANSMISSION LINES**

All municipality owned pipes transporting sewage from one or more customers to the wastewater treatment plant. These may contain sewage from one or more municipalities.

**UNMETERED USER**

Any user that does not have a water meter and is on a private well.

**USED CAPACITY**

The amount of capacity that is used as to total influent capacity at the treatment plant.

**USER CHARGE SYSTEM REPORT AGREEMENT**

The document that combines the contractual agreements negotiated between the wastewater treatment system partners (City of Big Rapids, Big Rapids Charter Township and Green Charter Township) with the audited statements pertaining to the operation of the wastewater system, and which quantifies them into a price per 1000 gallons which is thereafter charged to the townships. The agreement also analyzes the independent cost of the three partners and is used to suggest income which is needed for each municipality to keep its wastewater funds on a sound fiscal basis. This document is based on the master spread sheet that is agreed upon by the user charge review committee.

**USER CHARGE REVIEW COMMITTEE**

Individuals selected by each municipality to meet and review the written report and analysis of the city treasurer to ensure compliance with the contracts and agreements applicable to the annual wastewater charges to be applied for the upcoming year.

**WASTEWATER TREATMENT PLANT**

An activated sludge plant operated by the City at 531 River Street, Big Rapids, Michigan, to treat all wastewater received from the sanitary collection system.

**WASTEWATER TREATMENT PLANT O & M COST**

283 The labor, utilities, and all other costs necessary to operate and maintain the  
284 necessary equipment at the wastewater treatment plant.

285

286 **WASTEWATER TREATMENT PLANT BOND DEBT UNIT COST**

287 Debt is for major improvements or renovations that has to be bonded. Bond  
288 debt is then proportionally split among the municipalities by use.

289

290 **WASTEWATER TREATMENT PLANT SEWER FLOW**

291 The total influent of sewage coming into the plant from all collection systems.

292

293 **WASTEWATER TREATMENT SERVICES**

294 Providing treatment services of waste water from other non-contracted  
295 sources, such as septic waste haulers



296                   **AMENDED AND RESTATED WASTEWATER TREATMENT**  
297                   **AGREEMENT BETWEEN THE CITY OF BIG RAPIDS AND THE**  
298                   **CHARTER TOWNSHIP OF BIG RAPIDS**  
299

300   This Amended and Restated Agreement is made and entered into as of  
301   the \_\_\_\_\_ day of \_\_\_\_\_, 2025 ("Agreement"), by and between the  
302   City of Big Rapids, a Michigan home rule city, whose address is 226 N.  
303   Michigan Avenue, Big Rapids, Michigan 49307-1489 ("City") and the  
304   Charter Township of Big Rapids, a Michigan charter township whose  
305   address is 14212 Northland Drive, Big Rapids, Michigan 49307-2319  
306   ("Township").

307                   **RECITALS**

- 308   A. The Township has a wastewater collection system that includes  
309   transmission lines, lift stations and force mains ("Township Collection  
310   System");
- 311   B. The City has a wastewater collection and treatment system that includes  
312   transmission lines, lift stations and force mains (City Collection System")  
313   and a Wastewater Treatment Plant ("WWTP") that together shall be  
314   referred to as the "City System";
- 315   C. The City and the Township initially entered into a Wastewater Treatment  
316   Agreement dated October 26, 1977, which was amended on February 4,  
317   1878 and April 10, 1978 (collectively, the "Base Agreement") pursuant to

which:

1. The Township contracted with the City for the receipt, treatment and disposal of sewage emanating from the Township and transported in the Township Collection System to the City Collection System;
2. The Township Agreed to participate in certain costs within the City, for which the City agreed to grant specified capacity rights to the Township;
3. The City agreed to accept and treat sewage for the Township to the extent of such capacity rights based upon the design year of 1995 and as outlined in the June 1975 Facilities Plan;
4. The Township agreed to transport and deliver its sewage from the Township Collection System to such points of connection with the City Collection System as specified in the Base Agreement;
5. The City, pursuant to the requirements of applicable law, developed and adopted, a user charge methodology for periodic sewer rate review and modification.

D. Subsequently, the City and the Township updated the Base Agreement through the adoption and execution of an Amended Wastewater Treatment Agreement, dated as of May 1, 1995 (the "Amended Base Agreement");

- 338 E. The parties have jointly developed an updated Use Charge Methodology,  
339 a copy of which is attached to this Agreement as Exhibit A ("User Charge  
340 Report"); to set forth the manner in which applicable rates, charges and  
341 fees will be determined and established for use of, and operation,  
342 maintenance, repair, replacement and improvements to the Township  
343 Collection System, the City Collection System and the WWTP;
- 344 F. The methodology set forth in the User Charge Report has been approved  
345 by the Michigan Department of Environment, Great Lakes and Energy  
346 ("EGLE"), as the State administrative agent of construction grant programs  
347 under the Federal Clean Water Act of 1972.
- 348 G. The City and the Township have determined that it is necessary,  
349 appropriate, and in the best interest of the City, the Township and the  
350 respective users of the sewer systems, to enter a new and updated  
351 agreement in the form of this Agreement and in place of the Base  
352 Agreement and Amended Base Agreement to conform the agreement of  
353 the parties to the requirements and provisions of the agreed-upon User  
354 Charge Report;
- 355 H. The City and the Township acknowledge that the City has entered or will  
356 enter into a wastewater treatment agreement with Green Charter  
357 Township, which agreement will be substantially similar to this Agreement



(the "Green Charter Township Agreement");

IN CONSIDERATION OF THEIR MUTUAL UNDERTAKINGS, THE  
PARTIES HEREBY AGREE AS FOLLOWS:

1. **City to Provide Sewage Treatment Services on a Wholesale Basis.**

The City agrees to provide, and the township agrees to pay for, on a wholesale customer basis, sewage treatment and disposal service for the Township Collection System. In the event of any occurrence rendering the Township incapable of performing under this Agreement, any successor to the Township, whether the result of legal process, assignment, or otherwise, shall succeed to the rights of the Township hereunder.

2. **City Responsibility for City Collection System.** It is agreed that

those portions of the City Collection System located within the City limits shall remain the sole and exclusive responsibility of the City for all purposes including, but not limited to, operations, maintenance, expansion, additions, replacements, improvements and administration unless otherwise provided in this Agreement.

3. **Township Responsibility for Township Collection System.** It is

agreed that the Township Collection System shall be and remain the sole and exclusive responsibility of the Township for all purposes

including, but not limited to, operations, maintenance, expansion, additions, replacements, improvements and administration, unless otherwise provided in this Agreement. The Township shall have the sole responsibility for expansion of the Township Collection System. The Township shall be responsible for all costs for distribution, maintenance and collection of charges for the Township Collection System.

4. **Shared or Delegated Control Over Wastewater Collection**

**Facilities**. In order to maximize operational efficiency of the wastewater collection systems of the parties, and to allocate or share costs of those wastewater collection systems according to usage and flow, the parties may agree to shared or delegated control over specified collection system facilities without transfer of ownership of the facilities. Each agreement for shared or delegated control over facilities shall be in writing as an addendum to this Agreement and shall specify the facilities that are the subject of shared or delegated control. At any time, the parties can agree to rescind the shared or delegated control and the corresponding responsibility to operate and maintain a facility on written terms reflected in an addendum to this Agreement.

Consistent with prior agreements between the parties, the

Township shall control and be responsible for operation and maintenance of the lift station at Supervisor's Park by delegation from the City. The User Charge Report formula for allocating flow and costs of the collection system(s) will reflect that some of the flow through the Supervisor's Park lift station will be allocated and charged to the Township.

5. **Use of and Access to the City Collection and Township Collection**

**Systems and WWTP.** It is recognized that there are fixed capacities for transmission lines, lift stations and force mains within the City Collection System and Township Collection System (collection system mapping available - contact specific municipality in question). It is further recognized that the WWTP has a fixed hydraulic and biological capacity that is determined by the National Pollutant Discharge Elimination System ("NPDES") Permit issued from time to time by EGLE.

Each party to this Agreement shall have the ability to approve the connection of new users to the City System, in the case of the City, or to the Township Collection System, in the case of the Township, at any time and in any location. No new user shall be arbitrarily denied. The connection can be denied if (a) in the case of the Township, connection



jeopardizes the ability of the Township to transport the wastewater for all users, (both existing and as proposed by the new user) in the Township Collection System to the City Collection System for continued transportation to WWTP; or (b) in the case of the City, jeopardizes the ability of the City to transport the wastewater (both from all existing users and as proposed by the new user) in the City Collection System to the WWTP; or (c) in either case jeopardizes the ability of the WWTP to properly process the wastewater (both from all existing users and as proposed by the new user). The City and the Township acknowledge and agree that Green Charter Township shall have similar rights and ability to connect new users to the City System pursuant to the Green Charter Township Agreement. If either party questions a new user's connection and its impact on the Township Collection System and/or the City Collection System, as the case may be, or the WWTP, then a special meeting of representatives from the Township and the City will be held to discuss and review the proposed new user's connection application prior to the connection of that new user to the applicable collection system and the WWTP. Furthermore, either the City or Township may require a new commercial or industrial user to provide, at the new user's sole expense, a feasibility report in

438 a form required by the City's engineer to evidence that sufficient  
439 capacity exists in the respective collection system(s) to be utilized and  
440 the WWTP or, if insufficient capacity exists, to identify necessary  
441 improvements that will provide, once completed, sufficient capacity.  
442 Any proposed user that proposes to discharge wastewater equal to or  
443 in excess of 5% of the applicable collection system or WWTP then-  
444 current rated capacity, shall be required to provide a feasibility report,  
445 at its sole expense, as provided in this paragraph. If the feasibility  
446 report for the new user is acceptable to the City or Township, as the  
447 case may be, in the exercise of each party's respective discretion, then  
448 the City or Township, as the case may be, shall have the right to  
449 condition the approval of the connection of the new user on the  
450 implementation of the improvements set forth in the feasibility report.

451 If the Director of Public Works determines that the accumulation  
452 of Township's users is projected to negatively impact (a) the ability of  
453 the City Collection System to effectively convey sewage to the WWTP  
454 or (b) cause the WWTP to exceed its allocated capacity as determined  
455 by EGLE and set forth in the NPDES permit, then a special meeting of  
456 representatives from the Township, Green Charter Township, and City  
457 will be held to review the feasibility report prepared by the proposed

user, and determine the responsibilities of all parties to pay the costs of required upgrades to the Township and City Collection Systems and for the WWTP, taking into account costs to be paid or shared by the proposed new user or users, other cost-sharing arrangements, and applicable grant opportunities.

6. **Availability of Records and Plans.** The parties hereto agree and understand that the use and expansion of the City Collection System by the City and the use and expansion of the Township Collection System by the Township may have a substantial effect on the present or future use, or future expansion of the collection system of the other party; therefore, each party hereby agrees to:

- a. make its records regarding its collection system available to the other party, including the number and sizes of all service connections and the number of users.
- b. inform the other of any additions to be made to the respective systems.
- c. supply the other party with a copy of preliminary plans, construction plans and specifications for any contemplated expansion.
- d. provide "as-built" plans to the other party in an electronic format.
- e. provide copies of plans and records for any portion of each of the



collection systems at no cost and at any time to all parties including any aerial photography, topographic information and overall mapping detail.

7. **Entry Point Master Meters.** At each point of delivery of wastewater from the Township Collection System to the City Collection System, a meter shall be installed by the City or the Township at the Township's expense (an "Entry Point Meter") and the Entry Point Meter shall be owned by the Township. Each Entry Point Meter in the city shall be read by the City each month for billing purposes. Each Entry Point Meter in the Township shall be read by the Township each month and the data reported to the City Treasurer for billing purposes. The City calibrates its meters at the WWTP annually to ensure an accurate reading of flow to the WWTP. The City shall include all Entry Point Meters in its calibration effort upon request from the Township. The City will bill the Township for the cost of calibration of the Township's Entry Point Meters. If repair, correction and/or calibration estimates are necessary, the City shall estimate the quantity of sewage received from the Township, with such estimate, if possible, based on the aggregate use for a like period at the same time of the preceding year. The Township shall be responsible to pay for and undertake repair and

498 maintenance of the Entry Point Meters. In the event that any Entry  
499 Point Meter is not in service or fails to measure correctly, the Township  
500 agrees to make all necessary repairs within a reasonable time so that  
501 neither the Township nor the City will need to rely on estimates.

- 502 8. **Inflow and Infiltration ("I & I")** The Township will be responsible for  
503 the amount of the Township's I & I that enters the City's Collection  
504 System. Likewise, if the City uses the Township Collection System,  
505 the City will be responsible for the amount of the City's I & I entering  
506 the Township's System. The amount of I & I will be determined by the  
507 User Charge Report. The amount can be offset by mutual agreement  
508 or paid pursuant to the User Charge Report.

- 509 9. **Entry Point Sampling Devices.** At each entry point of delivery of  
510 wastewater from the Township Collection System to the City Collection  
511 System an automatic sampling device ("Entry Point Sampling Device")  
512 may be used by either the City or Township. The Entry Point Sampling  
513 Device may be used to collect 24-hour composite samples and the  
514 City's laboratory shall be used for testing to determine the strength of  
515 the waste, pH, five-day Biochemical Oxygen Demand (BOD),  
516 Suspended Solids (SS) and Phosphorus (P) and any other toxic or  
517 deleterious contaminants that have the potential to harm the City

System or cause the City to violate the terms of the NPDES Permit, and shall be used upon request of either the City or the Township.

10. **City's Right to Inspect Township Collection System.** For the purpose of protecting and investigating circumstances detrimental to the City Collection System and WWTP, the City shall have the right to inspect the Township Collection System at any reasonable time during and after construction and such inspection shall not relieve the Township from full responsibility for the conformance of the finished work with the plans and specifications approved by the Township.

11. **Township Wastewater Ordinance.** The Township has adopted a Sewer Connection, Use and Rate Ordinance, (the "Sewer Ordinance") designated as Chapter 50 of the Township Code of Ordinances. Copies of the original ordinance and any modifications shall be furnished to the City. The Township shall enforce the Sewer Ordinance.

12. **Notice of Damage, Hazard or Violation: Notice and Claim Procedures for Sewer Backup or Overflow.**

a. The City shall notify the Township, in writing, of any damage to the City System, of any hazard to persons involved in the operation or maintenance of the City System, violations of the City's Sewer Use



Ordinance as defined below, or violations of the NPDES Discharge Permit, caused by wastewater emanating from the Township Collection System. Upon such notice, the Township shall, at its expense, diligently commence and pursue such action necessary to correct the cause of such damage, hazard or violation.

b. The City and the Township shall include notice and claim procedures for sewer backup and overflow events, as set forth in Act 222 of the Public Acts of Michigan of 2001, as amended, in the City's and Township's respective sewer ordinances. Each party shall provide prompt notice of any claim or notice of backup or overflow received by it to the other party.

13. **Discontinuance of Service in the Event of Emergency.** The City may temporarily discontinue service in the event of an emergency, i.e., any unanticipated occurrence which could be expected to cause immediate damage to the City System or which may constitute an immediate hazard to life and/or property. The City agrees to resume service upon the cessation of the emergency. In the event of any such emergency under this paragraph, the City shall have the right to control continued introduction of sewage into the City System from the Township Collection System. In any such event, the City shall notify

the Township and both parties shall employ every available means to correct the situation causing the emergency and to resume service at the earliest practicable time.

Except as otherwise set forth above in the case of an emergency, the City shall not discontinue service and treatment of wastewater emanating from the Township Collection System except by (i) agreement with the Township or (ii) order of a court of competent jurisdiction.

14. **Force Majeure.** No failure or delay in performance of this Agreement by either party shall be deemed to be a breach of this Agreement when such failure or delay is occasioned by or due to any Act of God, strikes, lockouts, wars, riots, epidemics, explosions, sabotage, breakage or accident to machinery or lines or pipe, the binding order of any court or governmental authority, or any other cause, whether of the kind therein enumerated or otherwise, not within the control of the party claiming suspension provided that no cause or contingency shall relieve the Township of its obligations to make payment for sanitary sewage actually treated and disposed of by the City.

15. **Liability for Damaging Waste.** Incidents of a specific nature such as manhole overflows shall be the liability of the municipality in which the

578 incident occurs. Any fines or costs to remedy such deficiencies shall  
579 be borne by the user responsible and/or the responsible municipality.  
580 The Township agrees to pay the cost of repair for any damage to the  
581 City System resulting from the discharge of damaging wastewater  
582 within the meaning of the City's applicable ordinance regarding sewer  
583 connection and use (the "City's Sewer Ordinance") from the Township  
584 in violation of the NPDES Permit. The Township further agrees to  
585 share in any fines or charges levied by any governmental agency  
586 against the City for the discharge into the Muskegon River of effluent  
587 from the WWTP in violation of the City's NPDES Permit or applicable  
588 law or regulation which effluent resulted from objectionable, noxious or  
589 toxic wastewater emanating from the Township Collection System in  
590 violation of the City Sewer Ordinance and NPDES Permit.

591 While specific liability is levied for specific actions, there may also  
592 be fines of general application as a result of WWTP capacity, capability  
593 to treat wastewater, age and breakdowns. Fines or penalties levied  
594 by a State or Federal agency against the WWTP operation, except for  
595 operator error, will be shared by the City, Township, and Green Charter  
596 Township (pursuant to the Green Charter Township Agreement) on a  
597 proportional flow basis of wastewater to the WWTP as established in



the User Charge Report as of the date of the event triggering such fine or penalty.

16. **User Charge System.** The Township shall pay the City for the Township's share of the costs of operation, maintenance and replacement of the City System based upon actual metered sewer flow (including each municipality's I & I) in accordance with the methodology set forth in the User Charge Report. It is understood and agreed that the User Charge Report will be written and produced annually by the City based on the August financial closing statements (of the City's preceding fiscal year ending in June). The spreadsheet, from which the User Charge Report is produced, will be preserved by the City Treasurer with a copy distributed annually to the Township for review. Each year, the rate charge by the City to the Township, and any rate adjustments shall be computed strictly in accordance with the methodology set forth in the User Charge Report, as governed by this Agreement. It is understood that if necessary data to generate the User Charge Report is not produced to the City by the Township within a reasonable time upon request by the City, the City will calculate the user charges in the User Charge Report using estimates based on prior and available data. Rate adjustments calculated in the User

Charge Report shall be automatically implemented effective each year as of the October 1 billing cycle or one month after the User Charge Report is accepted by the City, Township, and Green Charter Township, whichever is later. The Township shall review the User Charge Report annually and any adjustments or revisions which are needed and accepted by the Township shall be made and implemented by the Township.

17. **Elements of the User Charge Report.** The User Charge Report will cover five (5) elements of costs:

a. **WWTP O & M Unit Cost.** This will include, but not be limited to; labor to operate and maintain equipment, collect and analyze samples, and keep accurate and detailed records for reporting to EGLE; supplies and chemicals including everything from pencils and lubricants to polymer used for sludge conditions; contractual services from sophisticated analytical services to biosolids land application management; utilities including electricity and natural gas to operate pumps, blowers, heat exchangers, building heat and light; repair expenses necessary to perform equipment service beyond the capability of the staff.

b. **City Collection System Unit Cost.** The total cost of the City

Collection system divided by the total flow to the WWTP.

c. **WWTP Replacement Unit Cost.** Replacement funds required for any item that has a useful life of twenty years or less will be included in replacement cost with a Consumer Price Index (CPI) factor adjustment.

d. **WWTP Bond Debt Unit Cost.** Costs associated with servicing the 2009 \$7,965,000 bond issue from the Michigan Municipal Bond Authority divided by the total flow attributable to each municipality. If the City pursues future debt to improve and maintain the WWTP, the City shall inform the Township of reasons for the project, budget and timelines for the debt. Costs associated with debt service on any future debt to improve and maintain the WWTP shall be allocated as follows: principal and interest on such debt shall be divided by the total flow attributable to each municipality and included in the User Charge Report.

e. **City Administration Cost.** 12% of the City Administrative cost is charged to the City System. This includes the salaries of the City Manager, Treasurer, Public Works Director and City Engineer.

Any inconsistency between the elements of cost of the User Charge Report described above shall be resolved by reference to



the User Charge Report attached as Exhibit A to this Agreement.

18. **Payment Terms.** The City shall invoice the Township on a monthly basis for the charges payable by the Township to the City in accordance with the User Charge Report. The payment of such invoices shall be made within thirty (30) days following the date of the invoice. If any portion of the invoiced amount is unpaid after thirty (30) days from the date of invoice, the amount so unpaid shall be subject to interest at the rate of one percent per month.

19. **Industrial Pretreatment Program/Surcharges.** It is understood that the Federal Clean Water Act as enforced by EGLE requires an Industrial Pretreatment Program ("IPP") to monitor and control high strength wastewater entering the wastewater system from non-domestic users. The Township hereby agrees to grant operation, reporting requirements and control of the IPP with respect to the Township Collection System to the City. The costs of the IPP are not an obligation of the Township, but are to be billed by the City directly to and collected from non-domestic users themselves. The IPP will register and collect the operational cost of the IPP from every non-domestic user for the general operational costs of the IPP. Users with high strength wastewater, food services and other industrial users will

678 be tested and will pay an additional fee established in accordance with  
679 the IPP for the increased cost to treat their wastewater. Charges for  
680 Biochemical Oxygen Demand ("BOD") and Suspended Solids ("SS")  
681 and other contaminants which are detrimental to the operation of the  
682 WWTP shall be computed annually in accordance with the User  
683 Charge Report, and shall be billed at the same rate to both City and  
684 Township non-domestic users. Neither the costs nor surcharges nor  
685 any revenues of the IPP shall be included in the User Charge collected  
686 by the City from the Township, but shall be designed to be a 'stand-  
687 alone' program of the City System.

688 The adoption of this Agreement shall give the City wastewater  
689 operators the authority to implement and enforce the IPP with respect  
690 to the Township Collection System, on the same basis and with same  
691 regulations, fees, fines (both in type and amount) as are adopted from  
692 time to time by the Big Rapids City Commission with respect to the City  
693 System.

- 694 20. **Township Right to Audit City Charges:** The Township shall have, at  
695 all times and at its cost, the right to audit all charges imposed by the  
696 City pursuant to this Agreement and the User Charge Report. Should  
697 there be a dispute between the City and the Township as to either the

propriety or the amount of any rate or component thereof, charged to the Township, the dispute, if it cannot be resolved between the parties, shall be submitted to arbitration, upon the written request of either party as set forth in Paragraph 21 of this Agreement.

21. **Arbitration/Conflict Resolution.** An arbitration/conflict resolution committee shall be appointed and shall be empowered to resolve any issue and to clarify the terms of this Agreement in a common-sense review of the changing conditions which may arise during the term of this Agreement. Changes in state laws, technology in treatment processes, conditions of EGLE regulations and many other conditions may result in situations which are not covered by the terms of this Agreement. The committee will be established and will guide the solution of issues which arise. The parties agree to abide by the decisions of the committee until the next five-year review occurs, at which point provisions may be written and adopted as an amendment to this Agreement by the City and Township to fully resolve any issue. The committee shall hear appeals brought by the City or Township and shall establish a reasonable timetable to complete or implement construction activities or management and reporting practices which are necessary to comply with the conditions of this Agreement.



The determinations shall be made by a committee comprised of five representatives: one representative to be selected by the Township Board, one representative to be selected by the Green Charter Township Board, one representative to be selected by the Mayor, and two representatives to be jointly selected by the three representatives appointed by the townships and the City. Representatives shall be selected so that they are available to meet within thirty (30) days following a request to meet. City and Township elected officials and staff are not eligible to serve on the committee.

22. **Township-City Communication.** To ensure the highest level of communication a representative of the City administration or City System shall attend Township meetings upon request of the Township to provide updates and comment on finance, treatment or City System issues.

23. **Improvements/Expansion of City System.** On a day-to-day basis the City may have repairs or equipment replacements which are necessary for the maintenance of the City System. When these items cost more than \$5,000 and have a life expectancy of more than five (5) years such expenses will be depreciated according to proper accounting practices, and the money collected for these specific items

738 from the User Charge will be placed in the City's "Sewer Replacement  
739 Fund" and will be accounted for in the User Charge Report.

740 Any potential commercial or industrial user that proposes to  
741 locate within the City or Township, and connect to the applicable  
742 collection system and WWTP, and which would propose to discharge  
743 flows which would equal 5% or more of the rated capacity of the  
744 WWTP, shall be evaluated based on their hydraulic and biological  
745 impact to the collection systems and WWTP and NPDES permit  
746 limitations. As a condition to connection, each such commercial or  
747 industrial user shall reimburse the City and/or Township, as the case  
748 may be, for the costs of such impact on the WWTP and City Collection  
749 and/or Township Collection System in addition to costs incurred by  
750 such user pursuant to Paragraph 5 of this Agreement.

751 When the capacity at the WWTP or any collection system  
752 reaches 75% of the fixed hydraulic and biological capacity, planning  
753 will begin to increase capacity for the WWTP and/or applicable  
754 collection system (or systems). The parties and Green Charter  
755 Township will share in the cost of such planning on the basis of  
756 proportional flow in the manner consistent with the User Charge Report  
757 at the time the improvement is needed.

latest date of approval and authorization of the Township Board and the City Commission and shall remain in effect for a period of twenty-five (25) years. Every five (5) years this Agreement shall be reviewed to address changing conditions, state and federal laws or other issues which require the updating of or modification to this Agreement. Additional review of this Agreement may be undertaken at any time by mutual consent.

27. **Notice and Binding Effect.** All written notices and other documents to be delivered or transmitted shall be addressed to the respective parties at the address which follows or at such other addresses as shall be specified by the parties from time to time.

The addresses of the parties are as follows:

City of Big Rapids

Attention: City Manager

226 N. Michigan Avenue

Big Rapids, MI 49307-1489

Charter Township of Big Rapids

Attention: Supervisor

14212 Northland Drive



758 24. **Inter-Township Sewer Lines.** Big Rapids Charter Township agrees  
759 in the manner provided by law to consider the construction, operation,  
760 and maintenance of sewer lines necessary for the transportation of  
761 wastewater emanating from Green Charter Township across land  
762 within the jurisdiction of Green Charter Township. Big Rapids Charter  
763 Township reaffirms its consent to all existing lines located within the  
764 Township and used by Green Charter Township as of the date of this  
765 Agreement.

766 25. **Ownership.** This Agreement, its terms, or any payments made or  
767 conditions fulfilled as required hereunder, shall not vest any right, title  
768 or interest (a) by the Township in the City Collection System or WWTP,  
769 or (b) by the City in the Township Collection System. Should it ever be  
770 construed by a court or otherwise that either party owns or co-owns  
771 any part of the sewer system of either party, it is stipulated and agreed  
772 to by the parties hereto that either party may then repurchase the same  
773 for the sum of one dollar (\$1.00) to ensure that full ownership of the  
774 City Collection System remains vested in the City and that full  
775 ownership of the Township Collection System remains vested in the  
776 Township.

777 26. **Authorization Term.** This Agreement shall become effective upon the

Big Rapids, MI 49307-2319

Written notices or other documents may be delivered or transmitted in person, by mail, or by electronic means.

28. **Definition of Sanitary Sewage and Wastewater.** For purposes of this Agreement the terms "sanitary sewage," "sewage," "waste," and "wastewater" are intended to be used interchangeably and to refer to any liquid or water carried waste received from sewer customers including domestic sewage, industrial wastes and any infiltration or inflow as may be present, discharged to a collection system (or systems) for treatment at the WWTP.

29. **Effect of Agreement.** This Agreement supersedes the Base Agreement and Amended Base Agreement in their entirety as of the date of this Agreement.

30. **Miscellaneous.** All exhibits attached hereto are incorporated herein by reference as though fully stated herein. The waiver by any party hereto of a breach or violation of any provision of this Agreement shall not be a waiver of any subsequent breach of the same or any other provision of this Agreement. If any paragraph or provision of the

818 Agreement is unenforceable for any reason, the unenforceability  
819 thereof shall not impair the remainder of this Agreement, which shall  
820 remain in full force and effect. This Agreement represents the entire  
821 understanding and agreement between the parties hereto. This  
822 Agreement may be changed or modified only by a written document,  
823 approved by the City Commission and Township Board, and signed by  
824 all the parties. The captions in the Agreement are for convenience only  
825 and shall not be considered as part of this Agreement or in any way to  
826 amplify or modify the terms and provisions hereof.

827 IN WITNESS WHEREOF, the parties hereto have caused this  
828 Agreement to be executed and delivered by their respective duly  
829 authorized officers pursuant to the resolutions approving such  
830 execution and delivery all as of the date and year first above written.

831 CITY OF BIG RAPIDS

832  
833 By: 

834 Frederick Guenther

835 Its: Mayor



837

By: Karen Manoski

838

Karen Manoski

839

Its: Clerk

840

841

CHARTER TOWNSHIP OF BIG RAPIDS

842

843

BY: Bruce Borkovich

844

Bruce Borkovich

845

Its: Supervisor

846

847

BY: Hannah Saez

848

Hannah Saez

849

Its: Clerk

**RESOLUTION NO. 25-**

Commissioner \_\_\_\_\_ moved, seconded by Commissioner \_\_\_\_\_, the adoption of the following:

**RESOLUTION ACCEPTING THE 2024 BIG RAPIDS WASTEWATER  
USER CHARGE SYSTEM REPORT**

WHEREAS, representatives from the City of Big Rapids, Big Rapids Charter Township, and Green Charter Township [the "Municipalities"] have met in committee to complete the 2024 Wastewater User Charge System Report [the "Report"], and

WHEREAS, the Report identifies City accounts utilized to quantify and track shared expenses in the operation of the Wastewater Treatment Plant and collection system, and sets the methodology of preparing the Wastewater User Charge System Report, and

WHEREAS, the information about the collection system and treatment plant serving the Municipalities set forth in the Report will be used in the setting of wastewater rates and the preparation of future user charge system reports.

NOW, THEREFORE BE IT RESOLVED, that the City Commission accepts the 2024 Big Rapids Wastewater User Charge System Report as prepared by the participating municipalities, subject to the approval of the State of Michigan Department of Environmental Quality, Environmental Sciences and Services Division, and the Mayor is authorized to accept and sign the Report on behalf of the City.

BE IT FURTHER RESOLVED, that the rates established by the 2024 Report to be charged to Big Rapids Charter Township effective August 1, 2025, shall be \$6.06 per unit (1 unit = 1,000 gallons) and the rate charged to Green Charter Township, effective August 1, 2025, shall be \$5.99 per unit (1 unit = 1,000 gallons) exclusive of IPP charges as provided in this report.

Yeas:

Nays:

The Mayor declared the resolution \_\_\_\_\_.

Dated:

---

## POSITION PAPER

---

TO: City Commission  
FROM: Carla Staffen, City Treasurer  
DATE: July 25, 2025

---

**Issue:** Adoption of the 2024 Wastewater User Charge System Report

**Background:**

Representatives from Big Rapids Charter Township, Green Charter Township, and the City of Big Rapids have been working on the 2024 User Charge Report. The three municipalities continue to make strides in developing a report that accurately depicts the shared charges of the wastewater system. Improvements continue to be made that streamline the preparation of the report and present the information in a format that is user friendly.

Five years ago, the City entered into new agreements with Big Rapids Charter Township and Green Charter Township to continue to provide sewage treatment. The agreements run for 25 years and will expire in 2042. The contract is subject to periodic review by all three parties every five years.

The 2024 user charge rate analysis resulted in an increase in the unit rate that will be charged to Green Charter Township and an increase in the Big Rapids Charter Township unit rate. Big Rapids Charter Township's calculated volumetric rate for 2024 is \$6.06 per unit (1 unit = 1,000 gallons), which represents an increase of \$0.60 from the 2023 rate of \$5.46. Green Charter Township's calculated volumetric rate for 2024 is \$5.99. per unit, which represents an increase of \$0.67 from the 2023 rate of \$5.32.

A major contributing factor for the increase to both Big Rapids Charter Township and Green Charter Township is an increase in the costs of the WWTP Operation, Maintenance and Repair (OM&R). Additionally, a total of \$335,642 was agreed to be set aside for equipment replacement costs.

**Desired Action:**

Adopt the 2024 Wastewater User Charge System Report and the user charge rates established in the report with an effective usage date of August 1 to be billed September 1, 2025.



# WASTEWATER USER CHARGE SYSTEM

# 2024

---

Cost of Operation, Maintenance, and Replacement (OM&R) of the Big Rapids  
Wastewater System and Inter-Governmental Cost Sharing

Big Rapids UCS  
2024

## TABLE OF CONTENTS

|                                                     |       |
|-----------------------------------------------------|-------|
| FOREWORD .....                                      | 3     |
| A. INTRODUCTION .....                               | 3-4   |
| B. GENERAL INFORMATION .....                        | 5     |
| C. USER INFORMATION .....                           | 6-7   |
| D. SYSTEM USE .....                                 | 8-10  |
| E. WASTEWATER TREATMENT PLANT OM&R.....             | 11-15 |
| F. CITY COLLECTION SYSTEM OM&R.....                 | 16-17 |
| G. BIG RAPIDS TOWNSHIP COLLECTION SYSTEM OM&R ..... | 18-20 |
| H. GREEN TOWNSHIP COLLECTION SYSTEM OM&R.....       | 21-22 |
| I. CITY PUMPING STATIONS OM&R .....                 | 22-23 |
| J. CITY CUSTOMER SERVICES O&M.....                  | 24    |
| K. INDUSTRIAL PRETREATMENT PROGRAM O&M .....        | 25    |
| L. BONDING COSTS .....                              | 26    |
| M. ADMINISTRATION.....                              | 27    |
| N. COST SUMMARY .....                               | 28    |
| O. RATE STRUCTURE .....                             | 29-36 |
| P. BILL IMPACTS.....                                | 37    |
| Q. SURCHARGES .....                                 | 38    |
| AFTERWORD.....                                      | 38    |
| APPENDIX A.....                                     | 39    |

## FOREWORD

Beginning in late 2010, the municipalities of Big Rapids, Big Rapids Township and Green Township formed a committee to reorganize and simplify the paperwork involved with the user charge report. The committees' intention was to identify city accounts utilized for the shared expenses in the operation of the Wastewater Treatment Plant and to ensure conformance with the terms of the 1995 contract amendment between the parties. In 2017 the contract between the three parties was rewritten due to the expiration of the previous contract. The committee has developed spreadsheets to identify costs shared between the parties and to address the common shared expense portion. This report incorporates the spreadsheets and provides narration to clarify the accounting of these charges.

## A. INTRODUCTION

The United States Environmental Protection Agency (USEPA) mandates that all wastewater systems funded through the federal Clean Water Act (33 USC 1251 et seq) develop a user charge system. Specific requirements of the user charge system are specified in the Congressional Federal Regulations (40 CFR, Part 35, Subsection E, §35.929-2 'General requirements for all user charge systems' as follows:

- *Biennial review of operation and maintenance charges:* The grantee shall review not less often than every 2 years the wastewater contribution of users and user classes, the total cost of operation and maintenance of the treatment works, and its approved user charge system. The grantee shall revise the charges for users or user classes to accomplish the following:

Maintain the proportionate distribution of operation and maintenance costs among users and user classes as required herein;

Generate sufficient revenue to pay the total operation and maintenance costs necessary to the proper operation and maintenance (including replacement) of the treatment works, and;

Apply excess revenues collected from a class of users to the costs of operation and maintenance attributable to that class for the next year and adjust the rate accordingly.

- *Toxic Pollutants:* The user charge system shall provide that each user which discharges any toxic pollutants which cause an increase in the cost of managing the effluent or the sludge of the grantee's treatment works shall pay for such increased costs.
- *Charges for operation and maintenance for extraneous flows:* The user charge system shall ensure that the costs of operation and maintenance for all flow not directly attributable to users (i.e., Infiltration/inflow) be distributed among all users of the grantee's treatment works system based upon either of the following:

In the same manner that it distributes the costs of operation and maintenance among users (or user classes) for their actual use, or

Under a system which uses one or any combination of the following factors on a reasonable basis:

Flow volume of the users;

Land area of the users;

Number of hookups or discharges to the users;

- *Adoption of system:* One or more municipal legislative enactments or other appropriate authority must incorporate the user charge system. If the project is a regional treatment system accepting wastewaters from other municipalities, the subscribers receiving waste services from the grantee shall adopt user charge systems in accordance with section 204(b)(1)(A) of the Act and §§35.929 through 35.929-3. These user charge systems shall also be incorporated in appropriate municipal legislative enactments or other appropriate authority of all municipalities contributing wastes to the treatment works. The public shall be informed of the financial



impact of the user charge system on them and shall be consulted prior to adoption of the system, in accordance with 40 CFR part 25.

- *Notification:* Each user charge system must provide that each user be notified, at least annually, in conjunction with a regular bill, of the rate and that portion of the user charges which are attributable to wastewater treatment services.
- *Inconsistent agreements:* The grantee may have preexisting agreements which address: (1) The reservation of capacity in the grantee's treatment works, or (2) the charges to be collected by the grantee in providing wastewater treatment services or reserving capacity. The user charge system shall take precedence over any terms or conditions of agreements or contracts of the grantee between the grantee and users (including industrial users, special districts, other municipalities, or Federal agencies or installations) which are inconsistent with the requirements of section 204(b)(1)(A) of the Act and these regulations.
- *Costs of pretreatment program:* A user charge system submitted by a municipality with an approved pretreatment program shall provide that the costs necessary to carry out the program and to comply with any applicable requirements of section 405 of the Act and related regulations are included within the costs of operation and maintenance of the system and paid through user charges or are paid in whole or in part by other identified sources of funds.

This report meets the requirements by presenting information about the collection system and treatment plant serving the city and surrounding townships.

The fiscal year for the City of Big Rapids is July 1 to June 30. The user charge system will be prepared annually using the city's year end general ledger. Debt service is based on the city's current year amortization schedule (See attached appendix A). Annual user charge reports will begin to be drafted by September 1<sup>st</sup> and made effective by the three affected communities by the October 1<sup>st</sup> billing cycle or one month after the User Charge Report is accepted by the City, Big Rapids Township, and Green Charter Township, whichever is later.

## B. GENERAL INFORMATION

The Big Rapids Wastewater System serves an approximately eleven square mile area encompassing three political jurisdictions. The entities served by the system include the City of Big Rapids, Big Rapids Charter Township, and Green Charter Township. Each of the three communities own and operate their individual wastewater collection systems including gravity sewers, pumping stations, and force mains. The City of Big Rapids operates the Wastewater Treatment Plant.

Agreements between the city and the townships allocate a specified portion of the trunk sewer and treatment plant capacity for use by the townships. The original agreement between the City and Green Township was entered into in 1977. Big Rapids Township entered into a similar agreement with the City in 1978. A new Wastewater Treatment agreement was entered into by the City with both the Charter Township of Big Rapids and the Charter Township of Green in November 2017. The agreement expires November 6, 2042 with periodic reviews to take place in five-year increments.

### **Green Township**

10/1977 Original Agreement - Resolution 7169 & 7170  
02/1978 Amendment - Resolution 7264  
04/1978 Amendment - Resolution 7322  
05/1995 Amendment - Resolution 95-79  
09/2005 Amendment - Resolution 05-121  
10/2005 Amendment - Resolution 05-140  
11/2017 Agreement- Resolution 17-159

### **Big Rapids Township**

12/1978 Original Agreement - Resolution C7615  
05/1995 Amendment - Resolution 95-78  
04/1996 Amendment - Resolution 96-59  
08/1996 Amendment - Resolution 96-123  
11/2017 Agreement- Resolution 17-158

The restated agreements required the townships to pay:

- A proportionate share of the WWTP, Collection System, Debt Service, Administration, and Replacement Costs.
- Service charges based on metered readings.
- A proportionate share of any improvements to the treatment plant (excluding improvements needed to accommodate flow from the city).



## C. USER INFORMATION

The wastewater collection and treatment system serves customers in the City of Big Rapids and those sewer portions of Big Rapids and Green Charter Townships. The service area is primarily residential and commercial with some light industry. The service area includes Ferris State University, and one (1) categorical industrial user located within the city.

Residential users are typical domestic households discharging primarily residential household type wastewater from sanitary conveniences such as sinks, lavatories, showers, and dishwashers. Residential wastewater is considered to be relatively free of hazardous materials and easily treatable by the wastewater treatment facility. Residential use of the wastewater collection and treatment system is regulated by Title 52 of the City Ordinance. Residential users are encouraged to dispose of toxic and hazardous materials, medical waste products, and household cooking grease by means other than the sanitary wastewater system.

Non-domestic users include all other types of establishments discharging wastewater of other than domestic origin. These users include commercial establishments, institutions, and industries. These types of uses are regulated under Title 53 of the City Ordinance. Commercial users such as food service establishments, automobile service facilities, medical facilities, etc. may store, use, or generate materials which could be adverse to the treatment works. Institutional users include schools, government buildings, churches, and entities exempt from property taxes. Industrial users are a special class of users which, by nature of their volume use or special character of wastewater discharged, have a greater potential to have an impact on the wastewater treatment system. Categorical industries are a special class of industry defined by federal regulations based on the nature of their manufacturing processes. These industries require additional regulation because of their greater potential to impact the treatment facility. Table C shows the user classifications of each of the municipalities using the system. Figure C depicts this information graphically. As can be seen, approximately three quarters (73%) of the users are residential.

Table C

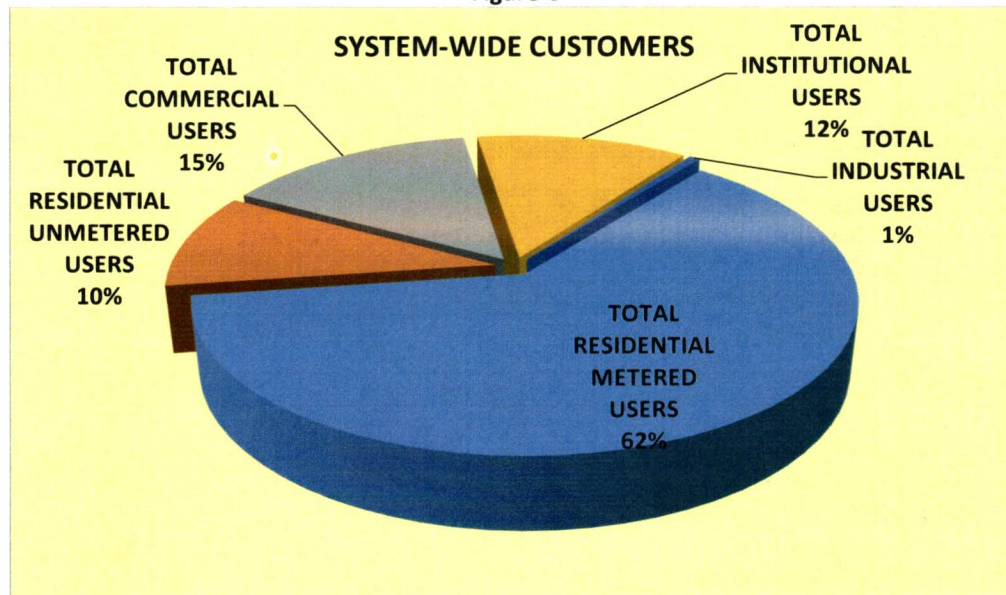
| DESCRIPTION   |                                     | 2021        | 2022        | 2023        | 2024        |
|---------------|-------------------------------------|-------------|-------------|-------------|-------------|
| CITY<br>USERS | City Residential Metered Users      | 1633        | 1633        | 1633        | 1636        |
|               | City Residential Unmetered Users    | 31          | 30          | 30          | 30          |
|               | <b>CITY TOTAL RESIDENTIAL USERS</b> | <b>1664</b> | <b>1663</b> | <b>1663</b> | <b>1666</b> |
|               | City Residential REU's              | 1664        | 1663        | 1663        | 1666        |
|               | City Commercial Users               | 331         | 331         | 334         | 337         |
|               | City Commercial REU's               | 1678        | 1688        | 1748        | 1715        |
|               | City Institutional Users            | 215         | 216         | 215         | 216         |
|               | City Institutional REU's            | 1824        | 1659        | 1815        | 1806        |
|               | City Industrial Users               | 17          | 18          | 17          | 17          |
|               | City Industrial REU's               | 646         | 509         | 527         | 551         |
|               | <b>CITY TOTAL REU's</b>             | <b>5812</b> | <b>5519</b> | <b>5752</b> | <b>5738</b> |
|               | <b>CITY TOTAL METERED USERS</b>     | <b>2196</b> | <b>2198</b> | <b>2199</b> | <b>2206</b> |
|               | <b>CITY TOTAL USERS</b>             | <b>2227</b> | <b>2228</b> | <b>2229</b> | <b>2236</b> |

\* Note - Two (2) institutional users and two (2) commercial users are included under residential unmetered and treated in the same manner as residential unmetered. Unmetered flow is determined by dividing the metered flow by the metered users and multiplying the result by the unmetered users.



| DESCRIPTION  |                                          | 2021         | 2022         | 2023         | 2024         |
|--------------|------------------------------------------|--------------|--------------|--------------|--------------|
| BR TWP USERS | BR Twp Residential Metered Users         | 36           | 39           | 41           | 44           |
|              | BR Twp Residential Unmetered Users       | 16           | 16           | 16           | 16           |
|              | <b>BR TWP TOTAL RESIDENTIAL USERS</b>    | <b>52</b>    | <b>55</b>    | <b>57</b>    | <b>60</b>    |
|              | BR Twp Residential REU's                 | 54           | 57           | 59           | 62           |
|              | BR Twp Commercial Users                  | 45           | 45           | 45           | 43           |
|              | BR Twp Commercial REU's                  | 552          | 552          | 552          | 552          |
|              | BR Twp Institutional Users               | 116          | 116          | 118          | 116          |
|              | BR Twp Institutional REU's               | 633          | 633          | 640          | 640          |
|              | <b>BR TWP TOTAL REU's</b>                | <b>1239</b>  | <b>1242</b>  | <b>1251</b>  | <b>1254</b>  |
|              | <b>BR TWP TOTAL METERED USERS</b>        | <b>197</b>   | <b>200</b>   | <b>204</b>   | <b>203</b>   |
|              | <b>BR TWP TOTAL USERS</b>                | <b>213</b>   | <b>216</b>   | <b>220</b>   | <b>219</b>   |
| GN TWP USERS | GN Twp Residential Unmetered Users       | 229          | 230          | 230          | 230          |
|              | GN Twp Residential REU's                 | 240          | 241          | 241          | 241          |
|              | GN Twp Commercial Users                  | 13           | 13           | 14           | 14           |
|              | GN Twp Commercial REU's                  | 19           | 19           | 21           | 21           |
|              | GN Twp Institutional Users               | 1            | 1            | 1            | 1            |
|              | GN Twp Institutional REU's               | 1            | 1            | 1            | 1            |
|              | <b>GN TWP TOTAL REU's</b>                | <b>260</b>   | <b>261</b>   | <b>263</b>   | <b>263</b>   |
|              | <b>GN TWP TOTAL USERS</b>                | <b>243</b>   | <b>244</b>   | <b>245</b>   | <b>245</b>   |
| TOTAL USERS  | <b>TOTAL RESIDENTIAL METERED USERS</b>   | <b>1669</b>  | <b>1672</b>  | <b>1674</b>  | <b>1680</b>  |
|              | <b>TOTAL RESIDENTIAL UNMETERED USERS</b> | <b>276</b>   | <b>276</b>   | <b>276</b>   | <b>276</b>   |
|              | <b>TOTAL COMMERCIAL USERS</b>            | <b>389</b>   | <b>389</b>   | <b>393</b>   | <b>394</b>   |
|              | <b>TOTAL INSTITUTIONAL USERS</b>         | <b>332</b>   | <b>333</b>   | <b>334</b>   | <b>333</b>   |
|              | <b>TOTAL INDUSTRIAL USERS</b>            | <b>17</b>    | <b>18</b>    | <b>17</b>    | <b>17</b>    |
|              | <b>GRAND TOTAL USERS</b>                 | <b>2688</b>  | <b>2688</b>  | <b>2694</b>  | <b>2700</b>  |
|              | <b>CITY TOTAL USERS</b>                  | <b>2227</b>  | <b>2228</b>  | <b>2229</b>  | <b>2236</b>  |
|              | <b>BR TWP TOTAL USERS</b>                | <b>213</b>   | <b>216</b>   | <b>220</b>   | <b>219</b>   |
|              | <b>GN TWP TOTAL USERS</b>                | <b>243</b>   | <b>244</b>   | <b>245</b>   | <b>245</b>   |
|              | <b>GRAND TOTAL USERS</b>                 | <b>2683</b>  | <b>2688</b>  | <b>2694</b>  | <b>2700</b>  |
|              | <b>CITY PERCENT OF USERS (%)</b>         | <b>83.0%</b> | <b>82.9%</b> | <b>82.7%</b> | <b>82.8%</b> |
|              | <b>BR TWP PERCENT OF USERS (%)</b>       | <b>7.9%</b>  | <b>8.0%</b>  | <b>8.2%</b>  | <b>8.1%</b>  |
|              | <b>GN TWP PERCENT OF USERS (%)</b>       | <b>9.1%</b>  | <b>9.1%</b>  | <b>9.1%</b>  | <b>9.1%</b>  |

Figure C





## D. SYSTEM USE

Each of the jurisdictional partners sharing use of the wastewater system pays their proportionate share of Operation, Maintenance, and Replacement (OM&R) costs based upon their share of flow contributed to the system. Flow is determined by the sum of metered water use for metered users and estimated water use for unmetered users. Metered water flow is used on a 1:1 ratio to determine sewer flow contribution. One metered unit is equal to 1,000 gallons. Unmetered users within City limits are billed based on a City ordinance which requires unmetered users to be billed at 6.0 units per month. Big Rapids Township and Green Township both bill based on the average use of unmetered users. The average City residential customer use is 3.3 units per month. The average Big Rapids Township residential customer use is 3.6 units per month. Charges to users in Green Township are based on Residential Equivalent Units (REU's). The average Green Township use is 3.4 units per month. The City and Big Rapids Township bill customers monthly. Green Township bills its customers quarterly. City volume is determined by the sum of all water meter readings as well as the total of unmetered use. Big Rapids Township uses a combination of water meter readings and where provided, actual sewer meters. Green Township flow is based on metered wastewater flow at the point of discharge from the Township collection system.

Flow metered at the Wastewater Treatment Plant includes infiltration and inflow (I&I) into the collection system. I&I is calculated by difference between the flow metered at the plant and water sold or billed. Each municipality is responsible for the I&I entering the Collection System of the opposite municipality. The amount of I&I will be determined by the User Charge Report. Payment for I&I can be offset by mutual agreement or can be paid pursuant to the User Charge Report. Plant flow is determined by discharge from a Cipolletti weir located downstream of the secondary clarifiers. The average daily effluent flow for fiscal year 2022-2023 was 1.048 MGD (Million Gallons per Day) or 1,048,000 gallons per day. Table D1 shows the allocation of I&I, Table D2 shows the total use by each category of user in each of the three jurisdictions and Figure D1 shows the information graphically. As can be seen, the largest volume consumption is by commercial and institutional users.

Table D1

| I&I<br>ALLOCATION | DESCRIPTION                              | 2021    | 2022    | 2023    | 2024    |
|-------------------|------------------------------------------|---------|---------|---------|---------|
|                   | TOTAL CITY USE (K gal/Yr.)               | 233,461 | 226,005 | 226,239 | 230,028 |
|                   | CITY I&I (K gal/Yr.)                     | 130,699 | 101,582 | 109,989 | 76,288  |
|                   | TOTAL CITY FLOW CONTRIBUTION (K gal/Yr.) | 364,100 | 327,587 | 336,228 | 306,316 |
|                   | TOTAL BR TWP USE (K gal/Yr.)             | 53,024  | 54,196  | 59,188  | 64,780  |
|                   | CALCULATED BR TWP I&I (K gal/Yr.)        | 4,662   | 2,096   | 2,401   | 1,340   |
|                   | TOTAL BR TWP CONTRIBUTION (K gal/Yr.)    | 57,686  | 56,292  | 61,589  | 66,120  |
|                   | GN TWP METERED USE (K gal/Yr.)           | 11,804  | 10,811  | 10,663  | 10,264  |
|                   | CALCULATED GN TWP I&I (K gal/Yr.)        | 0       | 0       | 0       | 0       |
|                   | TOTAL GN TWP CONTRIBUTION (K gal/Yr.)    | 11,804  | 10,811  | 10,663  | 10,264  |
|                   | TOTAL ENTITY CONTRIBUTIONS (K gal/Yr.)   | 298,289 | 291,012 | 296,090 | 305,072 |
|                   | TOTAL I&I (K gal/Yr.)                    | 135,361 | 103,678 | 112,390 | 77,628  |
|                   | GRAND TOTAL FLOW (K gal/Yr.)             | 433,650 | 394,690 | 408,480 | 382,700 |

Table D2

| CITY OF BIG RAPIDS USE | DESCRIPTION                                    | 2021    | 2022    | 2023    | 2024    |
|------------------------|------------------------------------------------|---------|---------|---------|---------|
|                        | CITY RESIDENTIAL METERED USE (K gal/Yr.)       | 65,105  | 66,380  | 63,739  | 65,103  |
|                        | CITY RESIDENTIAL METERED USE / USER (K gal/Mo) | 3.3     | 3.4     | 3.3     | 3.3     |
|                        | CITY RESIDENTIAL UNMETERED USE (K gal/Yr.)     | 2,976   | 2,880   | 2,880   | 2,880   |
|                        | CITY TOTAL RESIDENTIAL USE (K gal/Yr.)         | 68,081  | 69,260  | 66,235  | 67,983  |
|                        | CITY COMMERCIAL USE (K gal/Yr.)                | 66,902  | 68,631  | 68,228  | 68,246  |
|                        | CITY COMMERCIAL USE / USER (K gal/Mo)          | 16.8    | 17.3    | 17.0    | 16.9    |
|                        | CITY INSTITUTIONAL USE (K gal/Yr.)             | 72,712  | 67,423  | 70,839  | 71,887  |
|                        | CITY INSTITUTIONAL USE / USER (K gal/Mo)       | 28.2    | 26.0    | 27.5    | 27.7    |
|                        | CITY INDUSTRIAL USE (K gal/Yr.)                | 25,766  | 20,691  | 20,553  | 21,912  |
|                        | CITY INDUSTRIAL USE / USER (gal/Mo)            | 126.3   | 95.8    | 100.8   | 107.4   |
|                        | TOTAL CITY USE (K gal/Yr.)                     | 233,461 | 226,005 | 226,239 | 230,028 |
|                        | DAILY AVG CITY USE (MG)                        | 0.640   | 0.619   | 0.620   | 0.630   |



| DESCRIPTION      |                                                  | 2021    | 2022    | 2023    | 2024    |
|------------------|--------------------------------------------------|---------|---------|---------|---------|
| BR TWP USE       | BR TWP RESIDENTIAL METERED USE (K gal/Yr.)       | 1,259   | 1,279   | 1,508   | 1,905   |
|                  | BR TWP RESIDENTIAL METERED USE / USER (K gal/Mo) | 2.9     | 2.7     | 3.1     | 3.6     |
|                  | BR TWP RESIDENTIAL UNMETERED USE (K gal/Yr.)     | 648     | 648     | 648     | 648     |
|                  | BR TWP TOTAL RESIDENTIAL USE (K gal/Yr.)         | 1,907   | 1,927   | 2,156   | 2,553   |
|                  | BR TWP COMMERCIAL USE (K gal/Yr.)                | 26,353  | 27,411  | 24,755  | 27,394  |
|                  | BR TWP COMMERCIAL USE / USER (K gal/Mo)          | 48.8    | 50.8    | 45.8    | 53.1    |
|                  | BR TWP INSTITUTIONAL USE (K gal/Yr.)             | 24,764  | 24,858  | 32,277  | 34,833  |
|                  | BR TWP INSTITUTIONAL USE / USER (K gal/Mo)       | 17.8    | 17.9    | 22.8    | 25.0    |
|                  | TOTAL BR TWP USE (K gal/Yr.)                     | 53,024  | 54,196  | 59,188  | 64,780  |
|                  | BR TWP DAILY AVG USE (MG)                        | 0.145   | 0.148   | 0.162   | 0.177   |
| GREEN TWP USE    | GREEN TWP RESIDENTIAL USE (K gal/Yr.) (Est)      | 10,896  | 9,983   | 9,771   | 9,405   |
|                  | GREEN TWP RESIDENTIAL USE / USER (K gal/Mo)      | 4.0     | 3.6     | 3.5     | 3.4     |
|                  | GREEN TWP COMMERCIAL USE (K gal/Yr.) (Est)       | 863     | 787     | 851     | 820     |
|                  | GREEN TWP COMMERCIAL USE / USER (K gal/Mo)       | 5.5     | 5.0     | 5.1     | 4.9     |
|                  | GREEN TWP INSTITUTIONAL USE (K gal/Yr.) (Est)    | 45      | 41      | 41      | 39      |
|                  | GREEN TWP INSTITUTIONAL USE / USER (K gal/Mo)    | 3.8     | 3.5     | 3.4     | 3.3     |
|                  | GREEN TWP METERED USE (K gpd)                    | 32.3    | 29.6    | 29.2    | 28.1    |
|                  | GN TWP METERED USE (K gal/yr.)                   | 11,804  | 10,811  | 10,663  | 10,264  |
|                  | GREEN TWP DAILY AVG USE (MG)                     | 0.032   | 0.030   | 0.029   | 0.028   |
| TOTAL BILLED USE | TOTAL RESIDENTIAL USE (K gal/Yr.)                | 80,884  | 81,170  | 78,546  | 79,941  |
|                  | TOTAL COMMERCIAL USE (K gal/Yr.)                 | 94,118  | 96,829  | 93,834  | 96,460  |
|                  | TOTAL INSTITUTIONAL USE (K gal/Yr.)              | 97,521  | 92,322  | 103,157 | 106,759 |
|                  | TOTAL INDUSTRIAL USE (K gal/Yr.)                 | 25,766  | 20,691  | 20,553  | 21,912  |
|                  | GRAND TOTAL BILLED USE (K gal/Yr.)               | 298,289 | 291,012 | 295,090 | 305,072 |
|                  | DAILY AVG BILLED USE (MG)                        | 0.817   | 0.797   | 0.811   | 0.836   |
|                  | TOTAL CITY USE (K gal/Yr.)                       | 233,461 | 226,005 | 226,239 | 230,028 |
|                  | TOTAL BR TWP USE (K gal/Yr.)                     | 53,024  | 54,196  | 59,188  | 64,780  |
|                  | GN TWP METERED USE (K gal/Yr.)                   | 11,804  | 10,811  | 10,663  | 10,264  |
|                  | TOTAL OF ALL BILLED USE                          | 298,289 | 291,012 | 296,090 | 305,072 |
|                  | City Percent of Total Use                        | 84.0%   | 83.0%   | 82.3%   | 80.0%   |
|                  | BR Twp Percent of Total Use                      | 13.3%   | 14.3%   | 14.8%   | 17.3%   |
|                  | Green Twp Percent of Total Use                   | 2.7%    | 2.7%    | 2.6%    | 2.7%    |
|                  | TOTAL OF BILLED PERCENT USE                      | 100.0%  | 100.0%  | 100.0%  | 100.0%  |

SYSTEM-WIDE CUSTOMER USE BY CLASS

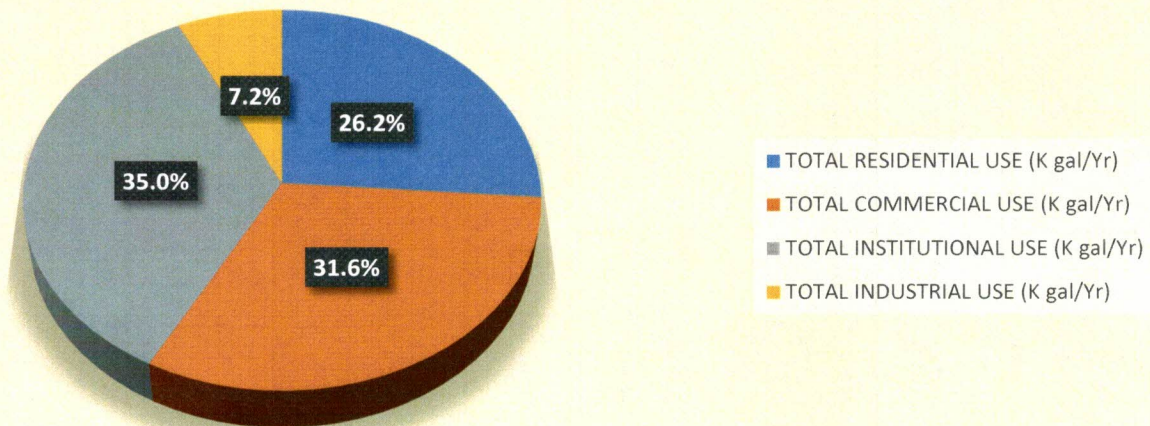




Table D3 shows the total flow contribution from each municipality and the calculation of I&I. The percentage of total flow is the basis of cost sharing between the municipalities. Table D3 also shows the historic relationship between these flow totals.

Table D3

| FLOW &<br>COST<br>SPLIT | DESCRIPTION                                | 2022    | 2023    | 2024    |
|-------------------------|--------------------------------------------|---------|---------|---------|
|                         | ANNUAL EFF TOTAL FROM PLANT RECORDS (MG)   | 394,690 | 408,480 | 382,700 |
|                         | ANNUAL EFF AVG DAY FROM PLANT RECORDS (MG) | 1.081   | 1.119   | 1.048   |
|                         | TOTAL CITY USE (K gal/Yr)                  | 226,005 | 226,239 | 230,028 |
|                         | TOTAL BR TWP USE (K gal/Yr)                | 54,196  | 59,188  | 64,780  |
|                         | GN TWP METERED USE (K gal/yr)              | 10,811  | 10,663  | 10,264  |
|                         | GRAND TOTAL BILLED USE (K gal/Yr)          | 291,012 | 296,090 | 305,072 |
|                         | CALCULATED I&I (K gal/Yr)                  | 103,678 | 112,390 | 77,628  |
|                         | TOTAL FLOW CONTRIBUTION (K gal/Yr)         | 394,690 | 408,480 | 382,700 |
|                         | AVERAGE I&I (MGD)                          | 0.284   | 0.308   | 0.213   |
|                         | I&I Percent of Total Flow (%)              | 26.3%   | 27.5%   | 20.3%   |
|                         | CITY I&I (K gal/Yr)                        | 101,582 | 109,989 | 76,098  |
|                         | CALCULATED BR TWP I&I (K gal/Yr)           | 2,254   | 2,560   | 1,575   |
|                         |                                            | 159     | 159     | 235     |
|                         |                                            | 2,096   | 2,401   | 1,340   |
|                         | CALCULATED GN TWP I&I (K gal/Yr)           | 0       | 0       | 0       |
|                         | TOTAL I&I (K gal/Yr)                       | 103,678 | 112,390 | 77,628  |
|                         | TOTAL PRECIP (in)                          |         |         |         |
|                         | CITY COST SHARING PERCENTAGE               | 83.0%   | 82.3%   | 80.0%   |
|                         | BR TWP COST SHARING PERCENTAGE             | 14.3%   | 15.1%   | 17.3%   |
|                         | GREEN TWP COST SHARING PERCENTAGE          | 2.7%    | 2.6%    | 2.7%    |
|                         | SUM OF SHARED PERCENT USE                  | 100.0%  | 100.0%  | 100.0%  |

## E. WASTEWATER TREATMENT PLANT OM&R

The Wastewater Treatment Plant operates under strict limitations of a National Pollutant Discharge Elimination System (NPDES) permit issued by the Michigan Department of Environmental Quality (MDEQ) under authority from the United States Environmental Protection Agency (USEPA). The NPDES permit regulates the efficiency of operation of the treatment plant and provides fines and penalties for failure to comply with provisions of the permit. Operation of the treatment system requires state certified operators to perform a variety of skilled tasks necessary to ensure proper and efficient operation of the various system components. Major expenses involved in the daily operations necessary to comply with the permit include:

- Labor to operate and maintain equipment, collect, and analyze samples, and keep accurate and detailed records for reporting to MDEQ.
- Supplies and chemicals including everything from pencils and lubricants to polymer used for sludge conditioning.
- Contractual services from sophisticated analytical services to biosolids land application management.
- Utilities including electricity and natural gas to operate pumps, blowers, heat exchangers, building heat and light.
- Repair expenses necessary to perform equipment service beyond the capability of the staff.

Table E1

| WWTP O&M | 590-560<br>LABOR                  | DESCRIPTION                          | 2021                | 2022                | 2023                | 2024                |
|----------|-----------------------------------|--------------------------------------|---------------------|---------------------|---------------------|---------------------|
|          |                                   | 702.000 Full Time                    | 272,053.67          | 286,578.45          | 323,750.08          | 280,899.26          |
|          |                                   | 703.000 Part Time                    | 13,770.68           | 14,493.99           | 15,254.66           | 15,448.85           |
|          |                                   | 706.100 Comp Buy Out                 | 1,264.37            | 4,325.50            | 3,006.43            | 661.47              |
|          |                                   | 709.000 Overtime                     | 6,549.69            | 7,151.31            | 5,886.83            | 5,285.22            |
|          |                                   | 710.000 DPW Services                 | 800.04              | 900.00              | 800.04              | 699.96              |
|          |                                   | <b>TOTAL LABOR</b>                   | <b>\$294,438.45</b> | <b>\$313,449.25</b> | <b>\$348,698.04</b> | <b>\$302,984.76</b> |
|          | 590-560<br>FRINGE<br>BENEFIT<br>S | 715.000 FICA                         | 22,416.08           | 23,559.59           | 24,403.79           | 24,853.98           |
|          |                                   | 716.300 Health Ins Reimbursement     | 7,125.00            | 6,840.00            | 6,840.00            | 7,125.00            |
|          |                                   | 717.000 Employer Health Ins Premiums | 70,656.91           | 69,599.64           | 75,530.92           | 48,226.52           |
|          |                                   | 718.000 Unemployment                 | 283.97              | 823.94              | 944.43              | 110.54              |
|          |                                   | 719.000 Workers Comp                 | 4,524.79            | 3,854.38            | 6,044.48            | 5,616.42            |
|          |                                   | 720.000 DB MERS                      | 60,963.08           | 63,687.12           | 77,709.12           | 76,239.84           |
|          |                                   | 720.600 DC AFSCME                    | 18,987.75           | 21,993.85           | 22,767.13           | 20,211.86           |
|          |                                   | <b>TOTAL FRINGE BENEFITS</b>         | <b>\$184,957.58</b> | <b>\$190,358.52</b> | <b>\$214,239.87</b> | <b>\$182,384.16</b> |
|          | 590-560<br>SUPPLIE<br>S           | 732.000 Operational Supplies         | 21,395.71           | 27,492.34           | 21,418.90           | 49,846.17           |
|          |                                   | 732.005 Lab Operational Supplies     | 26,939.57           | 24,184.54           | 27,239.66           |                     |
|          |                                   | 736.000 Uniforms                     | 1,086.00            | 516.50              | 472.00              | 741.00              |
|          |                                   | 743.000 Chemicals                    | 21,632.16           | 26,187.48           | 27,762.56           | 50,226.70           |
|          |                                   | <b>TOTAL SUPPLIES</b>                | <b>\$71,053.44</b>  | <b>\$78,380.86</b>  | <b>\$76,893.12</b>  | <b>\$100,813.87</b> |
|          | 590-560<br>CONTR<br>SRV           | 801.000 Contracted Services          | 151,608.66          | 119,111.01          | 164,750.87          | 181,127.19          |
|          |                                   | 801.100 MDEQ Permit Fees             | 5,760.00            | 5,760.00            | 7,866.00            | 4,118.85            |
|          |                                   | 802.000 Engineering (Minor)          | 13,434.18           | 6,558.15            | 38,104.66           | 30,263.41           |
|          |                                   | 808.000 Audit Fees                   | 2,812.00            | 2,741.20            | 2,953.56            | 3,083.65            |
|          |                                   | <b>TOTAL CONTRACTED SERVICES</b>     | <b>\$173,614.84</b> | <b>\$134,170.36</b> | <b>\$213,675.09</b> | <b>\$218,593.10</b> |



|                                |                                           |                     |                       |                       |                       |
|--------------------------------|-------------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|
| <b>590-560<br/>INS</b>         | 814.000 Insurance Coverage                | 16,091.83           | 16,801.08             | 19,413.97             | 19,375.98             |
|                                | 814.100 Insurance Deductible              |                     |                       |                       | 36,927.09             |
|                                | 822.200 LTD/Life/ADD                      | 1,192.17            | 1,566.00              | 1,567.74              | 1,371.06              |
|                                | 824.600 Operator License Fees             | 95.00               | 791.20                | 165.00                | 96.90                 |
|                                | <b>TOTAL INSURANCE</b>                    | <b>\$17,379.00</b>  | <b>\$19,158.28</b>    | <b>\$21,146.71</b>    | <b>\$57,771.03</b>    |
| <b>590-560<br/>TRAVEL</b>      | 860.000 Travel                            | 6.86                | 516.63                | 275.02                | 144.10                |
|                                | 870.100 Training                          | 1,240.00            | 6,614.60              | 2,445.16              | 1,350.01              |
|                                | <b>TOTAL TRAVEL</b>                       | <b>\$1,246.86</b>   | <b>\$7,131.23</b>     | <b>\$2,720.18</b>     | <b>\$1,494.11</b>     |
| <b>590-560<br/>UTILITIES</b>   | 960.000 Utilities                         | 179,040.89          | 195,450.29            | 201,552.08            | 212,269.39            |
|                                | <b>TOTAL UTILITIES</b>                    | <b>\$179,040.89</b> | <b>\$195,450.29</b>   | <b>\$201,552.08</b>   | <b>\$212,269.39</b>   |
| <b>590-560<br/>R&amp;M</b>     | 930.000 Operational Repairs & Maintenance | 40,227.72           | 102,463.26            | 45,452.93             | 63,601.40             |
|                                | 930.001 Software Maintenance              | 16,643.00           | 17,234.92             | 4,651.40              | 34,073.00             |
|                                | 930.007 Ultraviolet Lamps                 | 7,596.00            | 13,849.52             | 8,594.27              | 2,887.04              |
|                                | 958.000 Membership Fees                   | 565.40              | 1,044.17              | 622.00                | 759.17                |
|                                | 961.000 Lunch/Dinner Meetings             |                     | 242.76                |                       | 74.30                 |
|                                | 967.048 Asset Management Program          |                     |                       |                       |                       |
|                                | 967.999 Project Costs Contra              |                     |                       |                       |                       |
|                                | 968.000 Depreciation                      | 580,044.38          | 575,595.71            | 611,182.65            | 660,351.60            |
|                                | 977.018 Dissolved Oxygen Probes           |                     |                       |                       |                       |
|                                | 977.901 Security Cameras                  |                     |                       |                       |                       |
|                                | 977.999 Equipment/Contra                  |                     |                       |                       |                       |
|                                | <b>TOTAL REPAIRS &amp; MAINTENANCE</b>    | <b>\$65,032.12</b>  | <b>\$134,834.63</b>   | <b>\$59,320.60</b>    | <b>\$101,394.91</b>   |
| <b>TOTAL WWTP O&amp;M COST</b> |                                           | <b>\$986,763.18</b> | <b>\$1,072,933.42</b> | <b>\$1,138,245.69</b> | <b>\$1,177,705.33</b> |

Table E2

| DESCRIPTION       |                                                 | 2021                | 2022                  | 2023                  | 2024                  |
|-------------------|-------------------------------------------------|---------------------|-----------------------|-----------------------|-----------------------|
| SUMMARY<br>TOTALS | TOTAL LABOR                                     | 294,438.45          | 313,449.25            | 348,698.04            | 302,984.76            |
|                   | TOTAL FRINGE BENEFITS                           | 184,957.58          | 190,358.52            | 214,239.87            | 182,384.16            |
|                   | TOTAL SUPPLIES                                  | 71,053.44           | 78,380.86             | 76,893.12             | 100,813.87            |
|                   | TOTAL CONTRACTED SERVICES                       | 173,614.84          | 134,170.36            | 213,675.09            | 218,593.10            |
|                   | TOTAL INSURANCE                                 | 17,379.00           | 19,158.28             | 21,146.71             | 57,771.03             |
|                   | TOTAL TRAVEL                                    | 1,246.86            | 7,131.23              | 2,720.18              | 1,494.11              |
|                   | TOTAL UTILITIES                                 | 179,040.89          | 195,450.29            | 201,552.08            | 212,269.39            |
|                   | TOTAL REPAIRS & MAINTENANCE                     | 65,032.12           | 134,834.63            | 59,320.60             | 101,394.91            |
|                   | TOTAL WWTP O&M COST                             | 986,763.18          | 1,072,933.42          | 1,138,245.69          | 1,177,705.33          |
| WWTP O&M SUMMARY  | <b>TOTAL WWTP O&amp;M COST</b>                  | <b>\$986,763.18</b> | <b>\$1,072,933.42</b> | <b>\$1,138,245.69</b> | <b>\$1,177,705.33</b> |
|                   | <b>ANNUAL EFF TOTAL FROM PLANT RECORDS (MG)</b> | <b>433,650</b>      | <b>394,690</b>        | <b>408,480</b>        | <b>382,700</b>        |
|                   | <b>WWTP O&amp;M Unit Cost</b>                   | <b>\$2.28</b>       | <b>\$2.72</b>         | <b>\$2.79</b>         | <b>\$3.08</b>         |
|                   | <b>CITY COST SHARING PERCENTAGE</b>             | <b>84.0%</b>        | <b>83.0%</b>          | <b>82.3%</b>          | <b>80.0%</b>          |
|                   | <b>CITY WWTP O&amp;M COST SHARE</b>             | <b>\$828,639.78</b> | <b>\$890,519.97</b>   | <b>\$936,912.63</b>   | <b>\$942,645.47</b>   |
|                   | <b>TOTAL CITY USE (K gal/Yr.)</b>               | <b>233,461</b>      | <b>226,005</b>        | <b>226,239</b>        | <b>230,028</b>        |
|                   | <b>City WWTP O&amp;M Unit Cost</b>              | <b>\$3.55</b>       | <b>\$3.94</b>         | <b>\$4.14</b>         | <b>\$4.10</b>         |
|                   | <b>BR TWP COST SHARING PERCENTAGE</b>           | <b>13.3%</b>        | <b>14.3%</b>          | <b>15.1%</b>          | <b>17.3%</b>          |
|                   | <b>BR TWP WWTP O&amp;M COST SHARE</b>           | <b>\$131,263.60</b> | <b>\$153,024.61</b>   | <b>\$171,620.19</b>   | <b>\$203,473.84</b>   |
|                   | <b>TOTAL BR TWP USE (K gal/Yr.)</b>             | <b>53,024</b>       | <b>54,196</b>         | <b>59,188</b>         | <b>64,780</b>         |
|                   | <b>BR Twp WWTP O&amp;M Unit Cost</b>            | <b>\$2.48</b>       | <b>\$2.82</b>         | <b>\$2.90</b>         | <b>\$3.14</b>         |
|                   | <b>GREEN TWP COST SHARING PERCENTAGE</b>        | <b>2.7%</b>         | <b>2.7%</b>           | <b>2.6%</b>           | <b>2.7%</b>           |
|                   | <b>GN TWP WWTP O&amp;M COST SHARE</b>           | <b>\$26,859.80</b>  | <b>\$29,388.84</b>    | <b>\$29,712.87</b>    | <b>\$31,586.01</b>    |
|                   | <b>GN TWP METERED USE (K gal/yr.)</b>           | <b>11,804</b>       | <b>10,811</b>         | <b>10,663</b>         | <b>10,264</b>         |
|                   | <b>GN Twp WWTP O&amp;M Unit Cost</b>            | <b>\$2.28</b>       | <b>\$2.72</b>         | <b>\$2.79</b>         | <b>\$3.08</b>         |
|                   | <b>SUM OF SHARED WWTP O&amp;M COST</b>          | <b>\$986,763.18</b> | <b>\$1,072,933.42</b> | <b>\$1,138,245.69</b> | <b>\$1,177,705.33</b> |



In addition to the daily operation and maintenance expenses, a replacement fund is required to ensure that an equipment failure does not cause a violation of provisions in the NPDES permit. Replacement funds are set aside to ensure timely replacement of worn-out equipment. For purposes of the replacement fund equipment generally refers to any item that has a useful life of twenty years or less. This section presents the costs for replacement of equipment at the treatment plant. Costs are based on the existing treatment plant including improvements completed in 2010. A CPI inflationary adjustment of 1.4% has been incorporated to account for changes in the cost of assets over time.

Table E3

| 2024             | ASSET                              | ACQ'D | LIFE | REM | VALUE      | ANN VALUE |
|------------------|------------------------------------|-------|------|-----|------------|-----------|
| WWTP REPLACEMENT | Secondary Influent                 | 1996  | 15   | 0   | 6,140.00   | 0.00      |
|                  | Sigma All Weather Sampler          | 2007  | 7    | 0   | 5,208.00   | 0.00      |
|                  | Sensus AR5502 Reader               | 2009  | 5    | 0   | 7,450.00   | 0.00      |
|                  | Phone System Upgrade Allowance     | 2010  | 7    | 0   | 1,500.00   | 0.00      |
|                  | Computer Allowance                 | 2010  | 7    | 0   | 5,000.00   | 0.00      |
|                  | Ethernet Switches & Patch Panels   | 2010  | 7    | 0   | 16,600.00  | 0.00      |
|                  | UPS Systems                        | 2010  | 7    | 0   | 8,000.00   | 0.00      |
|                  | Med Voltage Switch                 | 2008  | 10   | 0   | 9,392.00   | 0.00      |
|                  | Moyno 2000 Pump                    | 2008  | 10   | 0   | 11,188.00  | 0.00      |
|                  | Clarifier Upgrade                  | 1999  | 20   | 0   | 117,747.00 | 0.00      |
|                  | Polyblend Pump                     | 2004  | 15   | 0   | 6,828.00   | 0.00      |
|                  | Pumping Equipment                  | 2004  | 15   | 0   | 89,522.00  | 0.00      |
|                  | Polyblend Polymer                  | 2010  | 10   | 0   | 6,398.00   | 0.00      |
|                  | Sludge Transfer Pump               | 2010  | 10   | 0   | 45,600.00  | 0.00      |
|                  | HVAC System                        | 2010  | 10   | 0   | 193,150.00 | 0.00      |
|                  | Dehumidifier                       | 2010  | 10   | 0   | 6,200.00   | 0.00      |
|                  | Temperature Controls               | 2010  | 10   | 0   | 19,950.00  | 0.00      |
|                  | Moyno Pumps                        | 2010  | 10   | 0   | 82,000.00  | 0.00      |
|                  | RAS Pumps                          | 2010  | 10   | 0   | 38,800.00  | 0.00      |
|                  | Tanks – EDI Aeration               | 2010  | 10   | 0   | 126,000.00 | 0.00      |
|                  | Switchboards (Dist. Equip)         | 2010  | 10   | 0   | 25,000.00  | 0.00      |
|                  | Panelboards (Dist. Equip)          | 2010  | 10   | 0   | 4,600.00   | 0.00      |
|                  | VFDs (Dist. Equip)                 | 2010  | 10   | 0   | 22,800.00  | 0.00      |
|                  | Motor Control Ctrs (Dist. Equip)   | 2010  | 10   | 0   | 184,800.00 | 0.00      |
|                  | Transformers (Dist. Equip)         | 2010  | 10   | 0   | 16,000.00  | 0.00      |
|                  | Enclosed Controller (Dist. Equip)  | 2010  | 10   | 0   | 600.00     | 0.00      |
|                  | Safety Switches (Dist. Equip)      | 2010  | 10   | 0.  | 2,700.00   | 0.00      |
|                  | Field Instruments/Magmeters        | 2010  | 10   | 0   | 27,600.00  | 0.00      |
|                  | D.O. & ORP Analyzers               | 2010  | 10   | 0   | 42,500.00  | 0.00      |
|                  | Ultrasonic Level/Radar             | 2010  | 10   | 0   | 7,500.00   | 0.00      |
|                  | Gas Detection System               | 2010  | 10   | 0   | 30,100.00  | 0.00      |
|                  | Float Switches/ISR Relays          | 2010  | 10   | 0   | 2,700.00   | 0.00      |
|                  | Air Flow Transmitters              | 2010  | 10   | 0   | 32,550.00  | 0.00      |
|                  | Equipment                          | 2003  | 20   | 0   | 14,404.00  | 720.20    |
|                  | Screw Lift Pump #1                 | 2003  | 20   | 0   | 177,064.00 | 8,853.20  |
|                  | Influent/Effluent Piping           | 2004  | 20   | 1   | 133,228.00 | 6,661.40  |
|                  | Trolley Hoist                      | 2010  | 15   | 2   | 4,700.00   | 313.33    |
|                  | Gravity Thickener                  | 2010  | 15   | 2   | 12,100.00  | 806.67    |
|                  | Spencer Blowers                    | 2010  | 15   | 2   | 328,800.00 | 21,920.00 |
|                  | Kaesser Blowers                    | 2010  | 15   | 2   | 220,650.00 | 14,710.00 |
|                  | Air Compressor                     | 2010  | 15   | 2   | 12,500.00  | 833.33    |
|                  | Grit Classifier                    | 2010  | 15   | 2   | 255,000.00 | 17,000.00 |
|                  | Generator/ATS                      | 2010  | 15   | 2   | 167,300.00 | 11,153.33 |
|                  | Aeration Blower                    | 2006  | 20   | 3   | 73,751.00  | 3,687.55  |
|                  | Aeration Walkway Grating           | 2008  | 20   | 5   | 40,394.00  | 2,019.70  |
|                  | KVA 3 Ph Transformer               | 2008  | 20   | 5   | 23,300.00  | 1,165.00  |
|                  | Screw Pump Upgrade                 | 1999  | 20   | 0   | 229,789.00 | 0.00      |
|                  | Ultraviolet Disinfection           | 2011  | 20   | 8   | 16,884.00  | 844.20    |
|                  | Equipment Ultraviolet Disinfection | 2006  | 30   | 13  | 296,983.43 | 9,899.45  |
|                  | Garage Building                    | 2015  | 20   | 12  | 11,361.65  | 568.08    |
|                  | Shortel Telephone System           | 2014  | 10   | 1   | 13,861.01  | 1,386.10  |
|                  | Dell PowerEdge R510 Server         | 2012  | 5    | 0   | 6,140.56   | 0.00      |
|                  | WWTP Wireless                      | 2015  | 5    | 0   | 9,258.65   | 0.00      |
|                  | Heating/Ventilation System         | 2014  | 10   | 1   | 7,445.00   | 744.50    |
|                  | Chemical Building Gate             | 2015  | 10   | 2   | 10,470.76  | 1,047.08  |



|                                                           |      |    |    |                       |                     |
|-----------------------------------------------------------|------|----|----|-----------------------|---------------------|
| Aerobic Digester Equipment                                | 2013 | 20 | 10 | 21,084.29             | 1,054.21            |
| Digester Blower                                           | 2013 | 15 | 5  | 7,490.00              | 499.33              |
| Grit Classifier                                           | 2013 | 15 | 5  | 11,234.35             | 748.96              |
| Screw Pump Motor                                          | 2013 | 10 | 0  | 5,948.21              | 594.82              |
| Gorman Rupp Pump                                          | 2013 | 5  | 0  | 21,199.97             | 0.00                |
| Electric Actuator                                         | 2014 | 5  | 0  | 11,036.00             | 0.00                |
| Standby Pump                                              | 2013 | 0  | 0  | 13,526.01             | 0.00                |
| Influent Micro screen                                     | 2014 | 5  | 0  | 194,987.72            | 0.00                |
| Refrigerated Sampler                                      | 2014 | 5  | 0  | 18,115.02             | 0.00                |
| Kaeser Blower                                             | 2015 | 5  | 0  | 15,056.78             | 0.00                |
| Screw Pump Stub Shaft                                     | 2015 | 5  | 0  | 19,011.00             | 0.00                |
| Screw Pump Replacement                                    | 2015 | 5  | 0  | 36,384.27             | 0.00                |
| Motor Digester Blower                                     | 2016 | 10 | 3  | 7,400.00              | 740.00              |
| Piping/Pump/Weir Gate                                     | 2016 | 10 | 3  | 196,454.95            | 19,645.50           |
| Kaiser Blower                                             | 2019 | 5  | 1  | 8,716.00              | 1,743.20            |
| BOD Incubators                                            | 2019 | 5  | 1  | 7,764.70              | 1,552.94            |
| Lab Water Machine                                         | 2019 | 5  | 1  | 7,985.24              | 1,597.05            |
| Dissolved Oxygen Probes                                   | 2019 | 5  | 1  | 27,993.42             | 5,598.68            |
| WWTP Wireless                                             | 2020 | 5  | 2  | 8,888.23              | 1,777.65            |
| Wet Well Modifications (2019)                             | 2020 | 10 | 7  | 17,874.60             | 1,787.46            |
| Water Well Rehabilitation                                 | 2020 | 10 | 7  | 77,856.25             | 7,785.63            |
| Lab Glassware Washer                                      | 2020 | 5  | 2  | 10,325.05             | 2,065.01            |
| Lab Contrast Microscope                                   | 2021 | 5  | 3  | 6,708.54              | 1,341.71            |
| Wet Well Modifications (2020)                             | 2021 | 10 | 8  | 72,565.94             | 7,256.59            |
| Screw Pump Replacement (2020)                             | 2021 | 5  | 3  | 13,525.63             | 2,705.13            |
| Backflow Preventer (2020)                                 | 2021 | 5  | 3  | 6,401.00              | 1,280.20            |
| Wet Well Modifications (2021)                             | 2022 | 10 | 9  | 26,412.96             | 2,641.30            |
| Screw Pump Replacement (2021)                             | 2022 | 5  | 4  | 33,155.85             | 6,631.17            |
| Backflow Preventer (2021)                                 | 2022 | 5  | 4  | 18,500.00             | 3,700.00            |
| Screw Pump Replacement                                    | 2022 | 5  | 4  | 289,900.00            | 57,980.00           |
| Screw Pump Replacement                                    | 2022 | 5  | 4  | 24,228.93             | 4,845.79            |
| NPW Pump                                                  | 2023 | 5  | 5  | 152,839.37            | 30,567.87           |
| Clarifier Improvements                                    | 2023 | 5  | 5  | 201,533.05            | 40,306.61           |
| <b>TOTAL WWTP REPLACEMENT COST</b>                        |      |    |    | <b>\$4,859,611.39</b> | <b>\$310,779.92</b> |
| <b>AGREED WWTP REPLACEMENT COST CONTRIBUTION (100%)</b>   |      |    |    |                       | <b>\$310,779.92</b> |
| <b>CPI INFLATION ADJUSTMENT CALENDAR YEAR 2021 (6.8%)</b> |      |    |    |                       | <b>\$335,642.32</b> |
| <b>ANNUAL EFF TOTAL FROM PLANT RECORDS (MG)</b>           |      |    |    |                       | <b>382,700</b>      |
| <b>WWTP Replacement Unit Cost</b>                         |      |    |    |                       | <b>\$0.88</b>       |

|                                 |                                           |                     |
|---------------------------------|-------------------------------------------|---------------------|
| <b>WWTP REPLACEMENT SHARING</b> | <b>CITY COST SHARING PERCENTAGE</b>       | <b>80.0%</b>        |
|                                 | <b>CITY WWTP REPLACEMENT COST SHARE</b>   | <b>\$268,651.00</b> |
|                                 | <b>TOTAL CITY USE (K gal/Yr.)</b>         | <b>230,028</b>      |
|                                 | <b>City WWTP Replacement Unit Cost</b>    | <b>\$1.17</b>       |
|                                 | <b>BR TWP COST SHARING PERCENTAGE</b>     | <b>17.3%</b>        |
|                                 | <b>BR TWP WWTP REPLACEMENT COST SHARE</b> | <b>\$57,989.41</b>  |
|                                 | <b>TOTAL BR TWP USE (K gal/Yr.)</b>       | <b>64,780</b>       |
|                                 | <b>BR Twp WWTP Replacement Unit Cost</b>  | <b>\$0.90</b>       |
|                                 | <b>GREEN TWP COST SHARING PERCENTAGE</b>  | <b>2.7%</b>         |
|                                 | <b>GN TWP WWTP REPLACEMENT COST SHARE</b> | <b>\$9,001.91</b>   |
|                                 | <b>GN TWP METERED USE (K gal/Yr.)</b>     | <b>10,264</b>       |
|                                 | <b>GN Twp WWTP Replacement Unit Cost</b>  | <b>\$0.88</b>       |

Table E4 shows the calculated distribution of fund balance within the replacement account.

Table E4

|                                  |                    |                     |               |                   |                   |
|----------------------------------|--------------------|---------------------|---------------|-------------------|-------------------|
| <b>BALANCE<br/>598 REPL FUND</b> | <b>DESCRIPTION</b> | <b>ASSET VALUE</b>  | <b>SPLIT</b>  | <b>2022 BAL</b>   | <b>2023 BAL</b>   |
|                                  |                    |                     |               | <b>6/30/22</b>    | <b>6/30/23</b>    |
|                                  | WWTP               | 4,859,611.39        | 78.0%         | 676,618.66        | 530,900.25        |
|                                  | Collection System  | 743,471.23          | 11.9%         | 103,515.79        | 81,222.35         |
|                                  | Pumping            | 625,799.44          | 10.0%         | 87,131.98         | 68,367.01         |
|                                  | <b>TOTAL</b>       | <b>6,228,882.06</b> | <b>100.0%</b> | <b>867,266.43</b> | <b>680,489.61</b> |

Table E5 shows the projected cash flow for wastewater treatment plant replacement.

Table E5

| WWTP REPLACEMENT CASH FLOW |         |           |           |           |
|----------------------------|---------|-----------|-----------|-----------|
| YR                         | CONT    | EXP       | 2022 BAL  | 2023 BAL  |
|                            |         |           | 676,619   | 530,900   |
| 2023                       | 179,559 | 197,416   | 843,939   | 698,220   |
| 2024                       | 179,559 | 206,993   | 826,082   | 680,363   |
| 2025                       | 179,559 | 1,030,734 | 798,648   | 652,929   |
| 2026                       | 179,559 | 304,241   | (52,527)  | (198,246) |
| 2027                       | 179,559 | 51,656    | (177,209) | (322,928) |
| 2028                       | 179,559 | 82,418    | (49,306)  | (195,025) |
| 2029                       | 179,559 |           | 47,835    | (97,884)  |
| 2030                       | 179,559 | 95,731    | 227,394   | 81,675    |
| 2031                       | 179,559 | 89,450    | 311,222   | 165,503   |
| 2032                       | 179,559 | 26,413    | 401,331   | 255,612   |
| 2033                       | 179,559 | 21,084    | 554,477   | 408,758   |
| 2034                       | 179,559 |           | 712,952   | 567,233   |
| 2035                       | 179,559 | 11,362    | 892,511   | 746,792   |
| 2036                       | 179,559 | 296,983   | 1,060,708 | 914,989   |
| 2037                       | 179,559 |           | 943,284   | 797,565   |
| 2038                       | 179,559 |           | 1,122,843 | 977,124   |
| 2039                       | 179,559 |           | 1,302,402 | 1,156,683 |
| 2040                       | 179,559 |           | 1,481,961 | 1,336,242 |
| 2041                       | 179,559 |           | 1,661,520 | 1,515,801 |
| 2042                       | 179,559 |           | 1,841,079 | 1,695,360 |
| 2043                       | 179,559 |           | 2,020,638 | 1,874,919 |
| 2044                       | 179,559 |           | 2,200,197 | 2,054,478 |
| 2045                       | 179,559 |           | 2,379,756 | 2,234,037 |



## F. CITY COLLECTION SYSTEM OM&R

The collection system is the network of pipes that convey wastewater to the treatment plant for treatment and discharge. The townships each own and maintain that portion of the collection system within their boundaries and to their connecting points within the city. The city portion of the wastewater collection system consists of approximately thirty-three (33) miles of sanitary sewer pipe varying in diameter from 4" to 30". Most of the collection system is designed to flow by gravity to the treatment plant. Inspection and maintenance of the system is essential to prevent backups and overflow which might otherwise cause a nuisance or environmental problem. Major cleaning and inspection involving specialized equipment is done under contract. The costs associated with the collection system are labor to inspect and clean the system, make repairs as needed, expand the system to meet customer needs, and replace equipment at the end of its' useful life.

Since the Townships utilize a portion of the City's collection system, a proportionate share of the cost of the City's collection system O&M will be allocated to the Townships. This Cost sharing is governed by inter-jurisdictional agreements.

Table F1

| CITY COLLECTION SYSTEM O&M                  | DESCRIPTION        | 2021*                                      | 2022*        | 2023*        | 2024*        |             |
|---------------------------------------------|--------------------|--------------------------------------------|--------------|--------------|--------------|-------------|
|                                             | 590-561 COL SYS    | 702.000 Salaries                           | 7,637.45     | 7,979.23     | 8,420.87     | 8,901.73    |
|                                             |                    | 702.999 Close Out Pay                      |              |              |              |             |
|                                             |                    | 710.000 DPW Overhead                       | 158,499.96   | 170,400.00   | 147,699.96   | 137,199.96  |
|                                             |                    | 715.000 Employer FICA                      | 560.40       | 585.76       | 619.79       | 656.10      |
|                                             |                    | 717.000 Employer Health Insurance Premiums | 2,205.11     | 2,322.75     | 2,381.29     | 2,382.29    |
|                                             |                    | 720.000 DB MERS Retirement                 | 4,204.11     | 2,063.88     | 2,753.52     | 2,388.72    |
|                                             |                    | 732.000 Supplies                           | 2,477.42     | 1,632.77     | 2,360.11     | 1,296.69    |
|                                             |                    | 782.000 Maintenance Materials              | 1,963.08     | 2,252.25     | 2,825.49     | 930.00      |
|                                             |                    | 801.000 Contracted Services                | 2,998.23     | 8,692.31     | 6,030.70     | 6,236.63    |
|                                             |                    | 801.600 Vactor & TV Video                  | 1,633.25     | 9,082.00     | 4,411.10     | 6,227.26    |
|                                             |                    | 802.000 Engineering                        | 4,767.77     |              | 2,063.11     | 11,079.49   |
|                                             |                    | 802.999 Engineering Contra                 |              |              |              | (11,079.49) |
|                                             |                    | 943.000 Equipment Rental                   | 38,891.74    | 42,250.37    | 39,446.93    | 47,853.09   |
|                                             |                    | 967.062 Ives Drain Project                 |              |              |              |             |
|                                             |                    | 967.068 Sewer Televising & Lining          | 17,591.00    |              |              | 4,486.13    |
|                                             |                    | 967.128 Bellevue Storm Sewer               | 3,199.00     |              |              |             |
|                                             |                    | 967.205 DNR Grant Match                    |              |              |              |             |
|                                             |                    | 967.999 Project Costs Contra               |              |              |              |             |
|                                             |                    | 977.107 Wireless Meter Reading             | 44,323.17    | 17,609.37    | 42,097.81    | 89,337.72   |
|                                             |                    | 977.999 Equipment/Contra                   | (44,323.17)  | (17,585.33)  | (42,097.81)  | (89,337.72) |
|                                             |                    | 989.000-P0028 Hemlock Park Impr            |              |              |              | 35,398.41   |
|                                             |                    | 989.000-P0030 Marion Ave Sewer             |              |              |              | 137,550.31  |
|                                             |                    | 989.000-P0034 Rust Ave Extension Sewer     |              |              |              | 14,549.10   |
|                                             | 989.999 CIP/Contra |                                            |              |              | (183,326.20) |             |
| TOTAL CITY COLLECTION SYSTEM O&M COST       |                    | \$246,628.52                               | \$247,285.72 | \$219,012.87 | \$222,730.22 |             |
| ANNUAL EFF TOTAL FROM PLANT RECORDS (MG)    |                    | 433,650                                    | 394,690      | 408,480      | 382,700      |             |
| City Collection System O&M Unit Cost        |                    | \$0.57                                     | \$0.63       | \$0.54       | \$0.58       |             |
| CITY COST SHARING PERCENTAGE                |                    | 84.0%                                      | 83.0%        | 82.3%        | 80.0%        |             |
| CITY COL SYS O&M COST SHARE                 |                    | \$207,107.65                               | \$205,243.74 | \$180,273.84 | \$178,275.18 |             |
| ADDITION OF CITY SHARE IN BR TWP COLLECTION |                    | \$3,412.48                                 | \$3,484.52   | \$4,383.77   | \$3,321.08   |             |
| CITY COL SYS O&M COST SHARE                 |                    | \$210,520.13                               | \$208,728.26 | \$184,657.61 | \$181,596.26 |             |
| TOTAL CITY USE (K gal/Yr.)                  |                    | 233,461                                    | 226,005      | 226,239      | 230,028      |             |
| City Collection System O&M Unit Cost        |                    | \$0.90                                     | \$0.92       | \$0.82       | \$0.79       |             |
| BR TWP COST SHARING PERCENTAGE              |                    | 13.3%                                      | 14.3%        | 15.1%        | 17.3%        |             |
| BR TWP CITY COL SYS O&M COST SHARE          |                    | \$32,807.62                                | \$35,268.55  | \$33,021.89  | \$38,481.42  |             |
| LESS: CITY PORTION OF TWP SYSTEM            |                    | (\$3,412.48)                               | (\$3,484.52) | \$4,383.77   | \$3,321.08   |             |
| BR TWP CITY COL SYS O&M COST SHARE          |                    | \$29,395.14                                | \$31,784.03  | \$28,638.13  | \$35,160.34  |             |
| TOTAL BR TWP USE (K gal/Yr.)                |                    | 53,024                                     | 54,196       | 59,188       | 64,780       |             |
| BR Twp City Collection System O&M Unit Cost |                    | \$0.55                                     | \$0.59       | \$0.48       | \$0.54       |             |
| GREEN TWP COST SHARING PERCENTAGE           |                    | 2.7%                                       | 2.7%         | 2.6%         | 2.7%         |             |
| GN TWP CITY COL SYS O&M COST SHARE          |                    | \$6,713.26                                 | \$6,773.43   | \$5,717.13   | \$5,973.62   |             |
| LESS: TWP PORTION OF WIRELESS COSTS         |                    | \$0.00                                     | \$0.00       | \$0.00       | \$0.00       |             |



|                                                          |                     |                     |                     |                     |
|----------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|
| GN TWP CITY COL SYS O&M COST SHARE                       | \$6,713.26          | \$6,773.43          | \$5,717.13          | \$5,973.62          |
| GN TWP METERED USE (K gal/yr.)                           | 11,804              | 10,811              | 10,663              | 10,264              |
| GN Twp City Collection System O&M Unit Cost              | \$0.57              | \$0.63              | \$0.54              | \$0.58              |
| <b>SUM OF SHARED CITY COLLECTION SYSTEM O&amp;M COST</b> | <b>\$246,628.52</b> | <b>\$247,285.72</b> | <b>\$219,012.87</b> | <b>\$222,730.22</b> |

The collection system equipment consists of all sanitary sewers, manholes, and service equipment. City collection system replacement cost will be borne exclusively by city customers. No part of the city's collection system replacement cost will be allocated to the townships, and no part of any township costs will be allocated to the city.

\*The numbers depicted for salaries and benefits in the 2021-2024 columns on the previous page reflect the reclassification of a portion of an employee's salary and benefits from customer services.

Table F2

| 2024              | ASSET                                               | ACQ'D | LIFE | REM | VALUE               | ANN VALUE          |
|-------------------|-----------------------------------------------------|-------|------|-----|---------------------|--------------------|
| CITY COL SYS REPL | 5 Years or Less                                     | 2012  | 5    | 0   | 0                   | 0                  |
|                   | 20 Years                                            | 2012  | 20   | 11  | 487,193.60          | 24,359.68          |
|                   | Mitchell Creek Sanitary Repl                        | 2020  | 20   | 19  | 256,277.63          | 12,813.88          |
|                   | <b>TOTAL CITY COL SYS REPLACEMENT COST</b>          |       |      |     | <b>\$743,471.23</b> | <b>\$37,173.56</b> |
|                   | <b>ANNUAL EFF TOTAL FROM PLANT RECORDS (MG)</b>     |       |      |     |                     | <b>382,700</b>     |
|                   | <b>Collection System Replacement Unit Cost</b>      |       |      |     |                     | <b>\$0.10</b>      |
|                   | <b>TOTAL CITY USE (K gal/Yr.)</b>                   |       |      |     |                     | <b>230,028</b>     |
|                   | <b>City Collection System Replacement Unit Cost</b> |       |      |     |                     | <b>\$0.16</b>      |

Table F3

|                          | DESCRIPTION       | ASSET VALUE         | SPLIT         | 2022 BAL          | 2023 BAL          |
|--------------------------|-------------------|---------------------|---------------|-------------------|-------------------|
| BALANCE<br>598 REPL FUND |                   |                     |               | 6/30/22           | 6/30/23           |
|                          | WWTP              | 4,859,611.39        | 78.0%         | 676,618.66        | 530,900.25        |
|                          | Collection System | 743,471.23          | 11.9%         | 103,515.79        | 81,222.35         |
|                          | Pumping           | 625,799.44          | 10.0%         | 87,131.98         | 68,367.01         |
|                          | <b>TOTAL</b>      | <b>6,228,882.06</b> | <b>100.0%</b> | <b>867,266.43</b> | <b>680,489.61</b> |

Table F4 depicts projected cash flow in the city's sewer collection system replacement reserve account.

Table F4

| CITY COLL SYS REPLACEMENT CASH FLOW |        |         |          |          |
|-------------------------------------|--------|---------|----------|----------|
| YR                                  | CONT   | EXP     | 2022 BAL | 2023 BAL |
|                                     |        |         | 103,516  | 81,222   |
| 2023                                | 45,256 |         | 148,772  | 126,478  |
| 2024                                | 29,896 |         | 178,668  | 156,374  |
| 2025                                | 37,174 |         | 215,842  | 193,548  |
| 2026                                | 37,174 |         | 253,016  | 230,722  |
| 2027                                | 37,174 |         | 290,190  | 267,896  |
| 2028                                | 37,174 |         | 327,364  | 305,070  |
| 2029                                | 37,174 |         | 364,538  | 342,244  |
| 2030                                | 37,174 |         | 401,712  | 379,418  |
| 2031                                | 37,174 |         | 438,886  | 416,592  |
| 2032                                | 37,174 |         | 476,060  | 453,766  |
| 2033                                | 37,174 |         | 513,234  | 490,940  |
| 2034                                | 37,174 | 487,194 | 63,214   | 40,920   |
| 2035                                | 37,174 |         | 100,388  | 78,094   |
| 2036                                | 37,174 |         | 137,562  | 115,268  |
| 2037                                | 37,174 |         | 174,736  | 152,442  |
| 2038                                | 37,174 |         | 211,910  | 189,616  |
| 2039                                | 37,174 |         | 249,084  | 226,790  |
| 2040                                | 37,174 |         | 286,258  | 263,964  |
| 2041                                | 37,174 |         | 323,432  | 301,138  |
| 2042                                | 37,174 | 256,278 | 104,328  | 82,034   |
| 2043                                | 37,174 |         | 141,502  | 119,208  |
| 2044                                | 37,174 |         | 178,676  | 156,382  |
| 2045                                | 37,174 |         | 215,850  | 193,556  |



## G. BIG RAPIDS TOWNSHIP COLLECTION SYSTEM OM&R

The Big Rapids Charter Township wastewater collection system consists of approximately 4 miles of sanitary sewer and nine (9) pumping stations. The township maintains a replacement reserve account for funding equipment replacement. Big Rapids Charter Township operates on a fiscal year of January 1 to December 31. Costs were summarized on the City's fiscal year (July 1, 2023 to June 30, 2024). The annual cost for Big Rapids Township to operate and maintain its collection system is summarized in the following tables. Big Rapids Townships' rate structure includes a base rate and a volume rate. The base rate covers costs not tied to volume and the volume rate covers costs that vary with use. This methodology helps to stabilize rates and ensures a revenue base when use volume changes.

Table G1

| BR TWP COLLECTION SYSTEM O&M           | DESCRIPTION                             |                                           | 2021         | 2022         | 2023         | 2024         |
|----------------------------------------|-----------------------------------------|-------------------------------------------|--------------|--------------|--------------|--------------|
|                                        | 590-000<br>COL<br>SYS                   | 702.000 Salary & Wages                    | 8,000.04     | 8,000.04     | 8,000.04     | 8,641.79     |
|                                        |                                         | 702.200 Salary & Wages-Snowplowing        |              | 259.94       | 333.30       |              |
|                                        |                                         | 710.000 Twp Share Medicare Withholding    | 116.04       | 119.81       | 120.88       | 125.34       |
|                                        |                                         | 714.000 Health Insurance                  | 1,306.40     | 1,838.11     | 2,334.38     | 2,051.80     |
|                                        |                                         | 715.000 Twp Share Soc Sec Withholding     | 495.96       | 512.07       | 516.63       | 535.77       |
|                                        |                                         | 715.015 Retirement                        | 1,320.00     | 1,356.39     | 1,366.66     | 1,425.90     |
|                                        |                                         | 720.000 Medical Reimbursement             | 305.00       | 149.43       | 312.40       | 270.70       |
|                                        |                                         | 727.000 Office Supplies                   | 1,234.65     | 509.08       | 400.00       | 440.00       |
|                                        |                                         | 740.000 Operating Supplies                | 494.01       | 727.00       | 385.22       | 1,124.90     |
|                                        |                                         | 775.000 Repair & Maintenance Supplies     | 516.89       | 534.40       |              |              |
|                                        |                                         | 801.000 Professional Services             | 14,322.03    | 20,189.40    | 13,513.91    | 14,205.82    |
|                                        |                                         | 801.050 Professional Services Miss Dig    | 2,100.00     | 420.00       | 560.00       | 630.00       |
|                                        |                                         | 805.000 Contract Services                 | 28,970.28    | 20,525.70    | 23,214.37    | 28,122.00    |
|                                        |                                         | 805.100 Extra Contract Services from City | 19,929.32    | 1,538.83     | 7,034.15     | 8,057.61     |
|                                        |                                         | 920.000 Public Utilities                  | 21,876.94    | 24,592.42    | 24,998.38    | 26,515.31    |
|                                        |                                         | 930.000 Repair & Maintenance              | 36,609.60    | 16,321.72    | 13,067.79    | 14,862.47    |
|                                        |                                         | 933.000 Snowplowing                       | 400.00       |              | 600.00       |              |
|                                        |                                         | 935.000 Bldg. & Grounds Maintenance       |              |              |              |              |
|                                        |                                         | 958.000 Membership & Dues                 | 340.00       |              |              |              |
|                                        |                                         | 965.000 Insurance & Bonds                 | 2,786.34     | 2,513.00     | 2,687.00     | 3,170.00     |
|                                        | 968.000 Depreciation                    | 80,009.00                                 | 85,295.27    | 91,368.68    | 93,059.39    |              |
|                                        | 975.000 Capital Outlay                  | 41,834.57                                 |              | 9,076.00     | 74,386.81    |              |
|                                        | TOTAL BR TWP COLLECTION SYSTEM O&M COST |                                           | \$182,958.07 | \$100,107.34 | \$108,521.11 | \$184,566.22 |
|                                        | TOTAL BR TWP USE (K gal/Yr.)            |                                           | 53,024       | 54,196       | 59,188       | 64,780       |
| BR Twp Collection System O&M Unit Cost |                                         | \$3.45                                    | \$1.85       | \$1.83       | \$2.85       |              |

Replacement cost for the Big Rapids Township system includes pumps and controls for the township's pumping stations. Cost estimates for replacement value were furnished by the township's engineer.

Table G2

| 2024                            | ASSET                             | ACQ'D | LIFE | REM | VALUE      | ANN VALUE |
|---------------------------------|-----------------------------------|-------|------|-----|------------|-----------|
| BR TWP COL SYS REPLACEMENT COST | Sheridan LS Pump 1                | 1993  | 20   | (9) | 5,000.00   | 0.00      |
|                                 | Sheridan LS Pump 2                | 1993  | 20   | (9) | 5,000.00   | 0.00      |
|                                 | Perry St LS Redo                  | 2002  | 25   | 5   | 147,654.58 | 5,906.18  |
|                                 | Truck (shared 30%)                | 2006  | 15   | (1) | 7,000.00   | 0.00      |
|                                 | Plow (shared 30%)                 | 2006  | 15   | (1) | 1,500.00   | 0.00      |
|                                 | Sewer Televising                  | 2015  | 5    | (2) | 5,000.00   | 0.00      |
|                                 | Hills of Mitchell Creek 1         | 2006  | 20   | 4   | 5,000.00   | 250.00    |
|                                 | Hills of Mitchell Creek 2         | 2006  | 20   | 4   | 5,000.00   | 250.00    |
|                                 | Industrial Park LS Pump 1         | 2006  | 20   | 4   | 8,000.00   | 400.00    |
|                                 | Industrial Park LS Pump 2         | 2006  | 22   | 6   | 8,000.00   | 363.64    |
|                                 | University Parke Suites LS Pump 1 | 2006  | 20   | 4   | 12,296.50  | 614.83    |
|                                 | University Parke Suites LS Pump 2 | 2006  | 20   | 4   | 12,296.50  | 614.83    |
|                                 | University Parke Suites Lines     | 2006  | 20   | 4   | 106,275.83 | 5,313.79  |
|                                 | Menards LS Pump 1                 | 2006  | 20   | 4   | 8,000.00   | 400.00    |
|                                 | Menards LS Pump 2                 | 2006  | 20   | 4   | 8,000.00   | 400.00    |
|                                 | Portable Generator                | 2006  | 25   | 9   | 30,000.00  | 1,200.00  |
|                                 | Portable Pump                     | 2006  | 25   | 9   | 30,000.00  | 1,200.00  |
|                                 | Venlo Place LS Pump 1             | 2007  | 22   | 7   | 5,000.00   | 227.27    |



|                                                       |      |    |     |                       |                    |
|-------------------------------------------------------|------|----|-----|-----------------------|--------------------|
| Venlo Place LS Pump 2                                 | 2007 | 22 | 7   | 5,000.00              | 227.27             |
| Industrial Park LS Pump 1                             | 2009 | 22 | 9   | 9,887.06              | 449.41             |
| Gilbert Lines                                         | 2010 | 40 | 28  | 72,055.00             | 1,801.38           |
| Sewer Televising                                      | 2011 | 10 | (2) | 5,000.00              | 0.00               |
| Gilbert LS Pump 1                                     | 2011 | 12 | (2) | 35,398.00             | 0.00               |
| Gilbert LS Pump 2                                     | 2011 | 12 | (2) | 36,980.00             | 0.00               |
| Perry Street GenSet                                   | 2012 | 25 | 15  | 32,000.00             | 1,280.00           |
| Gilbert GenSet                                        | 2012 | 25 | 15  | 32,000.00             | 1,280.00           |
| Perry Street LS Pump 1&2                              | 2014 | 12 | 4   | 33,778.73             | 2,814.89           |
| Perry Street LS Pump 1                                | 2015 | 12 | 5   | 9,520.39              | 793.37             |
| Meters and Endpoints                                  | 2016 | 20 | 14  | 45,370.85             | 2,268.54           |
| Sewer Televising and Lining                           | 2016 | 10 | 4   | 125,686.50            | 12,568.65          |
| Generator 14 Mile LS                                  | 2016 | 25 | 19  | 25,430.00             | 1,017.20           |
| Generator Menards                                     | 2016 | 25 | 19  | 25,430.00             | 1,017.20           |
| Generator Venlo                                       | 2016 | 25 | 19  | 25,430.00             | 1,017.20           |
| Menards LS Pump 1                                     | 2017 | 22 | 17  | 7,665.00              | 348.41             |
| Sheridan LS Pump 1                                    | 2017 | 22 | 17  | 5,316.00              | 241.64             |
| Venlo LS Controls                                     | 2018 | 15 | 11  | 10,766.00             | 717.73             |
| Mission Controls on all LS                            | 2019 | 15 | 12  | 34,082.83             | 2,272.19           |
| Engineering- Sheridan LS                              | 2021 | 15 | 14  | 36,711.00             | 2,447.40           |
| <b>TOTAL BR TWP COL SYS REPLACEMENT COST</b>          |      |    |     | <b>\$1,022,530.77</b> | <b>\$49,703.01</b> |
| <b>TOTAL BR TWP USE (K gal/Yr.)</b>                   |      |    |     |                       | <b>64,780</b>      |
| <b>BR Twp Collection System Replacement Unit Cost</b> |      |    |     |                       | <b>\$.77</b>       |

Table G3

| BR TWP COL SYS REPLACEMENT CASH FLOW |                  |                |                |                |
|--------------------------------------|------------------|----------------|----------------|----------------|
| YR                                   | CONT             | EXP            | 2022 BAL       | 2023 BAL       |
|                                      |                  |                | <b>200,000</b> | <b>200,000</b> |
| 2023                                 | 49,703           | 72,378         | 177,325        | 177,325        |
| 2024                                 | 49,703           | 0              | 227,028        | 227,028        |
| 2025                                 | 49,703           | 0              | 276,731        | 276,731        |
| 2026                                 | 49,703           | 324,334        | 2,100          | 2,100          |
| 2027                                 | 49,703           | 157,175        | (105,372)      | (105,372)      |
| 2028                                 | 49,703           | 8,000          | (63,669)       | (63,669)       |
| 2029                                 | 49,703           | 10,000         | (23,966)       | (23,966)       |
| 2030                                 | 49,703           | 0              | 25,737         | 25,737         |
| 2031                                 | 49,703           | 69,887         | 5,553          | 5,553          |
| 2032                                 | 49,703           | 0              | 55,256         | 55,256         |
| 2033                                 | 49,703           | 10,766         | 94,193         | 94,193         |
| 2034                                 | 49,703           | 34,083         | 109,813        | 109,813        |
| 2035                                 | 49,703           | 0              | 159,516        | 159,516        |
| 2036                                 | 49,703           | 82,082         | 127,137        | 127,137        |
| 2037                                 | 49,703           | 64,000         | 112,840        | 112,840        |
| 2038                                 | 49,703           | 0              | 162,543        | 162,543        |
| 2039                                 | 49,703           | 12,981         | 199,265        | 199,265        |
| 2040                                 | 49,703           | 0              | 248,968        | 248,968        |
| 2041                                 | 49,703           | 76,290         | 222,381        | 222,381        |
| 2042                                 | 49,703           | 0              | 272,084        | 272,084        |
| 2043                                 | 49,703           | 0              | 321,787        | 321,787        |
| 2044                                 | 49,703           | 0              | 371,490        | 371,490        |
| 2045                                 | 49,703           | 0              | 421,193        | 421,193        |
|                                      | <b>1,143,169</b> | <b>921,976</b> |                |                |



Big Rapids Township utilizes a Capital Reserve Fund to buffer the impact of large projects on the user rates. This is currently based on 27.5% of annual operating expenses. The following tables show funding and cash flow in the capital reserve fund.

Table G4

| BR<br>TWP<br>COL<br>SYS<br>CAP<br>RES | DESCRIPTION                       |           | 2021     | 2022     | 2023     | 2024     |
|---------------------------------------|-----------------------------------|-----------|----------|----------|----------|----------|
|                                       | CAP                               | O&M COST  | 182,958  | 100,107  | 108,521  | 184,566  |
|                                       |                                   | % RESERVE | 27.5%    | 27.5%    | 27.5%    | 27.5%    |
|                                       | TOTAL BR TWP CAPITAL RESERVE COST |           | \$50,313 | \$27,530 | \$29,843 | \$50,756 |
|                                       | TOTAL BR TWP USE (K gal/Yr.)      |           | 53,024   | 54,196   | 59,188   | 64,780   |
|                                       | BR TWP Capital Reserve Unit Cost  |           | \$0.95   | \$0.51   | \$0.50   | \$0.78   |

Table G5

| BR TWP CAPITAL RESERVE CASH FLOW |        |     |          |          |
|----------------------------------|--------|-----|----------|----------|
| YR                               | CONT   | EXP | 2022 BAL | 2023 BAL |
|                                  |        |     | 66,516   | 66,516   |
| 2023                             | 29,843 |     | 96,359   | 96,359   |
| 2024                             | 29,843 |     | 126,202  | 126,202  |
| 2025                             | 29,843 |     | 156,045  | 156,045  |
| 2026                             | 29,843 |     | 185,888  | 185,888  |
| 2027                             | 29,843 |     | 215,731  | 215,731  |
| 2028                             | 29,843 |     | 245,574  | 245,574  |
| 2029                             | 29,843 |     | 275,417  | 275,417  |
| 2030                             | 29,843 |     | 305,260  | 305,260  |
| 2031                             | 29,843 |     | 335,103  | 335,103  |
| 2032                             | 29,843 |     | 364,946  | 364,946  |
| 2033                             | 29,843 |     | 394,789  | 394,789  |
| 2034                             | 29,843 |     | 424,632  | 424,632  |
| 2035                             | 29,843 |     | 454,475  | 454,475  |
| 2036                             | 29,843 |     | 484,318  | 484,318  |
| 2037                             | 29,843 |     | 514,161  | 514,161  |
| 2038                             | 29,843 |     | 544,004  | 544,004  |
| 2039                             | 29,843 |     | 573,847  | 573,847  |
| 2040                             | 29,843 |     | 603,690  | 603,690  |
| 2041                             | 29,843 |     | 633,533  | 633,533  |
| 2042                             | 29,843 |     | 663,376  | 663,376  |
| 2043                             | 29,843 |     | 693,219  | 693,219  |
| 2044                             | 29,843 |     | 723,062  | 723,062  |
| 2045                             | 29,843 |     | 752,905  | 752,905  |

Big Rapids Township has also incurred bonded indebtedness for major infrastructure projects. Most recently, the oldest pumping station was replaced, and emergency power supply is being added to the major pumping stations. The current bond debt for Big Rapids Township is shown below.

Table G6

| BR<br>TWP<br>COL<br>SYS<br>BOND<br>DEBT | DESCRIPTION                              |                   | 2022   | 2023   | 2024   |
|-----------------------------------------|------------------------------------------|-------------------|--------|--------|--------|
|                                         | 590-000                                  | 992.000 Principal | 0.00   | 0.00   | 0.00   |
|                                         |                                          | 996.000 Interest  | 0.00   | 0.00   | 0.00   |
|                                         | TOTAL BR TWP COLLECTION SYSTEM BOND COST |                   | \$0.00 | \$0.00 | \$0.00 |
|                                         | TOTAL BR TWP USE (K gal/Yr.)             |                   | 54,196 | 59,188 | 64,780 |
|                                         | BR TWP Col Sys Bond Debt Unit Cost       |                   | \$0.00 | \$0.00 | \$0.00 |



## H. GREEN TOWNSHIP COLLECTION SYSTEM OM&R

The Green Charter Township wastewater collection system consists of approximately 4 miles of sanitary sewer, a single pumping station and a master meter at the point of entrance to the city collection system. The Township maintains a replacement reserve account for funding equipment replacement. Green Charter Township operates on a fiscal year of April 1 to March 31. The annual cost for Green Township to operate and maintain its collection system is summarized in the following tables.

Table H1

| DESCRIPTION                             |                               | 2021        | 2022        | 2023        | 2024        |
|-----------------------------------------|-------------------------------|-------------|-------------|-------------|-------------|
| COL<br>SYS                              | 702 Salaries – Adm            | 18,797.76   | 19,173.84   | 19,422.40   | 10,699.05   |
|                                         | 703 Salaries – Non Adm        | 4,406.16    | 4,494.36    | 4,557.24    |             |
|                                         | 704 Salary – Non Adm Hourly   | 325.00      | 153.25      | 501.81      | 624.16      |
|                                         | 000 Comp FICA                 | 1,458.96    | 1,476.99    | 1,519.38    | 701.97      |
|                                         | 000 Comp Mcare                | 341.33      | 345.44      | 355.38      | 164.17      |
|                                         | 726 Office Supplies           | 786.43      | 736.90      | 767.55      |             |
|                                         | 727 Postage                   | 44.00       | 66.00       | 11.60       |             |
|                                         | 740 Operating Supplies        | 44.98       |             | 252.47      |             |
|                                         | 800 Professional Fees         | 408.00      | 1,900.00    | 8,318.00    | 15,286.50   |
|                                         | 808 Audit                     | 1,600.00    | 1,650.00    | 1,700.00    |             |
|                                         | 818 Contracted Services       | 5,980.00    | 547.00      |             | 10,000.00   |
|                                         | 818 IPP                       |             |             |             | 1,565.68    |
|                                         | 820 Computer Support Software | 494.00      | 501.00      | 518.00      |             |
|                                         | 850 Telephone                 | 479.88      | 519.88      | 489.88      | 479.89      |
|                                         | 874 Pension                   | 3,759.84    | 3,834.72    | 3,920.36    | 1,942.83    |
|                                         | 910 Insurance & Bonds         | 2,067.00    | 2,134.00    | 2,001.00    |             |
|                                         | 920 Electric                  | 1,058.10    | 1,038.13    | 1,060.48    | 1,745.81    |
|                                         | 921 Gas                       | 454.89      | 460.13      | 468.83      | 766.26      |
|                                         | 930 Repairs                   | 1,567.00    |             | 1,164.00    | 6,634.29    |
|                                         | 941 Miscellaneous             |             |             |             |             |
| TOTAL GN TWP COLLECTION SYSTEM O&M COST |                               | \$44,073.33 | \$39,031.64 | \$47,028.38 | \$50,610.61 |
| GN TWP METERED USE (K gal/yr.)          |                               | 11,804      | 10,811      | 10,663      | 10,264      |
| GN Twp Collection System O&M Unit Cost  |                               | \$3.73      | \$3.61      | \$4.41      | \$4.93      |

The equipment replacement cost for the Green Township collection system includes pumps, controls and related equipment for the township's sewage pumping station and master meter. Cost estimates for replacement value were furnished by Green Township.

Table H2

| 2024                                           | ASSET                                 | ACQ'D | LIFE | REM  | VALUE       | ANN VALUE  |
|------------------------------------------------|---------------------------------------|-------|------|------|-------------|------------|
| GN TWP COL SYS REPL COST                       | Dehumidifier                          | 1992  | 20   | (10) | 0.00        | 0.00       |
|                                                | Exhaust Fan                           | 1992  | 20   | (10) | 100.00      | 0.00       |
|                                                | Sump Pump                             | 1992  | 20   | (10) | 0.00        | 0.00       |
|                                                | Air Compressor 1                      | 1992  | 20   | (10) | 0.00        | 0.00       |
|                                                | Air Compressor 2                      | 1992  | 20   | (10) | 0.00        | 0.00       |
|                                                | Auto Dialer                           | 1999  | 20   | (3)  | 400.00      | 0.00       |
|                                                | Magnetic Flowmeter                    | 2002  | 20   | 0    | 11,000.00   | 0.00       |
|                                                | LS Pump 1                             | 2004  | 20   | 2    | 4,600.00    | 230.00     |
|                                                | LS Pump 2                             | 2004  | 20   | 2    | 4,600.00    | 230.00     |
|                                                | GenSet                                | 2013  | 30   | 21   | 17,297.00   | 576.57     |
|                                                | TOTAL GN TWP COL SYS REPLACEMENT COST |       |      |      | \$37,997.00 | \$1,036.57 |
|                                                | GN TWP METERED USE (K gal/yr.)        |       |      |      |             | 10,264     |
| GN Twp Collection System Replacement Unit Cost |                                       |       |      |      | \$0.10      |            |

Table H3



| GN TWP COL SYS REPLACEMENT CASH FLOW |       |        |          |          |
|--------------------------------------|-------|--------|----------|----------|
| YR                                   | CONT  | EXP    | 2022 BAL | 2023 BAL |
|                                      |       |        | 481,668  | 480,672  |
| 2023                                 | 1,037 | 0      | 482,705  | 481,709  |
| 2024                                 | 1,037 | 9,200  | 474,542  | 473,546  |
| 2025                                 | 1,037 | 0      | 475,579  | 474,583  |
| 2026                                 | 1,037 | 0      | 476,616  | 475,620  |
| 2027                                 | 1,037 | 0      | 477,653  | 476,657  |
| 2028                                 | 1,037 | 0      | 478,690  | 477,694  |
| 2029                                 | 1,037 | 0      | 479,727  | 478,731  |
| 2030                                 | 1,037 | 0      | 480,764  | 479,768  |
| 2031                                 | 1,037 | 0      | 481,801  | 480,805  |
| 2032                                 | 1,037 | 0      | 482,838  | 481,842  |
| 2033                                 | 1,037 | 0      | 483,875  | 482,879  |
| 2034                                 | 1,037 | 0      | 484,912  | 483,916  |
| 2035                                 | 1,037 | 0      | 485,949  | 484,953  |
| 2036                                 | 1,037 | 0      | 486,986  | 485,990  |
| 2037                                 | 1,037 | 0      | 488,023  | 487,027  |
| 2038                                 | 1,037 | 0      | 489,060  | 488,064  |
| 2039                                 | 1,037 | 0      | 490,097  | 489,101  |
| 2040                                 | 1,037 | 0      | 491,134  | 490,138  |
| 2041                                 | 1,037 | 0      | 492,171  | 491,175  |
| 2042                                 | 1,037 | 0      | 493,208  | 492,212  |
| 2043                                 | 1,037 | 17,297 | 476,948  | 475,952  |
| 2044                                 | 1,037 | 0      | 477,985  | 476,989  |
| 2045                                 | 1,037 | 0      | 479,022  | 478,026  |

## I. CITY PUMPING STATIONS OM&R

Where hydraulics, sewer depth, or terrain interference dictate; pumping stations are installed to elevate the wastewater and continue its' gravity flow to the treatment plant. The city owns, operates, and maintains five (5) wastewater pumping stations (N State St, Waterloo, Co Garage, Novak Ln, Tioga Park). Cost of operating, maintaining, and replacing equipment for the stations is borne solely by city users. The City and Big Rapids Township have agreed for the Township to assume responsibility for the N State St pumping station once it has been upgraded by the City.

Table I1

| PUMP STATIONS O&M | DESCRIPTION                              |                                           | 2021        | 2022        | 2023       | 2024        |
|-------------------|------------------------------------------|-------------------------------------------|-------------|-------------|------------|-------------|
|                   | 590-563<br>PUMPIN<br>G                   | 710.000 DPW Services                      | 800.04      | 900.00      | 800.04     | 699.96      |
|                   |                                          | 801.000 Contracted Services               | 0.00        | 2.48        | 5,000.00   | 5,000.00    |
|                   |                                          | 920.000 Utilities                         | 8,762.46    | 8,879.67    | 2,863.80   | 4,521.13    |
|                   |                                          | 930.000 Operational Repairs & Maintenance | 2,409.99    | 2,042.33    | 0.00       | 1,074.43    |
|                   | TOTAL PUMPING STATIONS O&M COST          |                                           | \$11,972.49 | \$11,824.48 | \$8,663.84 | \$11,295.52 |
|                   | ANNUAL EFF TOTAL FROM PLANT RECORDS (MG) |                                           | 433,650     | 394,690     | 408,480    | 382,700     |
|                   | Pumping Stations O&M Unit Cost           |                                           | \$0.03      | \$0.03      | \$0.02     | \$0.03      |
|                   | TOTAL CITY USE (K gal/Yr.)               |                                           | 233,461     | 226,005     | 226,239    | 230,028     |
|                   | City Pumping Stations O&M Unit Cost      |                                           | \$0.05      | \$0.05      | \$0.04     | \$0.05      |

Table I2

| 2024                                        | ASSET                                    | ACQ'D | LIFE | REM | VALUE        | ANN<br>VALUE |
|---------------------------------------------|------------------------------------------|-------|------|-----|--------------|--------------|
| CITY PUMP STA REPL                          | 10 Years                                 | 2006  | 10   | (6) | 15,200.00    | 0.00         |
|                                             | 20 Years                                 | 1997  | 20   | (5) | 66,870.00    | 0.00         |
|                                             | 15 Years                                 | 2004  | 15   | (3) | 23,722.00    | 0.00         |
|                                             | Supervisor's Park Lift Station           | 2020  | 20   | 18  | 235,677.66   | 11,783.88    |
|                                             | Supervisor's Park Lift Station           | 2021  | 20   | 19  | 79,930.71    | 3,996.54     |
|                                             | Waterloo Lift Station                    | 2021  | 20   | 19  | 26,589.79    | 1,329.49     |
|                                             | Waterloo Lift Station                    | 2022  | 20   | 20  | 177,809.28   | 8,890.46     |
|                                             | TOTAL CITY PUMP STA REPLACEMENT COST     |       |      |     | \$625,799.44 | \$26,000.37  |
|                                             | ANNUAL EFF TOTAL FROM PLANT RECORDS (MG) |       |      |     |              | 382,700      |
|                                             | Pumping Stations Replacement Unit Cost   |       |      |     |              | \$0.07       |
| TOTAL CITY USE (K gal/Yr.)                  |                                          |       |      |     | 230,028      |              |
| City Pumping Stations Replacement Unit Cost |                                          |       |      |     | \$0.11       |              |

Table I3

| BALANCE<br>598 REPL FUND | DESCRIPTION       | ASSET VALUE  | SPLIT  | 2022 BAL   | 2023 BAL   |
|--------------------------|-------------------|--------------|--------|------------|------------|
|                          |                   |              |        | 6/30/22    | 6/30/23    |
|                          | WWTP              | 4,859,611.39 | 78.0%  | 676,618.66 | 530,900.25 |
|                          | Collection System | 743,471.23   | 11.9%  | 103,515.79 | 81,222.35  |
|                          | Pumping           | 625,799.44   | 10.0%  | 87,131.98  | 68,367.01  |
|                          | TOTAL             | 6,228,882.06 | 100.0% | 867,266.43 | 680,489.61 |

Table I4

| CITY PUMP STA REPLACEMENT CASH FLOW |        |     |          |          |
|-------------------------------------|--------|-----|----------|----------|
| YR                                  | CONT   | EXP | 2022 BAL | 2023 BAL |
|                                     |        |     | 87,132   | 68,367   |
| 2023                                | 24,984 |     | 112,116  | 93,351   |
| 2024                                | 26,000 |     | 138,116  | 119,351  |
| 2025                                | 26,000 |     | 164,116  | 145,351  |
| 2026                                | 26,000 |     | 190,116  | 171,351  |
| 2027                                | 26,000 |     | 216,116  | 197,351  |
| 2028                                | 26,000 |     | 242,116  | 223,351  |
| 2029                                | 26,000 |     | 268,116  | 249,351  |
| 2030                                | 26,000 |     | 294,116  | 275,351  |
| 2031                                | 26,000 |     | 320,116  | 301,351  |
| 2032                                | 26,000 |     | 346,116  | 327,351  |
| 2033                                | 26,000 |     | 372,116  | 353,351  |
| 2034                                | 26,000 |     | 398,116  | 379,351  |
| 2035                                | 26,000 |     | 424,116  | 405,351  |
| 2036                                | 26,000 |     | 450,116  | 431,351  |
| 2037                                | 26,000 |     | 476,116  | 457,351  |
| 2038                                | 26,000 |     | 502,116  | 483,351  |
| 2039                                | 26,000 |     | 528,116  | 509,351  |



## J. CITY CUSTOMER SERVICES O&M

Customer Services is a portion of water meter reading costs for city users only. The customer services portion of the city's budget includes only the cost to read meters within the city. It does not include any billing costs. None of the costs for customer services are allocated to the Townships.

Table J

| CUSTOMER SERVICE O&M | DESCRIPTION                              |                                        | 2021        | 2022        | 2023        | 2024        |
|----------------------|------------------------------------------|----------------------------------------|-------------|-------------|-------------|-------------|
|                      | 590-562<br>CUST<br>SERV                  | 702.000 Labor                          | 23,796.68   | 24,504.67   | 25,467.13   | 27,007.41   |
|                      |                                          | 715.000 Employer FICA                  | 1,796.94    | 1,849.56    | 1,923.52    | 2,047.17    |
|                      |                                          | 717.000 Employer Health Ins Premiums   | 2,138.93    | 2,280.85    | 903.46      | 1,194.89    |
|                      |                                          | 720.000 DB MERS Retirement             | 4,764.54    | 3,636.48    | 4,691.16    | 4,180.20    |
|                      |                                          | 720.300 DC MERS Employer Contributions | 2,358.71    | 2,423.61    | 2,521.63    | 2,674.03    |
|                      |                                          | 732.000 Supplies                       | 5,117.57    | 4,030.66    | 3,981.91    | 5,124.32    |
|                      | TOTAL CUSTOMER SERVICES O&M COST         |                                        | \$39,973.37 | \$38,725.83 | \$39,488.81 | \$42,228.02 |
|                      | ANNUAL EFF TOTAL FROM PLANT RECORDS (MG) |                                        | 433,650     | 394,690     | 408,480     | 382,700     |
|                      | Customer Services O&M Unit Cost          |                                        | \$0.09      | \$0.10      | \$0.10      | \$0.11      |
|                      | TOTAL CITY USE (K gal/Yr.)               |                                        | 233,461     | 226,005     | 226,239     | 230,028     |
|                      | City Customer Services O&M Unit Cost     |                                        | \$0.17      | \$0.17      | \$0.17      | \$0.18      |



## K. INDUSTRIAL PRETREATMENT PROGRAM O&M

An Industrial Pretreatment Program (IPP) is required by the treatment plants' NPDES permit. The purpose of the program is to educate system users on proper use of the system, enforce local sewer use and pretreatment ordinances, and protect the treatment plant from pollutant interference, pass through, or impact on the biosolids land application program. The NPDES permit also requires implementation of a Mercury Pollutant Minimization Program (PMP). IPP program costs are entirely borne by city non-residential users as an added charge. The legal requirement to implement the program throughout the service area is met by separate agreements with the townships.

The goal of the IPP program is to provide judicious enforcement of the city's wastewater ordinances, assist the superintendent in protecting WWTP's ability to successfully remove pollutants from the waste stream prior to return to the river and its solids by-products prior to land application.

**Table K**

|                             | DESCRIPTION                                      | 2021               | 2022                | 2023                | 2024                | 2024-2025           |
|-----------------------------|--------------------------------------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
|                             |                                                  | FY 19-20           | FY 20-21            | FY 21-22            | FY22-23             | Budgeted*           |
| INDUSTRIAL PRETREATMENT O&M | 590-565 IND PRTRMNT                              |                    |                     |                     |                     |                     |
|                             | 702.000 Labor                                    | 55,958.83          | 47,131.52           | 53,413.84           | 49,585.43           | 56,000.00           |
|                             | 706.100 Comp Buy Out                             | 581.97             |                     |                     |                     |                     |
|                             | 709.000 Overtime Pay                             | 3,493.27           | 4,218.72            | 2,475.46            | 2,812.71            | 3,000.00            |
|                             | 710.000 DPW Services                             | 800.04             | 900.00              | 800.04              | 699.96              | 0.00                |
|                             | 715.000 Employer FICA                            | 4,436.57           | 4,106.77            | 4,100.29            | 4,550.40            | 4,500.00            |
|                             | 716.300 Health Ins Reimbursement                 | 1,425.00           | 3,420.00            | 3,420.00            | 3,420.00            |                     |
|                             | 717.000 Employer Health Ins Premiums             | 2,145.84           |                     |                     | 147.60              | 21,100.00           |
|                             | 718.000 Insurance-Unemployment Comp              | 51.30              | 112.24              | 142.50              | 146.60              | 100.00              |
|                             | 720.000 DB MERS Retirement                       | 17,443.78          | 21,720.48           | 27,126.84           | 26,176.32           | 13,600.00           |
|                             | 720.600 DC AFSCME Retirement                     | 4,511.39           | 5,012.80            | 4,972.99            | 5,559.59            | 5,500.00            |
|                             | 732.000 Supplies                                 | 2,616.22           | 9,489.69            | 4,444.94            | 4,112.43            | 5,000.00            |
|                             | 801.000 Contracted Services                      | 3,162.00           | 6,405.00            | 4,714.00            | 8,922.86            | 8,000.00            |
|                             | 822.200 Ltd/Life/Add                             | 226.15             | 281.46              | 262.36              | 284.41              | 300.00              |
|                             | 860.000 Travel                                   |                    |                     |                     |                     | 400.00              |
|                             | <b>TOTAL IND PRETREATMENT O&amp;M COST</b>       | <b>\$96,852.36</b> | <b>\$102,798.68</b> | <b>\$105,873.26</b> | <b>\$106,418.31</b> | <b>\$117,500.00</b> |
|                             | <b>ANNUAL EFF TOTAL FROM PLANT RECORDS (MG)</b>  | <b>433,650</b>     | <b>394,690</b>      | <b>408,480</b>      | <b>382,700</b>      | <b>382,700</b>      |
|                             | <b>Industrial Pretreatment O&amp;M Unit Cost</b> | <b>\$0.22</b>      | <b>\$0.26</b>       | <b>\$0.26</b>       | <b>\$0.28</b>       | <b>\$0.31</b>       |
|                             | <b>NDU FLOW</b>                                  | <b>165,380</b>     | <b>156,745</b>      | <b>141,120</b>      | <b>162,045</b>      | <b>162,045</b>      |
|                             | <b>Pretreatment Cost / K gal/NDU</b>             | <b>\$0.59</b>      | <b>\$0.66</b>       | <b>\$0.75</b>       | <b>\$0.66</b>       | <b>\$0.73</b>       |

\* The numbers depicted in the far-right column are budgeted figures for the 2024-2025 fiscal year. The City of Big Rapids plans to allocate additional resources to the IPP, and the committee agreed to use budgeted figures to prevent residential users from paying the resulting increased costs.

## L. BONDING COSTS

The wastewater treatment plant was originally constructed in 1955. Throughout history various methods were used to fund major upgrades, modernization, and renovations. In the mid 1970's the United States Environmental Protection Agency (USEPA) funded a large portion of costs to upgrade all of the treatment plants in the nation. Subsequently, these facilities were expected to become self-funded utility enterprises. Today, the city uses bonds to finance major improvements to the wastewater infrastructure. Most recently, improvements were completed in 2010 using a MDEQ (Michigan Department of Environmental Quality) low interest SRF (State Revolving Fund) loan. The repayment of this debt becomes part of the cost of operation and must be recovered through the utilities' rate structure. Table L shows the current cost of bonded indebtedness. These costs are shared with the township partners on a flow proportioned basis like other costs of operation.

Table L

|                | DESCRIPTION  |                                                 | 2021                | 2022                | 2023                | 2024                |
|----------------|--------------|-------------------------------------------------|---------------------|---------------------|---------------------|---------------------|
|                | 09 ACT<br>94 |                                                 |                     |                     |                     |                     |
| WWTP BOND DEBT |              | Principal (4/1/09-10/1/30)                      | 390,000.00          | 400,000.00          | 410,000.00          | 420,000.00          |
|                |              | Interest (2.5%)                                 | 116,750.00          | 106,875.00          | 101,875.00          | 86,375.00           |
|                |              | <b>TOTAL WWTP BOND DEBT COST</b>                | <b>\$506,750.00</b> | <b>\$506,875.00</b> | <b>\$511,875.00</b> | <b>\$506,375.00</b> |
|                |              | <b>ANNUAL EFF TOTAL FROM PLANT RECORDS (MG)</b> | <b>433,650</b>      | <b>394,690</b>      | <b>408,480</b>      | <b>382,700</b>      |
|                |              | <b>WWTP Bond Debt Unit Cost</b>                 | <b>\$1.17</b>       | <b>\$1.28</b>       | <b>\$1.25</b>       | <b>\$1.32</b>       |
|                |              | <b>CITY COST SHARING PERCENTAGE</b>             | <b>84.0%</b>        | <b>83.0%</b>        | <b>82.3%</b>        | <b>80.0%</b>        |
|                |              | <b>CITY WWTP BOND COST SHARE</b>                | <b>\$425,546.09</b> | <b>\$420,699.27</b> | <b>\$421,334.38</b> | <b>\$405,306.90</b> |
|                |              | <b>TOTAL CITY USE (K gal/Yr.)</b>               | <b>233,461</b>      | <b>226,005</b>      | <b>226,239</b>      | <b>230,028</b>      |
|                |              | <b>City WWTP Bond Debt Unit Cost</b>            | <b>\$1.82</b>       | <b>\$1.86</b>       | <b>\$1.86</b>       | <b>\$1.76</b>       |
|                |              | <b>BR TWP COST SHARING PERCENTAGE</b>           | <b>13.3%</b>        | <b>14.3%</b>        | <b>15.1%</b>        | <b>17.3%</b>        |
|                |              | <b>BR TWP WWTP BOND COST SHARE</b>              | <b>\$67,410.12</b>  | <b>\$72,291.86</b>  | <b>\$77,178.59</b>  | <b>\$87,487.14</b>  |
|                |              | <b>TOTAL BR TWP USE (K gal/Yr.)</b>             | <b>53,024</b>       | <b>54,196</b>       | <b>59,188</b>       | <b>64,780</b>       |
|                |              | <b>BR Twp WWTP Bond Debt Unit Cost</b>          | <b>\$1.27</b>       | <b>\$1.33</b>       | <b>\$1.30</b>       | <b>\$1.35</b>       |
|                |              | <b>GREEN TWP COST SHARING PERCENTAGE</b>        | <b>2.7%</b>         | <b>2.7%</b>         | <b>2.6%</b>         | <b>2.7%</b>         |
|                |              | <b>GN TWP WWTP BOND COST SHARE</b>              | <b>\$13,793.79</b>  | <b>\$13,883.87</b>  | <b>\$13,362.03</b>  | <b>\$13,580.96</b>  |
|                |              | <b>GN TWP METERED USE (K gal/yr.)</b>           | <b>11,804</b>       | <b>10,811</b>       | <b>10,663</b>       | <b>10,264</b>       |
|                |              | <b>GN Twp WWTP Bond Debt Unit Cost</b>          | <b>\$1.17</b>       | <b>\$1.28</b>       | <b>\$1.25</b>       | <b>\$1.32</b>       |
|                |              | <b>SUM OF SHARED WWTP BOND DEBT COST</b>        | <b>\$506,750.00</b> | <b>\$506,875.00</b> | <b>\$511,875.00</b> | <b>\$506,375.00</b> |



## M. ADMINISTRATION

The wastewater systems' administrative cost is a portion of the base salaries (no fringes) of the offices of the city manager, treasurer, engineer, and public works director. The sewer system charges an administrative cost for these individuals in direct proportion to the cost of the sewage system compared to the entire city's budget. That is, the wastewater system accounts for approximately 10% of the city's total budget. (The user charge committee recommends that this figure be updated to 12% and that amount has been used in this report as the basis of cost sharing). Therefore, 12% of the annual cost for the City Manager, Treasurer, Attorney and Public Works Director is charged to the wastewater system as administrative cost.

The administrative costs charged to the wastewater system include costs that are attributable to both the city alone and the city combined with the townships. Administrative costs for the treatment plant and city collection system are proportionately shared by the city and the townships. The administrative costs appear in the city budget as a general fund transfer.

Table M

| CITY ADMINISTRATION | DESCRIPTION                              |                               | 2021         | 2022         | 2023         | 2024         |
|---------------------|------------------------------------------|-------------------------------|--------------|--------------|--------------|--------------|
|                     | ADMIN                                    | 101.172 City Manager          | 111,773.00   | 114,567.00   | 117,431.00   | 124,477.00   |
|                     |                                          | 101.253 City Treasurer        | 79,987.00    | 81,987.00    | 84,037.00    | 89,079.00    |
|                     |                                          | 101.441 Public Works Director | 76,880.00    | 80,379.00    | 82,388.00    | 89,079.00    |
|                     |                                          | 101.441 City Engineer         | 97,135.00    | 101,516.00   | 104,054.00   | 112,504.00   |
|                     | TOTAL CITY ADMINISTRATION COST           |                               | \$365,775.00 | \$378,449.00 | \$387,910.00 | \$415,139.00 |
|                     | ANNUAL EFF TOTAL FROM PLANT RECORDS (MG) |                               | 433,650      | 394,690      | 408,480      | 382,700      |
|                     | ADMIN PERCENTAGE AGREED BY PARTIES       |                               | 12.0%        | 12.0%        | 12.0%        | 12.0%        |
|                     | ADMIN COST AGREED BY PARTIES             |                               | \$43,893.00  | \$45,413.88  | \$46,549.20  | \$49,816.68  |
|                     | ANNUAL EFF TOTAL FROM PLANT RECORDS (MG) |                               | 433,650      | 394,690      | 408,480      | 382,700      |
|                     | Administration Unit Cost                 |                               | \$0.10       | \$0.12       | \$0.11       | \$0.13       |
|                     | CITY COST SHARING PERCENTAGE             |                               | 84.0%        | 83.0%        | 82.3%        | 80.0%        |
|                     | CITY ADMIN COST SHARE                    |                               | \$36,859.39  | \$37,692.89  | \$38,315.56  | \$39,873.70  |
|                     | TOTAL CITY USE (K gal/Yr.)               |                               | 233,461      | 226,005      | 226,239      | 230,028      |
|                     | City Administration Unit Cost            |                               | \$0.16       | \$0.17       | \$0.17       | \$0.17       |
|                     | BR TWP COST SHARING PERCENTAGE           |                               | 13.3%        | 14.3%        | 15.1%        | 17.3%        |
|                     | BR TWP CITY ADMIN COST SHARE             |                               | \$5,838.84   | \$6,477.05   | \$7,018.51   | \$8,606.90   |
|                     | TOTAL BR TWP USE (K gal/Yr.)             |                               | 53,024       | 54,196       | 59,188       | 64,780       |
|                     | BR Twp City Administration Unit Cost     |                               | \$0.11       | \$0.12       | \$0.12       | \$0.13       |
|                     | GREEN TWP COST SHARING PERCENTAGE        |                               | 2.7%         | 2.7%         | 2.6%         | 2.7%         |
|                     | GN TWP CITY ADMIN COST SHARE             |                               | \$1,194.77   | \$1,243.94   | \$1,215.12   | \$1,336.08   |
|                     | GN TWP METERED USE (K gal/yr.)           |                               | 11,804       | 10,811       | 10,663       | 10,264       |
|                     | GN Twp City Administration Unit Cost     |                               | \$0.10       | \$0.12       | \$0.11       | \$0.13       |
|                     | SUM OF SHARED CITY ADMINISTRATION COST   |                               | \$43,893.00  | \$45,413.88  | \$46,549.20  | \$49,816.68  |



## N. COST SUMMARY

Certain costs are exclusive to each political entity sharing use of the wastewater system. Other costs are shared based upon the inter-jurisdictional agreements. Exclusive costs and shared costs are shown in the following table. These costs determine the revenue requirement to be recovered through rates. Each entity utilizes a somewhat different rate structure to raise the required revenue.

Table N1

| COST SUMMARY | DESCRIPTION             |                                           | 2021           | 2022           | 2023           | 2024           |
|--------------|-------------------------|-------------------------------------------|----------------|----------------|----------------|----------------|
|              | TOTAL SYSTEM-WIDE COSTS | TOTAL WWTP O&M COST                       | \$986,763.18   | \$1,072,933.42 | \$1,138,245.69 | \$1,177,705.33 |
|              |                         | TOTAL PUMPING STATIONS O&M COST           | \$11,972.49    | \$11,824.48    | \$8,663.84     | \$11,295.52    |
|              |                         | TOTAL CUSTOMER SERVICES O&M COST          | \$39,973.37    | \$38,725.83    | \$39,488.81    | \$42,228.02    |
|              |                         | TOTAL CITY COLLECTION SYSTEM O&M COST     | \$246,628.52   | \$247,285.72   | \$219,012.87   | \$222,730.22   |
|              |                         | TOTAL BR TWP COLLECTION SYSTEM O&M COST   | \$182,958.07   | \$100,107.34   | \$108,521.11   | \$184,566.22   |
|              |                         | TOTAL GN TWP COLLECTION SYSTEM O&M COST   | \$44,073.33    | \$39,031.64    | \$47,028.38    | \$50,610.61    |
|              |                         | ADMIN COST AGREED BY PARTIES              | \$43,893.00    | \$45,413.88    | \$46,549.20    | \$49,816.68    |
|              |                         | TOTAL WWTP BOND DEBT COST                 | \$506,750.00   | \$506,875.00   | \$511,875.00   | \$506,375.00   |
|              |                         | TOTAL BR TWP COLLECTION SYSTEM BOND COST  | \$0.00         | \$0.00         | \$0.00         | \$0.00         |
|              |                         | TOTAL BR TWP CAPITAL RESERVE COST         | \$50,313.47    | \$27,529.52    | \$29,843.31    | \$50,755.71    |
|              |                         | AGREED WWTP REPLACEMENT COST CONTRIBUTION | \$167,881.65   | \$179,558.77   | \$256,219.01   | \$335,642.32   |
|              |                         | TOTAL CITY COL SYS REPLACEMENT COST       | \$37,173.56    | \$37,173.56    | 37,173.56      | 37,173.56      |
|              |                         | TOTAL CITY PUMP STA REPLACEMENT COST      | \$17,109.91    | \$26,000.37    | \$26,000.37    | \$26,000.37    |
|              |                         | TOTAL BR TWP COL SYS REPLACEMENT COST     | \$56,801.18    | \$55,734.51    | \$55,734.51    | \$49,703.01    |
|              |                         | TOTAL GN TWP COL SYS REPLACEMENT COST     | \$1,586.57     | \$1,586.57     | \$1,586.57     | \$1,036.57     |
|              | TOTAL SYSTEM-WIDE COSTS |                                           | \$2,393,878.30 | \$2,389,780.61 | \$2,525,942.23 | \$2,745,639.14 |
|              | TOTAL BILLED FLOW       |                                           | 298,289        | 291,012        | 296,090        | 305,072        |
|              | System Wide Unit Cost   |                                           | \$8.03         | \$8.21         | \$8.53         | \$9.00         |

Table N2

| DESCRIPTION                      | 2021   | 2022   | 2023   | 2024   |
|----------------------------------|--------|--------|--------|--------|
| WWTP O&M Unit Cost               | \$2.48 | \$2.82 | \$2.90 | \$3.14 |
| City Collection System Unit Cost | \$0.55 | \$0.59 | \$0.48 | \$0.54 |
| WWTP Replacement Unit Cost       | \$0.42 | \$0.47 | \$0.65 | \$0.90 |
| WWTP Bond Debt Unit Cost         | \$1.27 | \$1.33 | \$1.30 | \$1.35 |
| Administration Unit Cost         | \$0.11 | \$0.12 | \$0.12 | \$0.13 |
| BR TWP UNIT COST                 | \$4.83 | \$5.33 | \$5.46 | \$6.06 |

Table N3

| DESCRIPTION                          | 2021   | 2022   | 2023   | 2024   |
|--------------------------------------|--------|--------|--------|--------|
| WWTP O&M Unit Cost                   | \$2.28 | \$2.72 | \$2.79 | \$3.08 |
| City Collection System O&M Unit Cost | \$0.57 | \$0.63 | \$0.54 | \$0.58 |
| WWTP Replacement Unit Cost           | \$0.39 | \$0.45 | \$0.63 | \$0.88 |
| WWTP Bond Debt Unit Cost             | \$1.17 | \$1.28 | \$1.25 | \$1.32 |
| Administration Unit Cost             | \$0.10 | \$0.12 | \$0.11 | \$0.13 |
| GN TWP UNIT COST                     | \$4.51 | \$5.20 | \$5.32 | \$5.99 |



## O. RATE STRUCTURE

The City and Big Rapids Township each collect a portion of their rate revenue in a “base” or “customer per month” fixed charge. The city’s rate structure consists of a base rate which varies by meter size, and a volumetric rate which varies with usage. Big Rapids Township’s rate structure consists of a base rate which varies by the REU factor, and a volumetric rate which varies with usage. Green Township does not have a base charge and collects all its revenue through usage charges which vary by the REU factor.

Table O1

|                          |                                     | DESCRIPTION                            | 2021           | 2022           | 2023           | 2024           |
|--------------------------|-------------------------------------|----------------------------------------|----------------|----------------|----------------|----------------|
| CITY REVENUE REQUIREMENT | CITY COST DETAILS                   | TOTAL PUMPING STATIONS O&M COST        | 11,972.49      | 11,824.48      | 8,663.84       | 11,295.52      |
|                          |                                     | TOTAL CUSTOMER SERVICES O&M COST       | 39,973.37      | 38,725.83      | 39,488.81      | 42,228.02      |
|                          |                                     | TOTAL CITY COL SYS REPLACEMENT COST    | 37,173.56      | 37,173.56      | 37,173.56      | 37,173.56      |
|                          |                                     | TOTAL CITY PUMP STA REPLACEMENT COST   | 17,109.91      | 26,000.37      | 26,000.37      | 26,000.37      |
|                          |                                     | CITY WWTP O&M COST SHARE               | 828,639.78     | 890,519.97     | 936,912.63     | 942,645.47     |
|                          |                                     | CITY COL SYS O&M COST SHARE            | 210,520.13     | 208,728.26     | 184,657.61     | 181,596.26     |
|                          |                                     | CITY ADMIN COST SHARE                  | 36,859.39      | 37,692.90      | 38,315.57      | 39,873.70      |
|                          |                                     | CITY WWTP BOND COST SHARE              | 425,546.09     | 420,699.27     | 421,334.48     | 405,306.90     |
|                          |                                     | CITY WWTP REPLACEMENT COST SHARE       | 140,977.21     | 149,031.30     | 210,898.90     | 268,651.00     |
|                          | TOTAL CITY EXCLUSIVE COSTS          |                                        | 106,229.33     | 113,724.24     | 111,326.58     | 116,697.47     |
|                          | TOTAL CITY SHARED COSTS             |                                        | 1,642,542.59   | 1,706,671.70   | 1,792,119.19   | 1,838,073.33   |
|                          | CITY TOTAL REVENUE REQUIREMENT (\$) |                                        | \$1,748,771.92 | \$1,820,395.94 | \$1,903,445.77 | \$1,954,770.81 |
|                          | TOTAL CITY USE (K gal/Yr.)          |                                        | 233,461        | 233,461        | 226,005        | 228,448        |
|                          | City Unit Cost                      |                                        | \$7.49         | \$7.80         | \$8.42         | \$8.56         |
|                          | CITY REV REQ BY CLS (\$)            | RESIDENTIAL REVENUE REQUIREMENT (\$)   | \$509,970.15   | \$557,866.52   | \$560,494.23   | \$577,717.42   |
|                          |                                     | COMMERCIAL REVENUE REQUIREMENT (\$)    | \$501,138.69   | \$552,800.13   | \$574,031.44   | \$579,952.39   |
|                          |                                     | INDUSTRIAL REVENUE REQUIREMENT (\$)    | \$193,003.79   | \$166,659.20   | \$172,921.21   | \$186,207.50   |
|                          |                                     | INSTITUTIONAL REVENUE REQUIREMENT (\$) | \$544,659.30   | \$543,070.09   | \$595,998.90   | \$610,893.49   |
|                          | CITY TOTAL REVENUE REQUIREMENT (\$) |                                        | \$1,748,771.92 | \$1,820,395.94 | \$1,903,445.77 | \$1,954,770.81 |
|                          | TOTAL REV REQ BY METER SIZE         | UNMETERED REVENUE REQUIREMENT          | \$24,343.03    | \$25,340.04    | \$25,629.88    | \$26,262.03    |
|                          |                                     | 5/8" METER REVENUE REQUIREMENT         | \$1,473,145.99 | \$1,533,481.26 | \$1,602,721.84 | \$1,652,757.40 |
|                          |                                     | 3/4" METER REVENUE REQUIREMENT         | \$49,471.32    | \$51,497.51    | \$52,968.42    | \$49,897.87    |
|                          |                                     | 1" METER REVENUE REQUIREMENT           | \$100,513.16   | \$104,629.85   | \$109,354.16   | \$112,926.75   |
|                          |                                     | 1 1/2" METER REVENUE REQUIREMENT       | \$31,410.36    | \$32,696.83    | \$35,881.83    | \$36,766.85    |
|                          |                                     | 2" METER REVENUE REQUIREMENT           | \$50,256.58    | \$52,314.93    | \$55,531.41    | \$54,274.87    |
|                          |                                     | 3" METER REVENUE REQUIREMENT           | \$16,490.44    | \$17,165.84    | \$17,940.92    | \$18,383.42    |
|                          |                                     | 4" METER REVENUE REQUIREMENT           | \$2,355.78     | \$2,452.26     | \$2,562.99     | \$2,626.20     |
|                          |                                     | 6" METER REVENUE REQUIREMENT           | \$785.26       | \$817.42       | \$854.33       | \$875.40       |
|                          | TOTAL REVENUE REQUIREMENT (\$)      |                                        | \$1,748,771.92 | \$1,820,395.94 | \$1,903,445.77 | \$1,954,770.81 |



Fixed rates are designed to recover the portion of costs that are not related to volume. For example, bond principle and interest on debt must be paid irrespective of flow volume treated. Chemical costs, however, will vary depending on how much volume is treated.

Table O2

|                                   |                               | DESCRIPTION                               | 2021                  | 2022                  | 2023                  | 2024                  |
|-----------------------------------|-------------------------------|-------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| FIXED - VARIABLE REVENUE REQ (\$) | CITY<br>FIXED<br>COST (\$)    | TOTAL PUMPING STATIONS O&M COST           | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | TOTAL CUSTOMER SERVICES O&M COST          | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | TOTAL CITY COL SYS REPLACEMENT COST       | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | TOTAL CITY PUMP STA REPLACEMENT COST      | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | CITY WWTP O&M COST SHARE                  | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | CITY COL SYS O&M COST SHARE               | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | CITY ADMIN COST SHARE                     | 36,859.39             | 37,692.90             | \$38,315.56           | \$39,873.70           |
|                                   |                               | CITY WWTP BOND COST SHARE                 | 425,546.09            | 420,699.27            | \$421,334.38          | \$405,306.90          |
|                                   |                               | CITY WWTP REPLACEMENT COST SHARE          | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | <b>TOTAL FIXED COST (\$)</b>              | <b>\$462,405.47</b>   | <b>\$458,392.17</b>   | <b>\$459,649.94</b>   | <b>\$445,180.60</b>   |
|                                   |                               | <b>FIXED PORTION OF TOTAL COST (%)</b>    | <b>26.4%</b>          | <b>25.2%</b>          | <b>24.1%</b>          | <b>24.3%</b>          |
|                                   | CITY<br>VARIABLE<br>COST (\$) | TOTAL PUMPING STATIONS O&M COST           | \$11,972.49           | \$11,824.48           | \$8,663.84            | \$11,295.52           |
|                                   |                               | TOTAL CUSTOMER SERVICES O&M COST          | \$39,973.37           | \$38,725.83           | \$39,488.81           | \$42,228.02           |
|                                   |                               | TOTAL CITY COL SYS REPLACEMENT COST       | \$37,173.56           | \$37,173.56           | \$37,173.56           | \$37,173.56           |
|                                   |                               | TOTAL CITY PUMP STA REPLACEMENT COST      | \$17,109.91           | \$26,000.37           | \$26,000.37           | \$26,000.37           |
|                                   |                               | CITY WWTP O&M COST SHARE                  | \$828,639.78          | \$890,519.97          | \$936,912.41          | \$942,645.47          |
|                                   |                               | CITY COL SYS O&M COST SHARE               | \$210,520.13          | \$208,728.26          | \$184,657.57          | \$181,596.26          |
|                                   |                               | CITY ADMIN COST SHARE                     | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | CITY WWTP BOND COST SHARE                 | \$0.00                | \$0.00                | \$0.00                | \$0.00                |
|                                   |                               | CITY WWTP REPLACEMENT COST SHARE          | \$140,977.21          | \$149,031.30          | \$210,898.90          | \$268,651.00          |
|                                   |                               | <b>TOTAL VARIABLE COST (\$)</b>           | <b>\$1,286,366.45</b> | <b>\$1,362,003.77</b> | <b>\$1,443,795.46</b> | <b>\$1,509,590.20</b> |
|                                   |                               | <b>VARIABLE PORTION OF TOTAL COST (%)</b> | <b>73.6%</b>          | <b>74.8%</b>          | <b>75.9%</b>          | <b>77.2%</b>          |
|                                   | <b>TOTAL COST (\$)</b>        |                                           | <b>\$1,748,771.92</b> | <b>\$1,820,395.94</b> | <b>\$1,903,445.77</b> | <b>\$1,954,770.81</b> |
|                                   | <b>TOTAL COST (%)</b>         |                                           | <b>100.0%</b>         | <b>100.0%</b>         | <b>100.0%</b>         | <b>100.0%</b>         |

The equitable base revenue and appropriate rates by meter size are shown in the following table.

Table O3

|                           |                                         | DESCRIPTION                      | 2021                | 2022                | 2023                | 2024                |
|---------------------------|-----------------------------------------|----------------------------------|---------------------|---------------------|---------------------|---------------------|
| FIXED REVENUE REQUIREMENT | FIXED<br>REVENUE<br>BY<br>METER<br>SIZE | FLAT RATE - BASE PORTION (\$)    | \$5,894.43          | \$5,843.27          | \$5,857.36          | \$4,209.23          |
|                           |                                         | 5/8" METERS (\$)                 | \$150,250.43        | \$148,946.38        | \$156,511.41        | \$148,761.19        |
|                           |                                         | 3/4" METERS (\$)                 | \$6,064.76          | \$6,012.13          | \$5,837.02          | \$6,446.36          |
|                           |                                         | 1" METERS (\$)                   | \$49,991.71         | \$49,557.82         | \$51,243.73         | \$57,722.96         |
|                           |                                         | 1 1/2" METERS (\$)               | \$26,596.22         | \$26,365.39         | \$30,344.36         | \$31,136.61         |
|                           |                                         | 2" METERS (\$)                   | \$101,506.54        | \$100,625.54        | \$101,661.74        | \$103,812.08        |
|                           |                                         | 3" METERS (\$)                   | \$91,872.64         | \$91,075.26         | \$85,098.44         | \$79,803.88         |
|                           |                                         | 4" METERS (\$)                   | \$22,648.78         | \$22,452.21         | \$17,511.05         | \$8,457.43          |
|                           |                                         | 6" METERS (\$)                   | \$7,579.96          | \$7,514.18          | \$5,584.83          | \$4,830.87          |
|                           |                                         | <b>TOTAL FIXED REVENUE (\$)</b>  | <b>\$462,405.47</b> | <b>\$458,392.17</b> | <b>\$459,649.94</b> | <b>\$445,180.60</b> |
|                           | BASE<br>RATE BY<br>METER<br>SIZE        | FLAT RATE - BASE PORTION (\$/Mo) | \$15.85             | \$15.71             | \$16.27             | \$11.69             |
|                           |                                         | 5/8" METERS (\$/Mo)              | \$6.67              | \$6.62              | \$6.95              | \$6.57              |
|                           |                                         | 3/4" METERS (\$/Mo)              | \$8.02              | \$7.95              | \$7.85              | \$9.42              |
|                           |                                         | 1" METERS (\$/Mo)                | \$32.55             | \$32.26             | \$33.36             | \$37.29             |
|                           |                                         | 1 1/2" METERS (\$/Mo)            | \$55.41             | \$54.93             | \$60.21             | \$61.78             |
|                           |                                         | 2" METERS (\$/Mo)                | \$132.17            | \$131.02            | \$130.34            | \$139.53            |
|                           |                                         | 3" METERS (\$/Mo)                | \$364.57            | \$361.41            | \$337.69            | \$316.68            |
|                           |                                         | 4" METERS (\$/Mo)                | \$629.13            | \$623.67            | \$486.42            | \$234.93            |
|                           |                                         | 6" METERS (\$/Mo)                | \$631.66            | \$626.18            | \$465.40            | \$402.57            |



The remaining portion of revenue is collected through volumetric rates.

Table O4

| CITY VOLUME REVENUE REQUIREMENT | DESCRIPTION                                |                                           | 2021           | 2022           | 2023           | 2024           |
|---------------------------------|--------------------------------------------|-------------------------------------------|----------------|----------------|----------------|----------------|
|                                 | REVENUE REQUIREMENT                        | TOTAL REVENUE REQUIREMENT (\$)            | \$1,748,771.92 | \$1,820,395.94 | \$1,903,445.77 | \$1,954,770.81 |
|                                 |                                            | CITY TOTAL BASE REVENUE (\$)              | \$697,534.68   | \$758,544.60   | \$781,028.40   | \$727,004.40   |
|                                 |                                            | VOLUME REVENUE REQUIREMENT (\$)           | \$1,051,237.24 | \$1,061,851.34 | \$1,122,417.37 | \$1,227,766.41 |
|                                 |                                            | TOTAL CITY USE (K gal/Yr.)                | 233,461        | 233,461        | 226,005        | 228,448        |
|                                 |                                            | <b>VOLUME RATE REQUIREMENT (\$/K gal)</b> | <b>\$4.50</b>  | <b>\$4.55</b>  | <b>\$4.97</b>  | <b>\$5.37</b>  |
|                                 | RESIDENTIAL VOL REVENUE                    | FLAT RATE – VOLUME PORTION (\$)           | \$11,671.36    | \$11,789.20    | \$12,395.98    | \$10,060.84    |
|                                 |                                            | 5/8" METERS (\$)                          | \$284,646.95   | \$287,520.97   | \$320,001.07   | \$340,053.16   |
|                                 |                                            | 3/4" METERS (\$)                          | \$8,510.37     | \$8,596.29     | \$9,664.50     | \$9,835.12     |
|                                 | COMMERCIAL VOL REVENUE                     | FLAT RATE – VOLUME PORTION (\$)           | \$864.55       | \$873.27       | \$953.54       | \$773.91       |
|                                 |                                            | 5/8" METERS (\$)                          | \$42,560.83    | \$42,990.56    | \$45,958.50    | \$51,072.73    |
|                                 |                                            | 3/4" METERS (\$)                          | \$4,498.34     | \$4,543.75     | \$3,938.31     | \$7,169.42     |
|                                 |                                            | 1" METERS (\$)                            | \$50,737.99    | \$51,250.28    | \$56,571.56    | \$68,007.41    |
|                                 |                                            | 1 1/2" METERS (\$)                        | \$41,241.50    | \$41,657.91    | \$47,021.29    | \$57,290.89    |
|                                 |                                            | 2" METERS (\$)                            | \$138,516.33   | \$139,914.89   | \$167,842.38   | \$157,544.58   |
|                                 |                                            | 3" METERS (\$)                            | \$6,461.57     | \$6,526.81     | \$5,875.18     | \$7,749.86     |
|                                 |                                            | 6" METERS (\$)                            | \$17,232.36    | \$17,406.36    | \$13,637.57    | \$13,323.09    |
|                                 | INDUSTRIAL VOL REVENUE                     | 5/8" METERS (\$)                          | \$2,143.35     | \$2,164.99     | \$3,178.46     | \$4,713.33     |
|                                 |                                            | 1" METERS (\$)                            | \$7,420.68     | \$7,495.60     | \$8,055.40     | \$19,627.24    |
|                                 |                                            | 1 1/2" METERS (\$)                        | \$3,237.54     | \$3,270.23     | \$2,964.90     | \$3,982.42     |
|                                 |                                            | 2" METERS (\$)                            | \$0.00         | \$0.00         | \$0.00         | \$0.00         |
|                                 |                                            | 3" METERS (\$)                            | \$103,218.57   | \$104,260.75   | \$88,559.75    | \$89,440.44    |
|                                 | INSTITUTIONAL VOL REVENUE                  | FLAT RATE – VOLUME PORTION (\$)           | \$864.55       | \$873.27       | \$953.54       | \$773.91       |
|                                 |                                            | 5/8" METERS (\$)                          | \$12,229.71    | \$12,353.19    | \$13,046.57    | \$14,430.21    |
|                                 |                                            | 3/4" METERS (\$)                          | \$778.99       | \$786.86       | \$650.59       | \$773.91       |
|                                 |                                            | 1" METERS (\$)                            | \$55,492.98    | \$56,053.28    | \$60,504.90    | \$71,559.87    |
|                                 |                                            | 1 1/2" METERS (\$)                        | \$15,985.08    | \$16,146.48    | \$24,111.57    | \$24,598.54    |
|                                 |                                            | 2" METERS (\$)                            | \$92,249.66    | \$93,181.08    | \$80,405.02    | \$128,759.40   |
|                                 |                                            | 3" METERS (\$)                            | \$99,184.03    | \$100,185.47   | \$113,366.61   | \$122,901.33   |
|                                 |                                            | 4" METERS (\$)                            | \$51,489.96    | \$52,009.84    | \$42,760.18    | \$23,324.81    |
|                                 |                                            | 6" METERS (\$)                            | \$0.00         | \$0.00         | \$0.00         | \$0.00         |
|                                 | CITY TOTAL VOLUME REVENUE REQUIREMENT (\$) |                                           | \$1,051,237.24 | \$1,061,851.34 | \$1,122,417.37 | \$1,227,766.41 |



Table O5

| CITY TOTAL RATE REVENUE REQUIREMENT | DESCRIPTION                              |                                         | 2021           | 2022           | 2023           | 2024           |
|-------------------------------------|------------------------------------------|-----------------------------------------|----------------|----------------|----------------|----------------|
|                                     | TOTAL RATE REVENUE BY CLASS (\$)         | RESIDENTIAL TOTAL RATE REVENUE (\$)     | \$465,583.08   | \$492,166.46   | \$541,141.54   | \$559,269.11   |
|                                     |                                          | COMMERCIAL TOTAL RATE REVENUE (\$)      | \$525,760.34   | \$544,196.03   | \$585,095.93   | \$584,807.09   |
|                                     |                                          | INDUSTRIAL TOTAL RATE REVENUE (\$)      | \$140,845.26   | \$143,998.25   | \$131,018.51   | \$140,546.62   |
|                                     |                                          | INSTITUTIONAL TOTAL RATE REVENUE (\$)   | \$616,583.24   | \$640,035.19   | \$646,189.79   | \$670,147.98   |
|                                     | CITY TOTAL RATE REVENUE REQUIREMENT (\$) |                                         | \$1,748,771.92 | \$1,820,395.94 | \$1,903,445.77 | \$1,954,770.81 |
|                                     | TOTAL RATE REVENUE BY CLASS (%)          | RESIDENTIAL TOTAL RATE REVENUE (%)      | 26.6%          | 27.0%          | 28.4%          | 28.6%          |
|                                     |                                          | COMMERCIAL TOTAL RATE REVENUE (%)       | 30.1%          | 29.9%          | 30.7%          | 29.9%          |
|                                     |                                          | INDUSTRIAL TOTAL RATE REVENUE (%)       | 8.1%           | 7.9%           | 6.9%           | 7.2%           |
|                                     |                                          | INSTITUTIONAL TOTAL RATE REVENUE (%)    | 35.3%          | 35.2%          | 33.9%          | 34.3%          |
|                                     | CITY TOTAL RATE REVENUE REQUIREMENT (%)  |                                         | 100.0%         | 100.0%         | 100.0%         | 100.0%         |
|                                     | VOLUME REVENUE % OF TOTAL REVENUE        |                                         | 60.1%          | 58.3%          | 59.0%          | 62.8%          |
|                                     | TOTAL RATE REVENUE BY METER SIZE (\$)    | FLAT RATE REVENUE (\$)                  | \$16,402.49    | \$16,976.75    | \$17,903.06    | \$15,208.66    |
|                                     |                                          | 5/8" METER REVENUE (\$)                 | \$523,252.69   | \$553,265.71   | \$607,304.59   | \$636,829.43   |
|                                     |                                          | 3/4" METER REVENUE (\$)                 | \$23,563.97    | \$24,902.58    | \$25,437.39    | \$28,132.05    |
|                                     |                                          | 1" METER REVENUE (\$)                   | \$188,147.65   | \$193,657.40   | \$203,314.27   | \$230,866.92   |
|                                     |                                          | 1 1/2" METER REVENUE (\$)               | \$107,374.52   | \$107,605.81   | \$118,701.77   | \$122,260.65   |
|                                     |                                          | 2" METER REVENUE (\$)                   | \$447,749.02   | \$467,958.05   | \$490,905.40   | \$503,254.38   |
|                                     |                                          | 3" METER REVENUE (\$)                   | \$331,636.06   | \$344,563.27   | \$344,511.54   | \$349,090.42   |
|                                     |                                          | 4" METER CHARGE (\$)                    | \$93,413.16    | \$94,060.00    | \$81,730.18    | \$55,805.21    |
|                                     |                                          | 6" METER CHARGE (\$)                    | \$17,232.36    | \$17,406.36    | \$13,637.57    | \$13,323.09    |
|                                     |                                          | CITY TOTAL RATE REVENUE (\$)            | \$1,748,771.92 | \$1,820,395.94 | \$1,903,445.77 | \$1,954,770.81 |
|                                     | TOTAL RATE REVENUE BY METER SIZE (%)     | FLAT RATE REVENUE (%)                   | 0.9%           | 0.9%           | 0.9%           | 0.8%           |
|                                     |                                          | 5/8" METER REVENUE (%)                  | 29.9%          | 30.4%          | 31.9%          | 32.6%          |
|                                     |                                          | 3/4" METER REVENUE (%)                  | 1.3%           | 1.4%           | 1.3%           | 1.4%           |
|                                     |                                          | 1" METER REVENUE (%)                    | 10.8%          | 10.6%          | 10.7%          | 11.8%          |
|                                     |                                          | 1 1/2" METER REVENUE (%)                | 6.1%           | 5.9%           | 6.2%           | 6.3%           |
|                                     |                                          | 2" METER REVENUE (%)                    | 25.6%          | 25.7%          | 25.8%          | 25.7%          |
|                                     |                                          | 3" METER REVENUE (%)                    | 19.0%          | 18.9%          | 18.1%          | 17.9%          |
|                                     |                                          | 4" METER CHARGE (%)                     | 5.3%           | 5.2%           | 4.3%           | 2.9%           |
|                                     |                                          | 6" METER CHARGE (%)                     | 1.0%           | 1.0%           | 0.7%           | 0.7%           |
|                                     |                                          | CITY TOTAL RATE REVENUE (%)             | 100.0%         | 100.0%         | 100.0%         | 100.0%         |
|                                     | CITY BASE RATE % OF TOTAL RATE           |                                         | 39.9%          | 41.7%          | 41.0%          | 37.2%          |
|                                     | CITY VARIABLE RATE % OF TOTAL RATE       |                                         | 60.1%          | 58.3%          | 59.0%          | 62.8%          |
|                                     | BALANCE                                  | CITY TOTAL REVENUE REQUIREMENT (\$)     | \$1,748,771.92 | \$1,820,395.94 | \$1,903,445.77 | \$1,954,770.81 |
|                                     |                                          | CITY RATE REVENUE - REVENUE REQUIREMENT | \$0.00         | \$0.00         | \$0.00         | \$0.00         |
|                                     |                                          | CITY EXCESS REVENUE (%)                 | 0.0%           | \$0.00         | \$0.00         | \$0.00         |



Table O7

|                                 |                                  | DESCRIPTION                              | 2021         | 2022         | 2023         | 2024         |
|---------------------------------|----------------------------------|------------------------------------------|--------------|--------------|--------------|--------------|
| BR TWP REVENUE REQUIREMENT (\$) | BR TWP COST DETAILS (\$)         | TOTAL BR TWP COLLECTION SYSTEM O&M COST  | 182,958.07   | 100,107.34   | 108,521.11   | 184,566.22   |
|                                 |                                  | TOTAL BR TWP COLLECTION SYSTEM BOND COST | 0.00         | 0.00         | 0.00         | 0.00         |
|                                 |                                  | TOTAL BR TWP CAPITAL RESERVE COST        | 50,313.47    | 27,529.52    | 29,843.31    | 50,755.71    |
|                                 |                                  | TOTAL BR TWP COL SYS REPLACEMENT COST    | 56,801.18    | 55,734.51    | 55,734.51    | 49,703.01    |
|                                 |                                  | BR TWP WWTP O&M COST SHARE               | 131,263.60   | 153,024.61   | 171,620.41   | 153,024.61   |
|                                 |                                  | BR TWP CITY COL SYS O&M COST SHARE       | 29,395.14    | 31,784.03    | 28,638.17    | 31,784.03    |
|                                 |                                  | BR TWP CITY ADMIN COST SHARE             | 5,838.84     | 6,477.05     | 7,018.51     | 6,477.05     |
|                                 |                                  | BR TWP WWTP BOND COST SHARE              | 67,410.12    | 72,291.86    | 77,178.59    | 72,291.86    |
|                                 |                                  | BR TWP WWTP REPLACEMENT COST SHARE       | 22,332.36    | 25,609.15    | 38,631.74    | 25,609.15    |
|                                 | BR TWP EXCLUSIVE COST (\$)       |                                          | \$290,072.72 | \$183,371.37 | \$194,098.93 | \$285,024.94 |
|                                 | BR TWP SHARED COSTS (\$)         |                                          | \$256,240.06 | \$289,186.69 | \$323,087.43 | \$289,186.69 |
|                                 | BR TWP REVENUE REQUIREMENT (\$)  |                                          | \$546,312.78 | \$472,558.06 | \$517,186.35 | \$574,211.63 |
|                                 | TOTAL BR TWP USE (K gal/Yr.)     |                                          | 53,024       | 54,196       | 59,188       | 64,780       |
|                                 | BR Twp Unit Cost                 |                                          | \$10.30      | \$8.72       | \$8.74       | \$8.86       |
| BR TWP FIXED COSTS              | BR TWP FIXED COST (%)            | TOTAL BR TWP COLLECTION SYSTEM O&M COST  | 20%          | 20%          | 20%          | 20%          |
|                                 |                                  | TOTAL BR TWP COLLECTION SYSTEM BOND COST | 100%         | 100%         | 100%         | 100%         |
|                                 |                                  | TOTAL BR TWP CAPITAL RESERVE COST        | 20%          | 20%          | 20%          | 20%          |
|                                 |                                  | TOTAL BR TWP COL SYS REPLACEMENT COST    | 0%           | 0%           | 0%           | 0%           |
|                                 |                                  | BR TWP WWTP O&M COST SHARE               | 0%           | 0%           | 0%           | 0%           |
|                                 |                                  | BR TWP CITY COL SYS O&M COST SHARE       | 0%           | 0%           | 0%           | 0%           |
|                                 |                                  | BR TWP CITY ADMIN COST SHARE             | 0%           | 0%           | 0%           | 0%           |
|                                 |                                  | BR TWP WWTP BOND COST SHARE              | 0%           | 0%           | 0%           | 0%           |
|                                 |                                  | BR TWP WWTP REPLACEMENT COST SHARE       | 0%           | 0%           | 0%           | 0%           |
|                                 | BR TWP FIXED COST (\$)           | TOTAL BR TWP COLLECTION SYSTEM O&M COST  | 36,591.61    | 20,021.47    | 21,704.22    | 36,913.24    |
|                                 |                                  | TOTAL BR TWP COLLECTION SYSTEM BOND COST | 0.00         | 0.00         | 0.00         | 0.00         |
|                                 |                                  | TOTAL BR TWP CAPITAL RESERVE COST        | 10,062.69    | 5,505.90     | 5,968.66     | 10,151.14    |
|                                 |                                  | TOTAL BR TWP COL SYS REPLACEMENT COST    | 0.00         | 0.00         | 0.00         | 0.00         |
|                                 |                                  | BR TWP WWTP O&M COST SHARE               | 0.00         | 0.00         | 0.00         | 0.00         |
|                                 |                                  | BR TWP CITY COL SYS O&M COST SHARE       | 0.00         | 0.00         | 0.00         | 0.00         |
|                                 |                                  | BR TWP CITY ADMIN COST SHARE             | 0.00         | 0.00         | 0.00         | 0.00         |
|                                 |                                  | BR TWP WWTP BOND COST SHARE              | 0.00         | 0.00         | 0.00         | 0.00         |
|                                 |                                  | BR TWP WWTP REPLACEMENT COST SHARE       | 0.00         | 0.00         | 0.00         | 0.00         |
|                                 | BR TWP EXCLUSIVE FIXED COST (\$) |                                          | \$46,654.31  | \$25,527.37  | \$27,672.88  | \$47,064.39  |
|                                 | BR TWP SHARED FIXED COST (\$)    |                                          | \$0.00       | \$0.00       | \$0.00       | \$0.00       |
|                                 | BR TWP FIXED COST (\$)           |                                          | \$46,654.31  | \$25,527.37  | \$27,672.88  | \$47,064.39  |
|                                 | BR TWP TOTAL REU's               |                                          | 1239         | 1242         | 1251         | 1254         |
|                                 | BR Twp Base Rate                 |                                          | \$3.14       | \$1.71       | \$1.84       | \$3.13       |
|                                 | BR Twp Exclusive Base Rate (\$)  |                                          | \$3.14       | \$1.71       | \$1.84       | \$3.13       |
|                                 | BR Twp Shared Base Rate (\$)     |                                          | \$0.00       | \$0.00       | \$0.00       | \$0.00       |



Table O8

| BR TWP VARIABLE COSTS | DESCRIPTION                         |                                          | 2021         | 2022         | 2023         | 2024         |
|-----------------------|-------------------------------------|------------------------------------------|--------------|--------------|--------------|--------------|
|                       | BR TWP VARIABLE COST (%)            | TOTAL BR TWP COLLECTION SYSTEM O&M COST  | 80%          | 80%          | 80%          | 80%          |
|                       |                                     | TOTAL BR TWP COLLECTION SYSTEM BOND COST | 0%           | 0%           | 0%           | 0%           |
|                       |                                     | TOTAL BR TWP CAPITAL RESERVE COST        | 80%          | 80%          | 80%          | 80%          |
|                       |                                     | TOTAL BR TWP COL SYS REPLACEMENT COST    | 100%         | 100%         | 100%         | 100%         |
|                       |                                     | BR TWP WWTP O&M COST SHARE               | 100%         | 100%         | 100%         | 100%         |
|                       |                                     | BR TWP CITY COL SYS O&M COST SHARE       | 100%         | 100%         | 100%         | 100%         |
|                       |                                     | BR TWP CITY ADMIN COST SHARE             | 100%         | 100%         | 100%         | 100%         |
|                       |                                     | BR TWP WWTP BOND COST SHARE              | 100%         | 100%         | 100%         | 100%         |
|                       |                                     | BR TWP WWTP REPLACEMENT COST SHARE       | 100%         | 100%         | 100%         | 100%         |
|                       | BR TWP VARIABLE COST (\$)           | TOTAL BR TWP COLLECTION SYSTEM O&M COST  | 146,366.46   | 80,085.87    | 86,816.89    | 147,652.98   |
|                       |                                     | TOTAL BR TWP COLLECTION SYSTEM BOND COST | 0.00         | 0.00         | 0.00         | 0.00         |
|                       |                                     | TOTAL BR TWP CAPITAL RESERVE COST        | 40,250.78    | 22,023.61    | 23,874.64    | 40,604.57    |
|                       |                                     | TOTAL BR TWP COL SYS REPLACEMENT COST    | 55,734.51    | 55,734.51    | 55,734.51    | 49,703.01    |
|                       |                                     | BR TWP WWTP O&M COST SHARE               | 131,263.60   | 153,024.61   | 171,620.41   | 153,024.61   |
|                       |                                     | BR TWP CITY COL SYS O&M COST SHARE       | 29,395.14    | 31,784.03    | 28,638.17    | 31,784.03    |
|                       |                                     | BR TWP CITY ADMIN COST SHARE             | 5,838.84     | 6,477.05     | 7,018.51     | 6,477.05     |
|                       |                                     | BR TWP WWTP BOND COST SHARE              | 67,410.12    | 72,291.86    | 77,178.59    | 72,291.86    |
|                       |                                     | BR TWP WWTP REPLACEMENT COST SHARE       | 25,609.15    | 25,609.15    | 38,631.74    | 25,609.15    |
|                       | BR TWP EXCLUSIVE VARIABLE COST (\$) |                                          | \$242,351.75 | \$157,844.00 | \$166,426.05 | \$237,960.56 |
|                       | BR TWP SHARED VARIABLE COST (\$)    |                                          | \$259,516.85 | \$289,186.69 | \$323,087.43 | \$289,186.69 |
|                       | BR TWP VARIABLE COST (\$)           |                                          | \$501,868.60 | \$447,030.69 | \$489,513.47 | \$527,147.25 |
|                       | TOTAL BR TWP USE (K gal/Yr.)        |                                          | 53,024       | 54,196       | 59,188       | 64,780       |
|                       | BR Twp Variable Rate                |                                          | \$9.46       | \$8.25       | \$8.27       | \$8.14       |
|                       | BR Twp Exclusive Variable Rate      |                                          | \$4.57       | \$2.91       | \$2.81       | \$3.67       |
|                       | BR Twp Shared Variable Rate         |                                          | \$4.89       | \$5.34       | \$5.46       | \$4.46       |

Table O9

| BR TWP RATE REVENUE | DESCRIPTION                          |                                           | 2021         | 2022         | 2023         | 2024         |
|---------------------|--------------------------------------|-------------------------------------------|--------------|--------------|--------------|--------------|
|                     | BR TWP FLAT RATE                     |                                           | \$35.08      | \$29.55      | \$29.76      | \$30.59      |
|                     | BR TWP BASE REVENUE (\$)             | FLAT RATE – BASE PORTION (\$)             | \$602.48     | \$328.86     | \$353.93     | \$600.50     |
|                     |                                      | RESIDENTIAL BASE REVENUE (\$)             | \$1,355.57   | \$801.58     | \$906.95     | \$1,651.38   |
|                     |                                      | COMMERCIAL BASE REVENUE (\$)              | \$20,785.45  | \$11,345.50  | \$12,210.58  | \$20,717.34  |
|                     |                                      | INSTITUTIONAL BASE REVENUE (\$)           | \$23,835.49  | \$13,010.33  | \$14,157.19  | \$24,020.10  |
|                     |                                      | BR TWP BASE REVENUE (\$)                  | \$46,579.00  | \$25,486.26  | \$27,628.64  | \$46,989.32  |
|                     | BR TWP VOLUME REVENUE (\$)           | FLAT RATE – VOLUME PORTION (\$)           | \$6,133.28   | \$5,344.97   | \$5,359.27   | \$5,273.10   |
|                     |                                      | RESIDENTIAL VOLUME REVENUE (\$)           | \$11,916.35  | \$10,549.71  | \$12,471.88  | \$15,501.94  |
|                     |                                      | COMMERCIAL VOLUME REVENUE (\$)            | \$249,429.37 | \$226,097.09 | \$204,735.70 | \$222,918.67 |
|                     |                                      | INSTITUTIONAL VOLUME REVENUE (\$)         | \$234,389.60 | \$205,038.91 | \$266,946.24 | \$283,453.54 |
|                     |                                      | BR TWP VOLUME REVENUE (\$/Mo)             | \$501,868.60 | \$447,030.69 | \$489,513.09 | \$527,147.25 |
|                     | BR TWP TOTAL RATE REVENUE (\$)       | FLAT RATE REVENUE (\$)                    | \$6,735.75   | \$5,673.82   | \$5,713.20   | \$5,873.60   |
|                     |                                      | RESIDENTIAL REVENUE (\$)                  | \$13,271.92  | \$11,351.30  | \$13,378.83  | \$17,153.32  |
|                     |                                      | COMMERCIAL REVENUE (\$)                   | \$270,214.83 | \$237,442.59 | \$216,946.28 | \$243,636.01 |
|                     |                                      | INSTITUTIONAL REVENUE (\$)                | \$258,225.09 | \$218,049.24 | \$281,103.43 | \$307,473.64 |
|                     |                                      | BR TWP TOTAL RATE REVENUE (\$)            | \$548,447.59 | \$472,516.95 | \$517,141.73 | \$574,136.57 |
|                     | BR TWP TOTAL RATE REVENUE (%)        | FLAT RATE REVENUE (%)                     | 1.2%         | 1.2%         | 1.1%         | 1.0%         |
|                     |                                      | RESIDENTIAL REVENUE (%)                   | 2.4%         | 2.4%         | 2.6%         | 3.0%         |
|                     |                                      | COMMERCIAL REVENUE (%)                    | 49.3%        | 50.3%        | 42.0%        | 42.4%        |
|                     |                                      | INSTITUTIONAL REVENUE (%)                 | 47.1%        | 46.1%        | 54.4%        | 53.6%        |
|                     |                                      | BR TWP TOTAL RATE REVENUE (%)             | 100.0%       | 100.0%       | 100.0%       | 100.0%       |
|                     | BR TWP BASE RATE % OF TOTAL RATE     |                                           | 8.5%         | 5.4%         | 5.3%         | 8.2%         |
|                     | BR TWP VARIABLE RATE % OF TOTAL RATE |                                           | 91.5%        | 94.6%        | 94.7%        | 91.8%        |
|                     | BALANCE                              | BR TWP REVENUE REQUIREMENT (\$)           | \$548,522.90 | \$472,558.06 | \$517,185.97 | \$574,211.63 |
|                     |                                      | BR TWP RATE REVENUE – REVENUE REQUIREMENT | (\$75.31)    | (\$41.11)    | (\$44.24)    | (\$75.06)    |
|                     |                                      | BR TWP EXCESS REVENUE (%)                 | 0.0%         | 0.0%         | 0.0%         | 0.0%         |



Table O10

| GN TWP USERS & USE                            | DESCRIPTION                       |                                             | 2021         | 2022        | 2023         | 2024         |
|-----------------------------------------------|-----------------------------------|---------------------------------------------|--------------|-------------|--------------|--------------|
|                                               | GN TWP<br>USERS                   | GN Twp Residential Unmetered Users          | 229          | 230         | 230          | 230          |
|                                               |                                   | GN Twp Commercial Users                     | 13           | 13          | 14           | 14           |
|                                               |                                   | GN Twp Institutional Users                  | 1            | 1           | 1            | 1            |
|                                               |                                   | GN TWP TOTAL USERS                          |              | 243         | 244          | 245          |
|                                               | GN TWP<br>REU's                   | GN Twp Residential REU's                    | 240          | 241         | 241          | 241          |
|                                               |                                   | GN Twp Commercial REU's                     | 19           | 19          | 21           | 21           |
|                                               |                                   | GN Twp Institutional REU's                  | 1            | 1           | 1            | 1            |
|                                               |                                   | GN TWP TOTAL REU's                          |              | 260         | 261          | 263          |
|                                               | GN TWP<br>USE                     | GREEN TWP RESIDENTIAL USE (K gal/Yr.) (Est) | 10,896       | 9,983       | 9,771        | 9,405        |
| GREEN TWP COMMERCIAL USE (K gal/Yr.) (Est)    |                                   | 863                                         | 787          | 851         | 820          |              |
| GREEN TWP INSTITUTIONAL USE (K gal/Yr.) (Est) |                                   | 45                                          | 41           | 41          | 39           |              |
| GN TWP METERED USE (K gal/yr.)                |                                   | 11,804                                      | 10,811       | 10,663      | 10,264       |              |
| GN TWP REVENUE<br>REQUIREMENT (\$)            | DESCRIPTION                       |                                             | 2021         | 2022        | 2023         | 2024         |
|                                               | GN TWP<br>COST<br>DETAILS<br>(\$) | TOTAL GN TWP COLLECTION SYSTEM O&M COST     | \$44,073.33  | \$39,031.64 | \$47,028.38  | \$50,610.61  |
|                                               |                                   | TOTAL GN TWP COL SYS REPLACEMENT COST       | \$1,586.57   | \$1,586.57  | \$1,586.57   | \$1,036.57   |
|                                               |                                   | GN TWP WWTP O&M COST SHARE                  | \$26,859.80  | \$29,388.84 | \$29,712.87  | \$31,586.01  |
|                                               |                                   | GN TWP CITY COL SYS O&M COST SHARE          | \$6,713.26   | \$6,773.43  | \$5,717.13   | \$5,973.62   |
|                                               |                                   | GN TWP CITY ADMIN COST SHARE                | \$1,194.77   | \$1,243.94  | \$1,215.12   | \$1,336.08   |
|                                               |                                   | GN TWP WWTP BOND COST SHARE                 | \$13,793.79  | \$13,883.87 | \$13,362.03  | \$13,580.96  |
|                                               |                                   | GN TWP WWTP REPLACEMENT COST SHARE          | \$4,569.76   | \$4,918.32  | \$6,688.36   | \$6,688.36   |
|                                               | GN TWP EXCLUSIVE COST (\$)        |                                             | \$45,659.90  | \$40,618.21 | \$48,614.95  | \$51,647.18  |
|                                               | GN TWP SHARED COST (\$)           |                                             | \$55,239.78  | \$57,975.03 | \$56,695.53  | \$59,165.03  |
|                                               | GN TWP REVENUE REQUIREMENT (\$)   |                                             | \$100,899.67 | \$98,593.23 | \$105,310.47 | \$110,812.21 |
|                                               | GN TWP METERED USE (K gal/yr.)    |                                             | 11,804       | 10,811      | 10,663       | 10,264       |
| GN Twp Unit Cost                              |                                   | \$8.55                                      | \$9.12       | \$9.88      | \$10.80      |              |
| GN TWP FIXED COSTS                            | GN TWP<br>FIXED<br>COST (%)       | TOTAL GN TWP COLLECTION SYSTEM O&M COST     | 0%           | 0%          | 0%           | 0%           |
|                                               |                                   | TOTAL GN TWP COL SYS REPLACEMENT COST       | 0%           | 0%          | 0%           | 0%           |
|                                               |                                   | GN TWP WWTP O&M COST SHARE                  | 0%           | 0%          | 0%           | 0%           |
|                                               |                                   | GN TWP CITY COL SYS O&M COST SHARE          | 0%           | 0%          | 0%           | 0%           |
|                                               |                                   | GN TWP CITY ADMIN COST SHARE                | 0%           | 0%          | 0%           | 0%           |
|                                               |                                   | GN TWP WWTP BOND COST SHARE                 | 0%           | 0%          | 0%           | 0%           |
|                                               |                                   | GN TWP WWTP REPLACEMENT COST SHARE          | 0%           | 0%          | 0%           | 0%           |
|                                               | GN TWP<br>FIXED<br>COST (\$)      | TOTAL GN TWP COLLECTION SYSTEM O&M COST     | 0.00         | 0.00        | 0.00         | 0.00         |
|                                               |                                   | TOTAL GN TWP COL SYS REPLACEMENT COST       | 0.00         | 0.00        | 0.00         | 0.00         |
|                                               |                                   | GN TWP WWTP O&M COST SHARE                  | 0.00         | 0.00        | 0.00         | 0.00         |
|                                               |                                   | GN TWP CITY COL SYS O&M COST SHARE          | 0.00         | 0.00        | 0.00         | 0.00         |
|                                               |                                   | GN TWP CITY ADMIN COST SHARE                | 0.00         | 0.00        | 0.00         | 0.00         |
|                                               |                                   | GN TWP WWTP BOND COST SHARE                 | 0.00         | 0.00        | 0.00         | 0.00         |
|                                               |                                   | GN TWP WWTP REPLACEMENT COST SHARE          | 0.00         | 0.00        | 0.00         | 0.00         |
|                                               | GN TWP EXCLUSIVE FIXED COST (\$)  |                                             | \$0.00       | \$0.00      | \$0.00       | \$0.00       |
|                                               | GN TWP SHARED FIXED COST (\$)     |                                             | \$0.00       | \$0.00      | \$0.00       | \$0.00       |
|                                               | GN TWP FIXED COST (\$)            |                                             | \$0.00       | \$0.00      | \$0.00       | \$0.00       |
|                                               | GN TWP TOTAL REU's                |                                             | 260          | 261         | 263          | 263          |
| GN Twp Base Rate                              |                                   | \$0.00                                      | \$0.00       | \$0.00      | \$0.00       |              |
| GN Twp Exclusive Base Rate (\$)               |                                   | \$0.00                                      | \$0.00       | \$0.00      | \$0.00       |              |
| GN Twp Shared Base Rate (\$)                  |                                   | \$0.00                                      | \$0.00       | \$0.00      | \$0.00       |              |



Table O11

| DESCRIPTION           |                                | 2021                                      | 2022         | 2023        | 2024         |
|-----------------------|--------------------------------|-------------------------------------------|--------------|-------------|--------------|
| GN TWP FLAT RATE      |                                | \$32.34                                   | \$31.48      | \$33.37     | \$35.11      |
| GN TWP QUARTERLY BILL |                                | \$97.02                                   | \$94.44      | \$100.11    | \$105.33     |
| GN TWP RATE REVENUE   | GN TWP BASE REVENUE            | FLAT RATE - BASE PORTION (\$)             |              |             |              |
|                       |                                | RESIDENTIAL BASE REVENUE (\$)             |              |             |              |
|                       |                                | COMMERCIAL BASE REVENUE (\$)              |              |             |              |
|                       |                                | INSTITUTIONAL BASE REVENUE (\$)           |              |             |              |
|                       |                                | GN TWP BASE REVENUE (\$)                  | \$0.00       | \$0.00      | \$0.00       |
|                       | GN TWP VOLUME REVENUE          | FLAT RATE - VOLUME PORTION (\$)           |              |             |              |
|                       |                                | RESIDENTIAL VOLUME REVENUE (\$)           | 93,138.16    | 91,038.20   | 96,501.23    |
|                       |                                | COMMERCIAL VOLUME REVENUE (\$)            | 7,373.44     | 7,177.29    | 8,408.82     |
|                       |                                | INSTITUTIONAL VOLUME REVENUE (\$)         | 388.08       | 377.75      | 400.42       |
|                       |                                | GN TWP VOLUME REVENUE (\$/Mo)             | \$100,899.67 | \$98,593.23 | \$105,310.47 |
|                       | GN TWP TOTAL RATE REVENUE (\$) | FLAT RATE REVENUE (\$)                    |              |             |              |
|                       |                                | RESIDENTIAL REVENUE (\$)                  | 93,138.16    | 91,038.20   | 96,501.23    |
|                       |                                | COMMERCIAL REVENUE (\$)                   | 7,373.44     | 7,177.29    | 8,408.82     |
|                       |                                | INSTITUTIONAL REVENUE (\$)                | 388.08       | 377.75      | 400.42       |
|                       |                                | GN TWP RATE REVENUE (\$)                  | \$100,899.67 | \$98,593.23 | \$105,310.47 |
|                       | GN TWP TOTAL RATE REVENUE (%)  | RESIDENTIAL REVENUE (%)                   | 92.3%        | 92.3%       | 91.6%        |
|                       |                                | COMMERCIAL REVENUE (%)                    | 7.3%         | 7.3%        | 8.0%         |
|                       |                                | INSTITUTIONAL REVENUE (%)                 | 0.4%         | 0.4%        | 0.4%         |
|                       |                                | GN TWP TOTAL RATE REVENUE (%)             | 100.0%       | 100.0%      | 100.0%       |
|                       |                                | GN TWP BASE RATE % OF TOTAL RATE          | 0.0%         | 0.0%        | 0.0%         |
|                       |                                | GN TWP VARIABLE RATE % OF TOTAL RATE      | 100.0%       | 100.0%      | 100.0%       |
|                       | BALANCE                        | GN TWP EXCLUSIVE COST (\$)                | \$45,659.90  | \$40,618.21 | \$48,614.95  |
|                       |                                | GN TWP RATE REVENUE - REVENUE REQUIREMENT | \$0.00       | \$0.00      | \$0.00       |
|                       |                                | GN TWP EXCESS REVENUE (%)                 | 0.0%         | 0.0%        | 0.0%         |

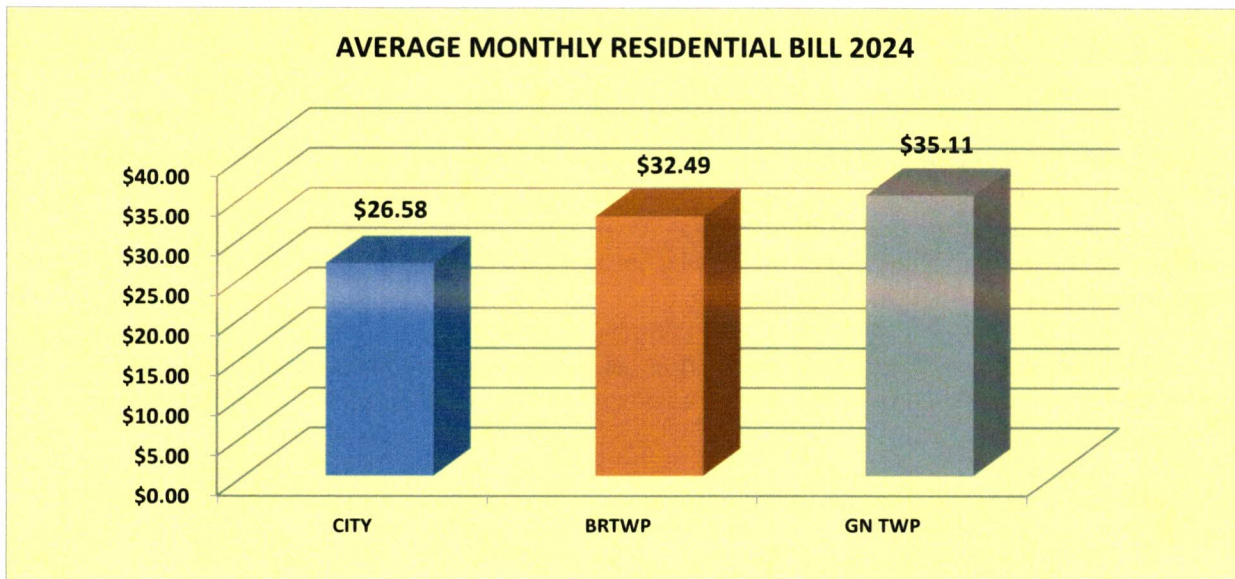


## P. BILL IMPACTS

Table P shows the impact of the rates on various customer classes for various use quantities. Figure P shows the average monthly residential bill for each of the contributing jurisdictions.

Table P

| RATES                | CITY               | Average Residential Use (K gal/Mo) | 3.3     | 3.4     | 3.3     | 3.3     |
|----------------------|--------------------|------------------------------------|---------|---------|---------|---------|
|                      |                    | Base Rate (\$/Mo)                  | \$8.07  | \$9.25  | \$10.00 | \$10.00 |
|                      |                    | Variable Rate (\$/K gal)           | \$7.00  | \$7.25  | \$7.67  | \$7.67  |
|                      | BR TWP             | Average Residential Use (K gal/Mo) | 2.9     | 2.7     | 3.1     | 3.6     |
|                      |                    | Base Rate (\$/Mo)                  | \$3.14  | \$1.71  | \$1.84  | \$3.13  |
|                      |                    | Variable Rate (\$/K gal)           | \$9.42  | \$8.25  | \$8.27  | \$8.14  |
|                      | GN TWP             | Flat Rate                          | \$31.66 | \$31.48 | \$33.37 | \$35.11 |
| MONTHLY BILL IMPACTS | DESCRIPTION        |                                    | 2021    | 2022    | 2023    | 2024    |
|                      | CITY RESIDENTIAL   | 2000 Gallons                       | \$17.69 | \$18.28 | \$19.73 | \$19.78 |
|                      |                    | Average                            | \$24.98 | \$26.38 | \$27.73 | \$28.48 |
|                      |                    | 4000 Gallons                       | \$28.71 | \$29.95 | \$32.51 | \$33.00 |
|                      |                    | 6000 Gallons                       | \$39.73 | \$41.62 | \$45.28 | \$46.21 |
|                      |                    | 8000 Gallons                       | \$50.75 | \$53.29 | \$58.06 | \$59.43 |
|                      | BR TWP RESIDENTIAL | 2000 Gallons                       | \$22.07 | \$18.21 | \$18.38 | \$19.40 |
|                      |                    | Average                            | \$30.72 | \$24.25 | \$27.19 | \$32.49 |
|                      |                    | 4000 Gallons                       | \$41.00 | \$34.71 | \$34.93 | \$35.68 |
|                      |                    | 6000 Gallons                       | \$59.93 | \$51.20 | \$51.47 | \$51.95 |
|                      |                    | 8000 Gallons                       | \$78.86 | \$67.70 | \$68.01 | \$68.23 |
|                      | GN TWP RESIDENTIAL | 2000 Gallons                       | \$31.66 | \$31.48 | \$33.37 | \$35.11 |
|                      |                    | 4000 Gallons                       | \$31.66 | \$31.48 | \$33.37 | \$35.11 |
|                      |                    | Average                            | \$31.66 | \$31.48 | \$33.37 | \$35.11 |
|                      |                    | 6000 Gallons                       | \$31.66 | \$31.48 | \$33.37 | \$35.11 |
|                      |                    | 8000 Gallons                       | \$31.66 | \$31.48 | \$33.37 | \$35.11 |





## Q. SURCHARGES

The domestic background wastewater strength for the Big Rapids wastewater treatment plant is:

Table Q1

| DOMESTIC BACKGROUND WASTEWATER STRENGTH                                                                                                                                                                                     |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| POLLUTANT                                                                                                                                                                                                                   | CONCENTRATION<br>(mg/l) |
| Ammonia                                                                                                                                                                                                                     | 38                      |
| Biochemical Oxygen Demand (BOD)                                                                                                                                                                                             | 236                     |
| Total Suspended Solids (TSS)                                                                                                                                                                                                | 247                     |
| Phosphorus (P)                                                                                                                                                                                                              | 7                       |
| Fats, Oils, Grease (FOG)                                                                                                                                                                                                    | 90                      |
| Domestic Background values are based on domestic sampling from 2024, with the exception of the domestic FOG value, which is based on typical medium strength domestic wastewater (Metcalf & Eddy, 4 <sup>th</sup> edition). |                         |

The proportionate cost of OM&R surcharges at the Big Rapids wastewater treatment plant is as follows:

Table Q2

| OM&R SURCHARGE COST PORTIONING  |                        |                     |
|---------------------------------|------------------------|---------------------|
| POLLUTANT                       | PORTION OF<br>OM&R (%) | OM&R<br>COST (K \$) |
| Flow                            | 20%                    | \$235.54            |
| Ammonia                         | 18%                    | \$211.99            |
| Biochemical Oxygen Demand (BOD) | 27%                    | \$317.98            |
| Total Suspended Solids (TSS)    | 21%                    | \$247.32            |
| Phosphorus (P)                  | 10%                    | \$117.77            |
| Fats, Oils, Grease (FOG)        | 4%                     | \$47.11             |
| TOTAL WWTP OM&R COST            | 100%                   | \$1,177.71          |

Table Q3

| SURCHARGE CALCULATION           |            |      |          |          |
|---------------------------------|------------|------|----------|----------|
| POLLUTANT                       | Flow (MGD) | mg/l | lbs./day | COST/lb. |
| Ammonia                         | 0.830      | 24   | 163      | \$3.65   |
| Biochemical Oxygen Demand (BOD) |            | 227  | 1,571    | \$0.66   |
| Total Suspended Solids (TSS)    |            | 214  | 1,481    | \$0.46   |
| Phosphorus (P)                  |            | 5.4  | 37       | \$8.43   |
| Fats, Oils, Grease (FOG)        |            | 43   | 298      | \$0.49   |

## AFTERWORD

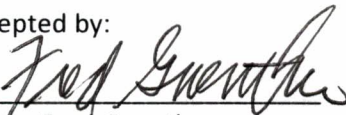
As stated in our report, a spreadsheet method has been utilized in documenting the various cost components with the operation of the Wastewater Treatment Plant. The various costs have been identified to the city's accounting method and the shared cost between the parties determined. A narrative has been presented to inform the customers how and where the monies collected for the service has been spent. Also, a comparative dialog has been established to show service cost between the three communities.

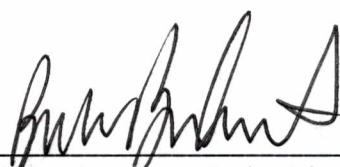
The recently restated contract serves as the basis of these efforts and we believe are better tracked through this process than before. The committee used two different styles of spreadsheet mathematics and found them in agreement and verifiable.

The User Charge Report is very close in achieving an accurate status of shared charges due to the cohesiveness of the Committee.

Committee members will oversee the next user charge review starting July 2025 with final report by January 1, 2026.

Accepted by:

  
Mayor Fred Guenther  
City of Big Rapids

  
Supervisor Bruce Borkovich  
Big Rapids Charter Township

  
Supervisor Jason Kruse  
Green Charter Township



## Appendix A

| 2009 ACT 94 WASTEWATER SRF BOND AMORTIZATION |       |                |                |                 |                     |                |                |
|----------------------------------------------|-------|----------------|----------------|-----------------|---------------------|----------------|----------------|
| YR                                           | DATE  | Principle      | Interest       | Debt Service    | Annual Debt Service | Disbursements  | Balance        |
| 2009                                         | 05/07 |                |                | \$0.00          | \$16,057.77         | \$590,859.00   | \$590,859.00   |
|                                              | 05/21 |                |                | \$0.00          |                     | \$339,306.00   | \$930,165.00   |
|                                              | 06/18 |                |                | \$0.00          |                     | \$714,066.00   | \$1,644,231.00 |
|                                              | 07/23 |                |                | \$0.00          |                     | \$418,963.00   | \$2,063,194.00 |
|                                              | 08/20 |                |                | \$0.00          |                     | \$387,952.00   | \$2,451,146.00 |
|                                              | 09/24 |                |                | \$0.00          |                     | \$619,164.00   | \$3,070,310.00 |
|                                              | 10/01 |                | \$16,057.77    | \$16,057.77     |                     | \$0.00         | \$3,070,310.00 |
|                                              | 12/10 |                |                | \$0.00          |                     | \$1,333,303.00 | \$4,403,613.00 |
| 2010                                         | 01/07 |                |                | \$0.00          | \$132,235.71        | \$341,580.00   | \$4,745,193.00 |
|                                              | 02/04 |                |                | \$0.00          |                     | \$285,647.00   | \$5,030,840.00 |
|                                              | 03/04 |                |                | \$0.00          |                     | \$206,162.00   | \$5,237,002.00 |
|                                              | 03/25 |                |                | \$0.00          |                     | \$213,066.00   | \$5,450,068.00 |
|                                              | 04/01 |                | \$53,185.23    | \$53,185.23     |                     | \$0.00         | \$5,450,068.00 |
|                                              | 05/06 |                |                | \$0.00          |                     | \$513,082.00   | \$5,963,150.00 |
|                                              | 06/24 |                |                | \$0.00          |                     | \$657,369.00   | \$6,620,519.00 |
|                                              | 07/22 |                |                | \$0.00          |                     | \$277,579.00   | \$6,898,098.00 |
|                                              | 08/26 |                |                | \$0.00          |                     | \$248,199.00   | \$7,146,297.00 |
|                                              | 09/23 |                |                | \$0.00          |                     | \$339,479.00   | \$7,485,776.00 |
|                                              | 10/01 |                | \$79,050.48    | \$79,050.48     |                     | \$0.00         | \$7,485,776.00 |
|                                              | 10/21 |                |                | \$0.00          |                     | \$420,355.00   | \$7,906,131.00 |
|                                              | 12/02 |                |                | \$0.00          |                     | \$58,869.00    | \$7,965,000.00 |
| 2011                                         | 04/01 |                | \$98,917.90    | \$98,917.90     | \$508,480.40        | \$0.00         | \$7,965,000.00 |
|                                              | 10/01 | \$310,000.00   | \$99,562.50    | \$409,562.50    |                     |                | \$7,655,000.00 |
| 2012                                         | 04/01 |                | \$95,687.50    | \$95,687.50     | \$511,375.00        |                | \$7,655,000.00 |
|                                              | 10/01 | \$320,000.00   | \$95,687.50    | \$415,687.50    |                     |                | \$7,335,000.00 |
| 2013                                         | 04/01 |                | \$91,687.50    | \$91,687.50     | \$508,375.00        |                | \$7,335,000.00 |
|                                              | 10/01 | \$325,000.00   | \$91,687.50    | \$416,687.50    |                     |                | \$7,010,000.00 |
| 2014                                         | 04/01 |                | \$87,625.00    | \$87,625.00     | \$510,250.00        |                | \$7,010,000.00 |
|                                              | 10/01 | \$335,000.00   | \$87,625.00    | \$422,625.00    |                     |                | \$6,675,000.00 |
| 2015                                         | 04/01 |                | \$83,437.50    | \$83,437.50     | \$511,875.00        |                | \$6,675,000.00 |
|                                              | 10/01 | \$345,000.00   | \$83,437.50    | \$428,437.50    |                     |                | \$6,330,000.00 |
| 2016                                         | 04/01 |                | \$79,125.00    | \$79,125.00     | \$513,250.00        |                | \$6,330,000.00 |
|                                              | 10/01 | \$355,000.00   | \$79,125.00    | \$434,125.00    |                     |                | \$5,975,000.00 |
| 2017                                         | 04/01 |                | \$74,687.50    | \$74,687.50     | \$509,375.00        |                | \$5,975,000.00 |
|                                              | 10/01 | \$360,000.00   | \$74,687.50    | \$434,687.50    |                     |                | \$5,615,000.00 |
| 2018                                         | 04/01 |                | \$70,187.50    | \$70,187.50     | \$510,375.00        |                | \$5,615,000.00 |
|                                              | 10/01 | \$370,000.00   | \$70,187.50    | \$440,187.50    |                     |                | \$5,245,000.00 |
| 2019                                         | 04/01 |                | \$65,562.50    | \$65,562.50     | \$511,125.00        |                | \$5,245,000.00 |
|                                              | 10/01 | \$380,000.00   | \$65,562.50    | \$445,562.50    |                     |                | \$4,865,000.00 |
| 2020                                         | 04/01 |                | \$60,812.50    | \$60,812.50     | \$511,625.00        |                | \$4,865,000.00 |
|                                              | 10/01 | \$390,000.00   | \$60,812.50    | \$450,812.50    |                     |                | \$4,475,000.00 |
| 2021                                         | 04/01 |                | \$55,937.50    | \$55,937.50     | \$511,875.00        |                | \$4,475,000.00 |
|                                              | 10/01 | \$400,000.00   | \$55,937.50    | \$455,937.50    |                     |                | \$4,075,000.00 |
| 2022                                         | 04/01 |                | \$50,937.50    | \$50,937.50     | \$511,875.00        |                | \$4,075,000.00 |
|                                              | 10/01 | \$410,000.00   | \$50,937.50    | \$460,937.50    |                     |                | \$3,665,000.00 |
| 2023                                         | 04/01 |                | \$45,812.50    | \$45,812.50     | \$511,625.00        |                | \$3,665,000.00 |
|                                              | 10/01 | \$420,000.00   | \$45,812.50    | \$465,812.50    |                     |                | \$3,245,000.00 |
| 2024                                         | 04/01 |                | \$40,562.50    | \$40,562.50     | \$511,125.00        |                | \$3,245,000.00 |
|                                              | 10/01 | \$430,000.00   | \$40,562.50    | \$470,562.50    |                     |                | \$2,815,000.00 |
| 2025                                         | 04/01 |                | \$35,187.50    | \$35,187.50     | \$510,375.00        |                | \$2,815,000.00 |
|                                              | 10/01 | \$440,000.00   | \$35,187.50    | \$475,187.50    |                     |                | \$2,375,000.00 |
| 2026                                         | 04/01 |                | \$29,687.50    | \$29,687.50     | \$509,375.00        |                | \$2,375,000.00 |
|                                              | 10/01 | \$450,000.00   | \$29,687.50    | \$479,687.50    |                     |                | \$1,925,000.00 |
| 2027                                         | 04/01 |                | \$24,062.50    | \$24,062.50     | \$513,125.00        |                | \$1,925,000.00 |
|                                              | 10/01 | \$465,000.00   | \$24,062.50    | \$489,062.50    |                     |                | \$1,460,000.00 |
| 2028                                         | 04/01 |                | \$18,250.00    | \$18,250.00     | \$511,500.00        |                | \$1,460,000.00 |
|                                              | 10/01 | \$475,000.00   | \$18,250.00    | \$493,250.00    |                     |                | \$985,000.00   |
| 2029                                         | 04/01 |                | \$12,312.50    | \$12,312.50     | \$509,625.00        |                | \$985,000.00   |
|                                              | 10/01 | \$485,000.00   | \$12,312.50    | \$497,312.50    |                     |                | \$500,000.00   |
| 2030                                         | 04/01 |                | \$6,250.00     | \$6,250.00      | \$512,500.00        |                | \$500,000.00   |
|                                              | 10/01 | \$500,000.00   | \$6,250.00     | \$506,250.00    |                     |                | \$0.00         |
| TOTAL                                        |       | \$7,965,000.00 | \$2,402,398.88 | \$10,367,398.88 | \$10,367,398.88     | \$7,965,000.00 |                |

**RESOLUTION NO. 25-**

Commissioner \_\_\_\_\_ moved, seconded by Commissioner \_\_\_\_\_, the adoption of the following:

**RESOLUTION APPROVING THE PURCHASE OF WETLAND CREDITS AND SURETY BOND FOR THE ROBEN HOOD AIRPORT EXTENSION PROJECT**

WHEREAS, as part of the Roben Hood Airport Runway Extension project, EGLE determined that the City needs to purchase 1.81 acres of wetland credits to mitigate this project, and

WHEREAS, the wetland credits need to be in the Muskegon Watershed and as there are no credits available until September 2025, the City is required by law to provide as part of the permit, a Surety Bond to guarantee compliance with conditions specified to obtain this permit, and

WHEREAS, the purchase of 1.81 acres of wetland credits is \$199,100, the cost of the Surety Bond to cover said credits is \$200,000 with an additional \$4,000 in fees, and

WHEREAS, to apply for a Surety Bond, Merchants Bonding Company is requiring the City to authorize the City Manager to sign the Commercial Bond Application, the first step in securing the Surety Bond, and

WHEREAS, once the application is signed and submitted, Merchants Bonding Company will move forward with Surety Bond, and

WHEREAS, once the wetland credits become available and are purchased, written notice will be sent to the Surety from the City and EGLE acknowledging the City's contractual fulfillment and authorizing the termination of the Surety Bond.

NOW, THEREFORE, BE IT RESOLVED, that the City Commission approves the purchase of 1.81 acres of wetland credits for the Roben Hood Airport Extension Project for \$199,100 when they become available in September 2025, and give City Manager Mark Gifford the authority to sign the Commercial Bond Application and the Surety Bond when available and the cost be expensed from account number 295-249-989.000-P0078.

Yeas:

Nays:

The Mayor declared the resolution \_\_\_\_\_.

Dated:



## Position Paper

To: City of Big Rapids Commission

From: Kendra Herrema, Airport  
Manager

### **ISSUE:**

EGLE is requesting that the City of Big Rapids purchase a Surety Bond in the amount of \$200,000.00 as this will be their insurance that the City will follow through with the purchase of 1.81 acres of wetland credits in The Muskegon Watershed when they become available.

### **BACKGROUND:**

As part of the recent Runway Extension project there were wetlands that needed to be mitigated to obtain a permit to fill in two sections of wetlands that were in the runway environment. EGLE determined it to be 1.81 acres that the City needs to mitigate for with the purchase of wetland credits. These credits need to be in the Muskegon Watershed, and currently will not be available to purchase until this coming September. Because these credits are not available to purchase, the City is required, by law, to provide, as part of the permit, a Surety Bond to guarantee our compliance with conditions specified to obtain this permit.

The wetlands credits that need to be purchased total 1.81 acres for a cost of \$199,100. The cost of the Surety Bond is \$200,000, which is an amount that would cover the purchase of the required credits, if the City did not comply with the obligations of the contract with EGLE. The Surety Bond will be in force for a minimum of one year. Once the credits become available, and are purchased, written notice must be sent to the Surety, from the City of Big Rapids and EGLE acknowledging the City's contractual fulfillment and to authorize the termination of the Surety Bond. I have found an acceptable company, under EGLE's guidelines who can issue the needed surety bond. The cost for this is \$4,000.

### **RECOMMENDATION:**

It is the staff's recommendation to authorize the purchase of the Surety Bond, to be in legal compliance with the conditions of our permit, which will also allow for the completion of the project.

FROM: Stephanie Farrell<sfarrell@jmwilson.com>  
TO: bondcover@jmwilson.com  
SENT: Thursday, July 24, 2025 2:31:56 PM Eastern Daylight Time  
SUBJECT: Quote Cover Letter City of Big Rapids ~ER2709506

=====



DRAWER: INBQ  
FILENO: ~ER2709506  
FILENAME: City of Big Rapids  
AGENCY CODE: 211844

**Proposal Date:** July 24, 2025  
**Insured Name:** City of Big Rapids  
**Insured City, State, Zip:** Big Rapids, MI, 49307  
**Quote #:** ~ER2709506  
**Premium:** \$4,000.00  
**Total Taxes & Fees:** \$0.00

**Bond Limit:** \$200,000.00  
**Bond Term:** 1 year

**Bond Stipulations:** Subject to signed application by person authorized from the city who has authority to indemnify the city. Make sure we have name, title and assurance they can do so.

Bond Type: MI Dept. of Environmental, Great Lakes, and Energy Water Sources Division - Surety Bond for Mitigation Site

Dear Kelley Palaspas, As you may have heard, JM Wilson has been acquired by Ryan Specialty and is now part of the Ryan Specialty family. This quote is being placed by JM Wilson, a part of RT Specialty. We are pleased to present our quotation for your bond requirements. We appreciate the time and effort that you have spent in providing us with the necessary information. This quotation is based on the applications and any additional information that has been provided to JM Wilson. JM Wilson expressly disclaims any responsibility for any failure on your part to provide complete and accurate information.

**PRODUCER COMPENSATION:** JM Wilson is typically compensated through commission from the Surety Company for the placement of bonds in most transactions. The amount of the commission varies by bond type and by surety company. JM Wilson might also receive additional compensation. In order to place the bond requested we may charge a reasonable fee for additional services such as performing a risk analysis, comparing policies, processing submissions, communication expenses, working with underwriters on the coverage proposal, issuing bonds, or servicing the bond after issuance. Any fees charged are fully earned at inception of the bond. Our fees are applied to new bonds, renewal bonds, and endorsements. Fees applicable to each renewal and endorsement will be set forth in the quotes. It is the insurance carrier's decision whether to offer the bond quoted, and your client's decision whether to accept the quote. Our fee is not imposed by state law or the Surety Company. You, as the retail broker with the direct relationship with the Insured, must comply with all applicable laws and regulations related to disclosure of and consent and agreement to, compensation, and informing the Insured that it may request more information about producer or broker compensation that might be paid in connection with



the Insured's placement. If we request a copy of any legally required insured consent or agreement, you will provide us with a copy. If you need additional information about the compensation arrangements for services provided by JM Wilson affiliates, please contact your JM Wilson representative. Thank you for the opportunity of providing you with our quote. Your business is appreciated. Please contact me if there are any questions regarding this proposal or if we can provide any additional information regarding JM Wilson. Sincerely, Stephanie Farrell *Executive Surety Underwriter* [sfarrell@jmwilson.com](mailto:sfarrell@jmwilson.com) JM Wilson is a part of RT Specialty a division of RSG Specialty, LLC, which is a Delaware limited liability company and a subsidiary of Ryan Specialty Group, LLC. In California: RSG Specialty Insurance Services, LLC (License # 0G97516).

## COMMERCIAL BOND APPLICATION

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |                                                                                                                                                                    |                                                                                                                                  |                                          |                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Applicant (Exactly as it will appear on bond) <b>City of Big Rapids</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                                                                                                                                                                    |                                                                                                                                  |                                          |                                                                                                                     |
| Home Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                                                                                                                    |                                                                                                                                  |                                          | Single <input type="checkbox"/> Married <input type="checkbox"/><br>Legal Domestic Partner <input type="checkbox"/> |
| City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | State | Zip                                                                                                                                                                | Phone <b>231-592-4058</b>                                                                                                        | FEIN/Social Security # <b>38-6004663</b> |                                                                                                                     |
| Home E-mail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       | Business E-mail <b>mgifford@cityofbr.org</b>                                                                                                                       |                                                                                                                                  |                                          |                                                                                                                     |
| Business Address <b>226 N Michigan Avenue</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       | City <b>Big Rapids</b>                                                                                                                                             |                                                                                                                                  | State <b>MI</b>                          | Zip <b>49307</b>                                                                                                    |
| Type of Business or Individual's Occupation<br><b>Municipality</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       | Type of Organization Individual <input type="checkbox"/> Partnership <input type="checkbox"/><br>LLC <input type="checkbox"/> Corporation <input type="checkbox"/> |                                                                                                                                  | How long in business?                    |                                                                                                                     |
| Name & Address of Owner or Co-Applicant or Indemnitor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       |                                                                                                                                                                    | Social Security #                                                                                                                |                                          | % of Ownership                                                                                                      |
| Name & Address of Owner or Co-Applicant or Indemnitor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       |                                                                                                                                                                    | Social Security #                                                                                                                |                                          | % of Ownership                                                                                                      |
| Obligee Name & Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |       | Type of Bond <b>Surety</b>                                                                                                                                         | Amount of Bond \$ <b>\$200,000</b>                                                                                               |                                          | Effective Date                                                                                                      |
| Previous Surety <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, give name and reason for change.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                                                                                                                    | Other Surety Bonds in force? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, provide name of Surety: |                                          |                                                                                                                     |
| Has the applicant had any bankruptcies, liens, or judgments or compromises with any creditors in the past 5 years? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, submit for underwriting.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                                                                                                                                                                    |                                                                                                                                  |                                          |                                                                                                                     |
| <b>NOTICE:</b> The undersigned individual(s) hereby gives consent to Merchants Bonding Company (Mutual), to obtain a consumer credit report about the individual in connection with this application for insurance. This authorization extends to subsequent consumer credit reports obtained for the purpose of reviewing, increasing the amount of, or any other legitimate purpose associated with the bond.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |                                                                                                                                                                    |                                                                                                                                  |                                          |                                                                                                                     |
| <b>INDEMNITY AGREEMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |       |                                                                                                                                                                    |                                                                                                                                  |                                          |                                                                                                                     |
| <p>This Agreement entered into by and between the undersigned applicant or applicants and/or indemnitors, hereinafter called the undersigned, and MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa, and MERCHANTS NATIONAL INDEMNITY COMPANY, an operating name of Merchants National Bonding, Inc., in California, hereinafter called the Company, witnesseth:</p> <p>The undersigned certifies that the foregoing statements and declarations are true and, in consideration of the Company executing as surety the herein bond applied for, does hereby promise and agree to pay an annual premium to the Company until such time as the undersigned shall furnish the Company with evidence satisfactory to it of the complete termination of its liability on said bond.</p> <p>The undersigned further agrees to indemnify and save harmless the said Company, in connection with any bond executed on behalf of the person or entity named as applicant, for, from and against any and all losses, costs, damages and expenses of any nature whatsoever, including counsel fees and expenses, and reimburse said Company for loss adjusting expenses and compensation at the rate of \$100.00 per day for officers and \$50.00 per day for all other personnel, which may accrue to the said Company by reason of the said Company having become surety on said bonds.</p> <p>The undersigned hereby further agrees that the vouchers or other evidence of payments made by the said Company under its obligation of suretyship shall be conclusive evidence against the undersigned of the fact and extent of the undersigned's liability to the said Company under said obligation of the undersigned, whether said payments were made to discharge a penalty thereunder, incurred in the investigation of a claim made thereon or adjusting a loss or claim in connection therewith, or in completing the work covered thereby, and whether voluntarily made or paid after suit and judgment against said Company.</p> <p>If the Company shall set up a reserve to cover any claim, suit or judgment under any such bonds, the undersigned will, immediately upon demand, deposit with the Company a sum of money equal to such reserve, such sum to be held by the Company as collateral security on such bonds, and such sum and any other money or property which shall have been, or shall hereafter be, pledged as collateral security on any such bond shall, unless otherwise agreed in writing by the Company, be available, in the discretion of the Company, as collateral security on any other bonds coming within the scope of this Agreement.</p> <p>This Agreement shall constitute a Security Agreement to the Company and also a Financing Statement, both in accordance with the provisions of the Uniform Commercial Code of every jurisdiction wherein such Code is in effect. This Agreement shall, if recorded, constitute a consensual lien upon any and all real estate owned by the undersigned at the time of such recording. However, the filing or recording of this Agreement shall be solely at the option of the Company, and the failure to do so shall not release or impair any of the obligations of the undersigned under this Agreement or otherwise arising, nor shall such failure be in any manner in derogation of the rights of the Company under this Agreement or otherwise. The use of this Agreement as a Security Agreement, Financing Statement or consensual lien shall in no way abrogate, restrict or limit the rights of the Company under this Agreement or at law or in equity. The undersigned waive all right to claim any property, including homestead, as exempt from levy, execution, sale or other legal process.</p> <p>It is further agreed that the terms and conditions of this application shall also apply to increases and/or decreases in the amount of any and all bonds, and shall also apply to all renewals whether the bond is continuous, renewed by Continuation Certificate or by the filing of a new bond.</p> <p>The Company shall have the right, and is hereby authorized, but not required to fill up any blanks left herein, and to correct any errors in the description of any of said bonds, or in said premium or premiums, or in any name or names, it being agreed that such insertion or corrections, when so made, shall be prima facie correct. This application shall be liberally construed so as to fully protect and indemnify the Company, its successors, assigns and reinsurers. The undersigned appoints any officer of the Company as the attorney-in-fact of the undersigned with full right to execute on behalf of the undersigned any document necessary to carry into effect the intent and purposes of this Agreement.</p> <p>A facsimile copy of this document or the signature(s) thereon, shall be deemed to be an original and/or original signature(s) for all purposes.</p> |       |                                                                                                                                                                    |                                                                                                                                  |                                          |                                                                                                                     |
| <div style="display: flex; justify-content: space-between;"> <span><b>Date &gt;&gt;&gt;</b> Dated the _____ day of _____, _____.</span> <span><b>Sign Application Twice - as Applicant and Indemnitor</b></span> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |                                                                                                                                                                    |                                                                                                                                  |                                          |                                                                                                                     |
| <b>Witness</b><br>In consideration of the Company executing the bond herein applied for, I (we) jointly and severally join in the above indemnity agreement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |                                                                                                                                                                    | <b>Applicant's Signature</b>                                                                                                     |                                          |                                                                                                                     |
| _____<br>Witness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       | _____<br>Indemnitor                                                                                                                                                |                                                                                                                                  |                                          |                                                                                                                     |
| _____<br>Witness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       | _____<br>Indemnitor                                                                                                                                                |                                                                                                                                  |                                          |                                                                                                                     |
| _____<br>Witness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       | _____<br>Indemnitor                                                                                                                                                |                                                                                                                                  |                                          |                                                                                                                     |
| _____<br>Witness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |       | _____<br>Indemnitor                                                                                                                                                |                                                                                                                                  |                                          |                                                                                                                     |

<<< Sign

Date >>>

Sign >>>





GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
WATER RESOURCES DIVISION



PHILLIP D. ROOS  
DIRECTOR

June 25, 2025

VIA EMAIL

Steve Schroeder  
City of Big Rapids  
21325 18 Mile Road  
Big Rapids, Michigan 49307

Dear Steve Schroeder:

SUBJECT: Draft Permit for Countersignature;  
Submission Number: HQA-Q7V2-TBNRG; County: Mecosta; Project  
Name: RQB Roben-Hood Airport

The Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division (WRD), has reviewed the above subject application for permit pursuant to Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The purpose of the project, as depicted in your application, is to extend Runway 9/27 (10/28).

We have determined that the project as proposed can be permitted. Enclosed is a draft permit that requires a countersignature.

Carefully review and fully understand the draft permit and all of its associated terms and conditions. As the permittee, you are responsible for assuring that the project is completed as authorized and in compliance with permit requirements. If you agree to all of the terms and conditions, sign the draft permit in the space provided, initial each of the drawings, and return the **entire** document to our office within 30 days of the date of this letter. **The permittee shall submit documentation of credit acquisition to EGLE prior to signature of this permit by EGLE.**

This permit is not valid until signed by an official of the WRD. Upon return of the signed and initialed document from you, the WRD will issue the permit in a timely manner and return a signed copy to you. Construction activity is not authorized to begin until a valid permit is held at the project site. If you do not return the signed and initialed document by the required date, an application denial letter will be sent to you.

If you have any questions regarding the specifics of this draft permit, please contact me at (616) 295-2787; [JohnsonB67@Michigan.gov](mailto:JohnsonB67@Michigan.gov); or EGLE, WRD, P.O. Box 30458, Lansing, Michigan 48909-7958; Please include your submission number, HQA-Q7V2-TBNRG, in your response.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Johnson", with a large, stylized "B" and a cursive "Johnson".

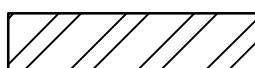
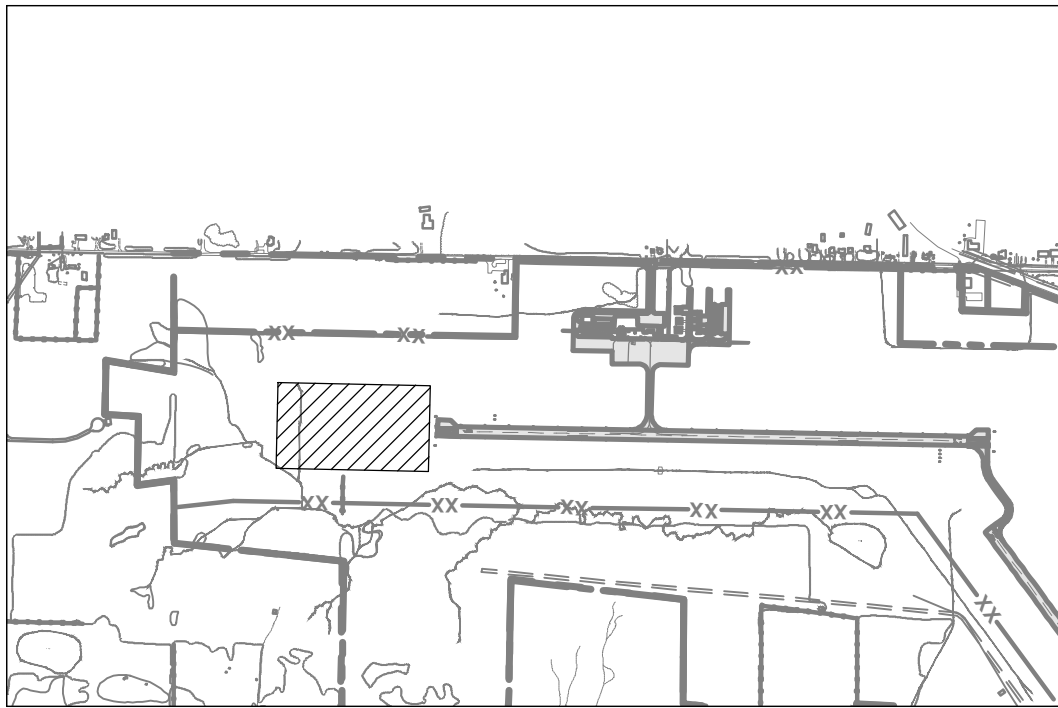
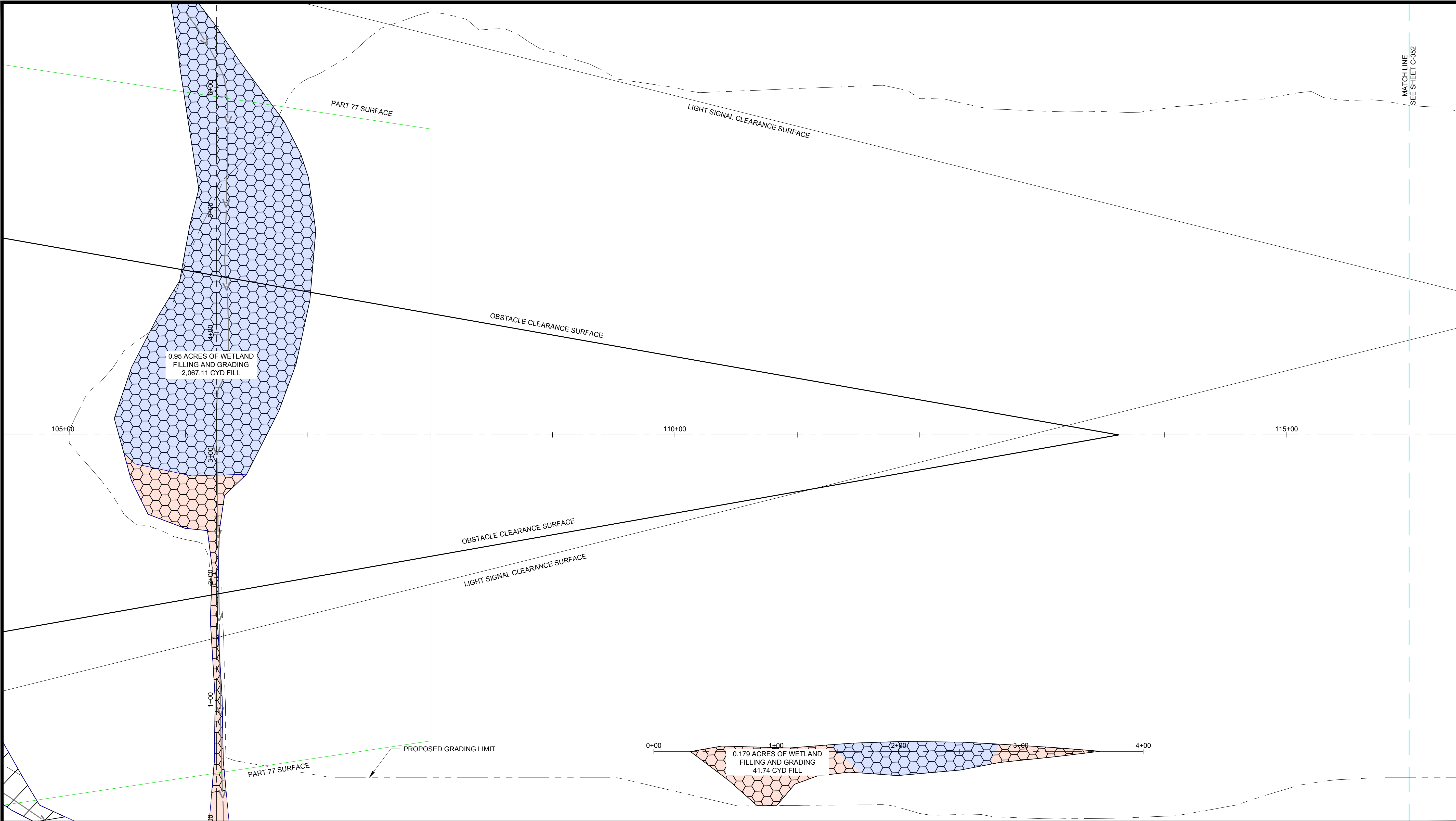
Benjamin Johnson  
Grand Rapids District Office  
Water Resources Division

Enclosure

cc: James Watling, EGLE  
William Ballard, Mead & Hunt



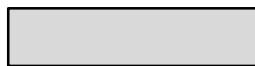
X:\3201800\221020.01\TECHCADD\DRAWINGS\SC-053 DEMOLITION PLAN SHEETS 4 OF 4\_COLOR\_PERMIT.DWG  
2/24/2025 10:31:51 AM



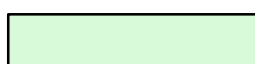
REMOVE EXISTING PAVEMENT



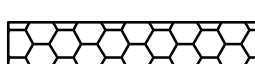
EMERGENT WETLAND



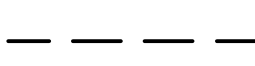
SCRUB/SHRUB WETLAND



FORESTED WETLAND



WETLAND TREE CLEARING,  
GRUBBING OR MUCK EXCAVATION  
AREA AS NOTED



SAWCUT PAVEMENT



REMOVE PAVEMENT  
MARKING (GRINDING)

X

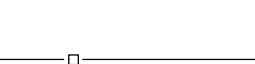
REMOVE ITEM

R

REMOVE BASE, SALVAGE  
ITEM AND EQUIPMENT  
FOR RELOCATION

//CON//

CONDUIT REMOVAL/  
ABANDONMENT

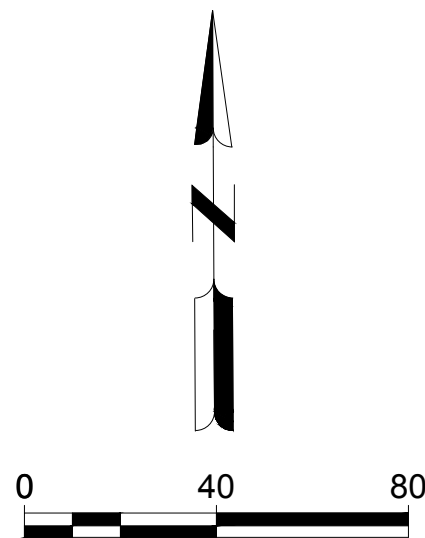


SILT FENCE

#### NOTES:

1. THE CONTRACTOR SHALL USE CAUTION WHEN REMOVING ANY ITEMS MARKED FOR REMOVAL AS TO NOT CAUSE UNNECESSARY DAMAGE TO THE ITEMS. THE AIRPORT SHALL HAVE THE OPTION TO SALVAGE ANY OF THE REMOVED ITEMS PRIOR TO THE CONTRACTOR'S DISPOSAL.
2. ANY ITEMS REMOVED BY THE CONTRACTOR THAT ARE NOT SPECIFICALLY CALLED OUT ON THE DEMOLITION SHEETS SHALL BE INCLUDED IN THE UNCLASSIFIED EXCAVATION PAY ITEM.
3. ALL WORK NECESSARY TO REMOVE CABLE FROM DUCT BANK SHALL BE CONSIDERED INCIDENTAL TO ELECTRICAL PAY ITEMS.
4. ORGANIC MATERIAL EXCAVATED SHALL BE DISPOSED OF IN DESIGNATED ON-SITE AREAS.
5. THE CONTRACTOR SHALL NOT DISTURB THE SOIL WHEN CLEARING IN WETLAND AREAS. THIS SHALL BE PERFORMED AT THE CONTRACTOR'S DISCRETION BUT MAY INCLUDE WORKING WHILE THE GROUND IS FROZEN, HAND CUTTING TREES, USE OF MATS, ETC.

6. THE CONTRACTOR MAY BURN TREES ON-SITE IN UPLAND AREAS. BURNING SHALL TAKE PLACE WHILE RUNWAY 10-28 IS CLOSED DURING PHASE 2. ALL CLEARED MATERIAL SHALL BE DISPOSED OF OFF-SITE.
7. CONTRACTOR SHALL SQUARE UP ALL MARKING REMOVALS AS SHOWN IN THE PLANS.
8. CONTRACTOR SHALL SEAL COAT ALL MARKING REMOVAL AREAS. SEE SPECIFICATIONS FOR ADDITIONAL SEALING INFORMATION.
9. WETLAND VEGETATION EXCEEDING NOTED HEIGHTS SHALL BE REMOVED TO GROUND. ONLY EXISTING UNTRIMMED VEGETATION MAY REMAIN IF BELOW ALLOWABLE HEIGHT.



## ROBEN-HOOD AIRPORT RUNWAY 10 EXTENSION

21325 18 MILE RD  
BIG RAPIDS, MI 49307

ISSUED  
01/16/24  
ISSUED FOR  
CONSTRUCTION

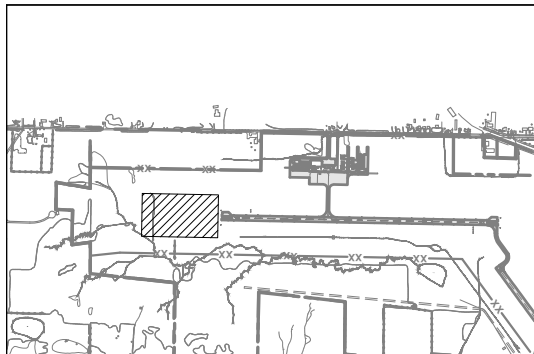
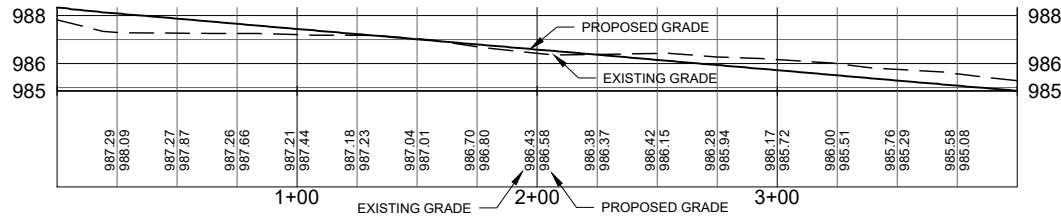
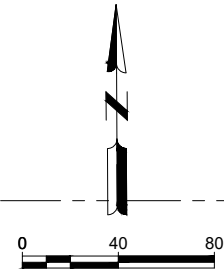
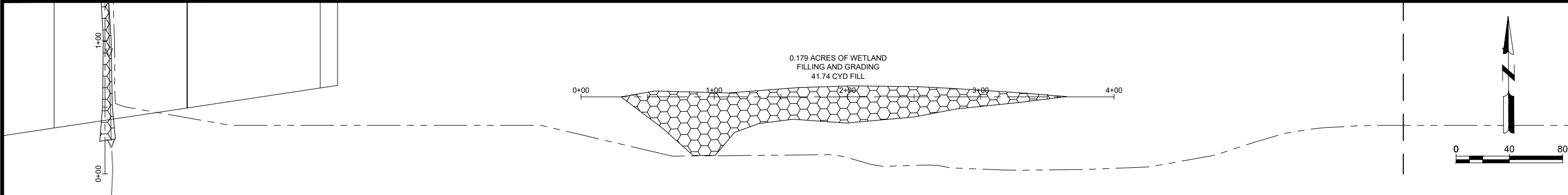
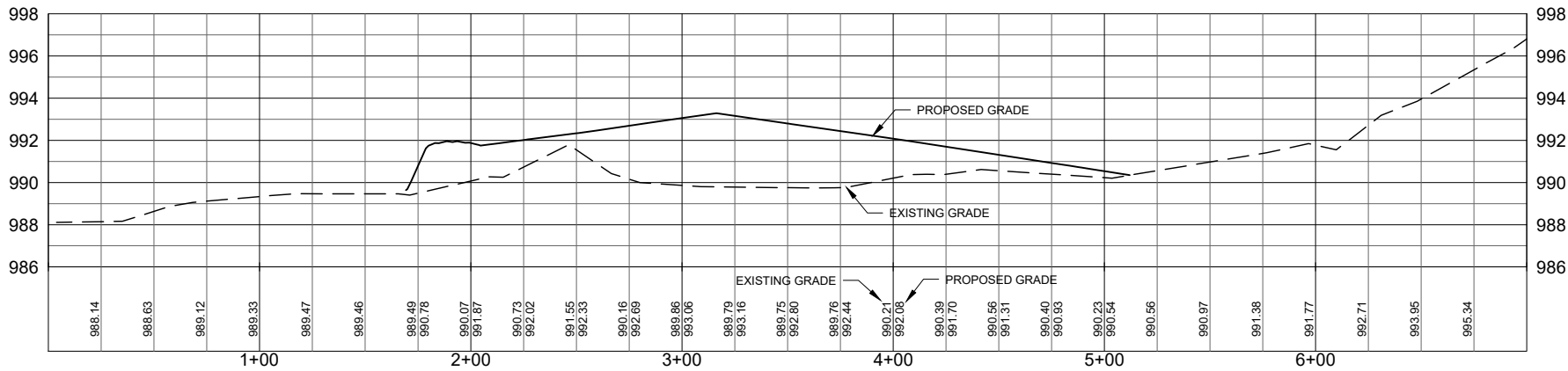
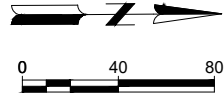
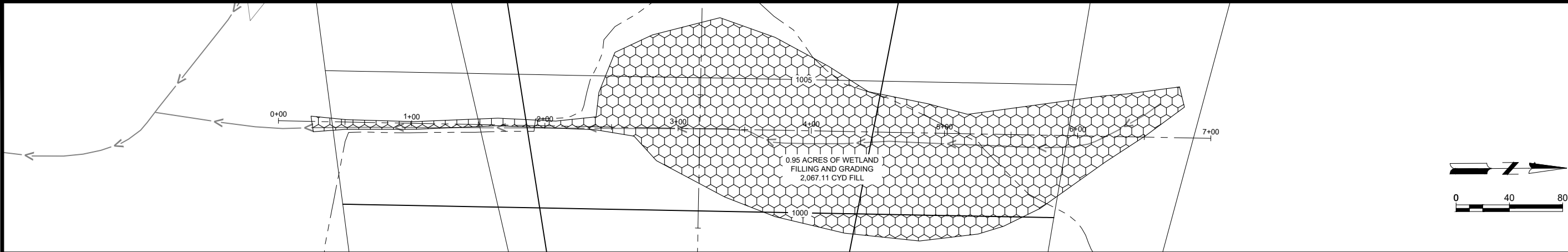
AIP NO.: TBD  
M&H NO.: 3201800-221020.01  
DATE: JANUARY 16, 2024  
DESIGNED BY: ALP  
DRAWN BY: ALP  
CHECKED BY: SCT  
DO NOT SCALE DRAWINGS

SHEET CONTENTS  
DEMOLITION PLAN  
SHEET 2 OF 4

SHEET NO. 8 of 44

C-051-1

X:\3201800\221020.01\TECHCAD\DRAWINGS\C-053 DEMOLITION PLAN SHEETS 4 OF 4.DWG  
11/19/2024 7:33:51 AM



### LEGEND

|  |                                                         |  |                                                        |
|--|---------------------------------------------------------|--|--------------------------------------------------------|
|  | REMOVE EXISTING PAVEMENT                                |  | REMOVE ITEM                                            |
|  | REMOVE PAVEMENT MARKING (GRINDING)                      |  | REMOVE BASE, SALVAGE ITEM AND EQUIPMENT FOR RELOCATION |
|  | WETLAND TREE CLEARING AREA, NO GROUND DISTURBANCE       |  | CONDUIT REMOVAL/ABANDONMENT                            |
|  | UPLAND TREE CLEARING & GRUBBING AREA                    |  | SILT FENCE                                             |
|  | WETLAND TREE CLEARING, GRUBBING, & MUCK EXCAVATION AREA |  |                                                        |
|  | SAWCUT PAVEMENT                                         |  |                                                        |

### NOTES:

1. THE CONTRACTOR SHALL USE CAUTION WHEN REMOVING ANY ITEMS MARKED FOR REMOVAL AS TO NOT CAUSE UNNECESSARY DAMAGE TO THE ITEMS. THE AIRPORT SHALL HAVE THE OPTION TO SALVAGE ANY OF THE REMOVED ITEMS PRIOR TO THE CONTRACTOR'S DISPOSAL.
2. ANY ITEMS REMOVED BY THE CONTRACTOR THAT ARE NOT SPECIFICALLY CALLED OUT ON THE DEMOLITION SHEETS SHALL BE INCLUDED IN THE UNCLASSIFIED EXCAVATION PAY ITEM.
3. ALL WORK NECESSARY TO REMOVE CABLE FROM DUCT BANK SHALL BE CONSIDERED INCIDENTAL TO ELECTRICAL PAY ITEMS.
4. ORGANIC MATERIAL EXCAVATED SHALL BE DISPOSED OF IN DESIGNATED ON-SITE AREAS.
5. THE CONTRACTOR SHALL NOT DISTURB THE SOIL WHEN CLEARING IN WETLAND AREAS. THIS SHALL BE PERFORMED AT THE CONTRACTOR'S DISCRETION BUT MAY INCLUDE WORKING WHILE THE GROUND IS FROZEN, HAND CUTTING TREES, USE OF MATS, ETC.
6. THE CONTRACTOR MAY BURN TREES ON-SITE IN UPLAND AREAS. BURNING SHALL TAKE PLACE WHILE RUNWAY 10-28 IS CLOSED DURING PHASE 2. ALL CLEARED MATERIAL SHALL BE DISPOSED OF OFF-SITE.
7. CONTRACTOR SHALL SQUARE UP ALL MARKING REMOVALS AS SHOWN IN THE PLANS.
8. CONTRACTOR SHALL SEAL COAT ALL MARKING REMOVAL AREAS. SEE SPECIFICATIONS FOR ADDITIONAL SEALING INFORMATION.

**Mead & Hunt**

Mead and Hunt, Inc.  
2605 Port Lansing Road  
Lansing, MI 48906  
phone: 517-321-8334  
meadhunt.com

© Copyright 2023 Mead & Hunt, Inc.  
This document, or any portion thereof, shall not be duplicated, disclosed, or used on any other project or extension of this project except by written agreement with Mead & Hunt, Inc. Mead & Hunt shall not be responsible for any unauthorized use of, or alteration to these documents.

## ROBEN-HOOD AIRPORT RUNWAY 10 EXTENSION

21325 18 MILE RD  
BIG RAPIDS, MI 49307

ISSUED  
01/16/24  
ISSUED FOR CONSTRUCTION

AIP NO.: TBD  
M&H NO.: 3201800-221020.01  
DATE: JANUARY 16, 2024  
DESIGNED BY: ALP  
DRAWN BY: ALP  
CHECKED BY: SCT  
DO NOT SCALE DRAWINGS

SHEET CONTENTS  
DEMOLITION PLAN  
PROFILE

SHEET NO. 8 of 44

C-051-P





MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
Water Resources Division

**Surety Bond for a Mitigation Site**

By authority of Part 353 NREPA 1994 PA 451, as amended

Bond Number: enter Bond Number      EGLE Permit Number: enter Permit Number

Permittee Name: enter name

Permittee Address: enter address

City, State, County, Zip: enter City, State, County, Zip

enter Permittee's name, as Principal, and enter name of issuing bond company, an insurer licensed to do business in the State of Michigan (the "Surety"), are firmly bound unto the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division (WRD), for the sum of enter dollar amount and 00/100 (enter dollar amount in numbers), lawful money of the United States of America, for the payment of which we bind ourselves, our executors, administrators and heirs, successors and assigns, jointly and severally.

Sealed with our seals, dated the enter date day of enter month, enter year.

WHEREAS, the Principal, as a condition of EGLE permit number enter EGLE permit number (Permit), is required to establish a wetland mitigation area that is within the State of Michigan and that is in accordance with the provisions of Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the administrative rules promulgated thereunder. The Principal is required by law to provide, as part of the Permit, a Surety Bond to guarantee compliance with conditions specified within the aforementioned Permit.

NOW, THEREFORE, the conditions of this obligation are such that in the event that the EGLE-WRD, in accordance with the provisions of Part 303 and the administrative rules promulgated thereunder, issues a violation notice or other order indicating that the Principal has failed to comply with the requirements of the Permit, the EGLE-WRD shall have recourse to the rights created under this Surety Bond. The Principal shall perform the wetland mitigation as required by the Permit, take corrective action in accordance with the violation notice or order of the EGLE-WRD, or the Surety shall make payment guaranteed by this Surety Bond. These funds shall allow the EGLE-WRD to construct and monitor the required wetland mitigation or initiate corrective actions to complete the mitigation in accordance with the terms and conditions of the Permit.

Should the EGLE-WRD determine that completion of the approved wetland mitigation plan is not feasible or is impractical, the EGLE-WRD reserves the right to use the funds to implement wetland mitigation through any of the following options: (1) acquisition of approved credits from a wetland mitigation bank, established under R 281.951 *et seq.*, (2) restoration of previously existing wetlands, (3) creation of new wetlands, or (4) preservation of existing wetlands at an alternative location.

Partial drawings are permitted. This original bond must be submitted to us together with any drawings hereunder for our endorsement of any payments by us and/or for cancellation.

The liability of the Surety shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the Surety Bond, but in no event shall the obligation of the Surety hereunder exceed the amount of said penal sum.

The Surety Bond shall be, and continue to be, in force for a minimum of one (1) year, but such expiration date shall be automatically extended for periods of one year, unless, not less than 90 days before the current expiration date, we notify both the EGLE-WRD and the Principal by certified mail of our decision not to extend the current expiration date. We agree that the 90-day period shall begin on the date when both you and the Principal have received the notice, as evidenced by the return receipts. If the Principal does not extend the expiration date of the Surety Bond or establish alternate financial assurance within 30 days after receipt of an expiration or cancellation notice by the Surety, the EGLE-WRD may draw on the Surety Bond.

The Principal may terminate this Surety Bond by sending written notice to the Surety, provided, however, that no such notice shall become effective until the Surety receives written authorization for termination of the Surety Bond from the EGLE-WRD.

We certify that we, the Surety company issuing the Bond, at a minimum, are among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of Treasury.

The following signatures certify that we are authorized to execute this Surety Bond on behalf of the Principal and the Surety and that the wording of this Surety Bond is identical to the wording provided by the EGLE-WRD, as of the date shown immediately below.

IN WITNESS WHEREOF, we, the Principal and the Surety, have executed this Surety Bond, affixed our seals, and attached the justification or power of attorney as of the day and date first above written.

\_\_\_\_\_  
Principal

By: \_\_\_\_\_

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

Authorized Agent and Attorney in Fact

\_\_\_\_\_  
Address of Surety

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Date



**When completed, send the original bond to:**

State of Michigan  
Michigan Department of Environment, Great Lakes, and Energy  
Water Resources Division  
Administration Section, Finance Unit  
525 West Allegan, 3<sup>rd</sup> Floor South  
Lansing, Michigan 48933

If you need this information in an alternate format, contact [EGLE-Accessibility@Michigan.gov](mailto:EGLE-Accessibility@Michigan.gov) or call 800-662-9278.

EGLE does not discriminate on the basis of race, sex, religion, age, national origin, color, marital status, disability, political beliefs, height, weight, genetic information, or sexual orientation in the administration of any of its program or activities, and prohibits intimidation and retaliation, as required by applicable laws and regulations. Questions or concerns should be directed to the Nondiscrimination Compliance Coordinator at [EGLE-NondiscriminationCC@Michigan.gov](mailto:EGLE-NondiscriminationCC@Michigan.gov) or 517-249-0906.

This form and its contents are subject to the Freedom of Information Act and may be released to the public.



**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
WATER RESOURCES DIVISION  
PERMIT**

---

**Issued To:**

**Steve Schroeder  
City of Big Rapids  
21325 18 Mile Road  
Big Rapids, Michigan 49307**

Permit No: WRP045364 v.1  
Submission No.: HQA-Q7V2-TBNRG  
Site Name: 54 -RQB Roben-Hood Airport  
Issued: DRAFT  
Revised:  
Expires: DRAFT

This permit is being issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); specifically:

- |                                                                                                |                                                                         |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> Part 301, Inland Lakes and Streams                                    | <input type="checkbox"/> Part 323, Shorelands Protection and Management |
| <input checked="" type="checkbox"/> Part 303, Wetlands Protection                              | <input type="checkbox"/> Part 325, Great Lakes Submerged Lands          |
| <input type="checkbox"/> Part 315, Dam Safety                                                  | <input type="checkbox"/> Part 353, Sand Dunes Protection and Management |
| <input type="checkbox"/> Part 31, Water Resources Protection (Floodplain Regulatory Authority) |                                                                         |

EGLE certifies that the activities authorized under this permit are in compliance with the State Coastal Zone Management Program and certifies without conditions under the Federal Clean Water Act, Section 401 that the discharge from the activities authorized under this permit will comply with Michigan's water quality requirements in Part 31, Water Resources Protection, of the NREPA and associated administrative rules, where applicable.

Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:

**Authorized Activity:**

**Extend Runway 9/27 (10/28), an additional 700 feet west. As part of the runway extension, dredge 5,722 cubic yards and place 17,759 cubic yards of fill in adjacent wetlands, impacting 0.22 acres of emergent wetland and 0.909 acres of scrub-shrub wetland.**

Waterbody Affected: Adjacent wetlands  
Property Location: Mecosta County, Big Rapids Township, Town/Range/Section 15N10W04



**Authority granted by this permit is subject to the following limitations:**

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.
- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with 2013 PA 174 (Act 174) and comply with each of the requirements of Act 174.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify EGLE within one week after the completion of the activity authorized by this permit.
- J. This permit shall not be assigned or transferred without the written approval of EGLE.
- K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
- L. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31 of the NREPA, and wetlands).
- M. In issuing this permit, EGLE has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, EGLE may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
- N. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the state: (1) provides the permittee or its designated representative with a written notice of the claim or cause of action within 30 days after it is received by the state, and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act, 1969 PA 306, as amended, challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
- O. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, EGLE may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
- P. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from EGLE. Such revision request shall include complete documentation supporting the modification and revised plans detailing the

proposed modification. Proposed modifications must be approved, in writing, by EGLE prior to implementation.

- Q. This permit may be transferred to another person upon written approval of EGLE. The permittee must submit a written request to EGLE to transfer the permit to the new owner. The new owner must also submit a written request to EGLE to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties that includes all the above information may be provided to EGLE. EGLE will review the request and, if approved, will provide written notification to the new owner.
- R. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.
- S. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.
- T. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent (CEA).
- U. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.
- V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property are subject to civil damage litigation.
- W. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the water body are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.
- X. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the Michigan Department of Natural Resources, Fisheries Division.
- Y. Work to be done under authority of this permit is further subject to the following special instructions and specifications:
  - 1. Authority granted by this permit does not waive compliance requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA. Any discharge of sediment into waters of the state and/or off the road right-of-way is a violation of this permit, Part 91, and Part 31, Water Resources Protection, of the NREPA. A violation of these parts subjects the permittee to potential fines and penalties.
  - 2. This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.
  - 3. The permittee is responsible for acquiring all necessary easements or rights-of-way before commencing any work authorized by this permit. All construction operations relating to or part of this project shall be confined to the existing right-of-way limits or other acquired easements.
  - 4. Temporary soil erosion and sedimentation control measures shall be installed before or upon commencement of the earth change and shall be maintained daily. Temporary soil erosion and



sedimentation control measures shall be maintained until permanent soil erosion and sedimentation control measures are in place and the area is stabilized. Permanent soil erosion and sedimentation control measures for all slopes, channels, ditches, or any disturbed area shall be installed within five (5) calendar days after final grading, or the final earth change has been completed.

5. Prior to the start of construction, all adjacent non-work wetland areas shall be protected by properly trenched sedimentation barrier to prevent sediment from entering the wetland. Orange construction fencing shall be installed as needed to prohibit construction personnel and equipment from entering or performing work in these areas. Fence shall be maintained daily throughout the construction process. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site, the sedimentation barrier shall then be removed in its entirety and the area restored to its original configuration and cover.
6. All raw areas in uplands resulting from the permitted construction activity shall be effectively stabilized with sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner to prevent erosion and any potential siltation to surface waters or wetlands. Temporary stabilization measures shall be installed before or upon commencement of the permitted activity and shall be maintained until permanent measures are in place. Permanent measures shall be in place within five (5) days of achieving final grade.
7. All raw earth within 100 feet of a lake, stream, or wetland that is not brought to final stabilization by the end of the active growing season shall be temporarily stabilized with mulch blankets in accordance with the following dates: September 20th for the Upper Peninsula, October 1st for the Lower Peninsula north of US-10, and October 10th for the Lower Peninsula south of US-10
8. This permit placard shall be kept posted at the work site, in a prominent location at all times for the duration of the project, or until permit expiration.
9. This permit is being issued for the maximum time allowed and no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by EGLE, will be for a five-year period beginning at the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.
10. All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed shall be placed on upland (non-wetland, non-floodplain or non-bottomland), prepared for stabilization, revegetated and reseeded with native Michigan species appropriate to the site, and mulched in such a manner so as to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.
11. All fill/backfill shall consist of clean inert material that will not cause siltation nor contain soluble chemicals, organic matter, pollutants, or contaminants. All fill shall be contained in such a manner so as not to erode into any surface water, floodplain, or wetland.
12. If the project, or any portion of the project, is stopped and lies incomplete for any length of time other than that encountered in a normal work week, every precaution shall be taken to protect

the incomplete work from erosion, including the placement of temporary gravel bag riprap, temporary seed and mulch, or other acceptable temporary protection.

13. Issuance of this permit is contingent upon the effect determinations to federally listed threatened and endangered species, as can be found within the United States Fish and Wildlife Service (USFWS) "All Species Michigan Determination Key" verification letter provided with the permit application and supplementary documents approved by USFWS staff. The permittee is responsible for adhering to all of the agreed-upon conservation measures listed within the verification letter and supporting documents.
14. The permittee and contractors shall take steps to minimize the risk of spreading terrestrial and aquatic invasive species during this project where feasible, including:
  - a. Visually inspecting footwear (boots, hip-boots, and waders), and removing and properly disposing of any plants or mud.
  - b. Visually inspecting field equipment (nets, shovels, rakes, etc.) and vehicles, and removing and properly disposing of any plants and mud.
  - c. Draining all water from vehicles and equipment prior to leaving the site and before entering a new waterbody.
  - d. Thoroughly drying equipment (5-7 days, if possible) between sites, when possible.
  - e. Disinfecting vehicles and equipment between sites (e.g. diluted bleach solution, heated pressure washer), when possible. Disinfection shall be conducted away from surface waters, where the disinfecting solution will not enter any storm sewers and/or surface waters.
  - f. Typical diluted bleach solution treatment is one half cup (4 fluid ounces) bleach to 5 gallons of water, applied by spraying or sponge so that the surface is thoroughly exposed to bleach solution for 10 minutes.
  - g. Typical heated pressure wash is 140°F water temperature, sprayed for 5-10 seconds.
  - h. Thoroughly washing vehicles and boats between sites (e.g. drive-through car wash).
  - i. Using only native plants and seed for restorations and best management practices.
  - j. If invasive aquatic or terrestrial plants are removed from a site, the permittee will take steps to minimize the spread of these species. Dispose of invasive plant material by bagging and transporting to a landfill, composting, or burning, as appropriate and in compliance with local and state laws.

A "Watch List" of Michigan's high priority aquatic invasive species along with how to report sightings can be found at <https://www.michigan.gov/invasives/id-report/watchlist>

15. **The permittee shall, as a primary condition of this permit, mitigate the loss of 1.13 acres of wetland, consisting of 0.22 acres of emergent wetland and 0.91 acres of scrub-shrub wetland, by acquiring 0.33 acres of emergent wetland and 1.36 acres of scrub-shrub wetland from an approved bank site in the Muskegon Watershed. The permittee has provided a surety bond in the amount of \$200,000 to ensure that the mitigation banking credits will be purchased once available. The permittee shall submit documentation of credit acquisition to EGLE prior to the release of the financial assurance.**



16. To satisfy permit requirements for WRP044477, the permittee shall mitigate the conversion of 0.12 acres of forested wetland to emergent wetland with the acquisition of 0.12 acres of forested wetland credits from an approved bank site in the Muskegon Watershed.

Issued By:

Benjamin Johnson  
Transportation Review Unit  
Water Resources Division  
616-295-2787

THIS PERMIT MUST BE SIGNED BY THE PERMITTEE TO BE VALID.

I hereby assure that I have read, am familiar with, and agree to adhere to the terms and conditions of this permit.

---

Permittee Signature

---

Date

cc: Big Rapids Township Clerk  
Mecosta County Drain Commissioner  
Mecosta County CEA  
Melanie Burdick, EPA  
Michael Pennington, EGLE  
Riley Walsh, EGLE  
James Watling, EGLE  
William Ballard, Mead & Hunt  
Mark Tonello, DNR



## NOTICE OF AUTHORIZATION

**Permit Number: WRP045364 v. 1**  
**Site Name: 54 -RQB Roben-Hood Airport**

**Date Issued: DRAFT**  
**Expiration Date: DRAFT**

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909-7958, under provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; specifically:

- ☐ Part 31, Floodplain Regulatory Authority of the Water Resources Protection.
- ☐ Part 301, Inland Lakes and Streams.
- ☒ Part 303, Wetlands Protection.
- ☐ Part 315, Dam Safety.
- ☐ Part 323, Shorelands Protection and Management.
- ☐ Part 325, Great Lakes Submerged Lands.
- ☐ Part 353, Sand Dunes Protection and Management.

**Authorized activity:**

**Extend Runway 9/27 (10/28), an additional 700 feet west. As part of the runway extension, dredge 5,722 cubic yards and place 17,759 cubic yards of fill in adjacent wetlands, impacting 0.22 acres of emergent wetland and 0.909 acres of scrub-shrub wetland.**

To be conducted at property located in: Mecosta County, Waterbody: adjacent wetlands Section 04, Town 15N, Range 10W, Big Rapids Township

**Permittee:**

Steve Schroeder  
City of Big Rapids  
21325 18 Mile Road  
Big Rapids, Michigan 49307

Issued By:

A handwritten signature in black ink, appearing to read 'Ben Johnson', written over a horizontal line.

Benjamin Johnson  
Transportation Review Unit  
Water Resources Division  
616-295-2787

*This notice must be displayed at the site of work.*  
*Laminating this notice or utilizing sheet protectors is recommended.*  
Please refer to the above permit number with any questions or concerns.



# WETLAND MITIGATION BANK CREDIT PURCHASE AGREEMENT FOR MUSKEGON WETLAND MITIGATION BANK

## PURCHASER

Organization: City of Big Rapids

Address: 226 North Michigan Avenue, Big Rapids, MI 49307

Contact: Steve Schroeder

Email: [sschroeder@bigrapidsdps.org](mailto:sschroeder@bigrapidsdps.org)

Phone: 231-679-1583

## PERMITTING AGENCY

Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division

District Office: Transportation Review Unit

Address: P.O. Box 30458, Lansing MI 48909

Contact: Ben Johnson, [JohnsonB67@michigan.gov](mailto:JohnsonB67@michigan.gov), 616-295-2787

Submission Number: HQA-Q7V2-TBNRG

## WETLAND IMPACT INFORMATION

Project Name: 54-RQB- Roben-Hood Airport

Impact Location: T15N, R10W, S04, Big Rapids Twp, Mecosta County

Impact Wetland type: PEM, PSS, and PFO conversion

Replacement Ratio: 1.5:1 and 1:1

## CREDITS TO BE PURCHASED

| Credit type:        | Acreage: | Purchase price: |
|---------------------|----------|-----------------|
| Palustrine Forested | 1.81     | \$110,000/acre  |
|                     |          |                 |
| Total:              |          | \$199,100       |

By signing below the parties certify they are authorized to act on behalf of their organizations, and have executed this Agreement as of the date set forth below.

If a permit is not acquired from the EGLE this agreement is null and void.

Muskegon Wetland Mitigation Bank, Sponsor

---

Signature of Representative, Chad Crandell

---

Date

Purchaser

---

Authorized Agent

---

Date