## **New Tamarack Drain**

## Public Informational Meeting

James Township Hall February 21, 2024 6:00 PM



Brian J. Wendling

Saginaw County Public Works Commissioner



# Purpose of Meeting

 Inform landowners adjacent to drain of proposed improvements

 Public Works Commissioner to receive input and comments from landowners on the proposed plan

## Presentation Agenda

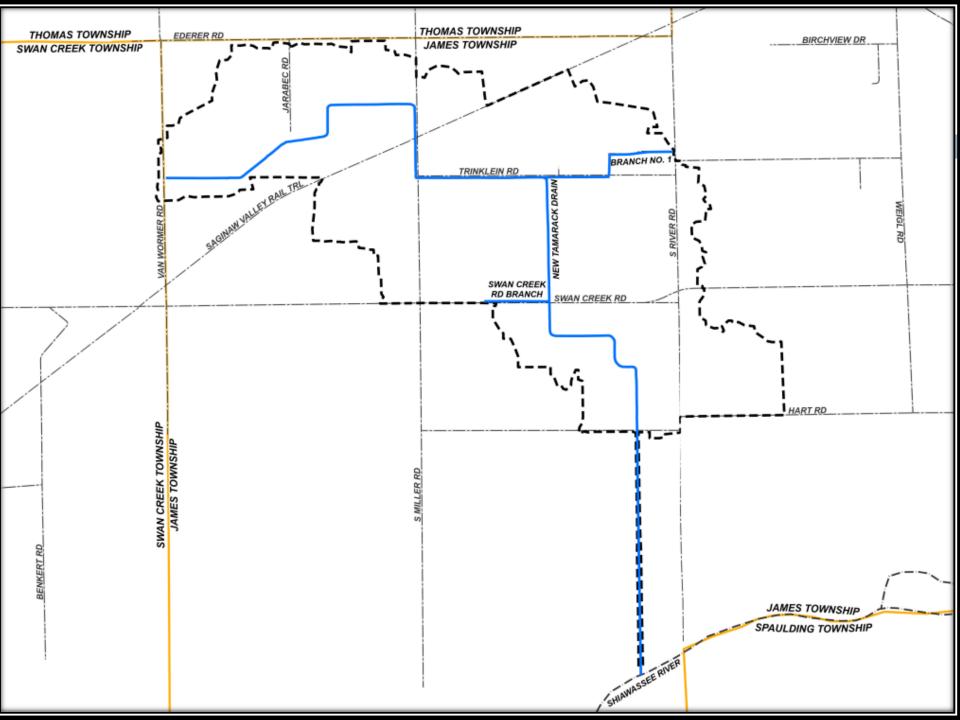
- Drain Background
- Drainage District
- Survey and Design
- Open Channel Improvements
- Drain Crossing Improvements
- Cleanup and Restoration
- Tentative Project Schedule
- Preliminary Estimate of Cost
- Questions and Comments

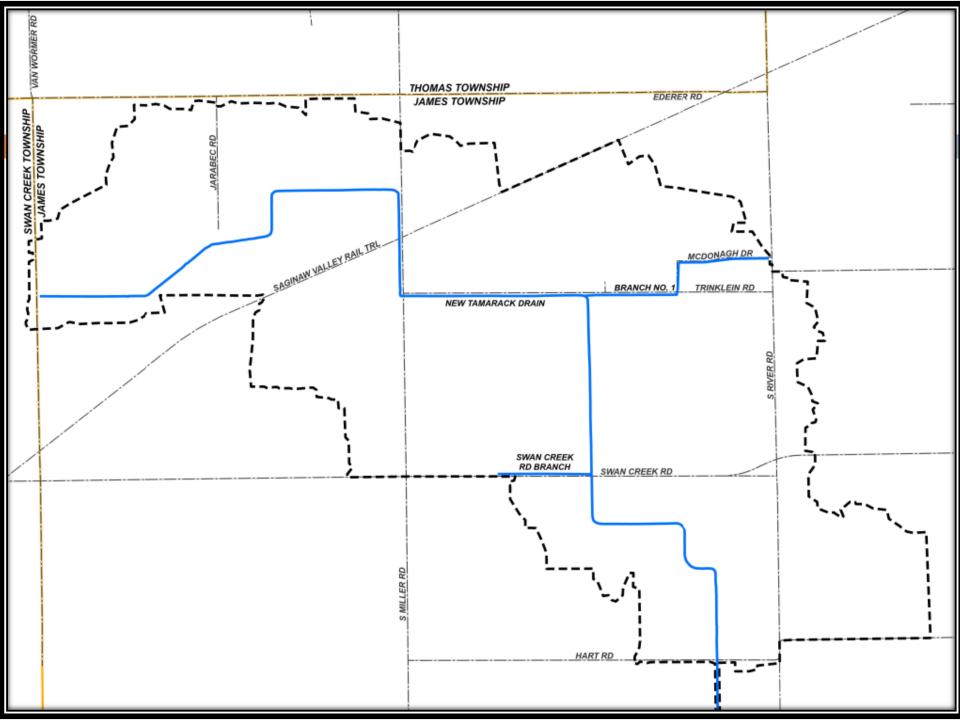
## Drain Background

- The New Tamarack Drain was established in 1929
- Maintenance projected completed in 1960
- Branch No. 1 added in 1972
- Swan Creek Road Branch added in 1979
- Recent maintenance on Branch No. 1

## Drain Background

- Where is the New Tamarack Drain?
  - Main Drain
    - Outlet is in the Shiawassee River approx. 4,500 feet east of S Miller Road
    - Upper end located at Van Wormer Road approx.
      2,600 feet north of Swan Creek Road
  - Branch No. 1
    - Along south side of Trinklein Road ending near the intersection of River Road and McDonagh Drive
  - Swan Creek Road Branch
    - Along north side of road West of main drain
  - Total length of approximately 5 Miles



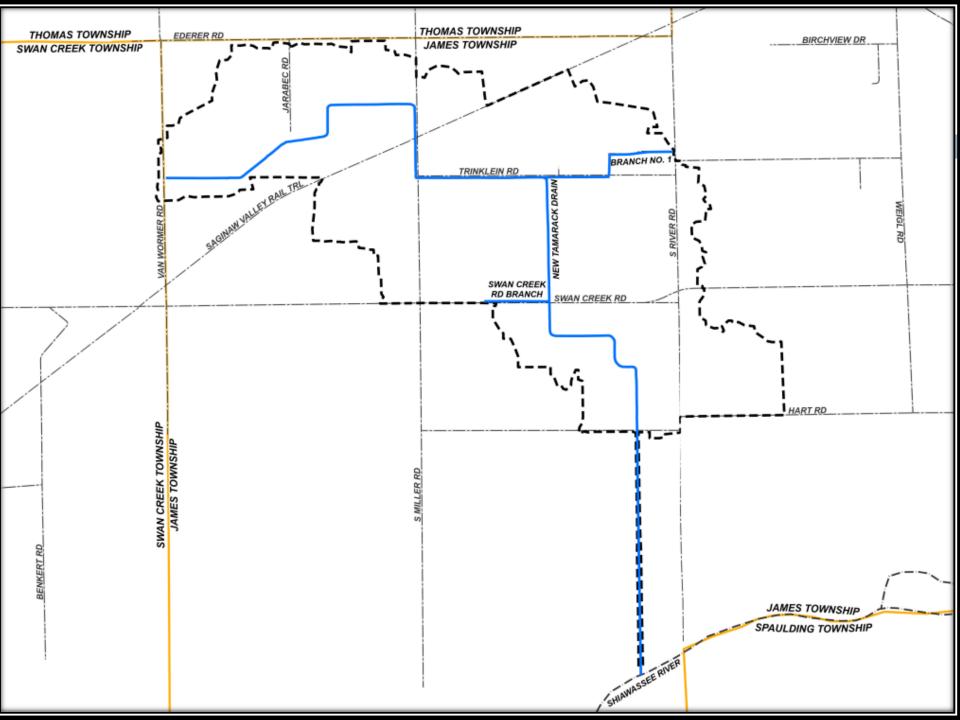


## Drain Background

- Current Landowner Petition
  - Dated January 12, 2023
- Landowner Testimony Board of Determination Meeting held April 12, 2023
  - Complaints stagnant water and sediment in drain
  - Trees and brush in drain

## **Drainage District**

- What is the drainage district?
  - Lands that contribute storm water to drain
  - Drainage District serves as the special assessment district
  - New Tamarack Drain Drainage District includes:
    - James Township & Swan Creek Township
    - Saginaw County
    - Landowners Approximately 305 parcels
    - 1,235 Acres +/-



# Survey, Engineering & Design

- Survey of drain
- Draft survey onto plans
- Engineering field review
- Existing utility research
- Hydrology and hydraulic calculations
- Analyze alternatives
- Final design of plans

## Survey

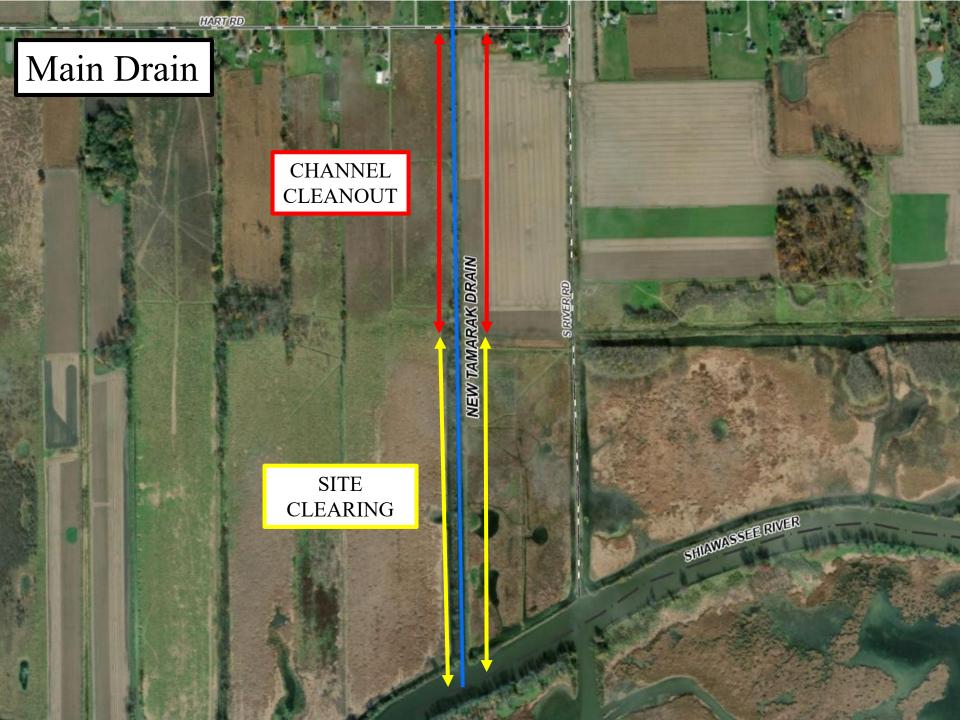
- Surveyed approx. 5 miles of open drain
  - Collected flowline elevations every 250 feet
  - Collected cross sections at minimum every 500 feet
  - Collected topography within 50 feet of the drain centerline
  - Collected elevations of all culvert crossings and drain enclosures

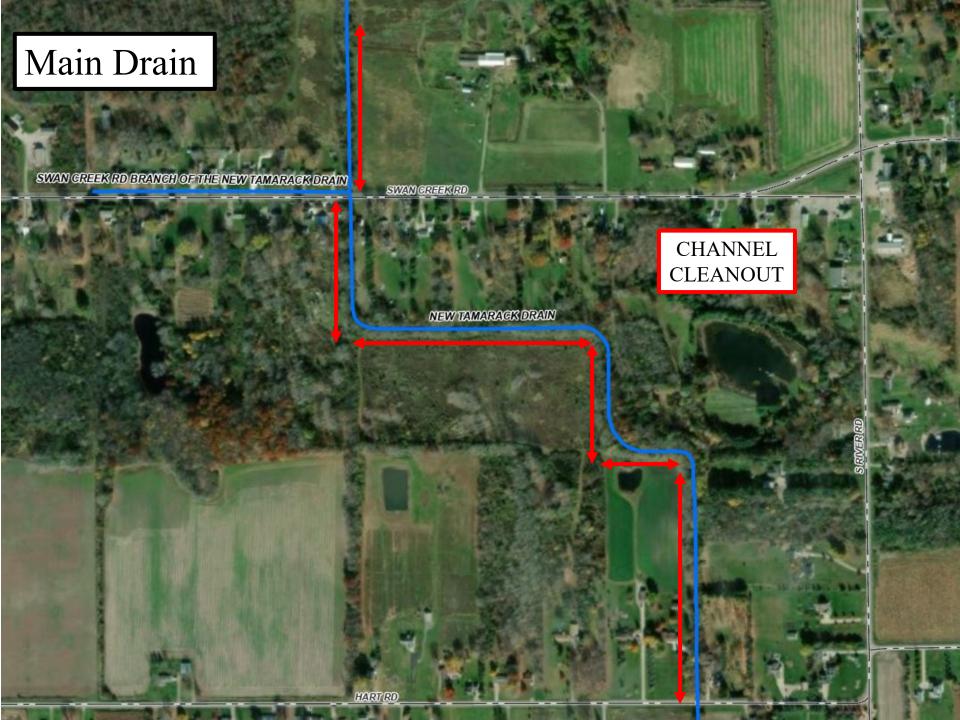
## Design

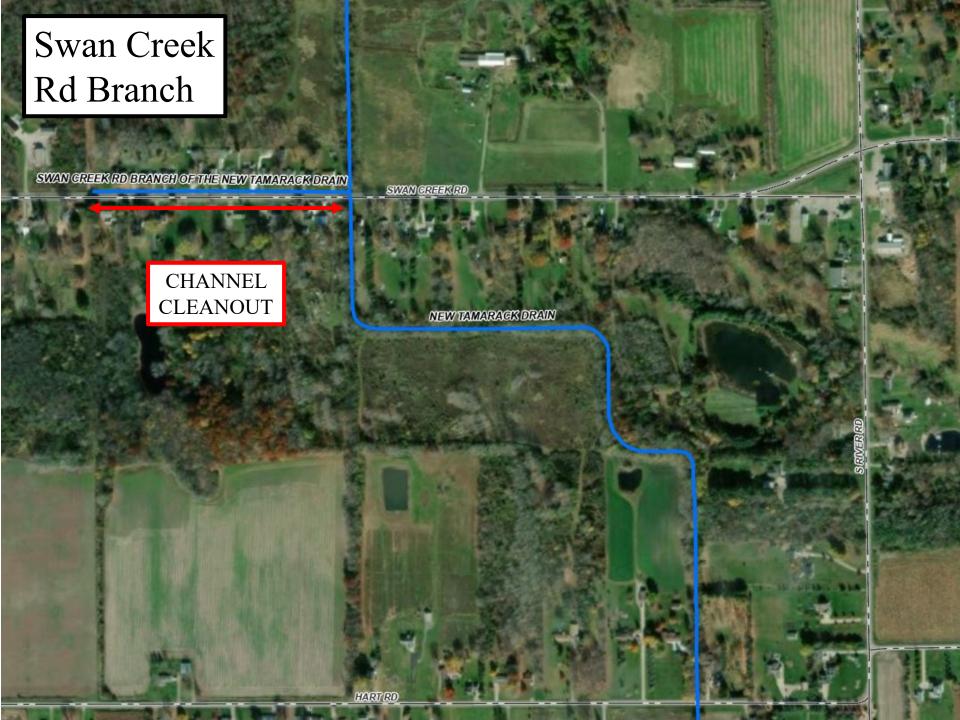
- 10-Year Design Storm
  - Saginaw County Standard Level of Service
  - 1.43 Inches of rain in 1 hour
  - 3.05 Inches of rain in 24 hours

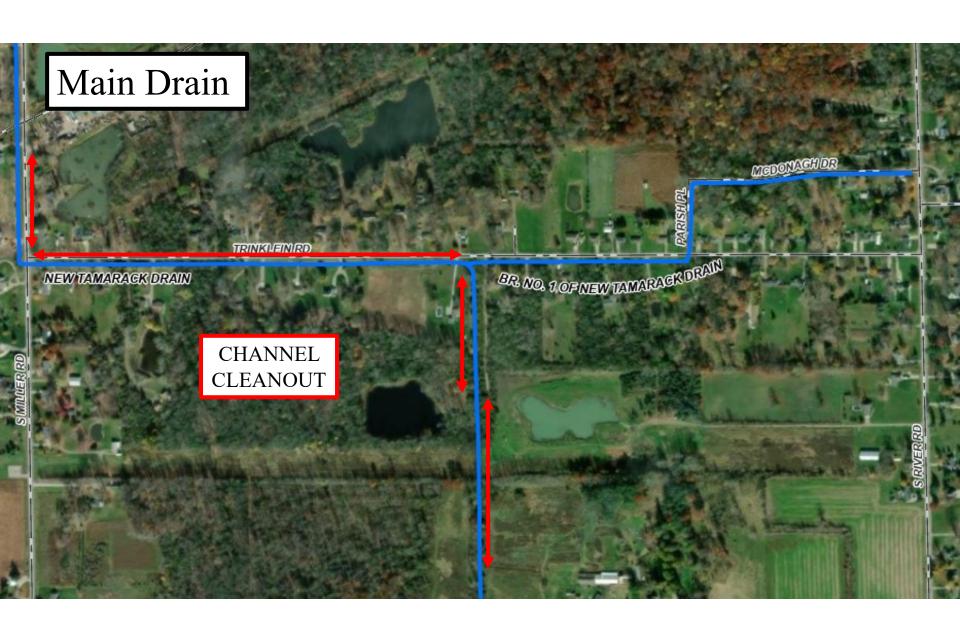
## Channel Improvements

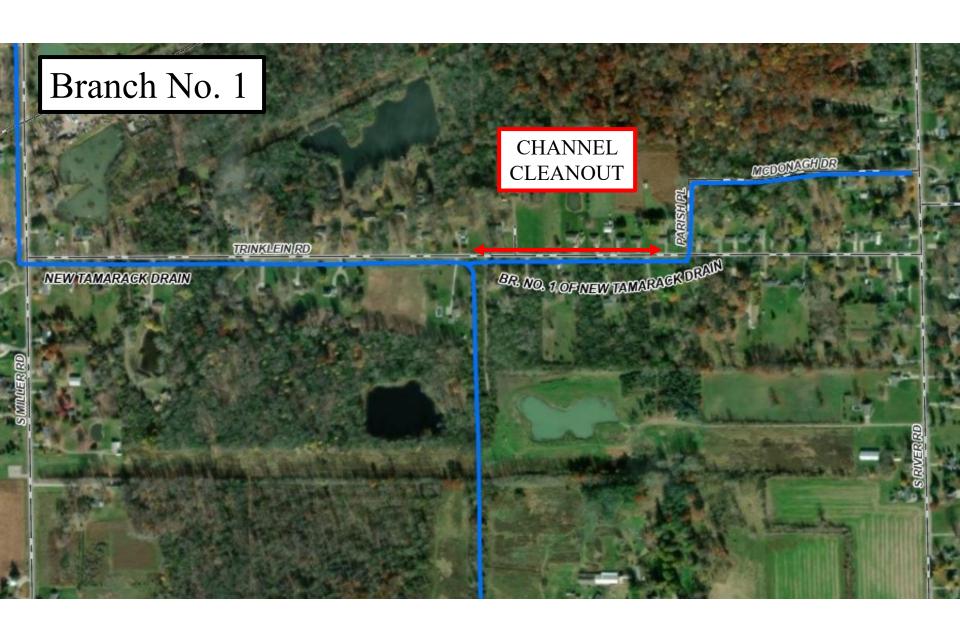
- Channel Cleanout
  - Sediment is removed from drain bottom only
- Site Clearing
  - Shrubs, trees, and brush are removed from the drain site

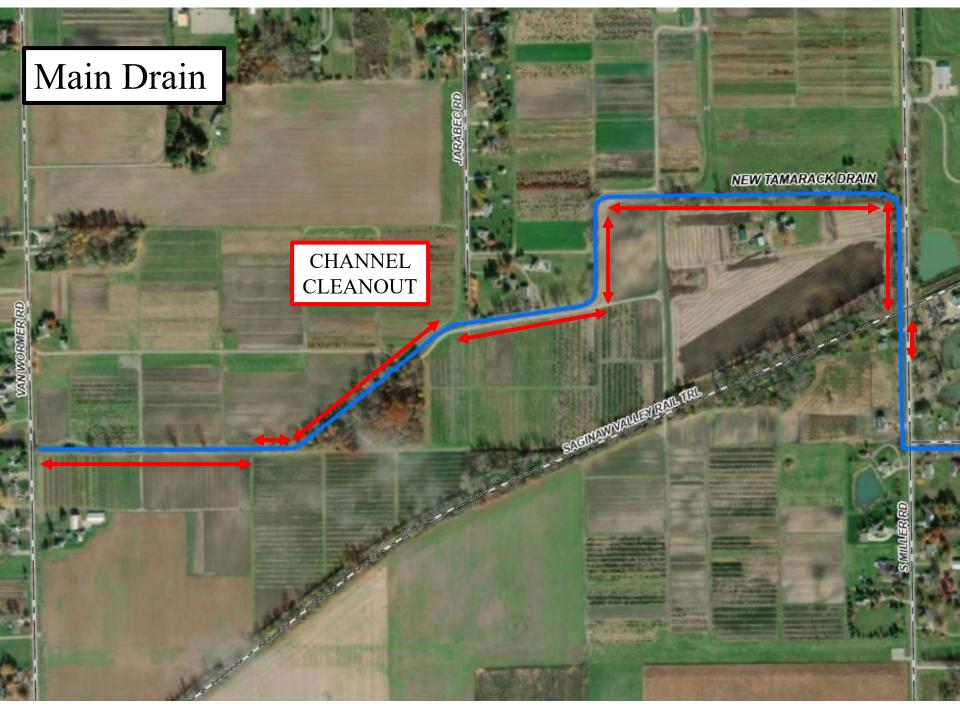




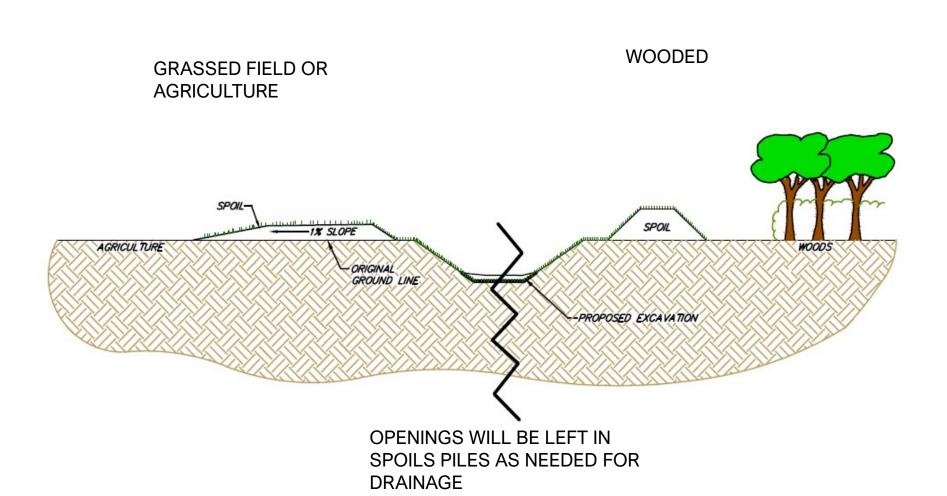




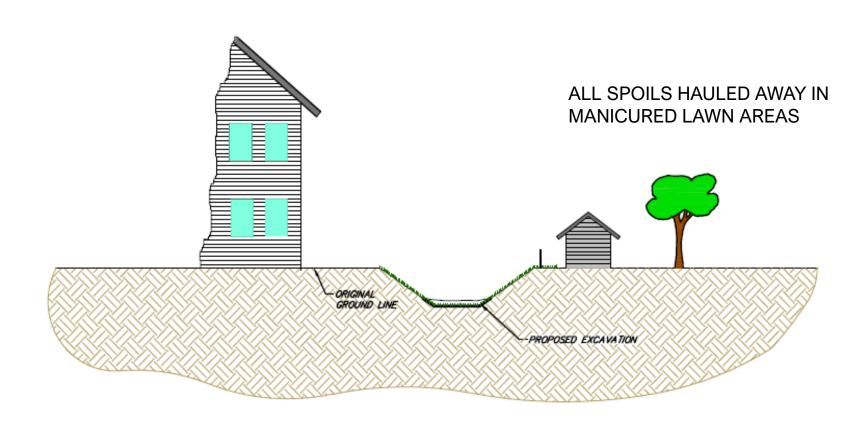




# Typical Channel Cleanout Detail Wooded/Agricultural Areas



# Typical Channel Cleanout Detail Residential Areas



## Other Channel Improvements

#### Erosion Control

- Bank stabilization riprap and fabric
- Spillways riprap and grass
- Seeding and mulching

#### Tile outlets

- Riprap splash pads
- Repair outlet if in poor condition
- Maintain outlet if in good condition

## Limited Access

- Fences, Sheds, Other items in Right-of-Way
  - Landowners to remove all fences, landscaping, or other items within the drain right-of-way in advance of construction
  - Any items left within the drain right-of-way will be removed and stockpiled as needed for construction
  - Reinstallation of removed fencing and landscaping only allowed outside of the drain right-of-way and is the responsibility of the landowner

- Total of 48 drain crossings
  - 43 Private crossings
    - Drives, Footbridges, Yard enclosure
  - 5 Road crossings
    - Hart Road
    - Swan Creek Road
    - Miller Road
    - County of Saginaw (Rail Trail)
    - Van Wormer Road

- Measured length, elevation and size of all drain crossings
- Assessed condition of crossings and headwalls
- Replacement criteria
  - Inadequately sized
  - Crossing is set too high in the drain, backing up water flow

- The following slides are a general listing of the work being completed at each drain crossing.
- If you would like details on your individual crossing such as size, length, or material, please speak to us at the end of the meeting.

### Crossings to be Replaced with New Culvert

- No. 5 Kolhagen, J. & K.
- •No. 6 Persons, A. & D.
- •No. 7 Nestell, T. & P. et al.
- •No. 8 Thom, J. & C.
- •No. 9 Weeks, J.
- No. 10 Dankert, J.
- No. 11 Revard, M. & C.
- No. 12 Revard Revocable Trust
- •No. 13 Brown, A. & J.

- No. 14 Rousseau, T.
- No. 19 Bruns Farm Inc.
- •No. 23 Kluck, T. & K.
- •No. 42 Kolhagen, J. & K.
- •No. 44 Cass, G.
- •No. 45 Hill, R. Jr. & P.
- •No. 46 Banda, L.
- •No. 47 Banda, L.
- No. 48 Montgomery, K.

#### Crossings to be Cleaned Out

- No. 1 Hart Road
- No. 3 Swan Creek Road
- No. 15 Miller Road
- No. 16 Howey, G II & Howey, A.
- ■No. 17 Alfano, S. & P.
- No. 18 County of Saginaw
- •No. 20 Kluck, T. & K.
- •No. 21 Kluck, T. & K.
- •No. 22 Kluck, T. & K.
- •No. 24 Kluck, T. & K.
- No. 26 Kluck Properties LLC
- No. 27 Van Wormer Road
- •No. 28 Gill, H.

- No. 29 Mitchell, K. Ruschke, R.
- •No. 30 Klein, K.
- •No. 32 Powell, J. & B.
- •No. 33 Schirmer, S. & L.
- •No. 34 Bronz, G. & P.
- No. 35 Zuckschwerdt, G. & R.
- No. 36 Stutler, W.
- No. 37 Hart Road
- •No. 38 Hill, M. et al.
- •No. 39 Knapp, D. & M.
- •No. 40 Hill, M.
- ■No. 41 Stuller, W.

- Crossings to be Removed Only
  - No. 2 − Buckbee, F. and Schmidt, M. & L.
  - ■No. 4 Consumers Power Company
- Crossings to be Reset
  - No. 25 Kluck Properties LLC
- Crossings to be Repaired
  - ■No. 31 Powell, J. & B.

## Cleanup and Restoration

- All spoils along lawn areas will be hauled.
- All disturbed lawn areas will be landscape graded and seeded with a minimum 4" of topsoil.
- All trees removed in lawn areas will be completely removed from the site unless the landowner requests to keep the wood.
- Stumps from cut trees in mowed areas will be ground below the surface, covered with topsoil, and seeded.

## Cleanup and Restoration

- Small trees and shrubs will be removed as needed for construction
- If needed, mailboxes will be temporarily relocated and reinstalled as needed for construction
- All driveways and county roads shall be restored in kind
- Local traffic shall be maintained at all times

## Tentative Project Schedule

- Bid Project End of April
- Day of Review of Apportionment Following Bidding - May 2024
- Contractor Notice to Proceed Late Summer/Fall 2024
- Substantial Completion October 2025

 A formal Notice will be mailed with date for day of review

# **Project Cost**

- Estimated Cost: \$1,700,000
  - Includes:
    - Open channel improvements
    - Crossing repairs and replacements
    - Erosion control
    - Cleanup and restoration
    - Utility coordination
    - Engineering, survey and design
    - Financing fees
    - Construction staking and inspection
    - Contingencies
  - Final project cost determined by Contractor's bid

## **Questions or Comments?**

