

Parker Swamp Drain

Public Informational Meeting

Freeland High School Auditorium

May 2, 2022

6:00 PM



Brian J. Wendling

Saginaw County Public Works Commissioner

Purpose of Meeting



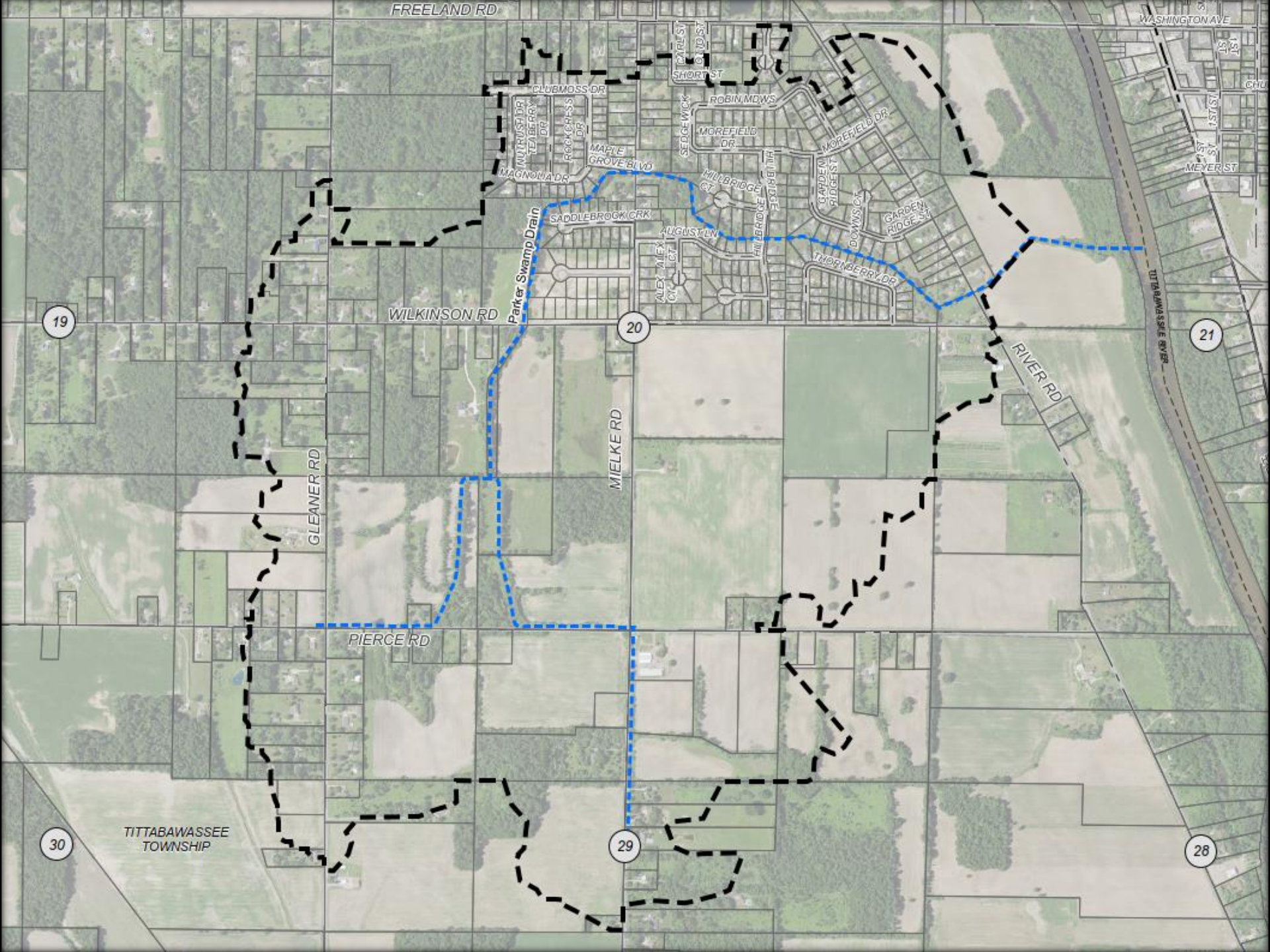
- Inform landowners adjacent to drain of proposed improvements
- Public Works Commissioner to receive input and comments from landowners on the proposed plan

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 Parker Swamp Drain was established in 1912
- Where is the Parker Swamp Drain?
 - Outlet is in the Tittabawassee River approx. 2,000 feet south of Freeland Road
 - Upper end of Main Branch is located approximately 100 feet west of the intersection of Gleaner Road and Pierce Road
 - Upper end of Branch No. 1 is located approx. 2,000 feet south of the intersection of Mielke Road and Pierce Road
 - Total length of approximately 3.6 Miles



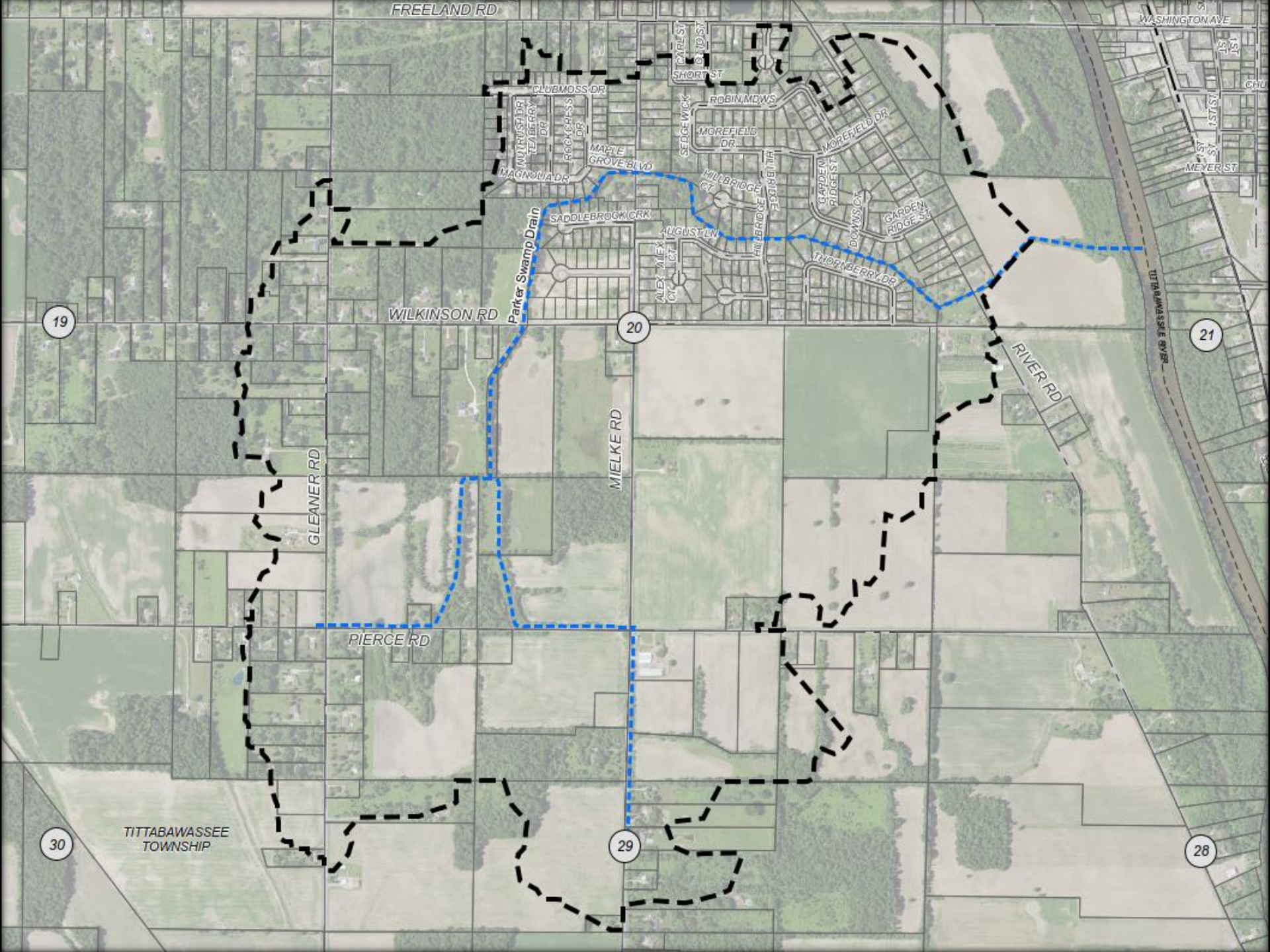
Drain Background



- Current Landowner Petition
 - Dated April 13, 2021
- Landowner Testimony – Board of Determination Meeting held July 27, 2021
 - Flooding between Wilkinson Road and upper ends of Main Branch and Branch 1
 - Bank Erosion issues between River Road and Mielke Road

Drainage District

- What is the drainage district?
 - Lands that contribute storm water to drain
 - Drainage District serves as the special assessment district
 - Parker Swamp Drain Drainage District includes:
 - Tittabawassee Township
 - Saginaw County
 - Landowners – Approximately 501 parcels
 - 812 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. 3.6 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

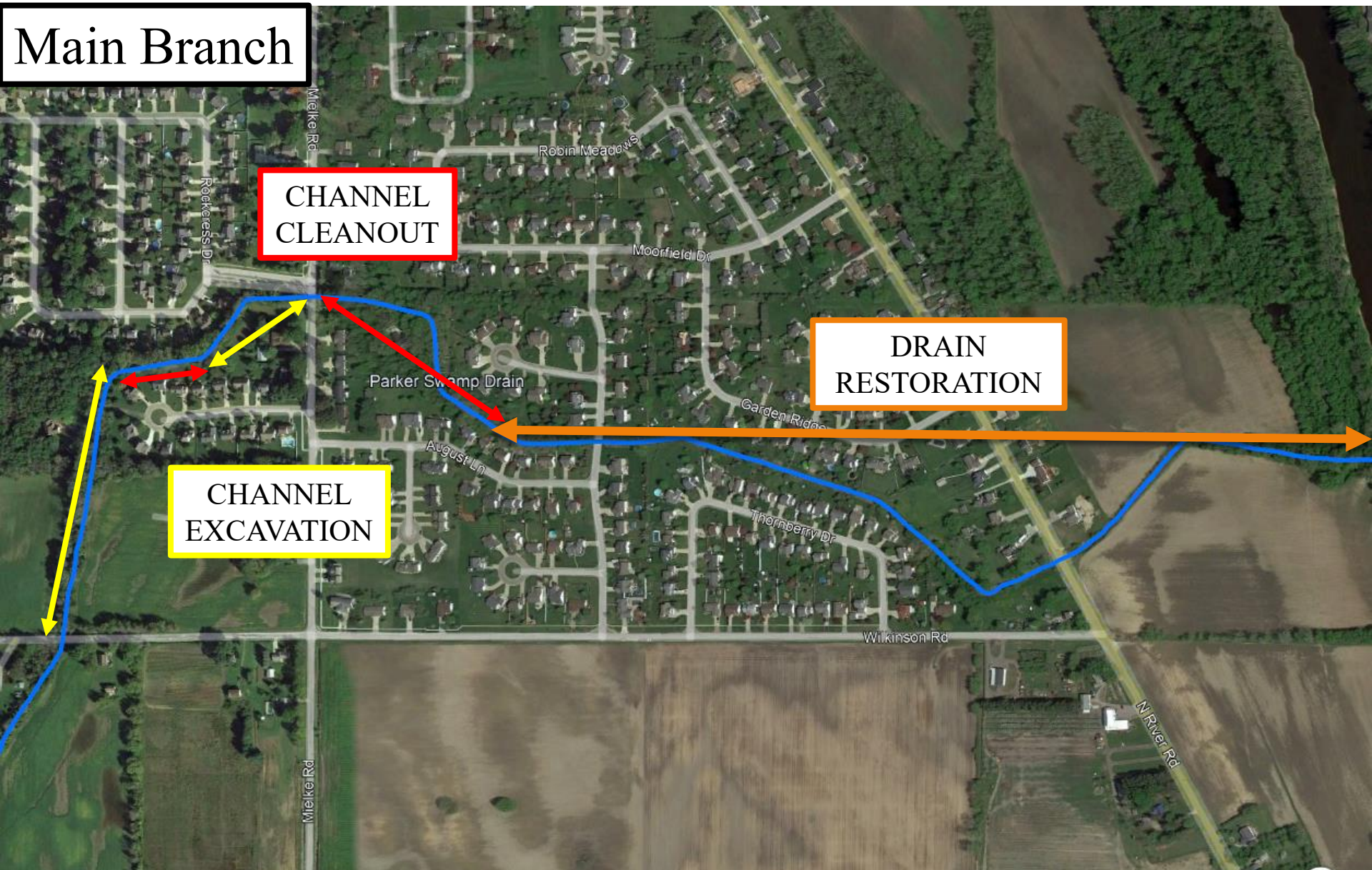


- 10-Year Design Storm
 - Saginaw County Standard Level of Service
 - 1.43 Inches of rain in 1 hour
 - 3.05 Inches of rain in 24 hours

Channel Improvements

- Drain Restoration
 - Debris removal
 - Channel straightening
 - Sediment bar removal
 - Erosion repair
- Channel Cleanout
 - Sediment is removed from drain bottom only
- Channel Excavation
 - Sediment is removed from bottom, one side slope is regraded

Main Branch

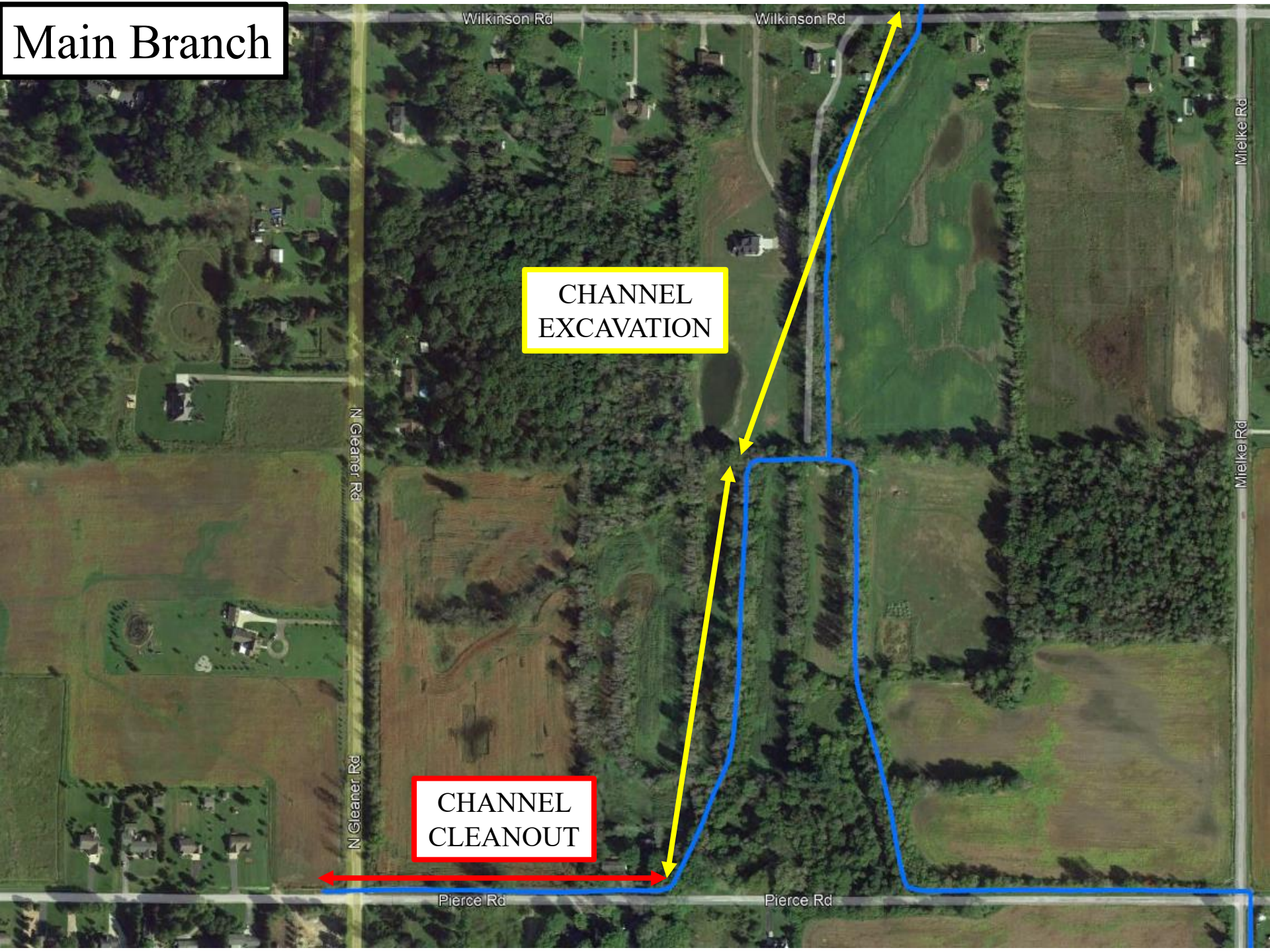


CHANNEL
CLEANOUT

CHANNEL
EXCAVATION

DRAIN
RESTORATION

Main Branch



CHANNEL
EXCAVATION

CHANNEL
CLEANOUT

N Gleaner Rd

Wilkinson Rd

Wilkinson Rd

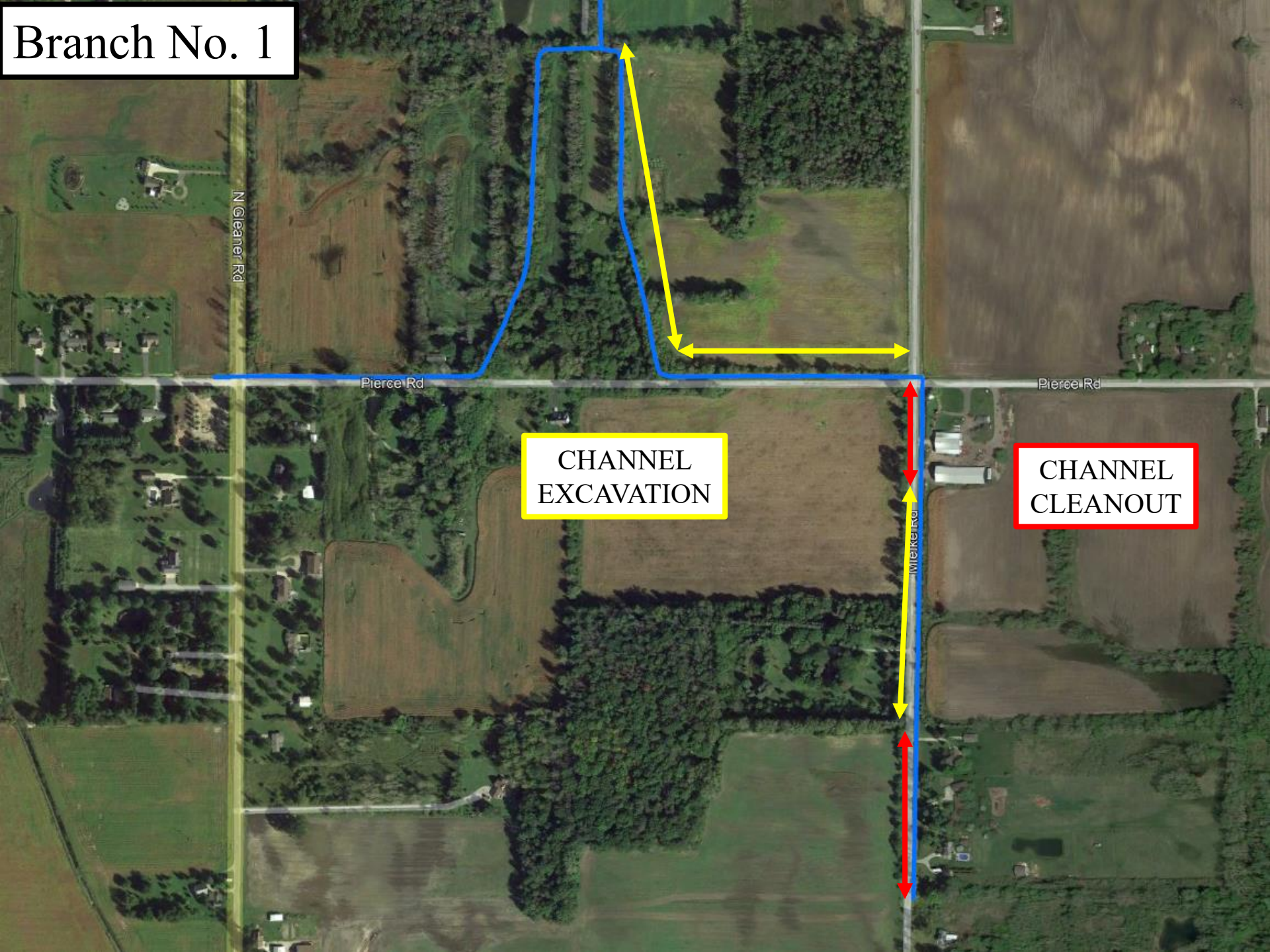
Pierce Rd

Pierce Rd

Mielke Rd

Mielke Rd

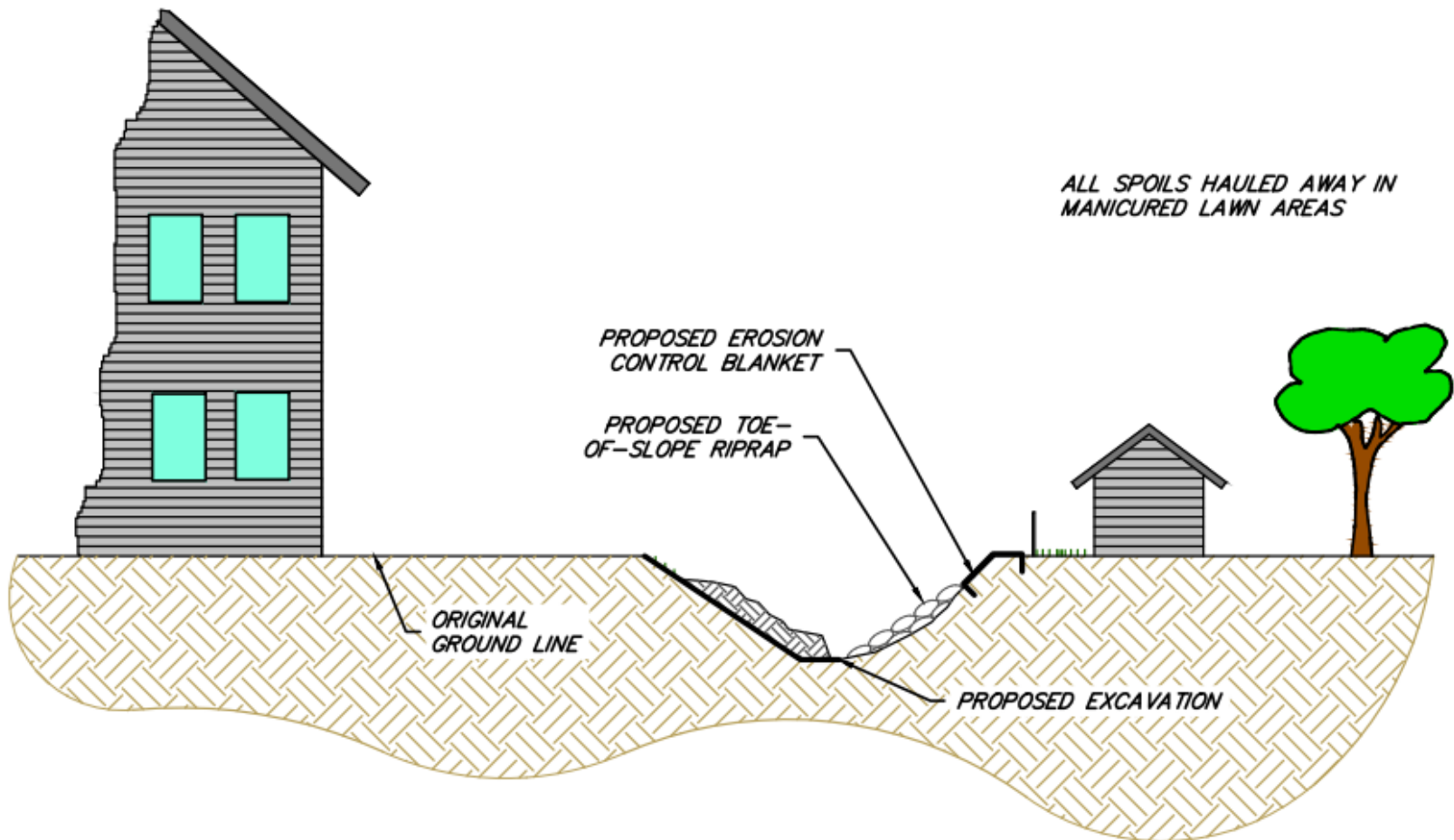
Branch No. 1



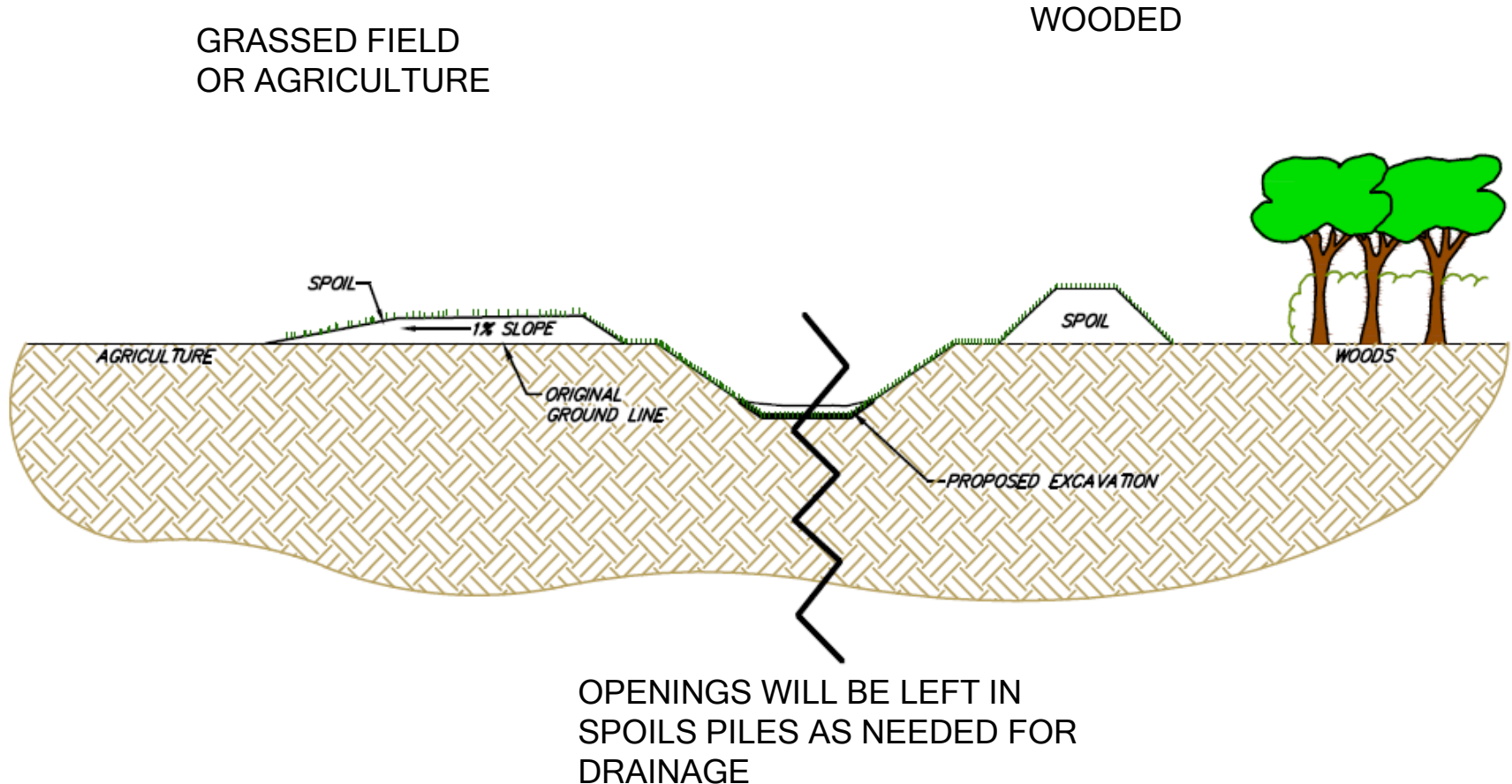
CHANNEL
EXCAVATION

CHANNEL
CLEANOUT

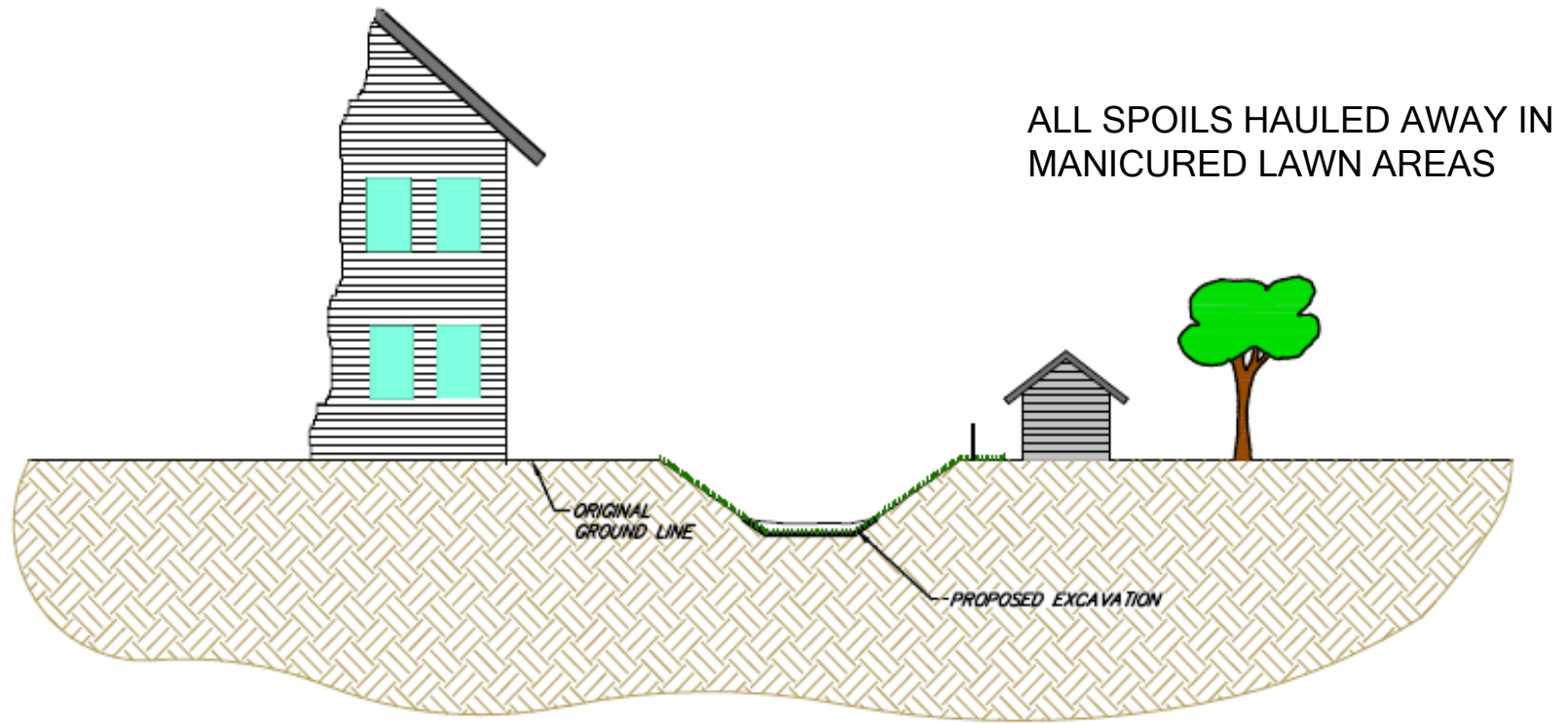
Typical Drain Restoration Detail



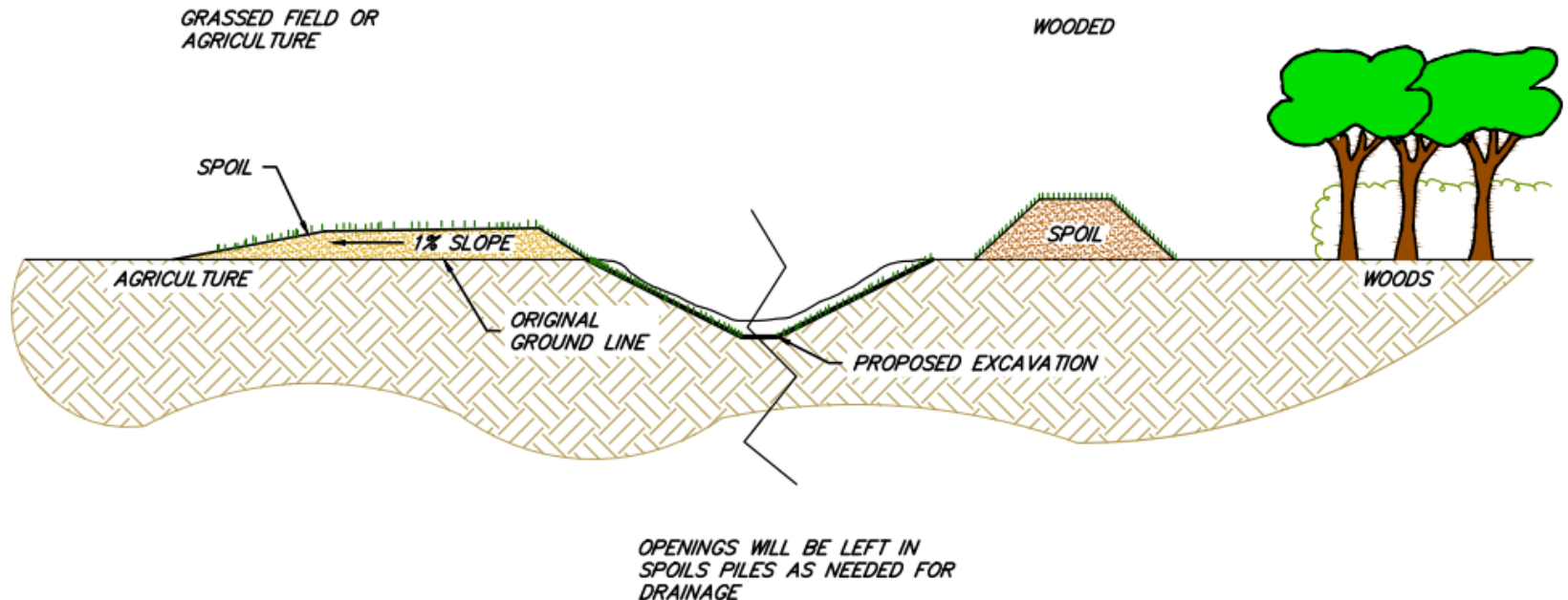
Typical Channel Cleanout Detail Wooded/Agricultural Areas



Typical Channel Cleanout Detail Residential Areas



Typical Channel Excavation Detail



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
 - SCPW to notify individual landowners with items in drain right-of-way, via letter
 - 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



LIMITED
ACCESS

Parker Swamp Drain

August Ln

Garden Ridge

Thornberry Dr

Wilkinson Rd

N River Rd

Melke Rd

Rockeess Dr

Robin Ln

Moorfield Dr

Melke Rd

Limited Access



Limited Access



Limited Access



Limited Access



Limited Access



Drain Crossings

- Total of 24 drain crossings
 - 17 Private crossings
 - Drives, Footbridges, Yard enclosure
 - 7 Road crossings
 - River Road
 - Hillbridge Drive
 - Mielke Road (2)
 - Wilkinson Road
 - Gleaner Road
 - Pierce Road

Drain Crossings

- 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

Drain Crossings



- The following slides are a general listing of the work being completed at each of 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.

Drain Crossings

- Crossings to be Replaced w/ New Culvert
 - No. 5 – Mills, G. & L.
 - No. 9 – Grank, G. & R.
 - No. 10 – Munger, R.
 - No. 11 – Munger, R. & C.
 - No. 12 – N. Gleaner Road
 - No. 15 – Frank, G. & R.
 - No. 17 – Munger, R.
 - No. 18 – Mielke Road
 - No. 19 – Pierce Road
 - No. 20 – Wirtz, J.
 - No. 21 – Brooks, K. & A.
 - No. 22 – Hughes, J. & L.

Drain Crossings

- Crossings to be cleaned out
 - No. 3 – Hillbridge Drive
 - No. 4 – Mielke Road
 - No. 6 – Dobulis, I. & M.
 - No. 8 – Wilkinson Road
 - No. 16 – Frank, G. & R.
 - No. 23 – Cassells, M. & M.
 - No. 24 – Datte, K. & S.
 - No. 25 – Pfahl, T. & S.

Drain Crossings

- Crossings to be removed only
 - No. 2 – Sprague, C. & J.
 - No. 2A – Trepkowski, P. & E.
 - No. 7 – Labean, R.
- Crossings to be added
 - No. 3A – Stevens, K.
 - No. 9A – Consumers Energy
- Crossings w/ no proposed work
 - No. 1 – N. River Road

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

- Day of Review of Drainage District Boundary – May 25th, 2022 - Prior to Bidding
- Bid Project – June 9th, 2022
- Day of Review of Apportionments – June 30th, 2022 - Following Bidding
- Contractor Notice to Proceed –Fall 2022
- Completion – October 15th, 2023
- A formal Notice will be mailed with dates for both days of review

Project Cost

- Estimated Cost: \$1,320,000
 - Includes:
 - Open channel improvements
 - Crossing repairs and replacements
 - Erosion control
 - Cleanup and restoration
 - Utility coordination
 - Engineering, survey and design
 - Permitting fees
 - Financing fees
 - Construction staking and inspection
 - Contingencies
 - Final project cost determined by Contractor's bid

Questions or Comments?

