

# Sevey Drain

## Board of Determination

July 27, 2021

Ottawa County Water Resources Commissioner

Joe Bush – Water Resources Commissioner



Ottawa County  
*Where You Belong.*



# Presentation Overview

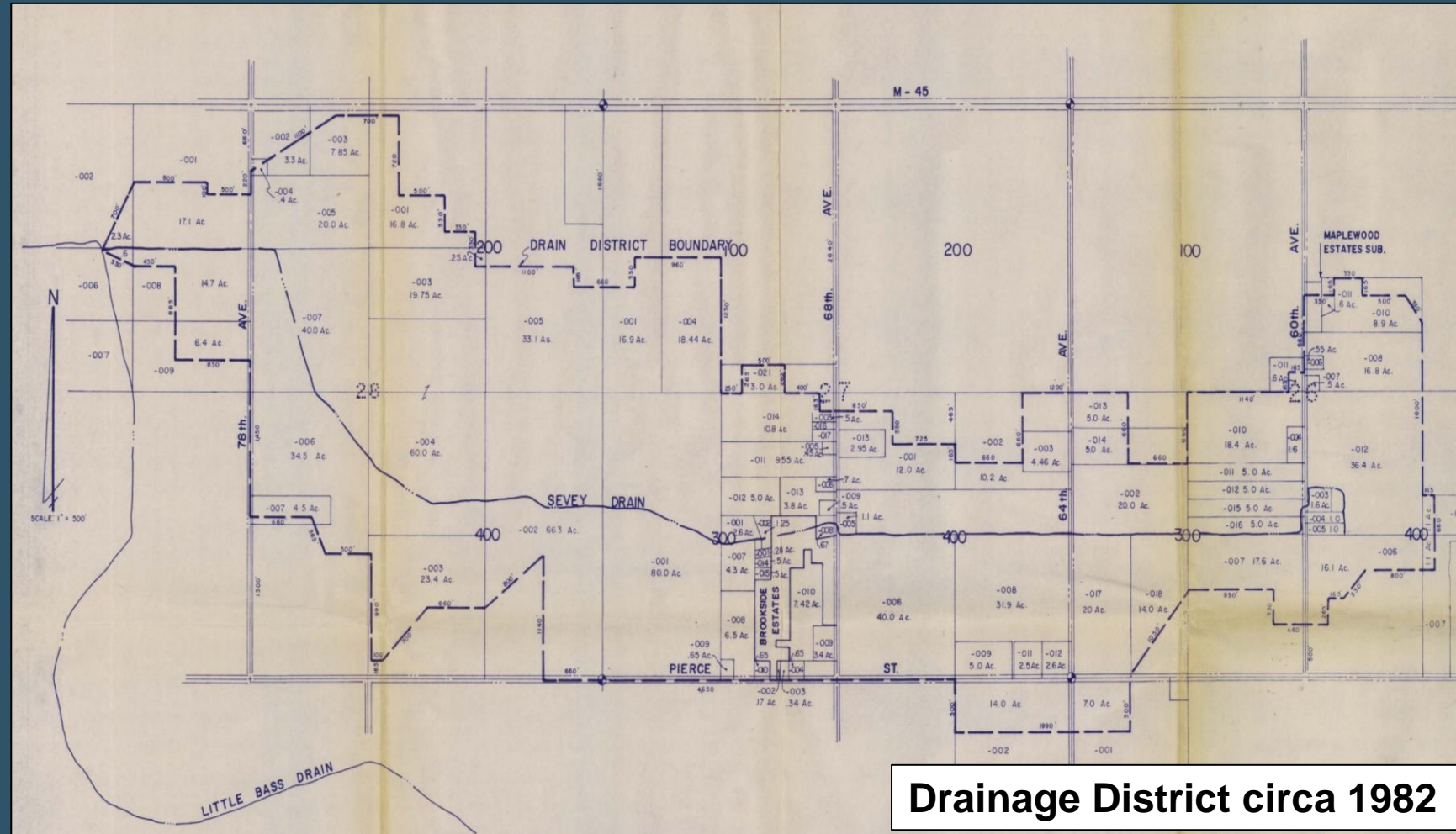
- Why Are We Here?
- Drain Overview
- Drain History
- Drainage Issues
- What Happens Next?

# Why Are We Here?

- Ottawa County Water Resources Commissioner (OCWRC) received a petition from Allendale Township requesting that the Sevey Drain be maintained and improved as provided in Chapter 8 of the Michigan Drain Code, Public Act 40 of 1956, as amended, to alleviate drainage issues in the Drainage District.
- Michigan Drain Code mandates that as part of the petition process, the Drain (Water Resources) Commissioner must schedule and hold a Board of Determination (BOD).
- BOD will hear all testimony and determine if a project is necessary based on public health, welfare or convenience.

# Drain Overview

- Established in 1886
- Drainage District:  
970 acres +/-
- Tributary to Little  
Bass Creek (Drain)
- Drain Length: 2.87  
miles (15,153.6 feet)
- Soils: generally  
sandy loam
- Land Use: mix of  
residential and  
agricultural

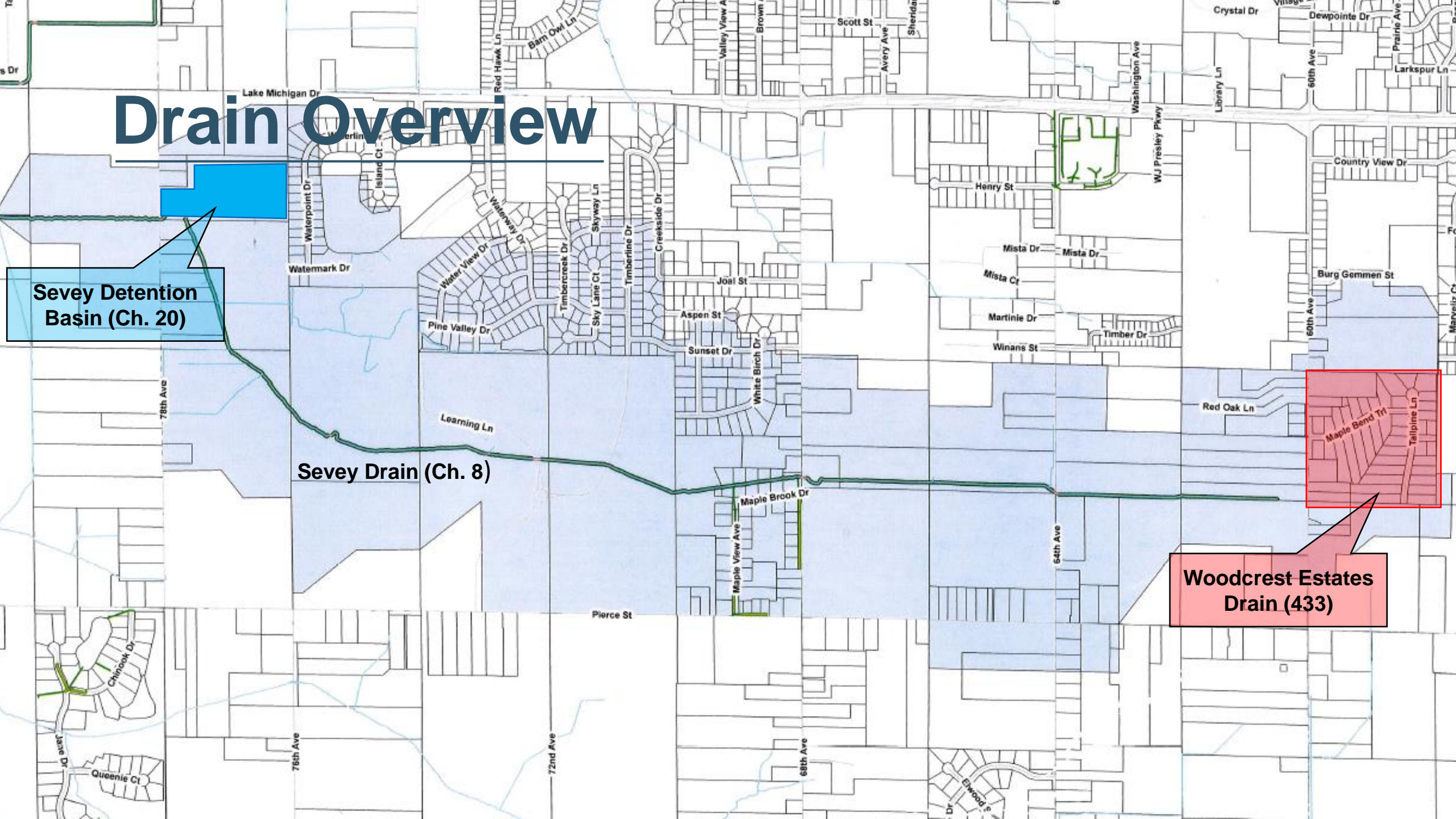


# Drain Overview

Sevey Detention Basin (Ch. 20)

Sevey Drain (Ch. 8)

Woodcrest Estates Drain (433)



# Drain History

- Petitioned in 1954 – cleaned drain
- Petitioned in 1982 – drain cleanout & culvert replacements
- Chapter 20 Petition 1991 – Sevey Detention Pond was constructed in 1992
- Petitioned in 2009 – added Brookside Branch, cleanout in Allendale Public School section
- Special Use Permits 2016:
  - Road Commission Replaced 78<sup>th</sup> Ave 9'x5' RCP Box Culvert
  - Grand Valley Development placed 8'x6' RCP Box Culvert (Hidden Shores Development)
- Related: Woodcrest Estates Drain established pursuant to Section 433 of the Drain Code in 1998.

# Drainage Issues

- Public Health, Convenience or Welfare Issues:
  - Land Use Conversion: urbanized landscape may increase stormwater runoff causing channel instability or flooding.
  - Detention Basin: maintenance issues.
  - Increased Sediment and Nutrient Loading: sediment and aquatic vegetation may impede flow, reduce hydraulic capacity of channel and cause flooding.
  - Obstructions in the Drain: obstructions may impede flow and cause localized flooding.
  - Woodcrest Estates Drain: standing water causes nuisance property flooding and may create a breeding ground for mosquitos, which may spread disease.

# Land Use Conversion



1999 Aerial.



2021 Aerial.



# Detention Basin



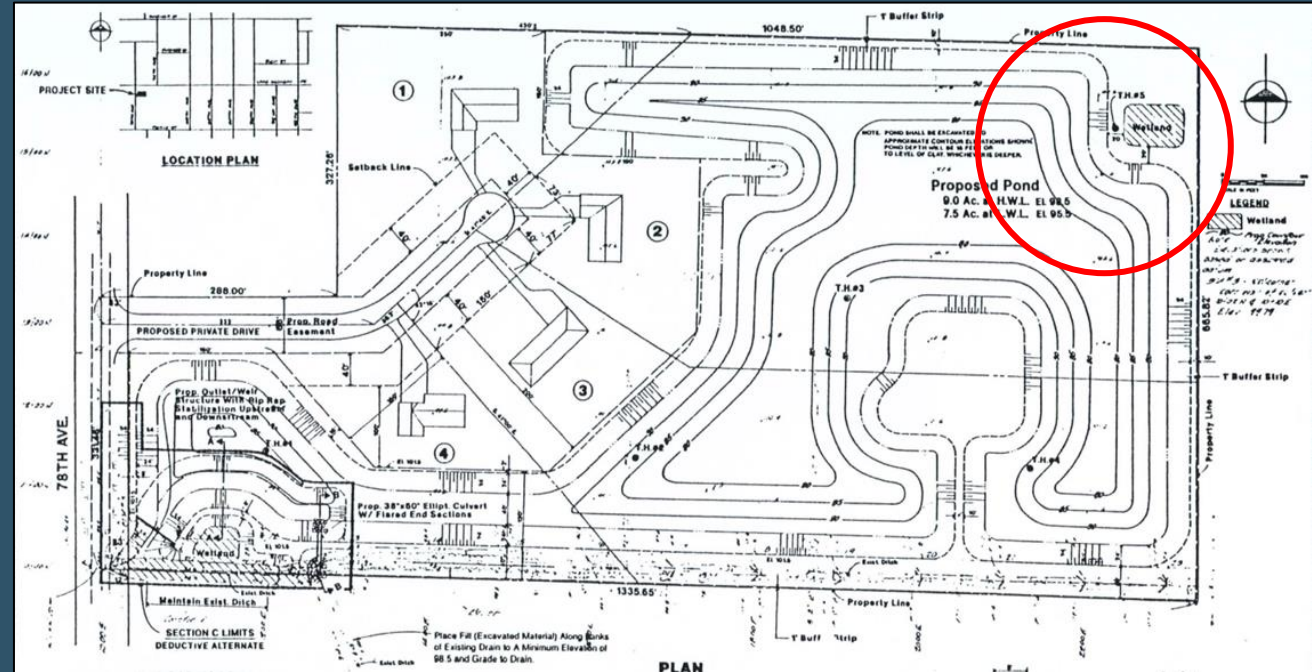
Undersized inlet culvert.



Degrading outlet control structure.



# Detention Basin Sediment Deposition



Sediment deposition in NE Corner of basin and at Sevey Drain Inlet

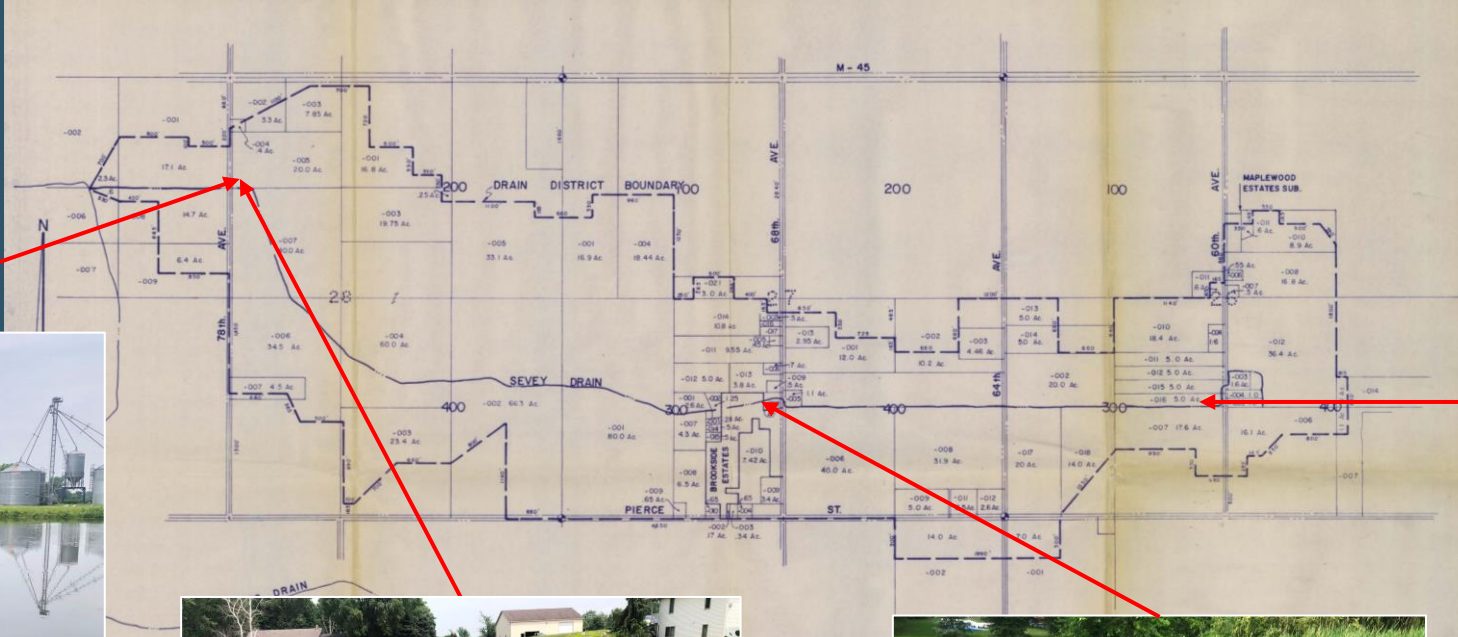
# Sediment Deposition and Nutrient Loading



Excessive submergent vegetation growth in Sevey Detention Pond.



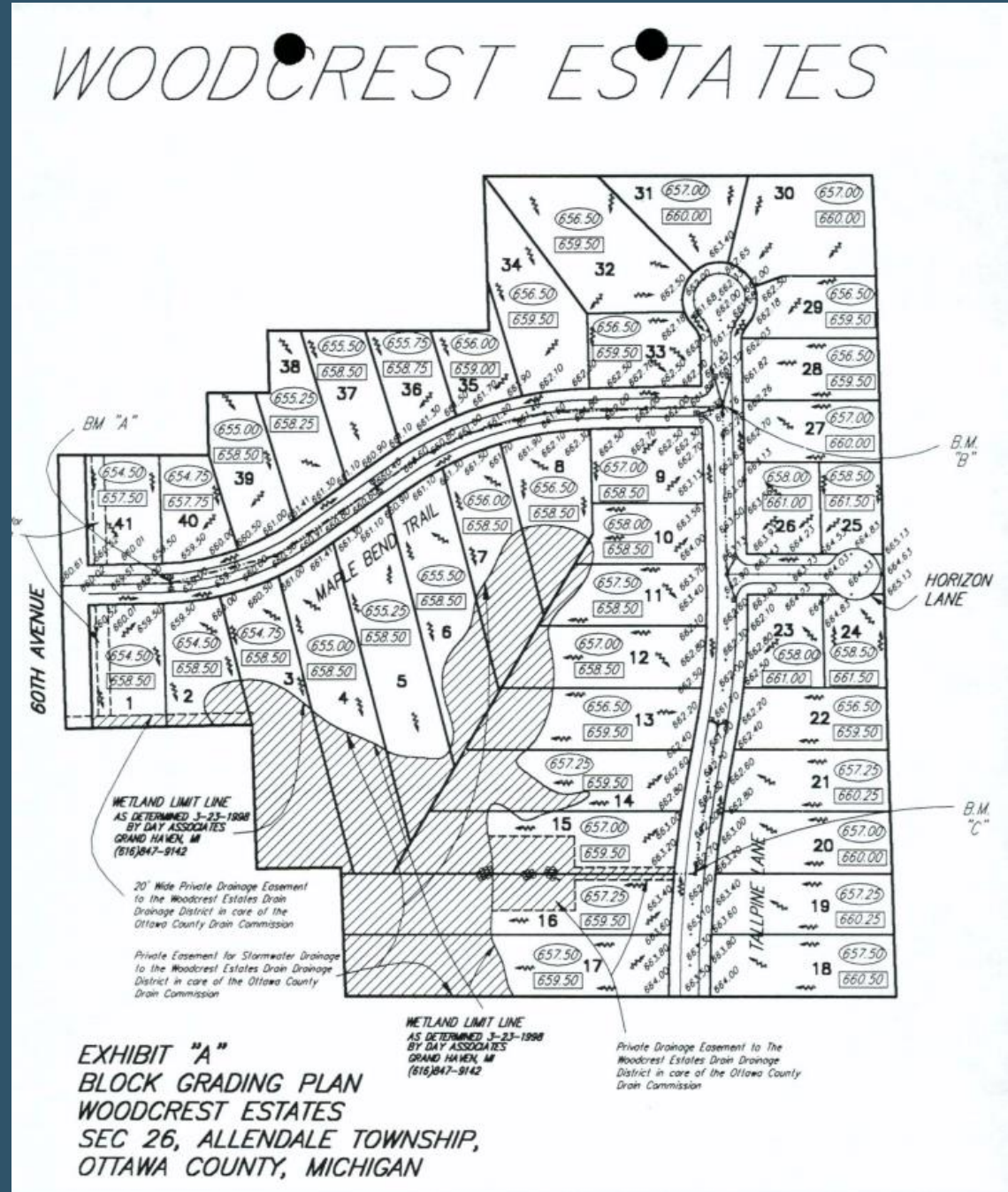
# Sediment Deposition and Nutrient Loading



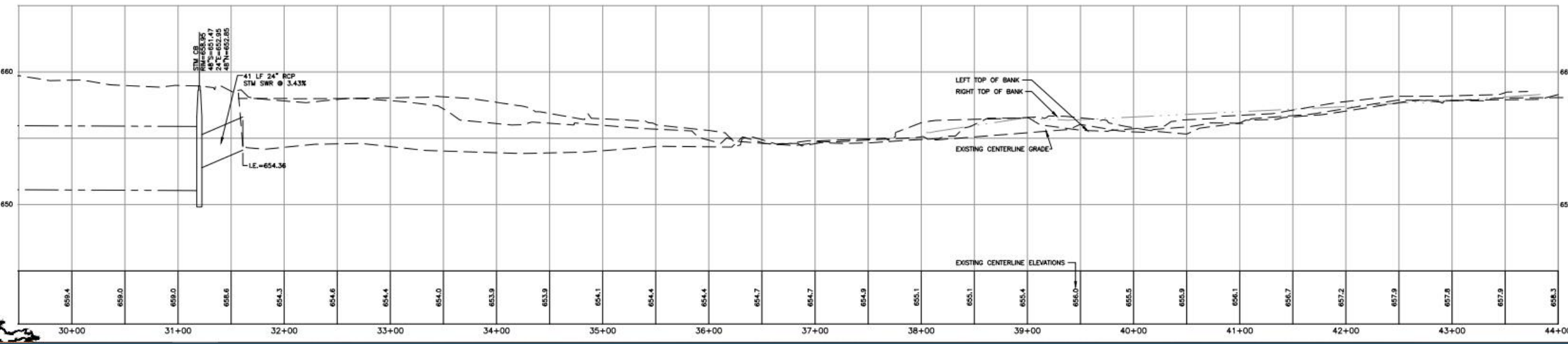
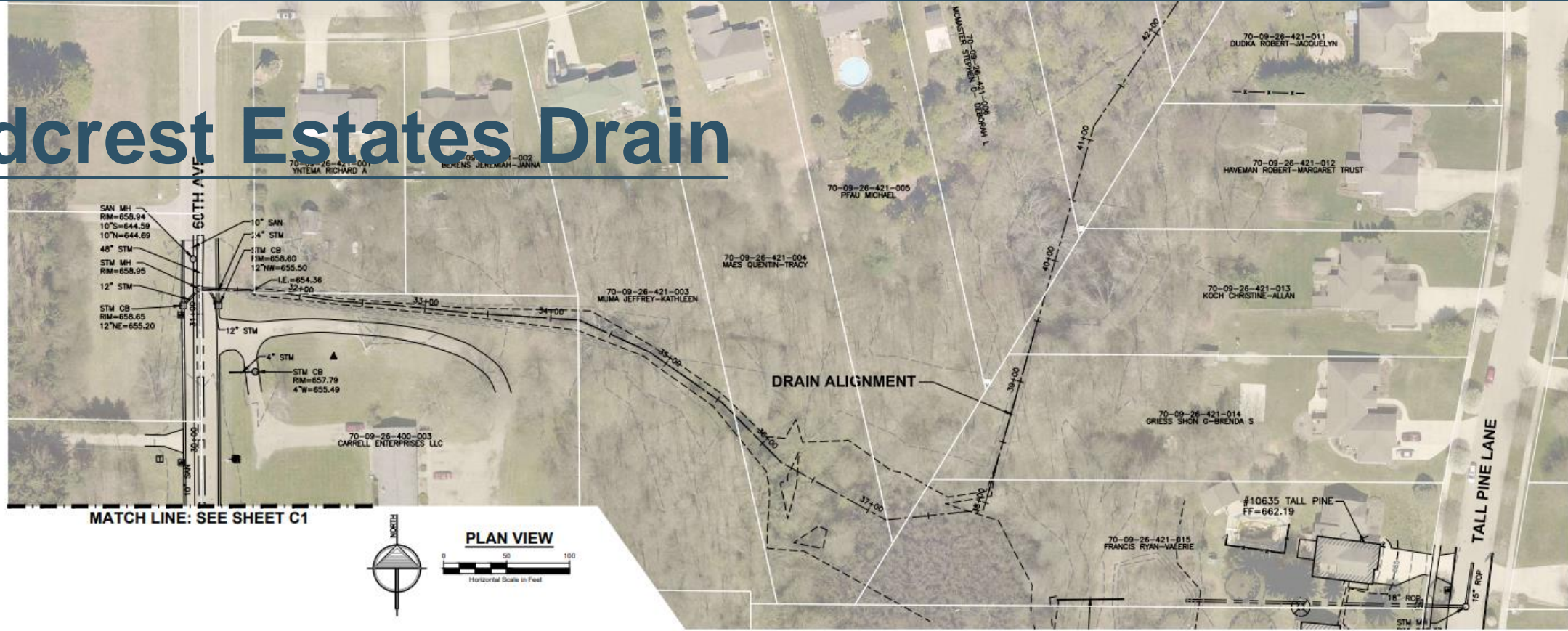


# Woodcrest Estates Drain

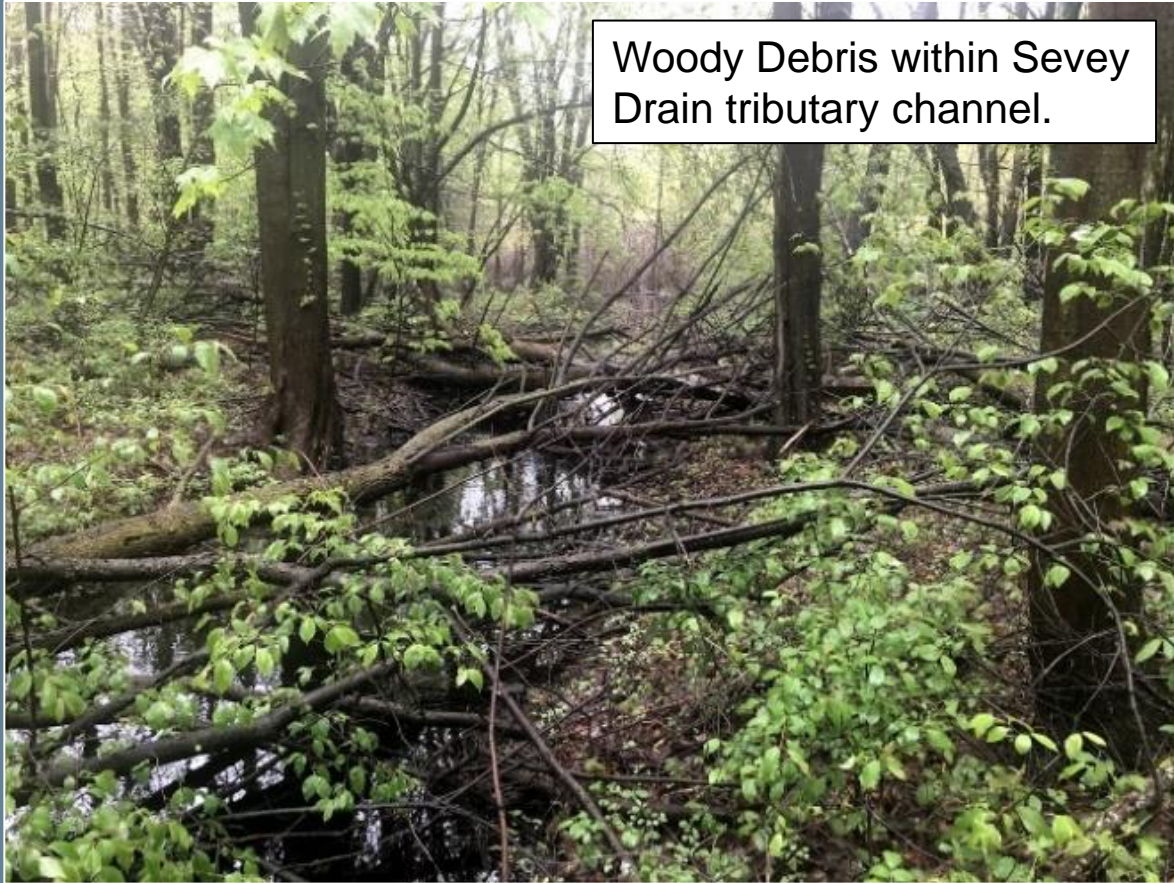
- Established in 1998
- Sediment deposition / obstructions within Woodcrest Estates Drainage easement appear to impede flow and cause localized flooding / ponding
- Unestablished water course (including 48" RCP along 60<sup>th</sup> Ave.) connecting Woodcrest Estates Drain to Sevey Drain near 60<sup>th</sup> Avenue



# Woodcrest Estates Drain



# Woodcrest Estates Drain





# What Happens Next?

## BOD to decide if petition is necessary:

- If the BOD finds that the petition is not necessary, the project ceases immediately, and no petition can be heard for the same project until 12 months have passed.
- If the BOD finds that the petition is necessary based on health, welfare or convenience, the Drain Commissioner proceeds with a project (the scope of which will be defined later). Each project is unique, however, in accordance with the Drain Code, the following tasks must be completed:
  1. Complete Engineering Design
  2. Obtain Easements (if necessary)
  3. Apply for Permits (if necessary)
  4. Bid Project
  5. Hold “Day of Review”
  6. Construct Project

The End

THANK YOU

**LRE**