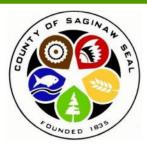


Richland Township Administrative Offices August 31, 2023, 6:00 p.m.

Brian J. Wendling

Saginaw County Public Works Commissioner





PURPOSE OF PUBLIC INFORMATIONAL MEETING:

- Review the known existing issues along the drain
- Inform landowners within the drainage district of proposed improvements
- Receive input and comments from the landowners on the proposed plan











DRAIN BACKGROUND:

- Established as a county drain in 1905
- Last maintenance project performed in 1952
- Current Landowner Petition
 - Dated June 28, 2022
 - Received August 12, 2022
- Board of Determination
 - Held on December 8, 2022
 - Found the project to be necessary





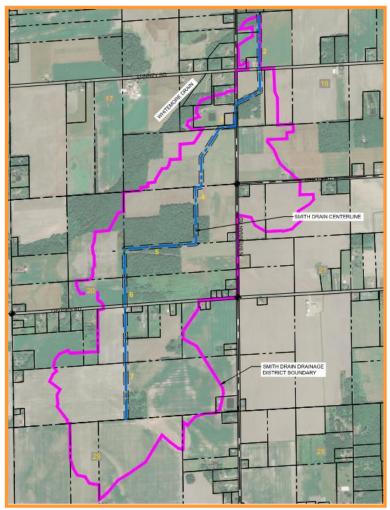


DRAINAGE DISTRICT:

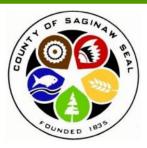
- Approximately 610 acres
- Contains 44 parcels
- Located entirely in Richland Township, Saginaw County

SURVEY:

- Surveyed approximately 2.2 miles of open drain
- Collected flowline elevations approximately every 50 feet
- Collected cross sections approximately every 200 feet
- Collected topography within the drain right of way
- Collected elevations of all culvert crossings







DESIGN:

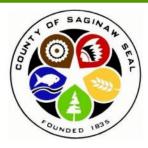
- 10-Year Design Storm
 - Saginaw County Standard Level of Service
 - 1.43 inches of rain in 1 hour
 - 3.05 inches of rain in 24 hours

CHANNEL IMPROVEMENTS:

- Debris removal
- Erosion repair and bank tapering
- Tree removal
- Channel cleanout

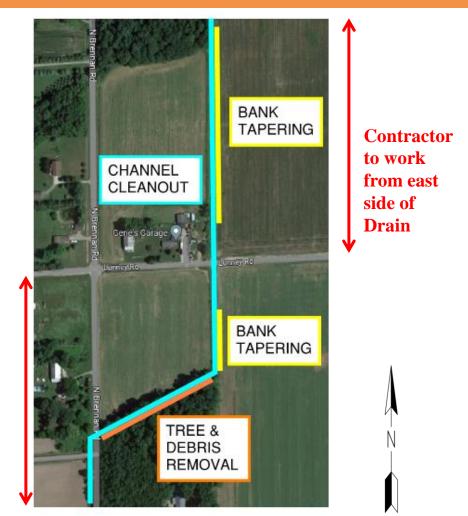






CHANNEL IMPROVEMENTS:

Contractor to work from west side of Drain

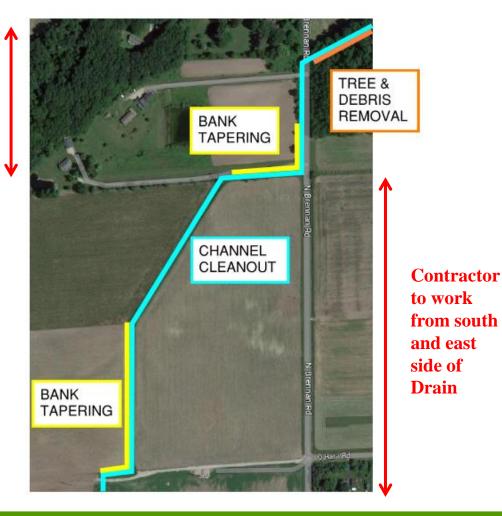






CHANNEL IMPROVEMENTS:

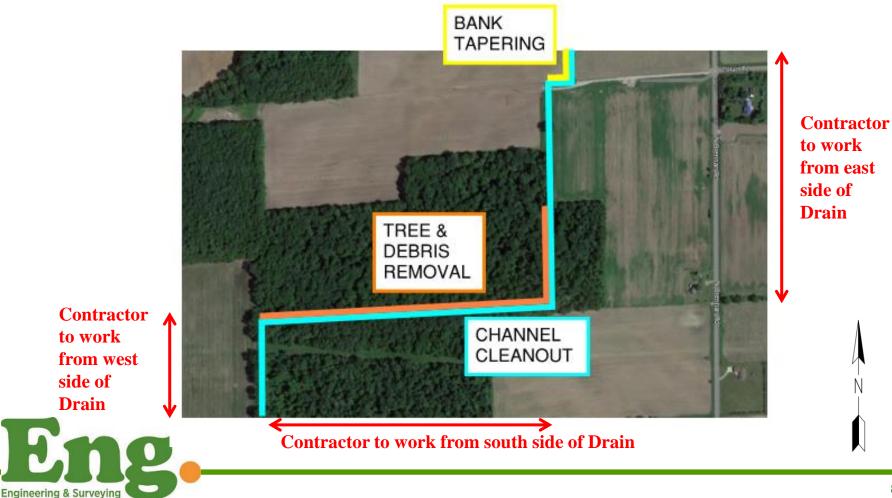
Contractor to work from west side of Drain







CHANNEL IMPROVEMENTS:





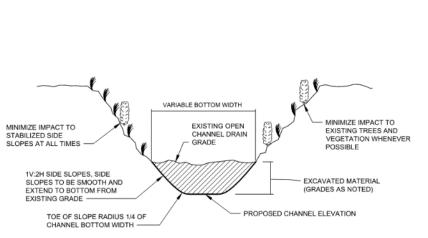
CHANNEL IMPROVEMENTS:

Contractor to work from west side of Drain









OPEN DRAIN CLEANOUT DETAIL

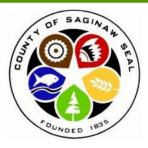
Existing Condition

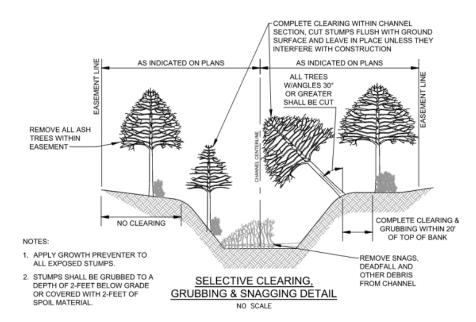


Proposed Condition









Existing Condition

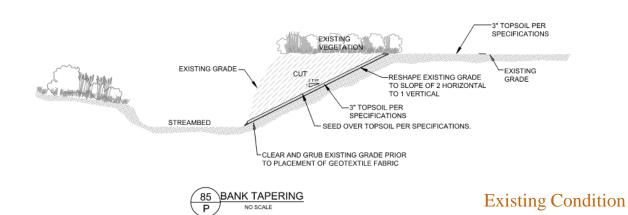




Proposed Condition







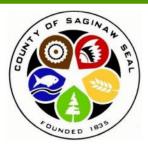
Proposed Condition











DRAIN CROSSINGS:

- Total of 7 drain crossings
 - 3 Roads (Lunney, Brennan, Geddes)
 - 3 Drive crossings
 - 1 Field crossing
- Measured length, elevation and size of all drain crossings
- Assessed condition of crossings and headwalls



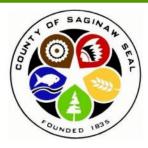




CLEANUP AND RESTORATION:

- Trees and brush within the drain Right-of-Way will be removed as needed for construction
- All spoils will be leveled as applicable along the drain within the drain right of way
- Any disturbed lawn or roadside ditch areas will be restored with a minimum of 4 inches of topsoil, mulch, and seed
- All driveways and roads will be restored in kind

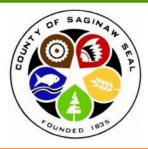




TENTATIVE PROJECT SCHEDULE:

- Day of Review of Drainage District Boundary
 - Completed August 30, 2018
- Bid Project
 - Bid opening to be September 14, 2023 @ 10 a.m. at the Office of the Public Works Commissioner
- Day of Review of Apportionments (Notice will be mailed)
 - Early October 2023
- Contractor Notice to Proceed
 - Beginning of January 2024
- Completion
 - October 15, 2024





PROJECT COST:

- Estimated Cost: \$225,000.00 (final project cost determined by Contractor's bid)
 - Open channel improvements
 - Culvert cleaning and replacements
 - Erosion repair
 - Cleanup and restoration
 - Utility coordination
 - Engineering, survey, and design
 - Permitting fees
 - Financing fees
 - Construction staking and inspection
 - Contingencies







