



11333 N. Cedarburg Road
Mequon, WI 53092
Phone: 262-236-8145
Fax: 262-242-9655

www.ci.mequon.wi.us

Public Works Department

PUBLIC WORKS COMMITTEE
Wednesday, October 26, 2022
6:30 PM
South Conference Room

Agenda

- 1) Call to Order, Roll Call
- 2) Approval of Minutes
 - a. Public Works Committee - Regular Meeting - Sep 13, 2022 6:45 PM
- 3) Discussion Items
 - a. Prairie View Lane and Revere Road Drainage CIP Item Closure
 - b. Shorecliff Lane Drainage CIP Item Closure
- 4) Discussion and Possible Action
 - a. 2022 Drainage Capital Improvement Program (CIP): Request for Approval of Prioritization
 - b. Ranch/Hickory/Chestnut Drainage Survey
- 5) Adjourn

Dated: October 26, 2022

/s/ Jeffrey Hansher, Chair

.....
Notice is hereby given that a quorum of other governmental bodies may be present at this meeting to present, discuss and/or gather information about a subject over which they have decision-making responsibility, although they will not take formal action thereto at this meeting.

Persons with disabilities requiring accommodations for attendance at this meeting should contact the City Clerk's Office at 262-236-2914, twenty-four (24) hours in advance of the meeting.

Any questions regarding this agenda may be directed to the Public Works Department at 262-236-2913, Monday through Friday, 7:00 AM – 3:30 PM.



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Public Works Department

PUBLIC WORKS COMMITTEE

Tuesday, September 13, 2022

6:45 PM

South Conference Room

Minutes

1) Call to Order, Roll Call

Present:

Chair Jeffrey Hansher
Alderman Mark Gierl
Alderman Dale Mayr

2) Approval of Minutes

a. Public Works Committee - Regular Meeting - Aug 10, 2022 6:15 PM

RESULT: **Approved by Voice Acclamation [Unanimous]**

MOVED BY: Alderman Mayr

SECONDED BY: Alderman Gierl

AYES: Hansher, Gierl, Mayr

3) Resolutions

Action requested: review and recommend approval

a. **RESOLUTION 3979** A Resolution Authorizing the Purchase of Road Signs in the Amount of \$35,000 from the Right-of-Way Assets Capital Account to Replace Signage Along Streets Included in the City's Annual Road Program from 2015-2018

Director Lundeen stated that financing is being requested to replace street signs that were not originally included in the Road Programs funding.

RESULT: **Approved by Voice Acclamation [Unanimous]**

MOVED BY: Alderman Mayr

SECONDED BY: Alderman Gierl

AYES: Hansher, Gierl, Mayr

4) Discussion Items

Minutes Acceptance: Minutes of Sep 13, 2022 6:45 PM (Approval of Minutes)

Discussion and Possible Action

a. 2022 Work Plan (9.13.22)

Director Lundeen gave an update of the Request for Proposal (RFP) for City Hall roof replacement that closed on August 26, 2022. No proposals were received which is believed to be due to the short contract time frame of work being completed by December 15, 2022. The RFP will be reissued with a longer contract completion date.

5) Adjourn

6. Motion to Adjourn at 6:48.

RESULT: **Approved by Voice Acclamation [Unanimous]**

MOVED BY: Alderman Mayr

SECONDED BY: Alderman Gierl

AYES: Hansher, Gierl, Mayr

Respectfully Submitted,

Karen Schlereth
Administrative Assistant

Minutes Acceptance: Minutes of Sep 13, 2022 6:45 PM (Approval of Minutes)



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Office of Public Works Committee

TO: Public Works Committee
FROM: Cole McCraw, Assistant City Engineer
DATE: October 26, 2022
SUBJECT: Prairie View Lane and Revere Road Drainage CIP Item Closure

Background

Residents in the area of North Prairie View Lane and West Revere Road had been experiencing high water levels in their front ditches, which included overtopping of their driveways, for many days, and in some cases, weeks. These properties are adjacent to a large swamp area north of them owned by MMSD. The highwater levels contained on this property, and lack of efficient outflow of stormwater runoff from the site, causes any additional stormwater runoff volume to accumulate and back up onto adjacent properties, since it cannot drain out in a timely manner.

Analysis

This area ultimately drains to the Milwaukee River and is some of the upstream-most land to discharge to that waterbody, and is relatively flat, which made the implementation of drainage solutions difficult. Originally, the drainage impact also flooded the roadway, which led to the installation of upsized driveway culverts and ditch regrading for 11233, 11313 and 11321 North Prairie View Lane, suggested by Engineering staff, to improve the flow in the front ditches of these properties. Engineering staff also filed with the Office of the Commissioner of Railroads to have two culverts under the railroad, which had failed, to be replaced. They were, subsequently, replaced.

Despite the improvements, this item was added to the Drainage CIP list in November 2020 following continued reports from residents of issues in the area. While the overall flow improved and provided for less chance of obstructions in the culverts, the level of the water in these ditches remained high during average rainfall events.

The Public Works Committee previously authorized Engineering staff to oversee a drainage study for this area and to identify solutions. This included the potential televising of the existing drain tiles, which was rejected due to both the cost and inability to secure legal access to perform the televising. Ultimately a contract was awarded to FreshWater Engineering to inspect, survey and analyze the area and make recommendations based upon the results.

At the suggestion of FreshWater Engineering, in August 2021, the Highway Division completed the installation of two (2) additional 18" cross-road culverts alongside the existing two (2) and ditch regrading at Revere Road and Prairie View Lane.

Despite the installation, frequent rainfalls caused water levels to rise in the area and caused water to continually back up into the ditches near Revere Road and Prairie View Lane. Residents in the area reported to the City that water levels had increased since the culvert replacement and were concerned about the stagnant water in the ditches near their properties.

In response to the complaints, staff met with Anchor QEA, formerly FreshWater Engineering, regarding the recommendation of the culvert replacement at Prairie View Lane and Revere Road.

Staff asked Anchor QEA to provide a memo detailing the effectiveness of the recommended additional culverts and if they are functioning as intended.

Staff reviewed a draft of the memo. Anchor QEA made minor revisions and provided Engineering with an updated version.

Meanwhile, Engineering worked with the Highway Department to determine ways in which to make the surface water held on the MMSD property drain/move more efficiently to the main outlet of the basin which is a box culvert under the railroad track embankment. Upon inspection, the box culvert was largely unobstructed, but there was a significant amount of siltation buildup above the box culvert inlet in the 150 feet of drainage channel which leads water out of the MMSD property. City staff secured permission from MMSD and Highway Division staff removed an accumulation of bog matter from the property.

Staff further investigated the large historic farm drain tile which carries water from the swamp area near West Revere Road and North Prairie View Lane east to Lake Michigan. The drain tile had known issues including a root ball in the pipe which may be preventing the efficient flow of storm water. Previous televising confirmed the location of the root ball was on private property at 11739 North Shorecliff Lane. The City does not have an easement over the drain tile and were unable to secure legal access to the property.

Staff spoke with the City attorney about accessing for the root ball removal. The City attorney indicated that maintenance of the drain tile may be the responsibility of Ozaukee County as part of a farm drainage district. Drainage districts reserve special rights to access private property for maintenance under State Statute. Once contact was finally made with other members of the Ozaukee County Farm Drainage Board, they informed us that there was no active district members for this area of the county.

Highway Division staff completed a concerted effort to work with impacted property owners and secure an indemnification agreement to allow access to the properties. Working with a televising vendor who wanted to perform a demonstration of their services for the City, the Highway Department was able to contract with this firm for their services to cut out the main root ball obstruction and others, and clean/jet and televise the tile. The root damage was more significant than previously identified, but resolved through the same efforts.

Following this work, the water levels at North Prairie View Lane and West Revere Road continued to drain out to the north towards the MMSD property as efficiently as the ditch grades allow.

Fiscal Impact:

This item is informational and contains no fiscal impact.

The drainage study performed by FreshWater Engineering was approximately \$19,000. Televising the drain tile costed approximately \$18,000, a considerable savings from the original cost estimate of \$50,000 for televising. Lastly, the bog material removal costed approximately \$1,600.

The highway division, engineering division, and other DPW staff also spent several labor and equipment hours addressing this item.

Recommendation

Since the large root ball removal in the tile in 11739 North Shorecliff Lane, and a few other locations, as well as the jetting of the culvert to remove accumulated sediment in the tile, the water levels on the MMSD property have been lowered to a point where there is now capacity for stormwater from these areas to drain in future rainfall events.

As a result, the area ditches at North Prairie View Drive and West Revere Road have since been able to drain out. It is therefore recommended this item should be removed from the drainage CIP list as shown in the 2022 Drainage CIP item. If any further issues with standing water occur, a new drainage inquiry can be submitted/opened at that time to address.

Attachments:

Prairie View Monitoring Survey (PDF)

City of Mequon

Prairie View Water Monitoring Survey

Original Control Date: September 2, 2021

Point	Elevation	Code	Note	Measure Down	Offset	Total (H+I)	Water Elev.	Description
1	661.72	TOP	PRAIRIE VIEW	0.30	0.13	0.43	661.29	To inside TOP
2	663.95	TOP	I-43 BOX	2.67	0.07	2.74	661.21	Low Edge of Conc
3	666.20	TOP	PORT RD BOX	6.16	0.07	6.23	659.97	Low Edge of Conc
4	659.35	TOP	COUNTRY	2.00	0.22	2.22	657.13	To inside TOP

Round 2 September 7, 2021

1001	661.58	TOP	PRAIRIE VIEW	0.58	0.13	0.71	660.87	To inside TOP
1002	663.33	TOP	I-43 BOX	2.83	0.07	2.90	660.43	Low Edge of Conc
1003	666.22	TOP	PORT RD BOX	6.42	0.07	6.49	659.73	Low Edge of Conc
1004	659.30	TOP	COUNTRY	2.25	0.22	2.47	656.83	To inside TOP

Round 3 September 10, 2021

2001	661.80	TOP	PRAIRIE VIEW	0.70	0.13	0.83	660.97	To inside TOP
2002	663.30	TOP	I-43 BOX	2.92	0.07	2.99	660.31	Low Edge of Conc
2003	666.22	TOP	PORT RD BOX	6.58	0.07	6.65	659.57	Low Edge of Conc
2004	659.38	TOP	COUNTRY	2.50	0.22	2.72	656.66	To inside TOP

Round 4 September 14, 2021

3001	661.64	TOP	PRAIRIE VIEW	0.40	0.13	0.53	661.11	To inside TOP
3002	663.40	TOP	I-43 BOX	2.75	0.07	2.82	660.58	Low Edge of Conc
3003	666.36	TOP	PORT RD BOX	6.17	0.07	6.24	660.12	Low Edge of Conc
3004	659.39	TOP	COUNTRY	2.10	0.22	2.32	657.07	To inside TOP

Round 5 November 2, 2021

4001	661.72	TOP	PRAIRIE VIEW	1.18	0.13	1.31	660.41	To inside TOP
4002	663.48	TOP	I-43 BOX	3.25	0.07	3.32	660.16	Low Edge of Conc
4003	666.26	TOP	PORT RD BOX	7.00	0.07	7.07	659.19	Low Edge of Conc
4004	659.39	TOP	COUNTRY	3.30	0.22	3.52	655.87	To inside TOP

Round 6 December 15, 2021

5001	661.69	TOP	PRAIRIE VIEW	1.00	0.13	1.13	660.56	To inside TOP
5002	663.49	TOP	I-43 BOX	3.15	0.07	3.22	660.27	Low Edge of Conc
5003	666.25	TOP	PORT RD BOX	6.80	0.07	6.87	659.38	Low Edge of Conc
5004	659.36	TOP	COUNTRY	2.40	0.22	2.62	656.74	To inside TOP

Round 7 February 14, 2022

6001	661.69	TOP	PRAIRIE VIEW	0.90	0.13	1.03	660.66	To inside TOP
6002	663.49	TOP	I-43 BOX	3.60	0.07	3.67	659.82	Low Edge of Conc
6003	666.25	TOP	PORT RD BOX	7.50	0.07	7.57	658.68	Low Edge of Conc
6004	659.36	TOP	COUNTRY	2.60	0.22	2.82	656.54	To inside TOP

Point	Elevation	Code	Note	Measure Down	Offset	Total (H+I)	Water Elev.	Description
Round 8	BEGIN 1ST OF THE MONTH MONITORING							

7001	661.69	TOP	PRAIRIE VIEW	0.85	0.13	0.98	660.71	To inside TOP
7002	663.49	TOP	I-43 BOX	3.15	0.07	3.22	660.27	Low Edge of Conc
7003	666.25	TOP	PORT RD BOX	7.90	0.07	7.97	658.28	Low Edge of Conc
7004	659.36	TOP	COUNTRY	3.00	0.22	3.22	656.14	To inside TOP

Round 9 April 1, 2022

8001	661.69	TOP	PRAIRIE VIEW	0.33	0.13	0.46	661.23	To inside TOP
8002	663.49	TOP	I-43 BOX	2.5	0.07	2.57	660.92	Low Edge of Conc
8003	666.25	TOP	PORT RD BOX	6	0.07	6.07	660.18	Low Edge of Conc
8004	659.36	TOP	COUNTRY	1.8	0.22	2.02	657.34	To inside TOP

Round 10 April 15, 2022

9001	661.69	TOP	PRAIRIE VIEW	0.5	0.13	0.63	661.06	To inside TOP
9002	663.49	TOP	I-43 BOX	2.7	0.07	2.77	660.72	Low Edge of Conc
9003	666.25	TOP	PORT RD BOX	6.1	0.07	6.17	660.08	Low Edge of Conc
9004	659.36	TOP	COUNTRY	2	0.22	2.22	657.14	To inside TOP

Round 11 April 29, 2022

10001	661.69	TOP	PRAIRIE VIEW	1.00	0.13	1.13	660.56	To inside TOP
10002	663.49	TOP	I-43 BOX	3.00	0.07	3.07	660.42	Low Edge of Conc
10003	666.25	TOP	PORT RD BOX	6.8	0.07	6.87	659.38	Low Edge of Conc
10004	659.36	TOP	COUNTRY	2.5	0.22	2.72	656.64	To inside TOP

Round 12 May 13, 2022

11001	661.69	TOP	PRAIRIE VIEW	1.2	0.13	1.33	660.36	To inside TOP
11002	663.49	TOP	I-43 BOX	3.2	0.07	3.27	660.22	Low Edge of Conc
11003	666.25	TOP	PORT RD BOX	6.9	0.07	6.97	659.28	Low Edge of Conc
11004	659.36	TOP	COUNTRY	2.6	0.22	2.82	656.54	To inside TOP

Round 12 June 1, 2022

12001	661.69	TOP	PRAIRIE VIEW	1.2	0.13	1.33	660.36	To inside TOP
12002	663.49	TOP	I-43 BOX	3.2	0.07	3.27	660.22	Low Edge of Conc
12003	666.25	TOP	PORT RD BOX	7.0	0.07	7.07	659.18	Low Edge of Conc
12004	659.36	TOP	COUNTRY	2.7	0.22	2.92	656.44	To inside TOP

Attachment: Prairie View Monitoring Survey (7838 : Prairie View Lane and Revere Road Drainage CIP Item Closure)



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Office of Public Works Committee

TO: Public Works Committee
FROM: Cole McCraw, Assistant City Engineer
DATE: October 26, 2022
SUBJECT: Shorecliff Lane Drainage CIP Item Closure

Background

Residents at both 11658 North Pinehurst Circle and 11739 North Shorecliff Lane had experienced flooding on their properties resulting from drain tile failures or obstructions in a large farm drainage tile that courses through their properties since as far back as 2001.

In June 2001, the property owner at 11658 North Pinehurst Circle reported rear and sideyard flooding in the area over where the large farm drainage tile was suspected to be located. Numerous sinkholes developed which were suspected to be areas of collapsed tile.

In June 2009, the property owner at 11739 North Shorecliff Lane experienced rear and sideyard flooding which rose to the level of their walk-out basement causing flood damage. This resulted from a collapse of the tile in their rear-yard area. Later that year, a storm manhole with a grate was installed by a contractor for the City over the affected area of the needed repair. Another manhole structure was placed over the tile in the same year, just inside the right-of-way at 11658 North Pinehurst Circle. Installation of these structures not only provided for an inlet into the tile at this location for area runoff, but also provided access points for televising equipment to be deployed to further inspect the tile for other possible failures between them.

Analysis

This item was added to the Drainage CIP list in 2008 at the request of the resident at 11739 North Shorecliff Lane after their basement experienced flooding because of the tile failure in their yard. As mentioned in a previous item on North Prairie View Lane and West Revere Road, Staff further investigated the large historic farm drain tile which carries water from the swamp area near West Revere Road and North Prairie View Lane east to Lake Michigan. Following the manhole installations over the tile at both addresses in 2009, subsequent televising confirmed the location of a large root ball on private property at 11739 North Shorecliff Lane. It was suspected that if the tile was cleared of all roots and sediment, it would then flow freely to the outfall point on the bluff of Lake Michigan at 11700 North Shorecliff Lane.

Staff spoke with the City attorney about accessing for the root ball removal. The City attorney indicated that maintenance of the drain tile may be the responsibility of Ozaukee County as part of a farm drainage district. Drainage districts reserve special rights to access private property for maintenance under State Statute. Once contact was finally made with other members of the Ozaukee County Farm Drainage Board, they informed us that there was no active district members for this area of the county.

Working with a televising vendor who wanted to perform a demonstration of their services for the City, the Highway Department was able to contract with this firm for their services to cut out the main root ball obstruction and others, and clean/jet and televise the tile. Since the large root ball removal in the tile in 11739 North Shorecliff Lane and a few other

locations, as well as the jetting of the culvert to remove accumulated sediment in the tile, it appears the tile has re-gained most of its carrying capacity, alleviating the threat of future flooding on these properties.

Fiscal Impact:

This item is informational and contains no fiscal impact.

Initial estimates obtained by local televising vendors to clean/jet and televise the tile from the access manholes over the tile at North Lake Shore Drive, east to the lake, were upwards of \$60,000-\$70,000. The Highway division was able to contract with a vendor from Green Bay, WI to perform these services for around \$18,000, which was a considerable cost savings compare to the original estimate.

Recommendation

Engineering and/or Highway Department Staff will continue to visually inspect the water levels and flow activity periodically in the tile at the various storm manholes on its alignment in the area to ensure the tile remains actively flowing between these structures.

It is therefore recommended this item should be removed from the Drainage CIP list as shown in the 2022 Drainage CIP item. If any further issues with flooding of the yard areas at either of the affected addresses, or any others along the tile alignment, a new drainage inquiry can be submitted/opened at that time and the issue can be re-evaluated.



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Office of Public Works Committee

TO: Public Works Committee
FROM: Cole McCraw, Assistant City Engineer
DATE: October 26, 2022
SUBJECT: 2022 Drainage Capital Improvement Program (CIP): Request for Approval of Prioritization

Background

In February of 2015, the City implemented modifications to the drainage policy where Engineering staff provides the Public Works Committee with an annual review and approval of the prioritized drainage projects for both the Major and Secondary Drainage Way Program and Small Bridge and Culvert Replacement Program. The intent was to treat the Drainage Capital Improvement Program (CIP) similar to the administration of the road program, whereas Staff brings forward the recommended Drainage CIP on an annual basis and the Public Works Committee reviews, modifies as necessary, and approves the program. The annual review provides the opportunity for residents and alderman to review and suggest changes to the annual program and to advocate for their projects. The resident or residents who provided the initial notification to the City of the drainage issue received a notification that the meeting would be held, were informed of the project priority number and were invited to attend the meeting to advocate for their project.

City Department of Public Works crews were able to complete several local projects in the past few years which considerably reduced the number of items on the CIP list. Since 2016, the list has been reduced from 44 items to the 11 items on the 2022 Drainage CIP. A list of recently completed projects is shown on the attached list in blue.

Analysis

In order to properly identify and prioritize projects, as well as to formalize the administration of the drainage policy, Staff has formulated the 2022 Drainage CIP. The proposed CIP consists of a list of all currently identified drainage CIP projects, the estimated cost to be completed by a private contractor, and the prioritization thereof. The project is screened using a drainage inquiry intake form, and, if further action is required, an evaluation form is filled out for each project based upon a field evaluation and review of the site topography. The templates used internally by staff are attached. Drainage inquiries are rated based upon 13 different criteria to establish the severity of the drainage issue. It is worth noting that the majority of drainage inquiries are addressed by engineering and highway division staff and are never added to the CIP list. Most can be addressed with simple maintenance measures by the highway division or a survey, design, and implementation involving the engineering division. CIP projects are added due to cost and drainage basin size as dictated by the drainage policy.

There are a total of 11 prioritized projects included on the 2022 Drainage CIP that have been prioritized based upon severity and need. Given that the drainage issues are often corrected during the reconstruction of the adjacent roadway, certain projects could be incorporated into the Annual Road Program. Several projects are within the limits of future road projects. These projects are highlighted in green on the attached prioritization sheet.

An addition to the 2022 Drainage CIP is 9731 N. Courtland Drive. This item was presented last at the October 11, 2022, Committee of the Whole and Common Council meeting which evaluated a design alternative for the project. Generally, a sink hole at 9731 N. Courtland Drive exists near an existing storm pipe through private property. The city is pursuing a storm water easement to replace the failing pipe. The item is time sensitive and in progress and it thus a high priority. However, further action is pending easement negotiations.

Another addition to the proposed 2022 Drainage CIP is County Line Road from the railroad to Cedarburg Road, indicated as priority number eight (8) on the CIP. The item was created by staff due to multiple inquiries along this segment, the relative difficulty of improvement due to grade and utility conflicts, and its location along a future road project with the Village of Brown Deer. Two locally designated projects, inquiry 2015-05 and 2008-58, and one other recent inquiry, 2020-03, are located along this segment. The road project will require a consultant for design. Staff recommends that an area hydraulic evaluation is included as part of the design scope. The road program is tentatively planned for 2024.

Fiscal Impact:

This item itself does not propose a fiscal impact. Subsequent contract awards or request for funds for material purchases would result in an expenditure of funds.

Capital funding is established annually through the fiscal year budget process. The balance in the capital account is approximately \$145,000 which should allow for multiple projects or studies to be considered pending confirmation of the prioritization.

Recommendation

It is staff's recommendation that the Public Works Committee review, make modifications as necessary, and favorably endorse the 2022 Drainage CIP list of prioritized projects. Staff welcomes feedback on the list of prioritized projects and policy administration improvements that should be considered.

Attachments:

2022 DRAFT Major and Secondary Drainage Way CIP (PDF)
 Drainage Inquiry Intake Form (PDF)
 Drainage Inquiry Evaluation Checklist (PDF)

2022 Major and Secondary Drainage Way CIP Draft List

Acct # 410798-730010-10013

COMPLETE

Possible Future Road Project

Draft Plan

	Plan Provided	Priority Status	Eval. Score	Map #	Inquiry #	Project Address/Location	Basin Size	Description/General Solution	Estimated Cost	Contact	Address	City State
PROPOSED 2022 CIP ITEMS		1*	-		staff	9731 N	Courtland Dr.	Sec.	Sink hole on private property - easement and pipe replacement required	\$100,000.00	Engineering Division	
	X	1	99	3	2013-8	11628/50 N	Shorecliff Ln.		300' - 12" ADS Pipe into county tile to alleviate flooding	\$19,500.00	Christina M. Plazak & David H. Hinke	11628 N Shorecliff Ln. Mequon, WI 53092
	X	2	125	4	2010-34	1516 W	Fiesta Ln.	Sec.	water flows over the road during heavy events/install 1000' 18" hdpe in ditch	\$100,000.00	Michael Horne	1436 W Fiesta Ln. Mequon, WI 53092
		3	120	5	staff		Ranch/Hickory/Chestnut	Maj.	Clear Drainage Easement to help water flow in heavy rain events - begin with resident survey	\$20,000.00	Highway Division	
	X	4	110		staff	11538 N	Oriole Ln.	Sec.	replace 30" cmp. - holes - plan drafted - +/-600' - 30" Hdpe.,	\$25,000 for materials	Highway Division	
		5	100	6	staff	900 W	County Line Rd.	Maj.	Fish Creek Drainage- restore erosion south of Katherine Kearney Carpenter Park	\$80,000.00	Highway Division	
		6	100		staff	12023 N +/-	Corporate Pkwy.	Maj.	see 1025 W Glen Oaks Ln. - west side of x-rd. culverts blocked by sediment and cattails - permit needed		John Mikkelson	1025 W Glen Oaks Ln. Mequon, WI 53092
		7	100		2014-28	1025 W	Glen Oaks Ln.	Maj.	Clean out sediment build-up 5' 10' in front of 4 x-rd. culv. Ends - W & E sides of Corporate Pkwy.- permit needed		John Mikkelson	1025 W Glen Oaks Ln. Mequon, WI 53092
		8	-		staff		County Line Rd. - RR to Cedarburg Rd.	Sec.	Singers Landscaped Acres - subdivision-wide flat grades - Hydraulic evaluation needed		Engineering Division	
		9	-				Revere Rd. / Lake Shore Dr.		FreshWater report recommendation for modified culvert at Revere and Lake Shore		Highway Division	
		10	-				Lake Shore Dr. / wetland area		FreshWater report recommendation for modified culvert at Lake shore and wetland area		Highway Division	
		11	-				Pinehurst Circle		FreshWater report recommendation for modified culvert at Pinehurst Circle		Highway Division	

LOCAL DESIGNATION TRANSFERRED TO HIGHWAY PROJECTS	X	19	83		2018-47	11633 N	Lake Shore Dr.	loc.	regrade ditch +/- 200' per plan		Ms. Barbara Pfaff	11633 N Lake Shore Dr. Mequon, WI 53092
	X	21	82	16	2011-39	3419 W	Meadowview Ct.	loc.	Fairway Ln. ditch is eroded - install 350' - 6" tile and backfill	\$17,500.00	Mrs. Masoud Ganji	3419 W Meadowview Ct. Mequon, WI 53092
	X	22	82	15	2015-05	4926 W	County Line Rd.	loc.	regrade roadside ditches per plan to drain - 300'	\$3,000.00	Damar L. Liederbach	4926 W County Line Rd. Mequon, WI 53092
	X	25	79	23	2008-58	4904 W	County Line Rd.	loc.	roadside ditch needs to be regraded 500' +/-	\$7,500.00	Mr. & Mrs. Shawn J. Wasserman	4904 W County Line Rd. Mequon, WI 53092
	X	26	79	22	2003-47	9615 N	Cedarburg Rd.	loc.	ditch from W side of drwy. on County Line to 200' W-move ditch 4' north	\$3,000.00	Mr. Michael A. Ziesemer	9615 N Cedarburg Rd. Mequon, WI 53092
		29	77		staff	5600 W	Reibs Ln.	loc.	ditch from lift sta. W & N 200' to drwy. Culv. - draft plan		Highway Division	
		30	76	28	2011-41	701 W	Mequon Rd.	loc.	move ditch south at road rehab time or enclose ditch 300'	\$4,500.00	Mr & Mrs Brian L. Neils	701 W Mequon Rd Mequon, WI 53092
	X	32	74		2018-78	1515 W	River Oaks Ln.	loc.	relay drwy. Culv. And regrade and restore ditch 175' per plan		Mr. Michael King	1515 W River Oaks Ln. Mequon, WI 53092
	X	38	58	38	2003-46	7247 W	Highland Ridge Dr.	loc.	regrade west roadside ditch to drain road at entrance restore all bad areas approximately 250'	\$3,750.00	Joseph LaBarbera	7247 W Highland Ridge Dr. Mequon, WI 53092

COMPLETED AND CLOSED	X	2					Revere and Prairie View		FreshWater report recommendations at Revere and Prairie View		Amy Becker	11321 N. Prairie View Ln. Mequon, WI 53092
		2	127	2	2008-26	11739 N	Shorecliff Ln.		failed county drain tile starting at 11658N Pinehurst -need to replace +/- 400' pipe and install 2 MH's.	\$55,000.00	Peter & Sarah Damsgaard	11739 N Shorecliff Ln. Mequon, WI 53092
		1	128	1	2010-13	1415/1426 W	Donges Bay Rd.		work with the Cedar Ridge HOA to establish a water surface elevation of 95	not to exceed \$20,000	Scott Kluck	1426 W Donges Bay Road Mequon, WI 53092
	X	4	126		2018-40	3025 W	Country Club Dr.	loc.	regrade ditch +/- 400' per plan		Mr. Dustin Siehr	3025 W Country Club Dr.
	X	7	115		staff	7601 W +/-	Cheverny Dr.	Sec.	icing at intersection. Draft plan for re-ditching to south		Highway Division	
	X	8	115		staff	12001 N +/-	Wauwatosa Rd.	loc.	draft plan to re-ditch at NW corner Freistadt Rd. so curb can drain		Highway Division	
	X	9	110		staff	13030 N	Cedarburg Rd.	loc.	regrade ditch - silted in south of driveway - advise owner their culv. is bad		Highway Division	
		14	93	7	2013-21	9821 N	Courtland Dr.	loc.	grade swale through sewer easement at west side of property - water at NW corner	\$3,000.00	David M. Smith	9821 N Courtland Dr. Mequon, WI 53092
	X	15	90	31	2017-22	221 E	Mequon Rd.	loc.	Replace 18 - 48' x-rd. culv. under Mequon Rd. at Lakeview Pl.- 130' pipe -regrade ditches +/- 800' per plan		Mr. & Mrs. Charles Mitch	221 E Mequon Rd. Mequon, WI 53092
		16	90		staff	11548 N	Laguna Dr.	Sec.	install 4 - 15" additional pipes under bike path N of cul de sac		Highway Division	
		17	89		staff	3408 W	Woodsvievw Ct.	loc.	roads ices up. Install CB onto pipe on north side of road. Locate pipe		Highway Division	
		18	83	14	2015-22	3607 W	Haven Ct.	loc.	grade 4 driveways to drain toward CB's		Mr. & Mrs. Kevin Canady	3607 W Haven Ct. Mequon, WI 53092
		20	82		2018-12	14106 N	Cedarburg Rd.	loc.	replace 8 drwy. Culv.'s and regrade ditch farther east 1000' with road re-paving, per plan - no costs to property owners		Diethard Loess	14106 N Cedarburg Rd. Mequon, WI 53097
	X	23	81		2018-76	120 E	Highview Dr.	loc.	regrade roadside ditch to 40' to east per plan		Nicholas Paschke	120 E Highview Dr. Mequon, WI 53092
		24	80		staff	13300 N +/-	Cedarburg Rd.	Maj.	muck sediment from east and west inverts		Highway Division	
	X	27	79	21	2015-46	12126 N	Lake Shore Dr.	loc.	regrade roadside ditch per plan to drain - 350'	\$3,500.00	Mr. Kamal Amin & Ms. Ariba Khan	12126 N Lake Shore Dr. Mequon, WI 53092
	X	28	78		2018-22	1641 W	Winslow Dr.	loc.	regrade ditch +/- 80' per plan		Dr. Dominic J. Pulito	1641 W Winslow Dr. Mequon, WI 53092
	X	31	76		2018-87	13922 N	Foxtail Ln.	loc.	regrade ditch +/- 225' per plan		Mr. Jeremy Wiza	13922 N Foxtail Ln. Mequon, WI 53097
		33	68			1726 W	River Oaks Ln.	loc.	regrade ditch per plan along Shoreland Dr. - prop. Owner to enclose		Mr. & Mrs. Trevor Mihalski	1726 W River Oaks Ln. Mequon, WI 53092
	X	34	67		2018-25	1309 W	Liebau Rd.	loc.	regrade ditch +/- 400' per plan		Ms. Valentina Barbatelli	1309 W Liebau Rd. Mequon, WI 53092
	X	35	65		2018-73	2815 W	Ranch Rd.	Sec.	regrade rip-rap east of driveway slightly to drain better		Mr. & Mrs. Mark Olson	2815 W Ranch Rd. Mequon, WI 53092
	X	36	62		2018-33	12601 N +/-	River Rd.	loc.	regrade ditch 200' per plan		Mr. Miike Van Treeck	4507 W Meadow Cir. West Mequon, WI 53092
	X	37	60		2018-17	5307 W	Hillcrest Dr.	loc.	install 200' +/- 12" hdpe. With road paving - move to south as far as possible		William Wisotzke	5307 W Hillcrest Dr. Mequon, WI 53092
	X	39	51		2018-37	3628 W	Turnberry Dr.	loc.	rub ditching bucket through ditch per plan to smooth it out and restore		Garth Ertl	3628 W Turnberry Dr. Mequon, WI 53092
	X	40	49		2018-64	9521 W	Huntington Dr.	loc.	regrade ditch 60' per plan		James Andersen	9521 W Huntington Dr. Mequon, WI 53097
	X	41	49		2018-53	2519 W	Range Line Terrace	loc.	regrade ditch +/- 200' per plan		Robert Madritsch	2519 W Range Line Terrace Mequon, WI 53092

*drainage alternative selected by Council on October 11th, 2022



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4.a.b

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PUBLIC WORKS/ENGINEERING

DRAINAGE INQUIRY INTAKE FORM

Name: _____ Date: _____

Address of Drainage Inquiry: _____

Mailing Address (If Different): _____

Phone: _____ Email: _____

Inquiry Location: ☐ Front Yard ☐ Driveway Culvert ☐ Ditch ☐ Road
(Check all that apply) ☐ Rear Yard ☐ Cross Road Culvert ☐ Sump Pump ☐ Other: _____

Issue: ☐ Standing Water ☐ Backup/Surcharge ☐ Property Flooding ☐ Other: _____
(Check all that apply) ☐ Wet Ditch ☐ Sinkhole ☐ Culvert Damaged
☐ Road Flooding ☐ Poor Ditch Flow ☐ Culvert Obstructed _____

Additional Comments: _____

.....
For Staff Use Only

☐ New Inquiry
☐ Reoccurring - Date of Last Inquiry: _____

☐ Formal Inquiry opened with the Engineering Division – Inquiry # _____

☐ No Further Action

☐ Issue Addressed

☐ Private Property

☐ Not Within City's Jurisdiction – Contact _____

☐ Other – (See Comments/Recommendations Below)

Staff Notes/Comments: _____

Staff Recommendations: _____

Signature of Authorized City of Mequon Representative

Date Inspected



DRAINAGE INQUIRY EVALUATION CHECKLIST

* * * * *

MEQUON, WISCONSIN

4.a.c

Complainant Name: _____ Inquiry #: _____

Address: _____ Date received: _____

City, State, Zip: _____ Tax Key No.: _____

Telephone #'s: _____ Cell: _____ Home: _____ Work: _____

Complaint Received By: _____ Via: _____ E-mail: _____

Complaint Description: _____

DATE OF INSPECTION: _____		AMOUNT & DATE OF LAST RAINFALL _____ " on _____					
1	Depth of water in ditch?	WET-1" 1	2"- 3" 2	3"- 4" 3	4"- 5" 4	5"- 6" 5	x 2
COMMENTS: _____							
2	Does sump pump appear active?	NO 1		SLIGHTLY 3		YES 5	x 1
COMMENTS: _____							
3	Is ditch silted or filled in?	NO 1	2"- 4" 2	4"- 7" 3	7"- 10" 4	OVER CULVERT 5	x 3
COMMENTS: _____							
4	Is erosion evident?	NO 1		MINOR 3		SEVERE 5	x 3
COMMENTS: _____							
5	Condition of ditch or drainageway?	GOOD 1				POOR 5	x 2
COMMENTS: _____							
6	Are driveway culverts heaving?	NO 1		SLIGHTLY 3		THROUGH DRIVEWAY 5	x 1
COMMENTS: _____							
7	Does drainage problem affect or flood private property?	NO 1		MINOR 3		SEVERE 5	x 6
COMMENTS: _____							
8	Degree that problem may adversely affect personal safety.	NONE 1		MINOR 3		MAJOR 5	x 6
IN WHAT WAY: _____							
9	Does drainage problem affect road?	NO 1		MINOR 3		SEVERE 5	x 5
COMMENTS: _____							
10	Does water drain, however poorly, without affecting property outside of R.O.W.?	YES 1		MINOR 3		NO 5	x 2
COMMENTS: _____							
11	Can resolution to roadside problem be made only by regrading off-road?	NO 1		MAYBE 3		YES 5	x 2
COMMENTS: _____							
12	Is resolution to problem beyond complainants property?	NO 1		MAYBE 3		YES 5	x 2
COMMENTS: _____							
13	Percentage of ditch or drainageway adversely affected by problem.	0%-10% 1	11%-25% 2	26%-50% 3	51%-75% 4	76%-100% 5	x 3
COMMENTS: _____							

MULTIPLY CHECKED CATEGORY BY GIVEN FACTOR (TOTAL = SEVERITY OF PROBLEM FOR PRIORITY RATING.)

Report: _____

Submitted by: _____ Check if there are attachments ☐ Check if additional notes are on back ☐

Will There Be Further City Action?		YES	NO	PRIORITY RANKING-TO HELP DETERMINE FURTHER CITY INVOLVMENT	
If "No", Date Complainant Advised.				TOTAL FROM ABOVE	
Is Survey Work Needed?		YES	NO	FLOODING ROADS OR BUILDINGS.	
If "Yes", Date of Request.				HIGH	110 / 190
Date Referred To D.P.W.				MEDIUM	76 / 109
G:\ENGINEERING\DRAINAGE\1 - Inquiry form 2015.xls				LOW	0 / 75

A.S.A.P.



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Office of Engineering

TO: Public Works Committee
FROM: Cole McCraw, Assistant City Engineer
DATE: October 26, 2022
SUBJECT: Ranch/Hickory/Chestnut Drainage Survey

Background

The Ranch/Hickory/Chestnut drainage issue is a legacy project that has been on the Drainage CIP list for decades. Due to its proximity to the Milwaukee River and little to no change in topography, an effective drainage solution is difficult to define.

The Ranch/Hickory/Chestnut area includes a drainage way within the floodplain. After several box culvert replacements in the area in the 1990s, the City submitted an application for dredging the drainage way in 1999, which the DNR denied. The permit denial indicated that the dredging would likely not improve drainage or reduce flooding in the area since the channel is connected to the Milwaukee River and the channel water level is dictated by the river level. Staff suggests that dredging would bring very limited improvement to the area drainage since dredging would be within the flood plain and the work would carry a very high expense.

Analysis

The history of this drainage issue predates most Engineering staff. In addition, a large number of residents that were a part of the original inquiry in the 1990s no longer live in that area. Documentation for the drainage issue is further complicated by the information, or lack thereof, for the reported issues. For example, reports of “water in the basement” could be one of two sources: rainwater/surface water/clear water and a sanitary backup. Clear water can enter a home through a window well, sump crock or foundation drain, or through the foundation or basement walls themselves. This area is also connected to the East Trunk Sewer, which has historic capacity issues that resulted in basement backups.

For either clear water or sanitary sewer, a large volume of capital improvements have been completed since the 1990s. Without an accurate picture of the current state of the drainage, it is difficult to determine whether any or all of the issues may have been resolved through other projects.

Staff requests authorization to issue a resident survey for the Ranch/Hickory/Chestnut item (Item #3 on the draft Drainage CIP list). Staff has inspected the area during rain events in spring and summer 2022 and has not observed drainage issues. Additionally, staff has not received any complaints in the area for the last three years. In order to reevaluate the area drainage and target potential areas of concern, staff recommends issuing a resident survey to area homeowners.

Fiscal Impact

This strategy would not incur a financial burden on the City and give staff better information on how to allocate future efforts. The results would be cross-referenced with known sanitary sewer backups in the area.

Recommendation

Staff recommends that the Public Works Committee authorize a resident survey for the Ranch/Hickory Chestnut area, to define the extent of the issue included on the Drainage CIP list. Staff will continue to monitor the area during and after rain events as well.

If authorized, once the resident survey is complete, staff will return to the Public Works Committee with further recommendations.