

December 13, 2023


Hamilton Drain Board of Determination

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## Hamilton Drain

- The existing storm water drain system is without authorized local and county governmental jurisdiction and administrative, procedural, and funding mechanisms to address current/future needs for maintenance and improvements
- Application for Laying Out and Designating a Drainage District completed by Overisel Township on July 11, 2023 under Chapter 3 of the Michigan Drain Code of 1956.
- Petition to Locate, Establish, and Construct a County Drain submitted by Overisel Township on July 11, 2023 under Chapter 4 of the Michigan Drain Code of 1956.
- Michigan Drain Code requires a Board of Determination Meeting



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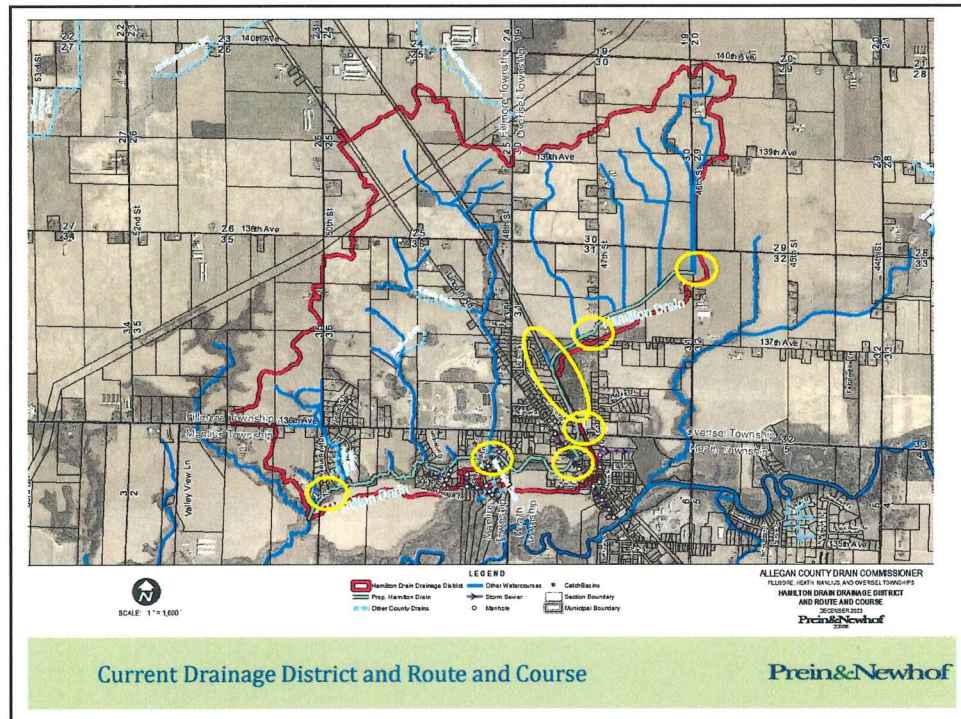
# Hamilton Drain Preliminary Engineering

- Review plat maps
  - Reimink Plat No. 1 & 2 (1958, 1963)
  - Holiday Sub (1962)
  - Diamond Drive Sub No. 1 & 2 (1962, 1967)
  - Volkens Plat No. 1 & 2 (1962, 1973)
  - Lohman Estates Sub (1991)
  - Walnut Park Sub (1995)
  - Greenfield Estates 1-3 (1996-1997)
- Review utility and road records
  - MDOT M-40 Lincoln Road Records (1936, 1973, 2002, 2005)
  - ACRC RoadSoft Data for Culvert Locations
- Delineate the drainage district (watershed) boundary using county GIS contour data and aerials
- Visit site to locate drain infrastructure and confirm drainage patterns

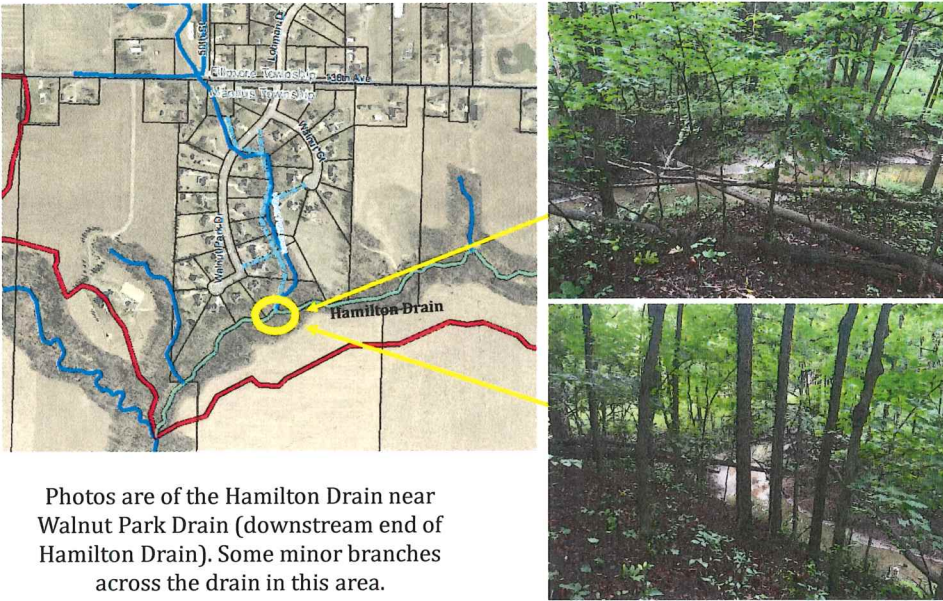


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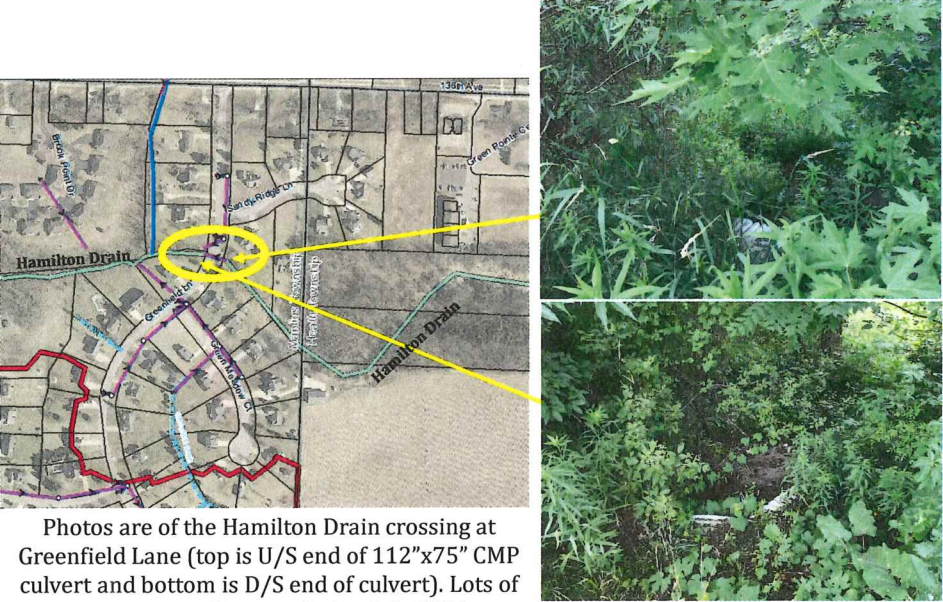
The map on the left shows a residential area with several streets including Sunnyside Dr, Hamilton Dr, and Walnut Park Dr. A yellow circle highlights a specific location on Hamilton Dr, with a yellow arrow pointing to a photograph on the right. The photograph shows a stream flowing through a wooded area with many trees and fallen branches.

Photos are of the Hamilton Drain near Walnut Park Drain (downstream end of Hamilton Drain). Some minor branches across the drain in this area.




A legend with four colored squares (light blue, green, dark blue, light green) is located below the caption. The Prein&Newhof logo is in the bottom right corner.

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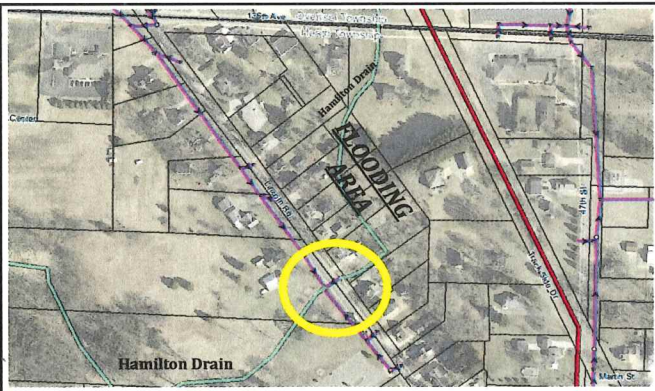
The map on the left shows a residential area with streets including Hamilton Dr, Greenfield Ln, and Sanby Ridge Ln. A yellow circle highlights the intersection of Hamilton Dr and Greenfield Ln, with a yellow arrow pointing to a photograph on the right. The photograph shows a stream crossing a road, with dense green vegetation on both sides.

Photos are of the Hamilton Drain crossing at Greenfield Lane (top is U/S end of 112"x75" CMP culvert and bottom is D/S end of culvert). Lots of vegetation in this area during July 2023.




A legend with four colored squares (light blue, green, dark blue, light green) is located below the caption. The Prein&Newhof logo is in the bottom right corner.


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MDOT is aware of flooding issues on east side of M-40 (Lincoln Road) and from our conversations with them they want to be a good partner if a future project would occur.




Looking D/S @ D/S end of Culvert under M-40




Looking U/S @ U/S end of Culvert under M-40



Looking D/S @ U/S end of Culvert under M-40 (8'x3.5' Box Culvert per 1935 Record Plan). Flooding has occurred upstream.

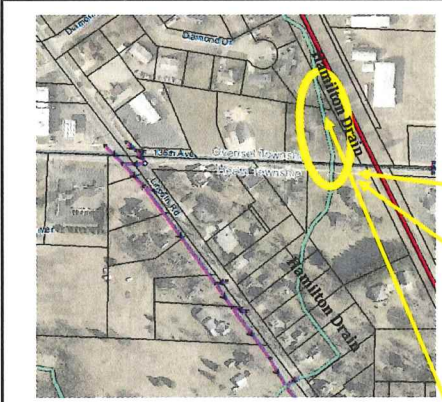



Looking U/S @ D/S end of Culvert under M-40




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Looking D/S at D/S end of elliptical culvert under 136<sup>th</sup> Ave. Water is dry downstream of culvert but upstream of culvert water is ponding in ditch.



Looking D/S at U/S end of elliptical culvert under 136<sup>th</sup> Ave. Water is ponding U/S of U/S end of culvert.


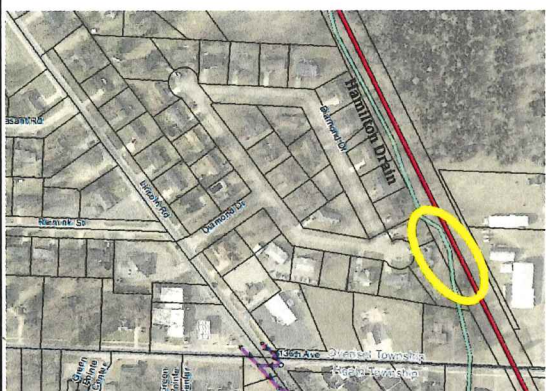


Looking D/S at water in drain U/S of the U/S end of elliptical culvert under 136<sup>th</sup> Ave




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Vegetation in Backyard Drainage Ditch



Vegetation in Backyard Drainage Ditch

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Backyard Drainage Ditch




Backyard Drainage Ditch - Flower Beds and Landscaping Within Ditch

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Backyard Drainage Ditch Filled with Vegetation




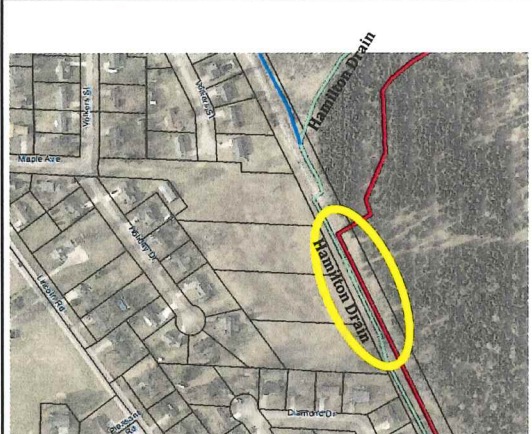
Backyard Drainage Ditch Filled with Vegetation




Backyard Drainage Ditch Filled with Vegetation




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Drainage Ditch Filled with Vegetation



Drainage Ditch Filled with Vegetation



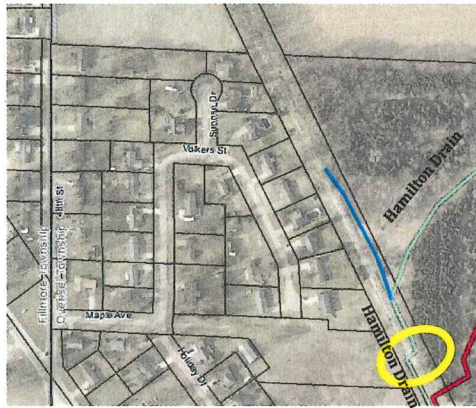
Drainage Ditch Filled with Vegetation



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5 culverts underneath track (view from downstream side)

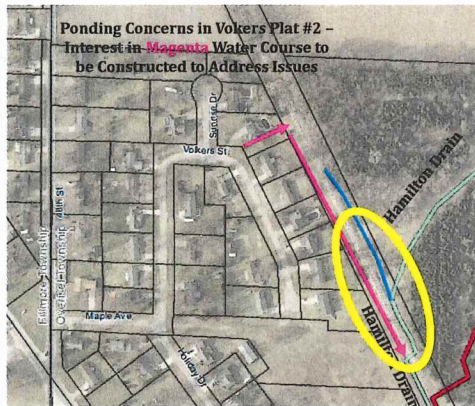


Upstream side of Railroad Tracks



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Left side of photo is east side of tracks (ditch). Right side is west side of tracks. No ditch was constructed along west side of tracks to help with drainage for Volkers #2.

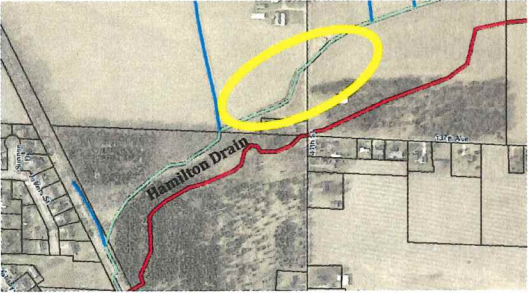



Looking upstream (towards 47th St) where Hamilton Drain first approaches railroad tracks




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5'x7' Box Culvert underneath 47<sup>th</sup> Street (U/S end) looking D/S



Looking D/S from 47<sup>th</sup> Street

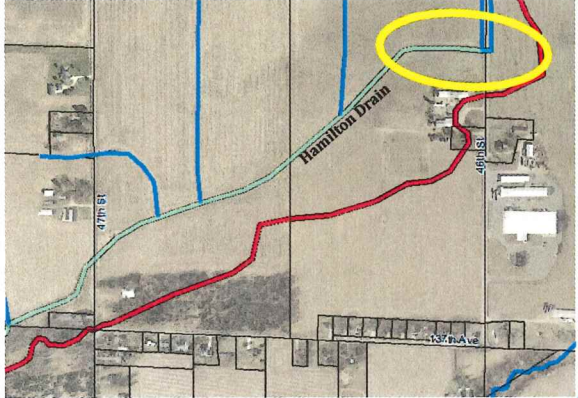



5'x7' Box Culvert underneath 47<sup>th</sup> Street (U/S end) looking U/S




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48" Concrete Culvert underneath 46<sup>th</sup> Street (U/S end) looking D/S



Looking D/S from D/S side of 48" Concrete Culvert underneath 46<sup>th</sup> Street



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## Hamilton Drain – Summary of Concerns

- Ongoing flooding of homes on east side of M-40 (Lincoln Road) due to backing up of stream on upstream end of culvert under M-40.
- Drain maintenance concerns of watercourse behind Diamond Drive Sub No. 1 & 2
- Volkers Plat No. 2 concerns with no positive outlet for drainage in their development
- Culverts (5) underneath the railroad tracks
- Other general drainage maintenance concerns like vegetation, fallen trees, buffer strips along farm fields, culvert cleanouts etc.



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## Hamilton Drain – BOD Conclusion

- Public Testimony
- Board to determine necessity of petition based on public health, welfare, and/or convenience after hearing testimony
  - If deemed necessary by the board, then the existing system will become a county drain.
  - If deemed not necessary by the board, then no further action will occur.



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## Hamilton Drain – Next Steps

- If the drain is deemed necessary by the board, then...
  - Project design will begin along with easement acquisition
    - Over 60 easements anticipated
    - To keep costs down and for the project to move forward, cooperation on easements is essential for improvements to occur
  - Upon completion of design, the project will let to contractors for bids. This will be a public bid.
  - After project is bid and project costs are determined, a Day of Review will be held to review apportionments.
  - Construction would then commence on the project.
  - Costs of project would be assessed to Overisel, Fillmore, Heath, and Manlius Townships (at large), Allegan County, Allegan County Road Commission, MDOT, and parcels within the district.



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## Hamilton Drain – Future

- If drainage issues occur in the future, then...
  - Drain Office can perform routine maintenance up to \$5,000 per mile of drain (per Drain Code) without a petition
  - If the extent of maintenance exceeds the \$5,000 per mile of drain in a year, then a maintenance resolution from the Township(s) can be signed to exceed the maintenance limit without the need for a petition.
  - The final option is a new petition would be needed by the Township(s), MDOT, ACRC, or the residents of the drainage district to maintain the county drain
  - Assessments for all future projects be assessed to Overisel, Fillmore, Heath, and Manlius Townships (at large), Allegan County, Allegan County Road Commission, MDOT, and parcels within the district.



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