

# WILKSHIRE DRAIN Scope Meeting Engineer's Presentation

Meridian Township Hall  
May 29<sup>th</sup> at 6:30 PM



Patrick E. Lindemann  
Ingham County Drain Commissioner

# Agenda

- 💧 Board of Determination Summary
- 💧 Summary of Engineering Investigation
- 💧 Alternatives to be Considered
- 💧 Engineer's Recommendations
- 💧 Possible Schedule
- 💧 Comments/Questions



# Board of Determination Summary

- Held March 9, 2022
- Evidence Presented
- Testimony Given
- Drain Maintenance and Improvement Found Necessary and Conducive to Public Health, Convenience, and Welfare.



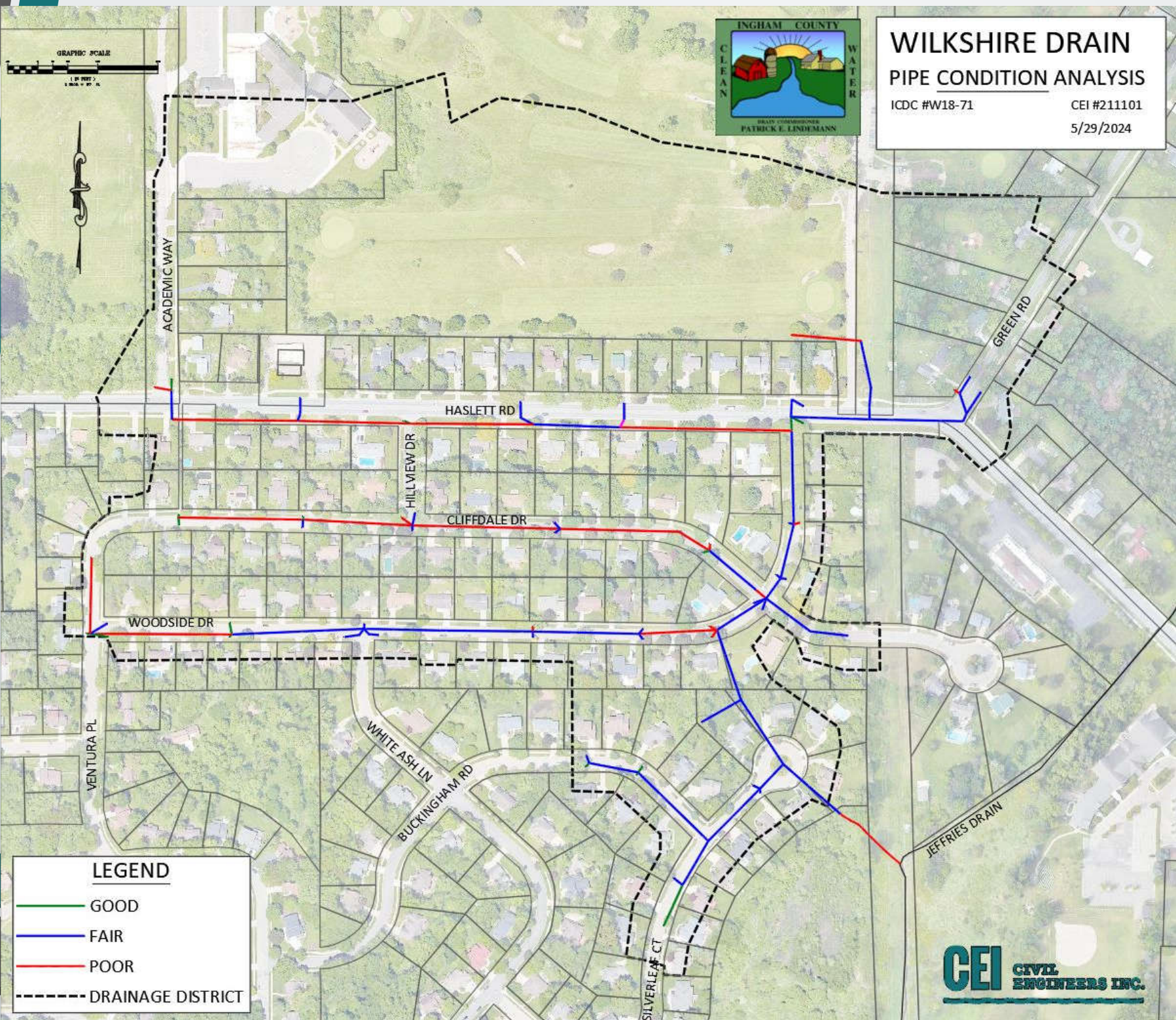
# Summary of Engineering Investigation

- Researched Existing Records, Developed Topographic Map, & Video-Recorded Existing Pipe
- Exposed Buried Manholes
- Received Input from Road Department/Township/Landowners
- Mapped Pipe Condition & Capacity



# WILKSHIRE DRAIN PIPE CONDITION ANALYSIS

ICDC #W18-71      CEI #211101  
5/29/2024



LEGEND	
	GOOD
	FAIR
	POOR
	DRAINAGE DISTRICT



# Pipe Condition

## Example of Storm Sewer Lateral Protrusion (6 Total)



# Pipe Condition

## Example of Offset Joint (14 Total)



# Pipe Condition Gas Line Breach





# Pipe Condition

## Example of Sanitary Sewer Lateral Breach (6 Total)



# Pipe Condition Collapsed Sanitary Sewer Lateral

Distance: 250.9  
Code: TF  
From: 02 To:  
Remarks:



# Pipe Condition Water Main Breach



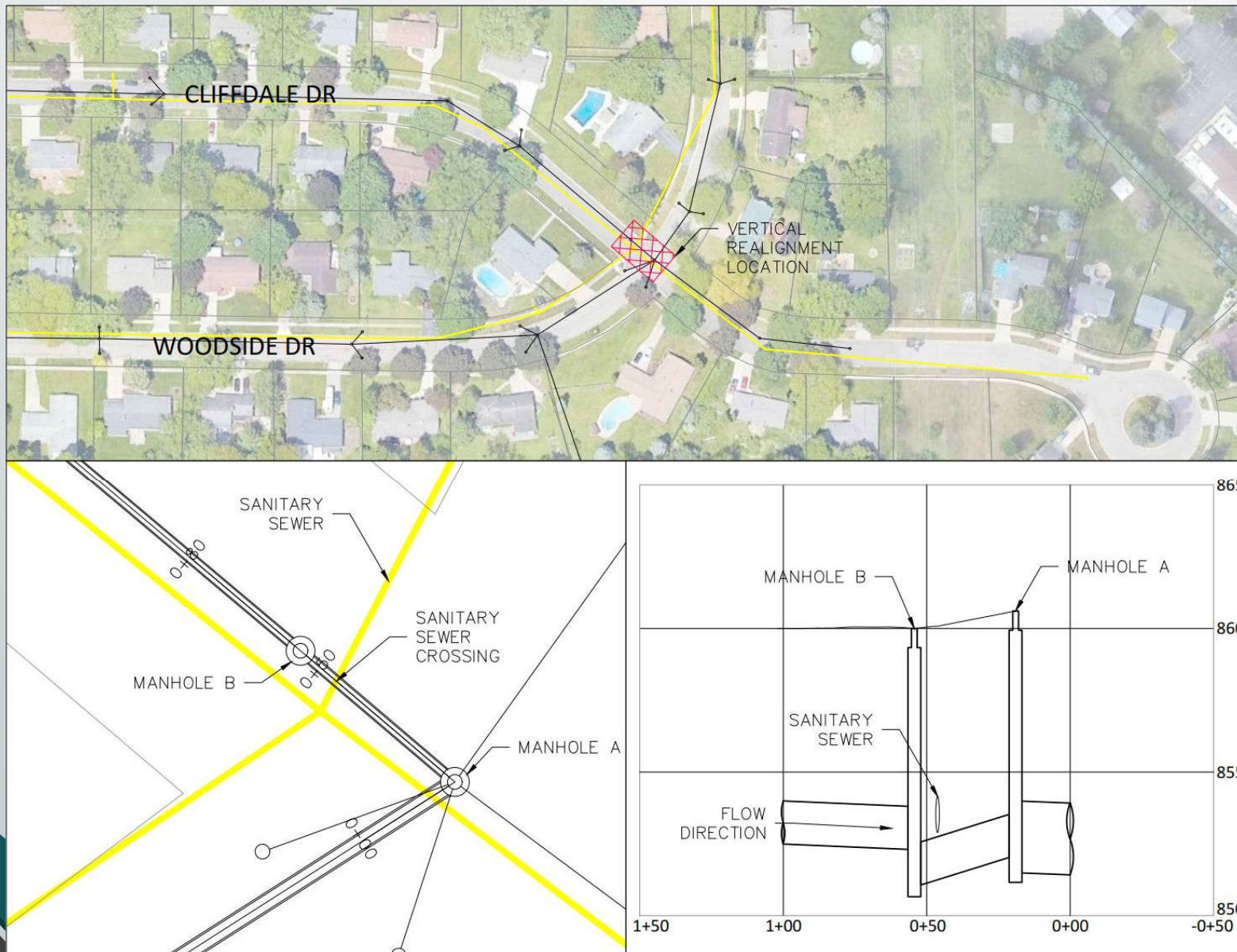
# Pipe Condition Significant Pipe “Belly” or Sag



# Pipe Condition Pipe Obstruction



# Pipe Condition Vertical Realignment for Sanitary Sewer



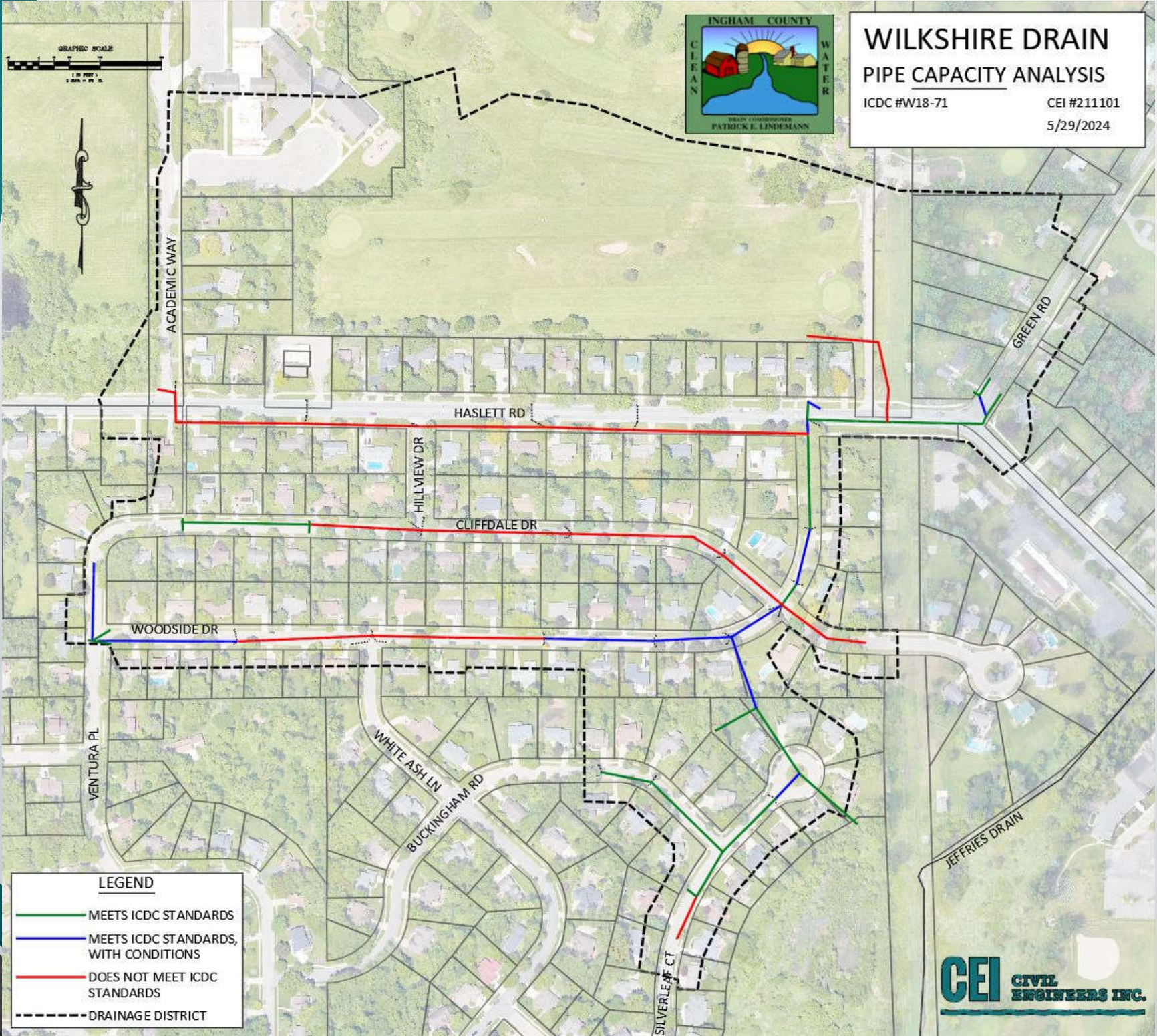


# WILKSHIRE DRAIN PIPE CAPACITY ANALYSIS

ICDC #W18-71

CEI #211101

5/29/2024



### LEGEND

- MEETS ICDC STANDARDS
- MEETS ICDC STANDARDS, WITH CONDITIONS
- DOES NOT MEET ICDC STANDARDS
- - - DRAINAGE DISTRICT



# Design Goals

- 💧 Reduce Flooding
- 💧 Contain Costs
- 💧 Minimize Road Disturbance





# Alternatives to be Considered

- ◆ Rain Gardens
- ◆ Line Existing Pipe
- ◆ Pipe Bursting
- ◆ Horizontal Directional Drilling
- ◆ Place New Pipe Above/Below Sanitary Sewer
- ◆ Standard Design Variances
- ◆ Do Nothing



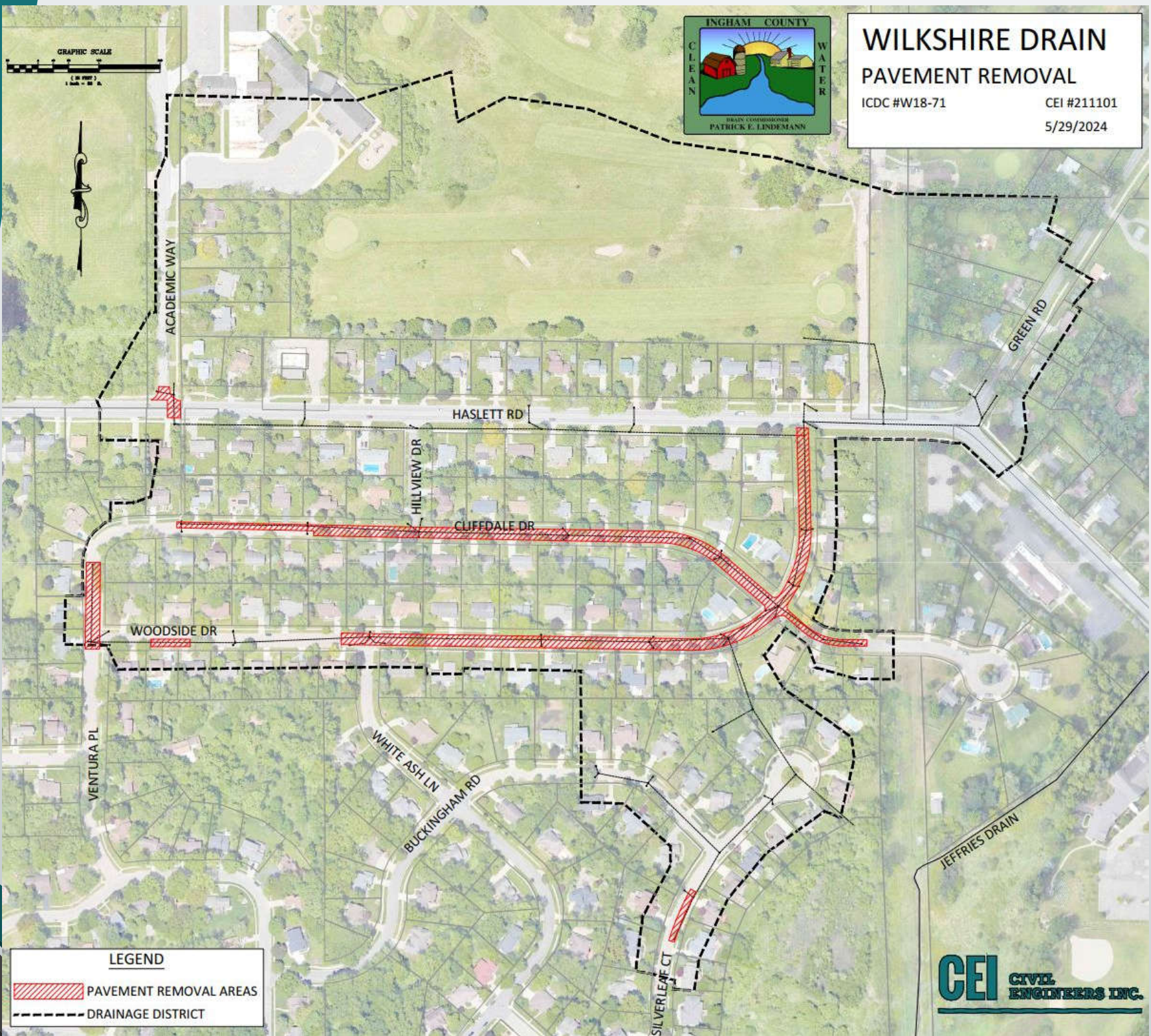
# Engineer's Recommendations

- 💧 Line Pipe Where Possible
- 💧 Replace Pipe in Poor Condition
- 💧 Replace Under Capacity Pipe
- 💧 Realign Pipe North of Haslett Road  
(Along Golf Course)





**WILKSHIRE DRAIN  
PAVEMENT REMOVAL**  
ICDC #W18-71      CEI #211101  
5/29/2024



**LEGEND**

-  PAVEMENT REMOVAL AREAS
-  DRAINAGE DISTRICT



# Possible Schedule

- Finish Obtaining Necessary Easements
- Develop Design & Apply for Permits
- Develop Construction Documents
- Bid to get Competitive Pricing (Mid-Winter)
- Prepare Computation of Costs
- Hold Day of Review of Apportionments
- Begin Construction (Summer 2025)



# Comments / Questions?

Randy Ramsey, PE

Civil Engineers, Inc.

Phone: 269-962-5127

Email: [randy@cei-bc.com](mailto:randy@cei-bc.com)

