

Gregg  
Miller  
Nash

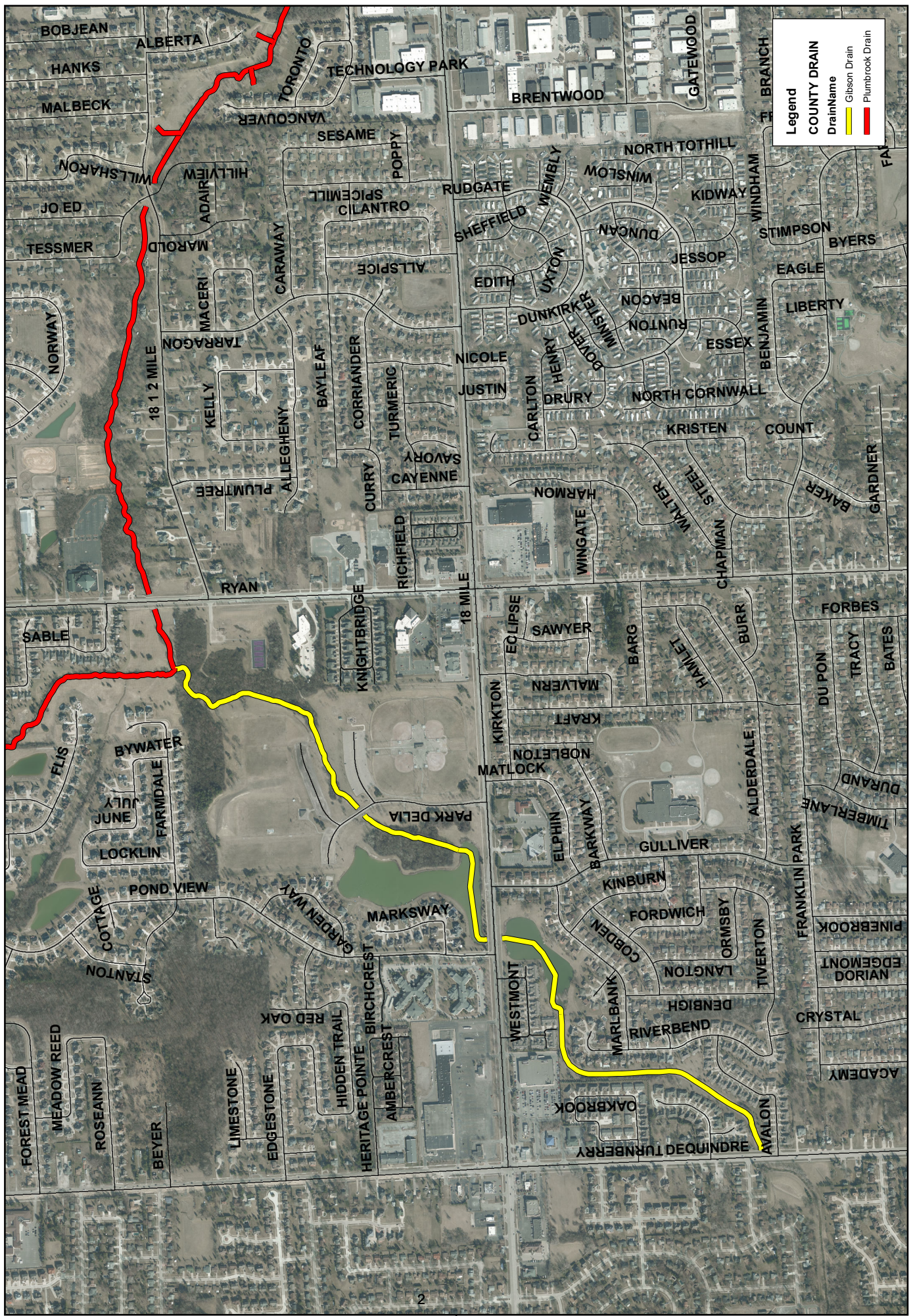
GIBSON DRAIN  
INTER-COUNTY DRAINAGE BOARD  
NOVEMBER 13, 2023  
1:00 P.M.  
AGENDA

**NOTE: THIS MEETING WILL BE HELD IN PERSON WITH TELECONFERENCE  
OPTION FOR PUBLIC**

**Call in Number: 1-513-818-1231  
Access Code: 296 156 156**

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda	
3. Approval of Minutes of meeting of March 23, 2021	3
4. Public Participation	
5. HRC Pond Sedimentation Preliminary Engineering Services – Jeff Bednar	6
Motion: To approve and authorize the Board Secretary to sign the HRC Engineering Services proposal at a not-to-exceed cost of \$51,160 funded equally by the City of Troy and Sterling Heights.	
6. Adjourn	

# Gibson Drain



A meeting of the Inter-County Drainage Board for the **GIBSON DRAIN** was held via telephone conference per the State Public Act 254 of 2020, on March 23, 2021.

PRESENT: Michael Gregg, Chairman  
Michigan Department of Agriculture & Rural Development  
Location: Mason, Ingham County MI

Brian Baker, Acting Secretary  
Macomb County Public Works Chief Deputy  
Location: Clinton Township, Macomb County MI

Jim Nash, Member  
Oakland County Water Resources Commissioner  
Location: Farmington Hills, Oakland County MI

ALSO PRESENT: Anne Vaara, Chief Deputy, Steve Korth, P.E., Manager, Office of Oakland County Water Resources Commissioner; Jeff Bednar P.E., Environmental Resources Manager, Bruce Manning, Financial Manager, Kellie Kource, Drain Account Specialist, Stephen Downing, Construction & Maintenance Manager, Norb Franz, Communications Manager, Tom Stockel, Construction Engineer, Macomb County Public Works; James Burton, Hubbell, Roth & Clark; Scott Finlay, Engineer, City of Troy, Tim Pollizzi, Engineer, Rochester Hills; Tony Youtsus

The Chairman called the meeting to order at 10:52 a.m.

A motion was made by Mr. Baker, supported by Mr. Nash to approve the agenda as presented.

Adopted: YEAS: 3  
NAYS: 0

The minutes of the meeting of February 23, 2021 were presented. A motion was made by Mr. Nash, supported by Mr. Baker to approve the minutes as presented.

Adopted: YEAS: 3  
NAYS: 0

The meeting was open to public participation, then closed, there being no comments from the public.

Mr. Bednar updated the board regarding the drain study project stating that there currently is no more field research being done, but HRC is processing what the research tells us. We have met to discuss the direction to go in based on their findings, and are talking with Sterling Heights regarding their concerns.

James Burton, from Hubbell, Roth & Clark updated the board that they are currently assessing their information to dive into what exists between Ryan and Dequindre Roads and what work will be necessary should there be an Inter-County Drain established. Sterling Heights has asked for some time to review the work. The next step will be to meet with Troy and Oakland County staff.

A motion was made by Mr. Baker, supported by Mr. Nash to receive and file the drainage study update from Hubbell, Roth & Clark.

Adopted: YEAS: 3  
NAYS: 0

Mr. Gregg updated the board that a resolution regarding electronic and telephonic meetings procedures was created by Mr. Gregg, his office and Fahey Schultz in preparation for the conclusion of the current open meetings provisions. After March 30, 2021 we can only meet electronically in certain circumstances and this document allows the board to meet electronically if certain criteria are met should the State not declare another emergency.

A motion was made by Mr. Nash, supported by Mr. Baker to adopt the resolution regarding electronic and telephonic meetings procedures.

Adopted: YEAS: 3  
NAYS: 0

The Chairman presented the invoice totaling \$14,537.94 as provided to the Board for review and approval.

A motion was made by Mr. Baker, supported by Mr. Nash to approve the invoice as presented.

Adopted: YEAS: 3  
NAYS: 0

A motion was made by Mr. Nash, supported by Mr. Baker to receive and file the financial report presented by Mr. Manning.

Adopted: YEAS: 3  
NAYS: 0

There being no further business, it was moved by Mr. Nash, supported by Mr. Baker that the meeting of the Gibson Inter-County Drainage Board be adjourned.


Adopted: YEAS: 3  
NAYS: 0

The meeting was adjourned at approximately 11:09 a.m.

  
\_\_\_\_\_  
Brian Baker, Acting Secretary  
Gibson Inter-County Drainage Board

STATE OF MICHIGAN  
COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taken by the Inter-County Drainage Board for the Drainage District shown on the attached set of Minutes, on March 23, 2021. The original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.

  
\_\_\_\_\_  
Brian Baker, Acting Secretary  
Gibson Inter-County Drainage Board

DATED: 3/23/2021



**Candice S. Miller**

Public Works Commissioner  
Macomb County

## Memo

**To:** Gibson Drain Drainage Board

**From:** Jeffrey H. Bednar, P.E.  
Environmental Resources Manager

**Date:** November 6, 2023

**Re:** Recommendation to Award Contract for Preliminary Engineering Services to Hubbell, Roth & Clark, Inc.

### Recommendation:

After review of the proposal submitted by Hubbell, Roth & Clark, Inc. (HRC) for preliminary engineering services on the Gibson and Plumbrook Drain projects, we recommend the Gibson Drain Drainage Board to award the contract to HRC.

### Reasons for Recommendation:

1. HRC has outlined a clear and methodical approach to address the key issues related to the Gibson and Plumbrook Drain projects. Their proposal encompasses hydraulic and geomorphology analyses, which will be crucial to ensure the longevity and effectiveness of the drainage system.
2. HRC's prior engagement in the feasibility study in 2021 has equipped them with a profound understanding of the project's complexities and requirements. Their expertise in this domain ensures continuity and will likely result in efficient and effective execution.
3. The detailed breakdown of tasks, estimated hours, and the associated fee of \$51,160 presented by HRC aligns with our expectations. Additionally, their commitment to complete the study within a 60-day timeframe demonstrates their capability and dedication. It is our understanding that the Cities of Sterling Heights and Troy have agreed to split these costs.
4. HRC's intention to make the project suitable for grant applications could potentially alleviate financial burdens and bring additional resources to the District.

October 4, 2023

Macomb County Public Works Commissioner's Office  
21777 Dunham Road  
Clinton Township, MI 48036

Attn: Mr. Jeff Bednar, P.E., Environmental Resources Manager

Re: Proposal for Professional Engineering Services  
Gibson Drain Improvements

HRC Job No. 20230732

Dear Mr. Bednar:

Pursuant to your request, HRC is pleased to submit this proposal to perform preliminary engineering services including complete hydraulic and geomorphology analyses as described herein, discussed at the meeting held on August 28, 2023, and our previous involvement in the Gibson and Plumbrook Drain projects.

As you are aware, the history of the various County Drains over the stretch of watercourse called the Gibson or Plumbrook in the City of Sterling Heights is not conclusive as it relates to jurisdiction. In 2021, Hubbell, Roth and Clark, Inc. (HRC) was contracted to perform a feasibility study on the establishment of a new Chapter 21 Intercounty Drain over what is now the Gibson Drain (Drain). HRC identified previous Drain centerlines from previous Drainage Board proceedings, evaluated the Drain conditions with O&M needs, developed a capital improvement plan, defined the drainage district, referenced available easements, and performed preliminary cost estimates and apportionments. The Macomb County Public Works Office (MCPWO), Oakland County Water Resources Commissioner's Office (WRC), the City of Troy, and the City of Sterling Heights (collectively, the Parties) are working together toward a strategy to resolve the current Drain documentation and establish an Intercounty Drain. However, there is an immediate need to address ongoing sedimentation in the in-line pond south of 18 Mile and east of Dequindre and normal Drain maintenance throughout the stretch from Dequindre to Ryan Roads.

The Gibson Drain (Chapter 20) traverses through two in-line ponds on either side of 18 Mile Road. The Drain has a base load of sediment that is depositing in the ponds, predominantly the south pond, due to the water control structure on the historic channel in the north pond. The south pond has been dredged previously. With escalating costs to dredge and recurring regularity, it is desired by all the parties to avoid future dredging.

The parties are seeking a preliminary engineering study to evaluate and select the most feasible and cost-effective alternatives for the Drain improvements to minimize ongoing pond dredging and long-term maintenance. Three alternatives will be reviewed: do nothing, ongoing pond dredging, and bypassing the ponds with a Drain relocation, thus converting the in-line ponds to off-line. The do nothing option will generally focus on the estimates of sediment accumulation in the ponds and how use and aesthetics may be impacted for all parties and the public to understand the outcomes should nothing be done. Based on the findings of this analysis, we will prepare a cost estimate for each option and recommendations for the suitability of each project to attract grant funding. Our study will be used in support of a Memo of Understanding (MOU) between the parties to proceed with the improvements associated with the ponds while the parties simultaneously pursue the new Intercounty Drain. Further, our study will be used for the parties to potentially discuss the project with the public after the parties agree on a direction.

**Delhi Township**  
2101 Aurelius Rd.  
Suite 2A  
Holt, MI 48842  
517-694-7760

**Detroit**  
535 Griswold St.  
Buhl Building, Ste 1650  
Detroit, MI 48226  
313-965-3330

**Grand Rapids**  
801 Broadway NW  
Suite 215  
Grand Rapids, MI 49504  
616-454-4286

**Howell**  
105 W. Grand River  
Howell, MI 48843  
517-552-9199

**Jackson**  
401 S. Mechanic St.  
Suite B  
Jackson, MI 49201  
517-292-1295

**Kalamazoo**  
834 King Highway  
Suite 107  
Kalamazoo, MI 49001  
269-665-2005

**Lansing**  
215 S. Washington SQ  
Suite D  
Lansing, MI 48933  
517-292-1488

## SCOPE/TASKS

A breakdown of our proposed services and budgeted hours is summarized below:

- 1. Data Collection and Review Existing Data:** HRC will review the available information, including any available record drawings, previous hydraulic studies, streambank restoration plans conducted in 2009, existing models, plans, and existing utilities.

Estimated Hours – 15
- 2. Topographic Survey and Field Assessment:** The HRC Team performed a topographic survey in 2021 to locate the Drain and develop an updated Route and Course. The feasibility, scope, and impacts of reestablishing a channel through this section are dependent on the 18-Mile crossing invert elevations and other control points that were not detailed enough in the previous survey. A limited supplemental topographic survey will be conducted for this current study for the hydraulic and geomorphology studies. HRC will perform the needed topographic survey of the stream and road crossing structures and supplement it with the previous topographic survey and LiDAR elevation data. Three datasets will be stitched together to create a merged Digital Elevation Model. In addition, we will prepare longitudinal and cross-sectional profiles from the merged data for the hydraulic study.

Estimated Hours – 40
- 3. Perform a Geomorphology Study:** One of the alternatives that will be investigated in this project is creating an appropriately dimensioned channel through the two ponds and converting in-line ponds to off-line ponds. To size the channel and bank heights, the HRC Team will visit the site, identify the bankfull indicators (if available), and perform a geomorphologic analysis. The instream structures and bank stabilization measures will be sized as part of this task. The overall intent of this task is to size the stable stream channel within the south and north ponds.

Estimated Hours – 50
- 4. Evaluate the Impact of Converting In-line to Off-line Ponds:** Constructing a channel through the two ponds and converting in-line to off-line ponds may alter flows and water surface elevations throughout the range of expected storm events. To determine how much water surface elevation changes in storm events, inform our design of the new slopes, and convey expectations to the property owners, HRC will develop the HecRAS model to reflect the current and proposed conditions. As part of this task, the technical report and the base design concepts will be prepared. The overall intent of this task is to ensure converting in-line to off-line ponds does not cause a harmful impact. The results of this analysis can be utilized in selecting appropriate natural vegetation types for stabilizing streambank and creating natural habitats.

Estimated Hours – 180
- 5. Letter Report, Concept Plan, and Cost Estimate:** HRC will prepare a letter report to present the findings of this study. This letter will also review and compare three alternatives: do nothing, pond dredging, and converting the in-line ponds to off-line ones. The most feasible alternative will be selected according to the project's grant eligibility, costs, long-term maintenance cost schedules, and constructability. The concept plan presenting the proposed bankfull channel, instream structures, cross sections, and profiles will be delivered. The report package, including the concept plan and cost estimates, will be provided to the new Intercounty Drain Drainage Board for the next steps. The concept plan will be presented in a format suitable for public distribution such as a rendering, graphic, or illustration.

Estimated Hours – 80



6. **Meetings:** This task includes meeting materials preparation and attending one virtual and two in-person meetings, including 3 people, and one 5-hour on-site meeting, including 2 people, to update the project team and discuss the project with the Project Team.

Estimated Hours – 25

Task	Hours	Cost
1.) Data Collection and Review Existing Data	15	\$ 1,870
2.) Topographic Survey and Field Assessment	40	\$ 6,080
3.) Perform Geomorphology Study	50	\$8,180
4.) Evaluate the Impact of Converting In-line to Off-line Ponds	180	\$20,600
5.) Concept plan, Letter Report and Cost Estimate	80	\$10,360
6.) Meetings	25	\$4,070
<b>Totals</b>	390	\$51,160

### BUDGETS FOR TASKS NOT INCLUDED IN THE BASE SCOPE

**Grant Application:** Provided an opportunity, HRC will provide grant application assistance for obtaining the State/Federal Funds to improve the Drain. Working with the MDNR to remove the dam(s) will result in the opportunity to receive state funding. This task is not included in the budget at this time; however, \$5,000 should be allocated for a future grant application.

Estimated Budget – \$5,000

### ITEMS NOT INCLUDED

At this time, our plans will be suitable for selecting the most feasible and cost-effective option, attaching to grant applications, and seeking contractor budgeting pricing but not permitting, public bidding, and future construction. Additional effort will be needed should your office desire this to be bid. This proposal does not cover any EGLE permitting and FEMA mapping efforts for the current study.

Further, concurrent with the above efforts, the Parties intend to seek to officially establish a new Chapter 21 Intercounty Drain. We have not included costs to help with this effort at this time. We will need to work with the Parties and legal counsel to identify the scope and level of effort needed from HRC for this process.

### SCHEDULE

HRC is prepared to begin work following the MCPWO's authorization to proceed and complete the study within 60 days.

### FEE SUMMARY

Based on the identified scope, **HRC estimates approximately 390 hours to complete the tasks as described. The estimated total budget for the provided scope is \$51,160** and has been developed following our agreed-upon hourly rate fee schedule. This amount will not be exceeded without prior written authorization.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



James Burton, P.E.  
Vice President

fb/jfb

pc: Macomb County Public Works Office: Mr. Brian Baker  
Oakland County Water Resource Commissioners; Mr. Steve Korth  
City of Troy; Mr. Kurt Bovensiep, Mr. Scott Finlay  
City of Sterling Heights; Mr. Brent Bashaw, Mr. Jeff Bahorski  
HRC, M. MacDonald, F. Babakhani, File

Accepted By:

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Printed Name: \_\_\_\_\_

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