



October 19, 2017

# Stormwater Master Plan – Phase 2 Projects

Village Board Presentation





## Presentation Overview

- Previous work performed
  - Village-wide drainage analysis
  - Identified and categorized approximately 50 drainage problems
  - Developed 4 preliminary drainage improvement plans to address 6 problem areas
- 15 additional Phase 2 preliminary drainage improvement plans
- Project prioritization & engineer's opinion of probable costs



## Existing Drainage Problems

- 54 drainage problems identified from the following sources:
  - Residential drainage complaints
  - Ela Township Highway Department list of known water spots
  - CBEL observations during and after storm events (i.e. July 12, 2017 storm)
  - Discussions with Village Staff
- Drainage problems range in severity from potential overland flooding of homes to poor roadside ditch drainage
- Drainage problems broken into 5 categories based on severity



## Existing Drainage Problem Categories

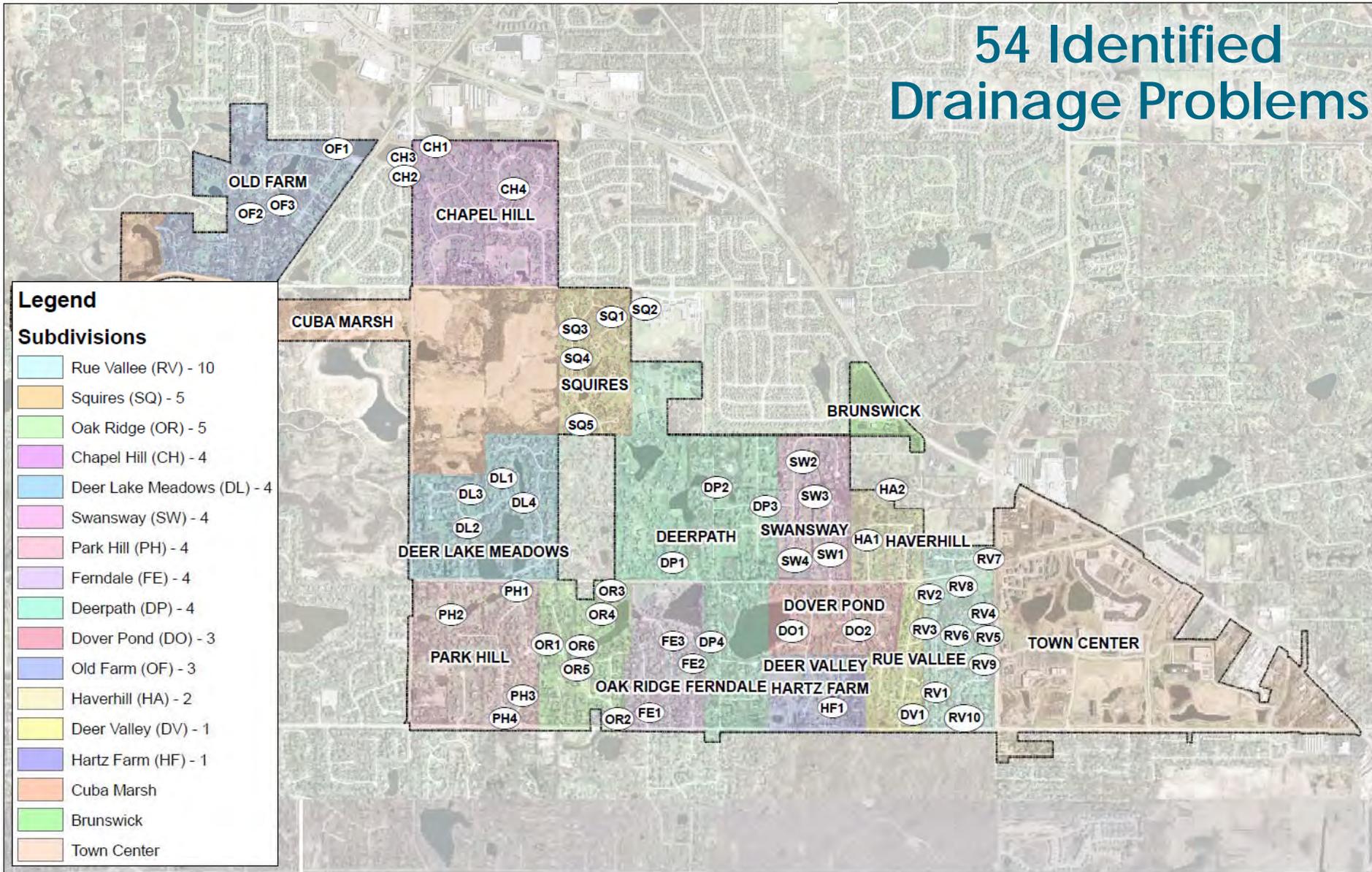
1. Overland flooding of a structure - **2**
2. Flooding over roadway - **6**
3. Flow exceeds sewer and ditch capacity / drainage infrastructure in poor condition - **14**
4. Poorly drained areas (> 48 to 72 hrs) - **25**
5. Recurring maintenance issue - **7**



## Selection Criteria & Prioritization of Phase 2 SWMP Projects

- A. Project located within upcoming Road Program plan to be constructed concurrently
- B. Prioritization based on drainage problem severity category
- C. Drainage projects for category 3 and 4 drainage issues to be selected based on the following criteria
  - I. Existing condition of drainage ditch (poor depth / definition)
  - II. Number of properties affected in problem area
  - III. Availability of a suitable lower elevation outlet location to tie-in an improved ditch, sewer, or drain tile
  - IV. Existing condition of infrastructure proposed to be replaced

# 54 Identified Drainage Problems

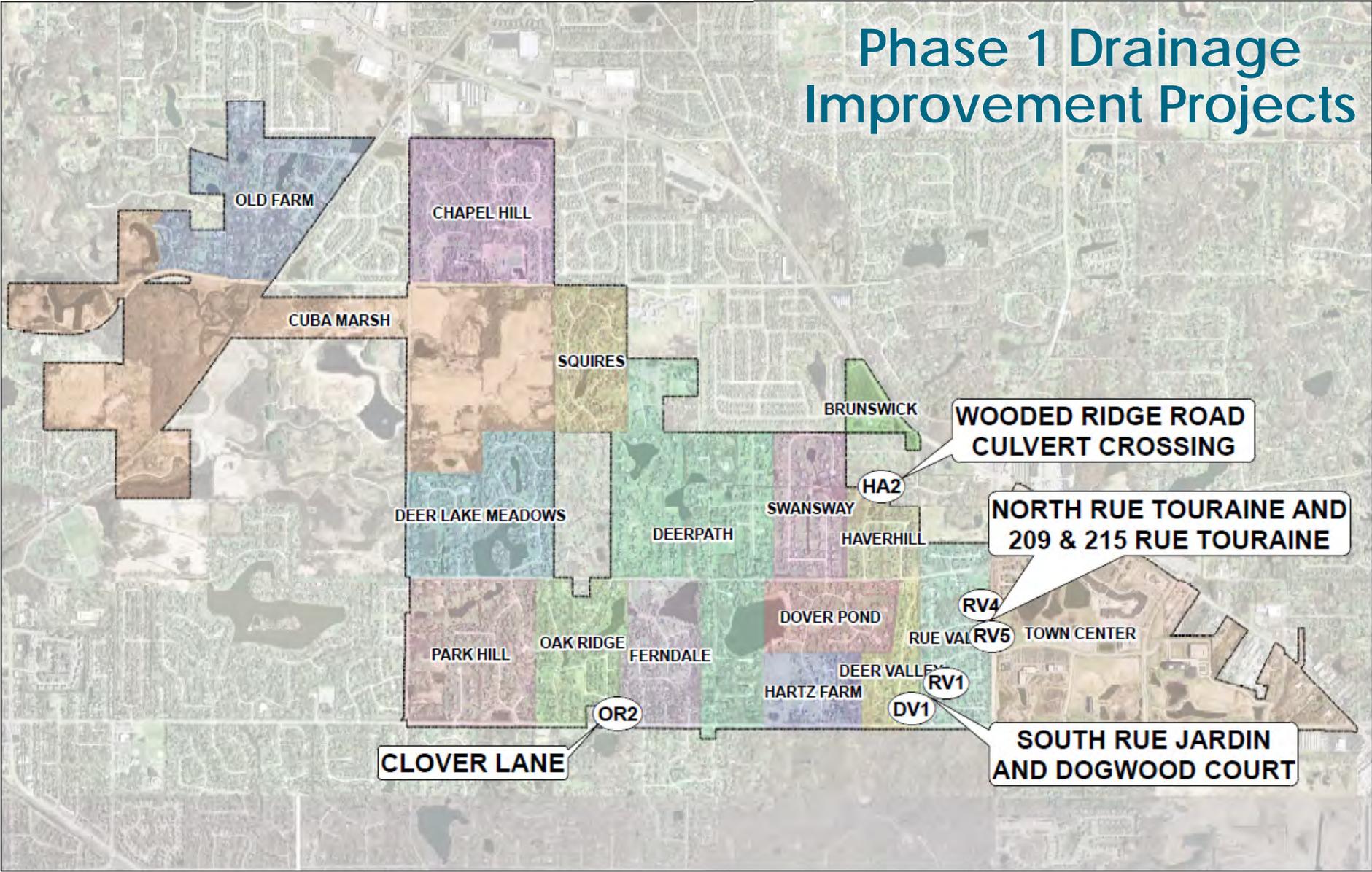




## 54 Identified Drainage Problems

- 6 – Drainage problems recently addressed
- 7 – Problem areas to be addressed with continuing maintenance performed by Ela Township
- 20 – Recommended property owner drainage improvement projects
- 6 – Drainage problems addressed with the 4 initial phase improvement projects**
- 15 – Drainage problems addressed with the second phase of projects to be presented**

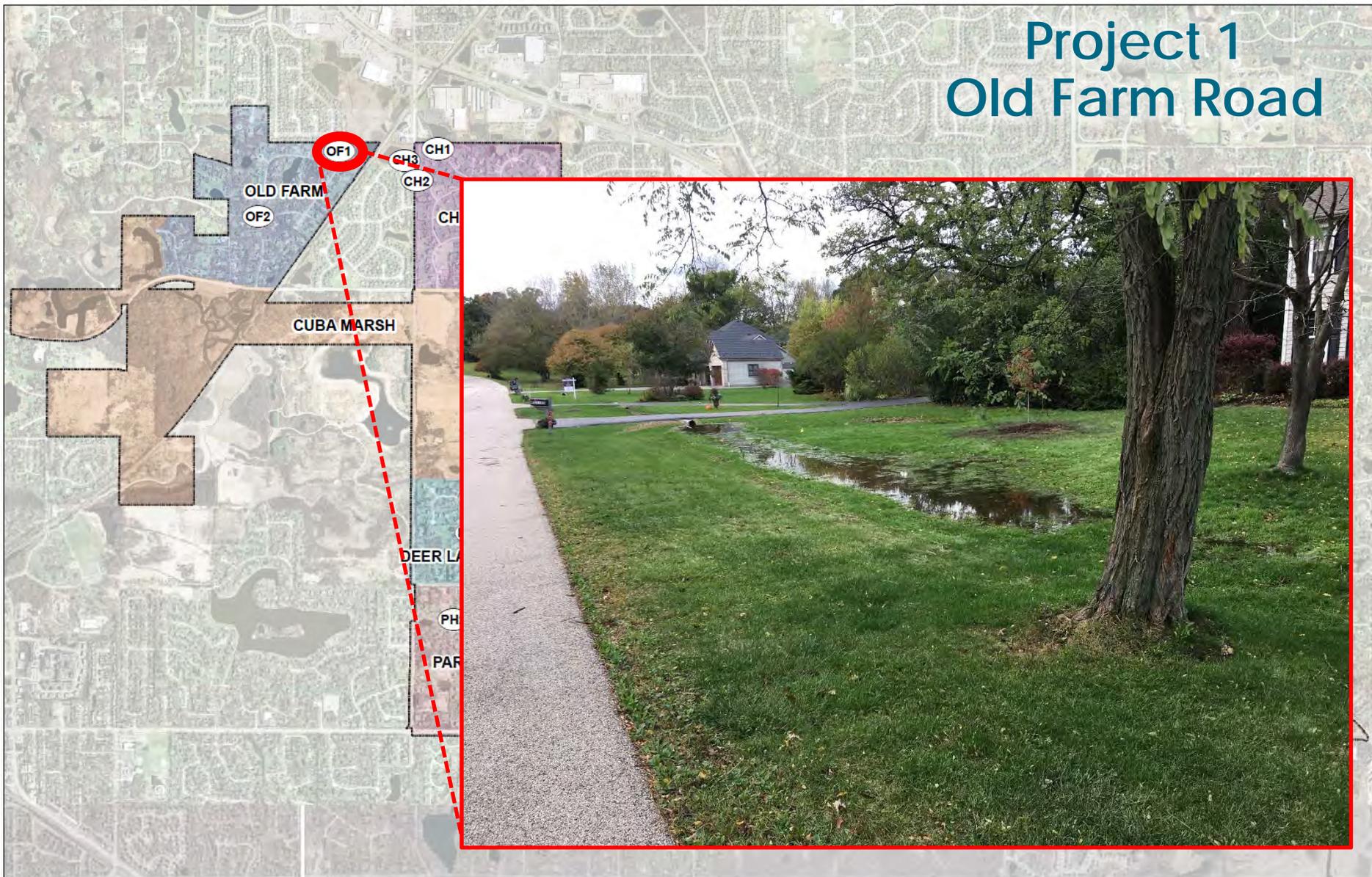
# Phase 1 Drainage Improvement Projects

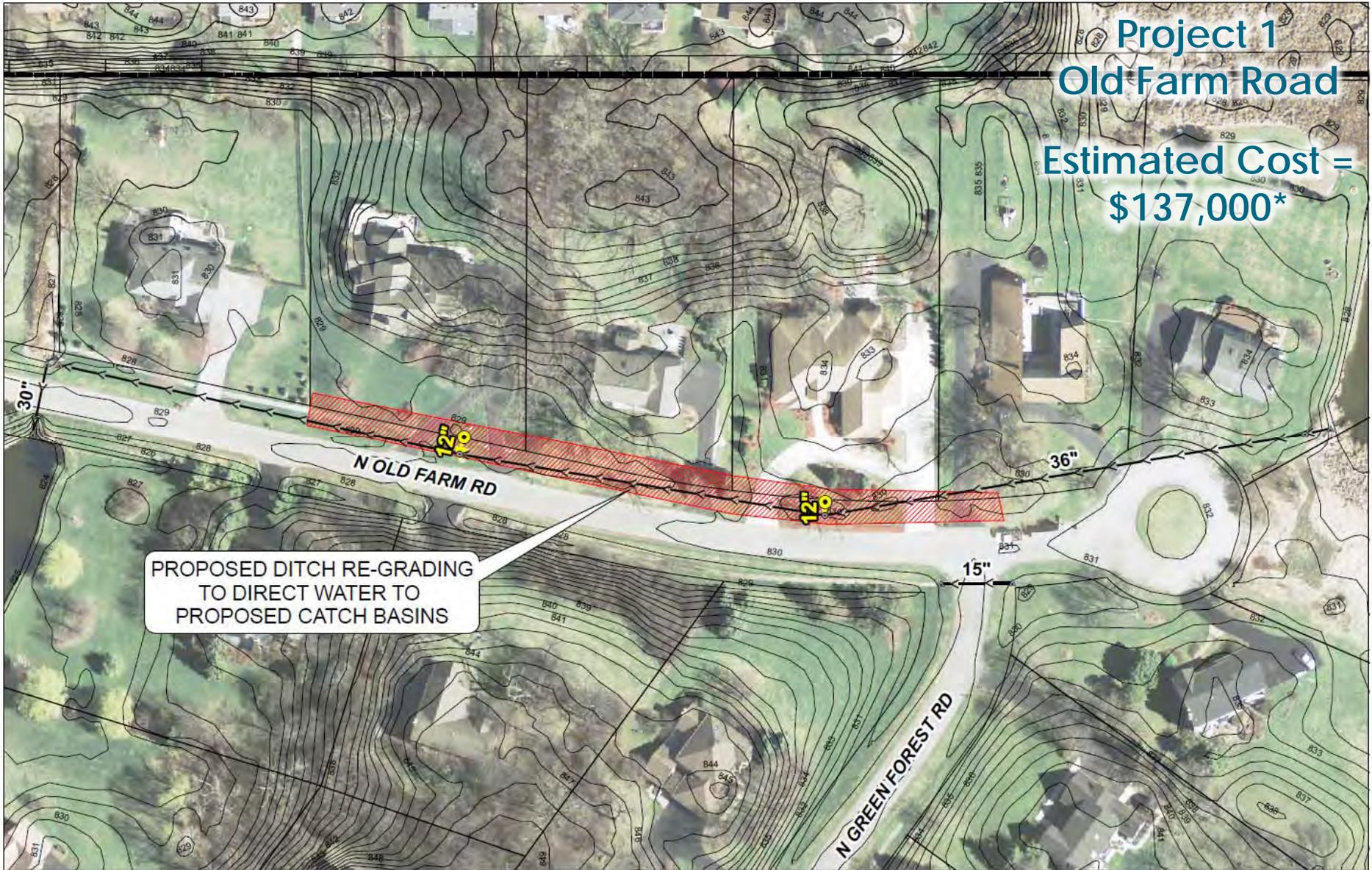




# Phase 2 Drainage Improvement Projects

# Project 1 Old Farm Road

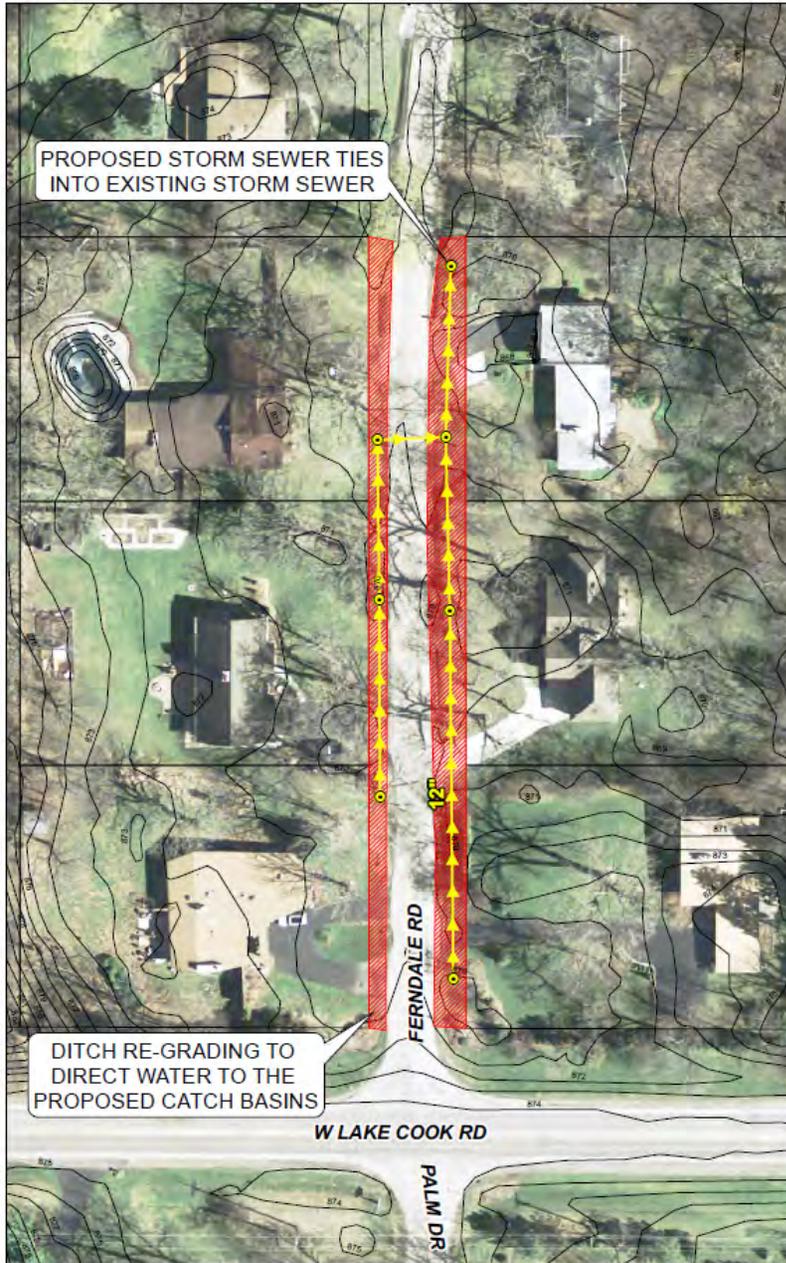




\*Based on 2017 project costs, and includes construction, design engineering, construction engineering, and permitting. Does not include ROW acquisition, easements, or utility relocates

# Project 2 Ferndale Road



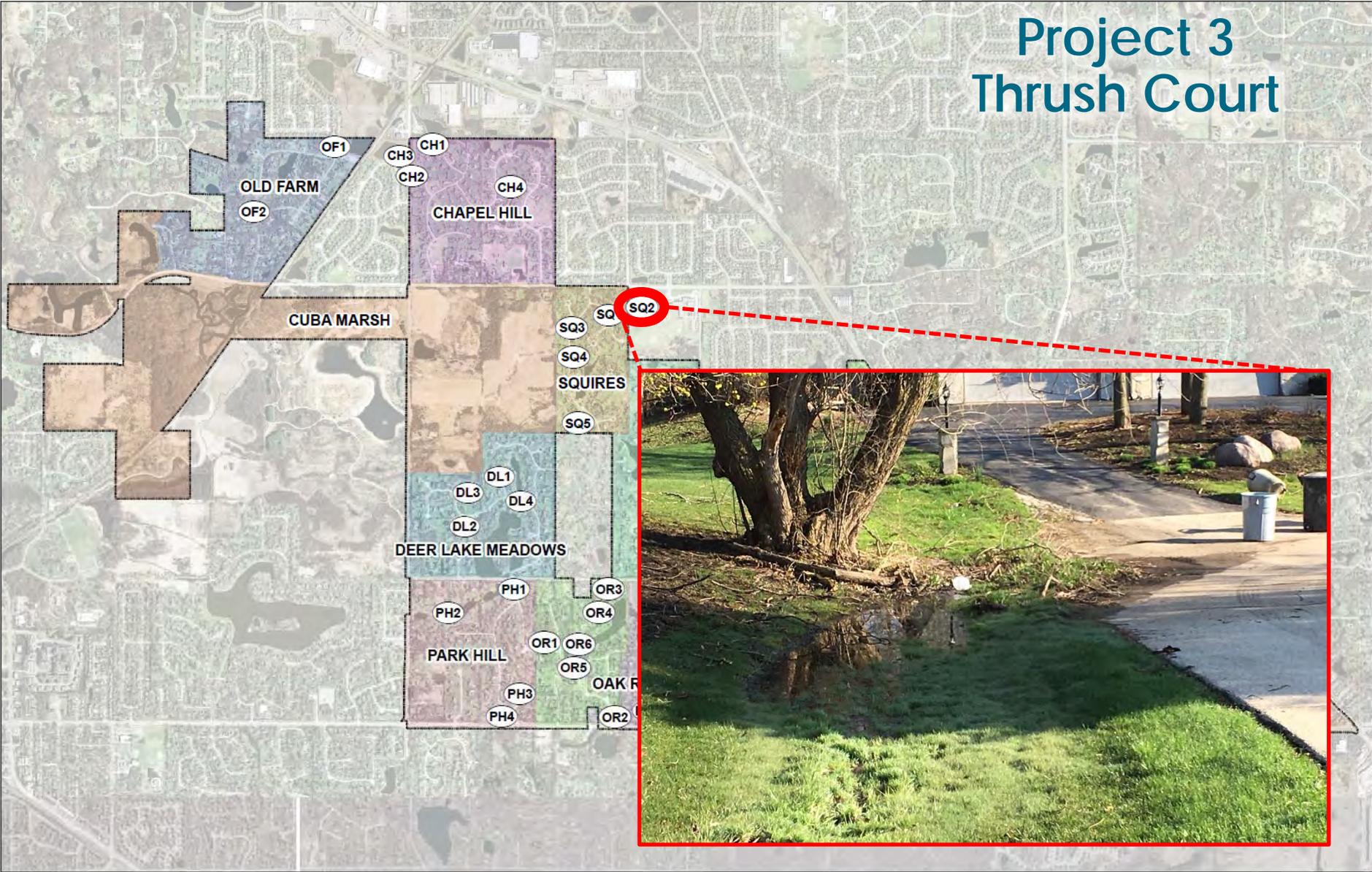


## Project 2 Ferndale Road

Estimated Cost = \$125,000

\*Based on 2017 project costs, and includes construction, design engineering, construction engineering, and permitting. Does not include ROW acquisition, easements, or utility relocates

# Project 3 Thrush Court





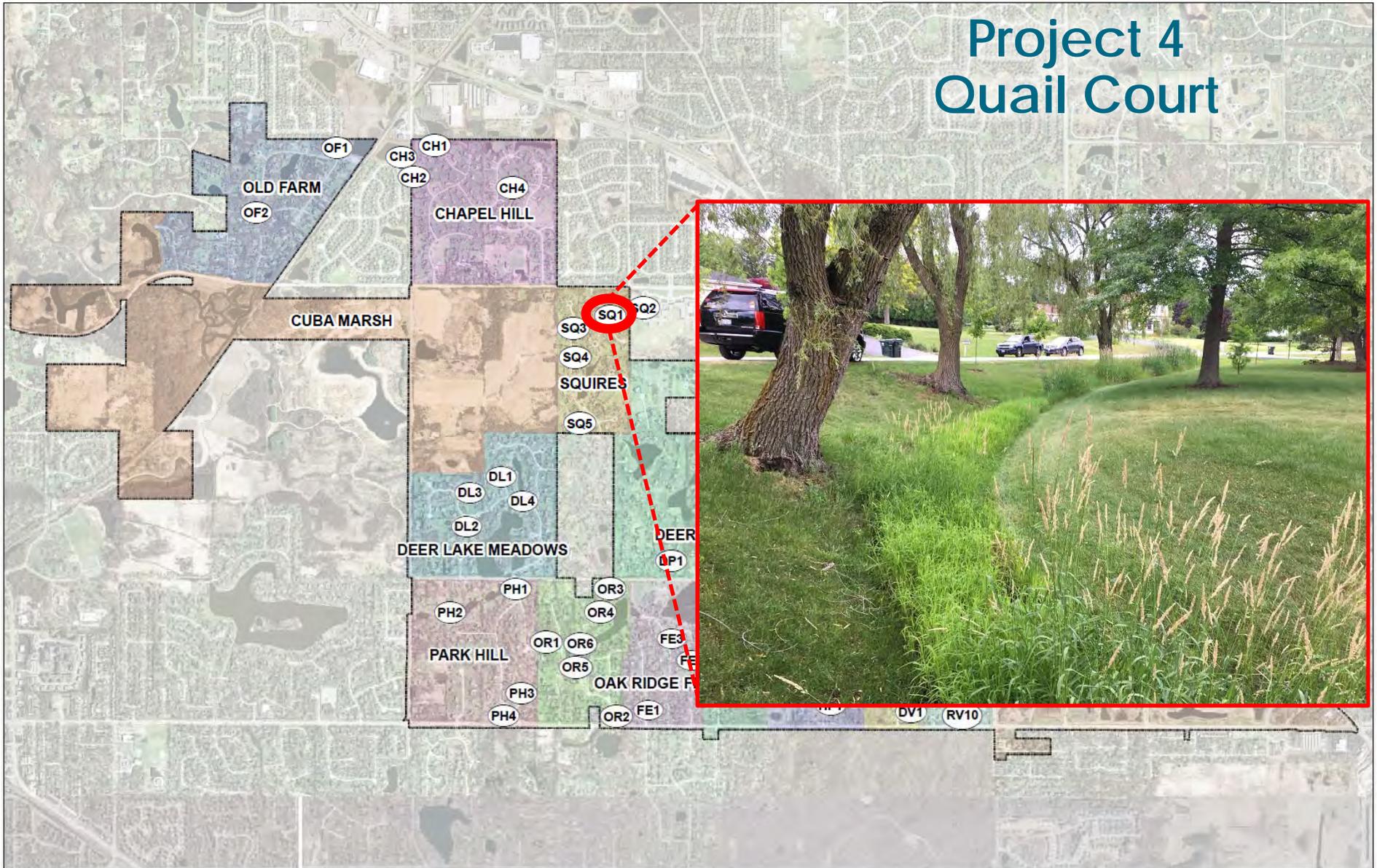
Project 3  
Thrush Court  
Estimated Cost =  
\$97,000

\*Based on 2017 project costs, and includes construction, design engineering, construction engineering, and permitting. Does not include ROW acquisition, easements, or utility relocates

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# Project 4 Quail Court



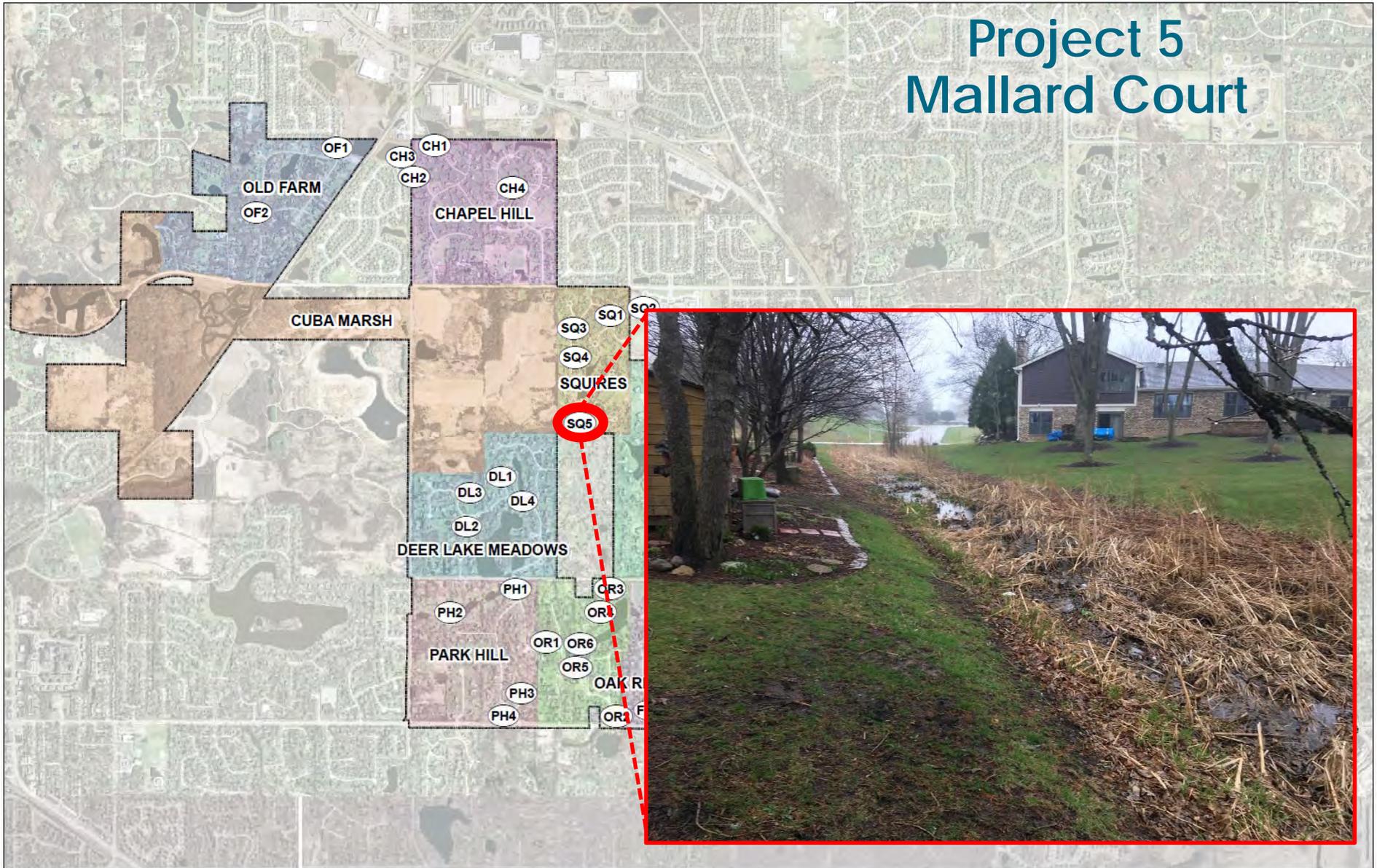


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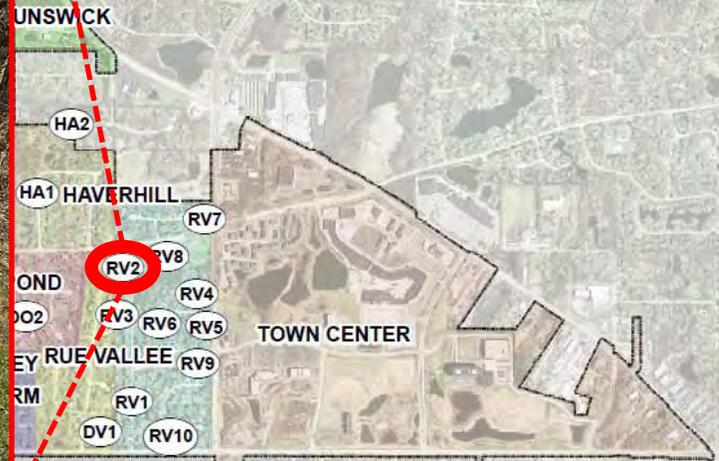
# Project 5 Mallard Court

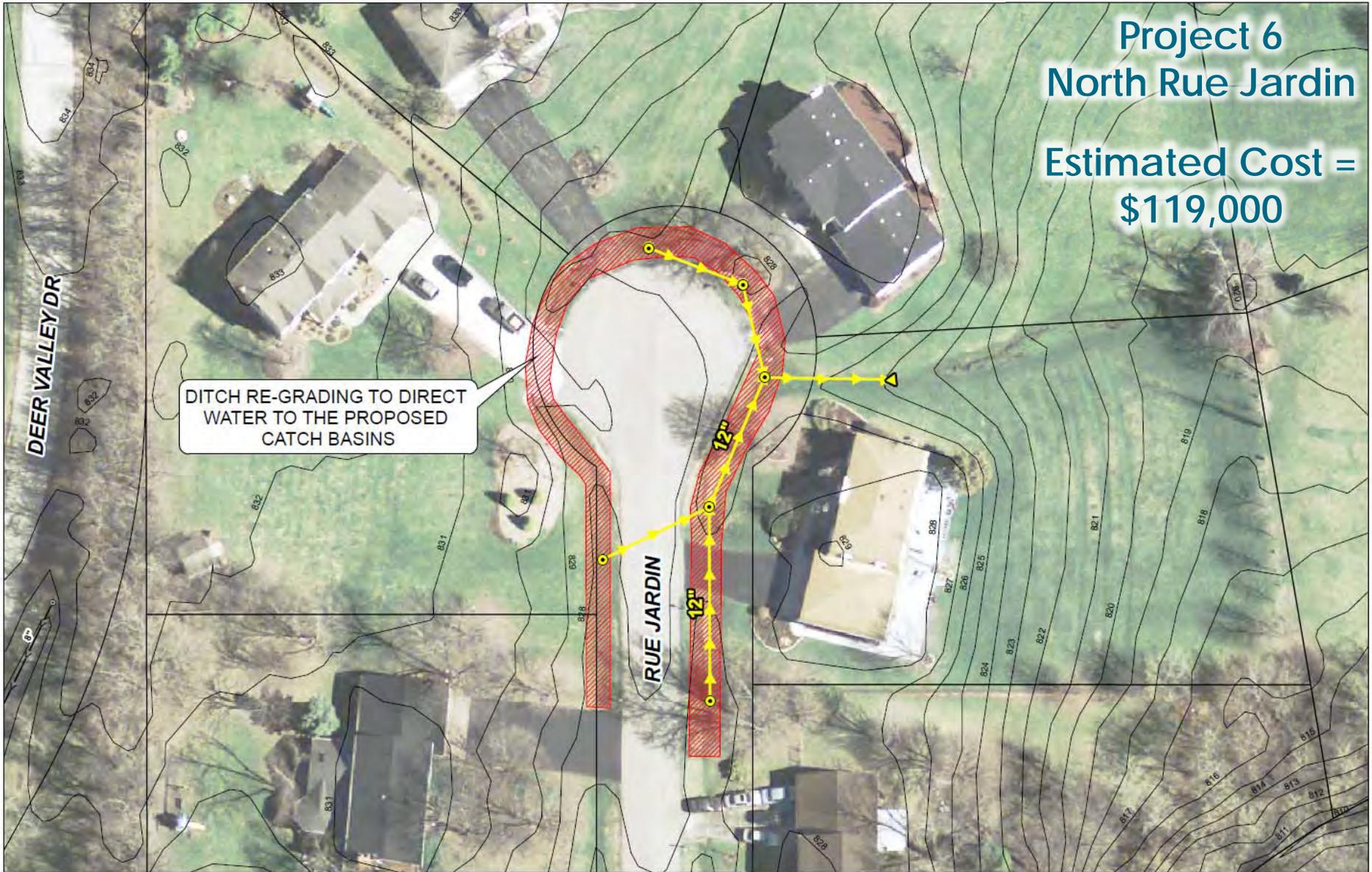




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# Project 6 North Rue Jardin





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# Project 7 Green Forest Lake





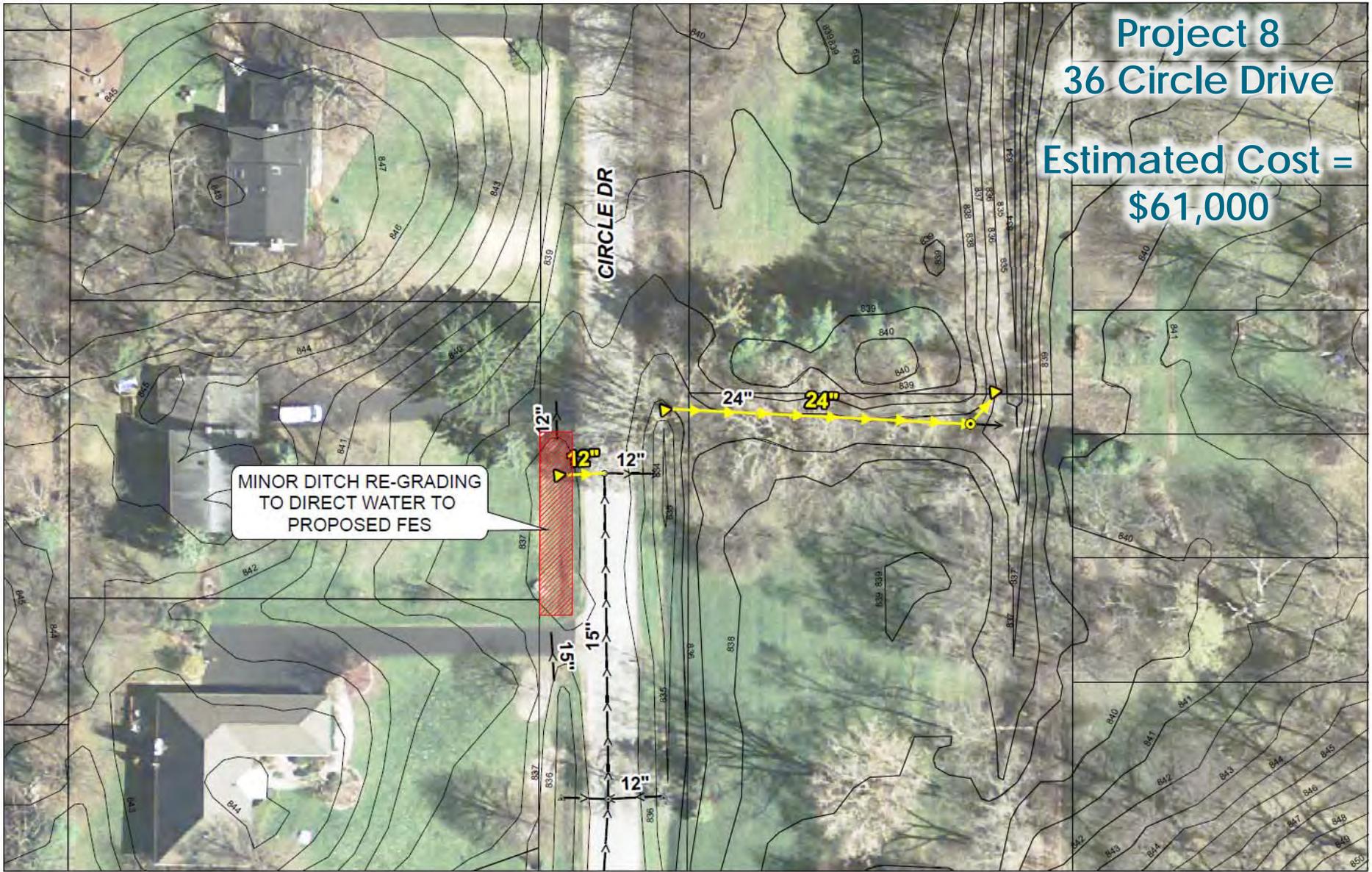
## Project 7 Green Forest Lake

Estimated Cost = \$89,000

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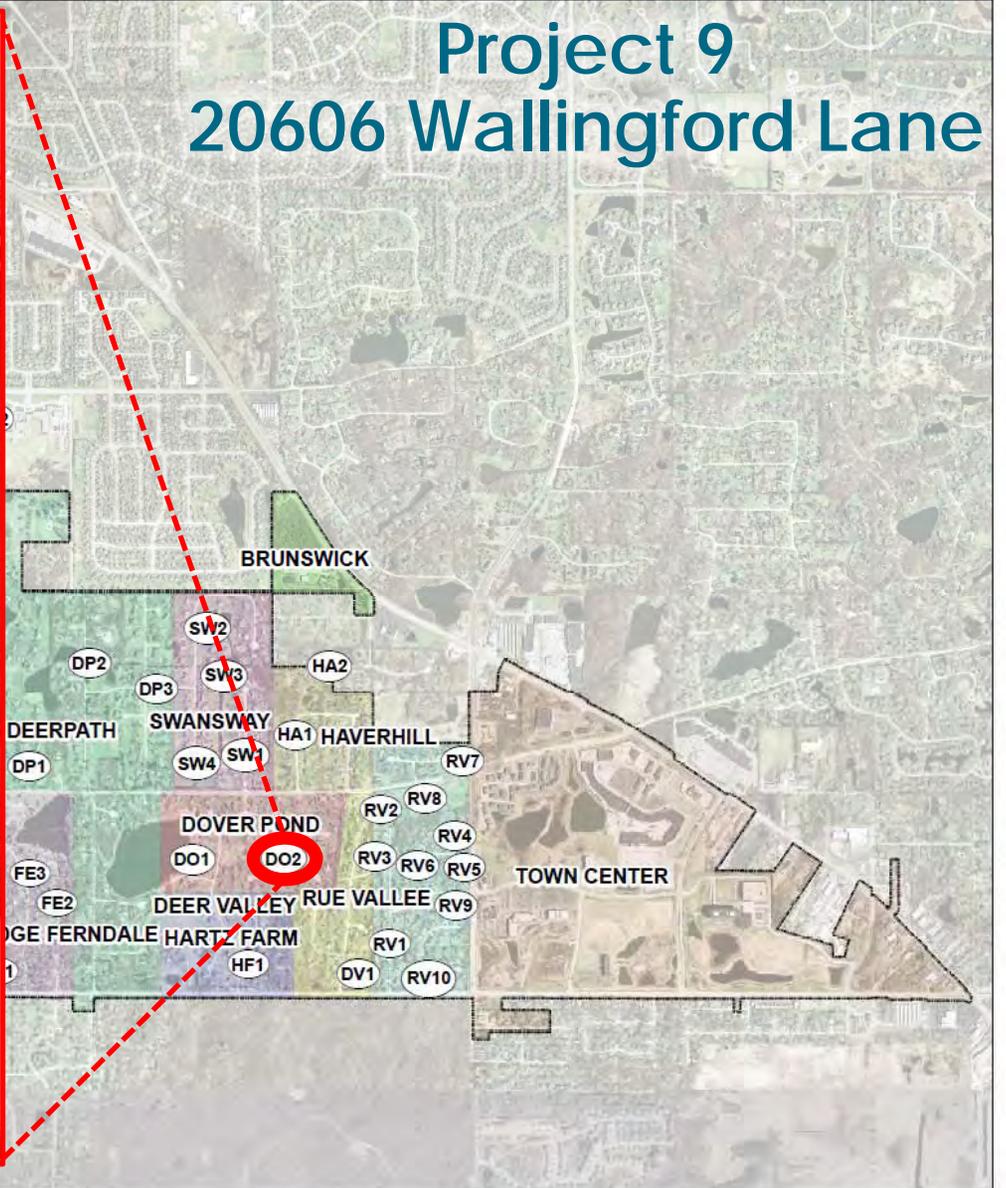
# Project 8 36 Circle Drive

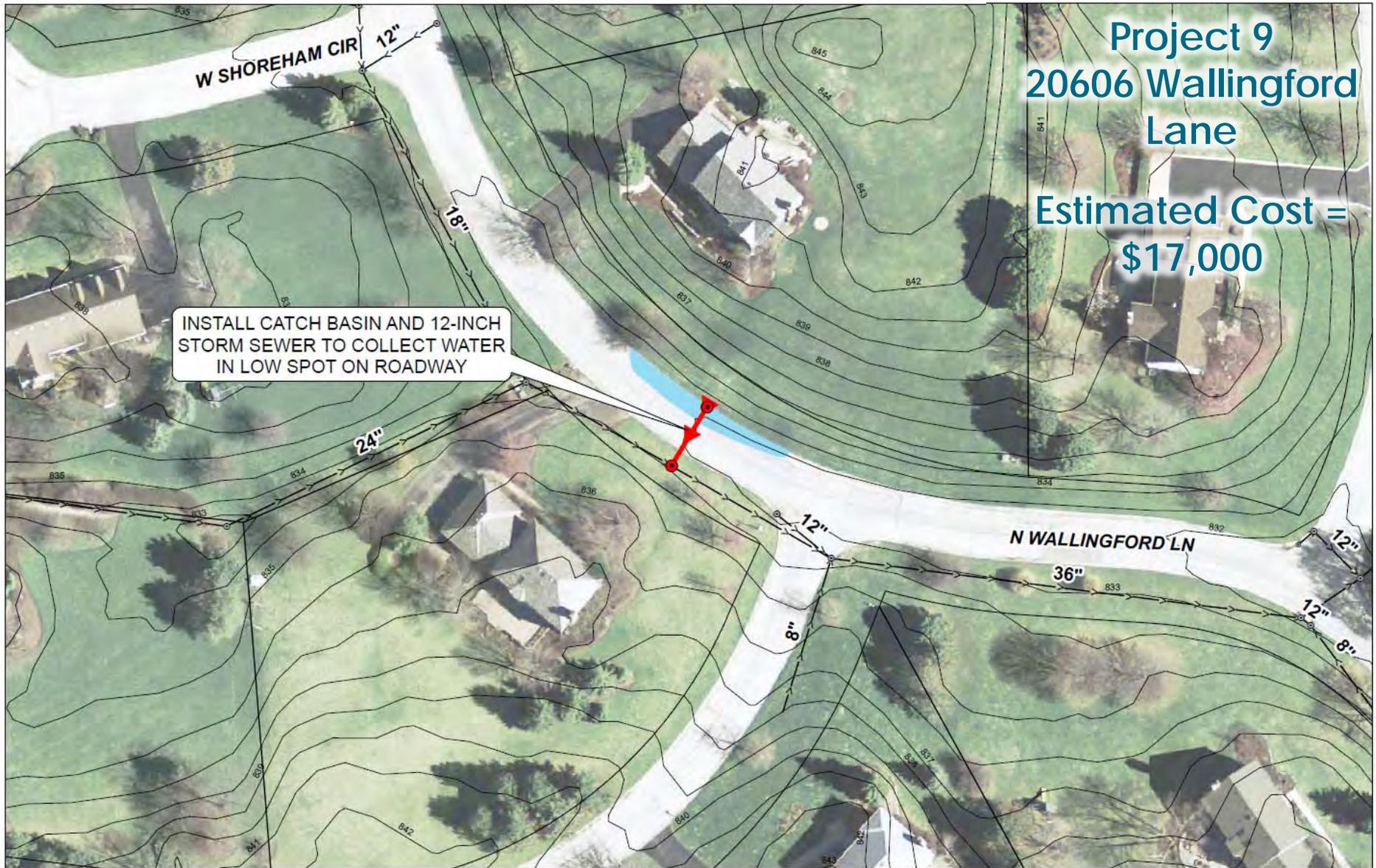




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# Project 9 20606 Wallingford Lane

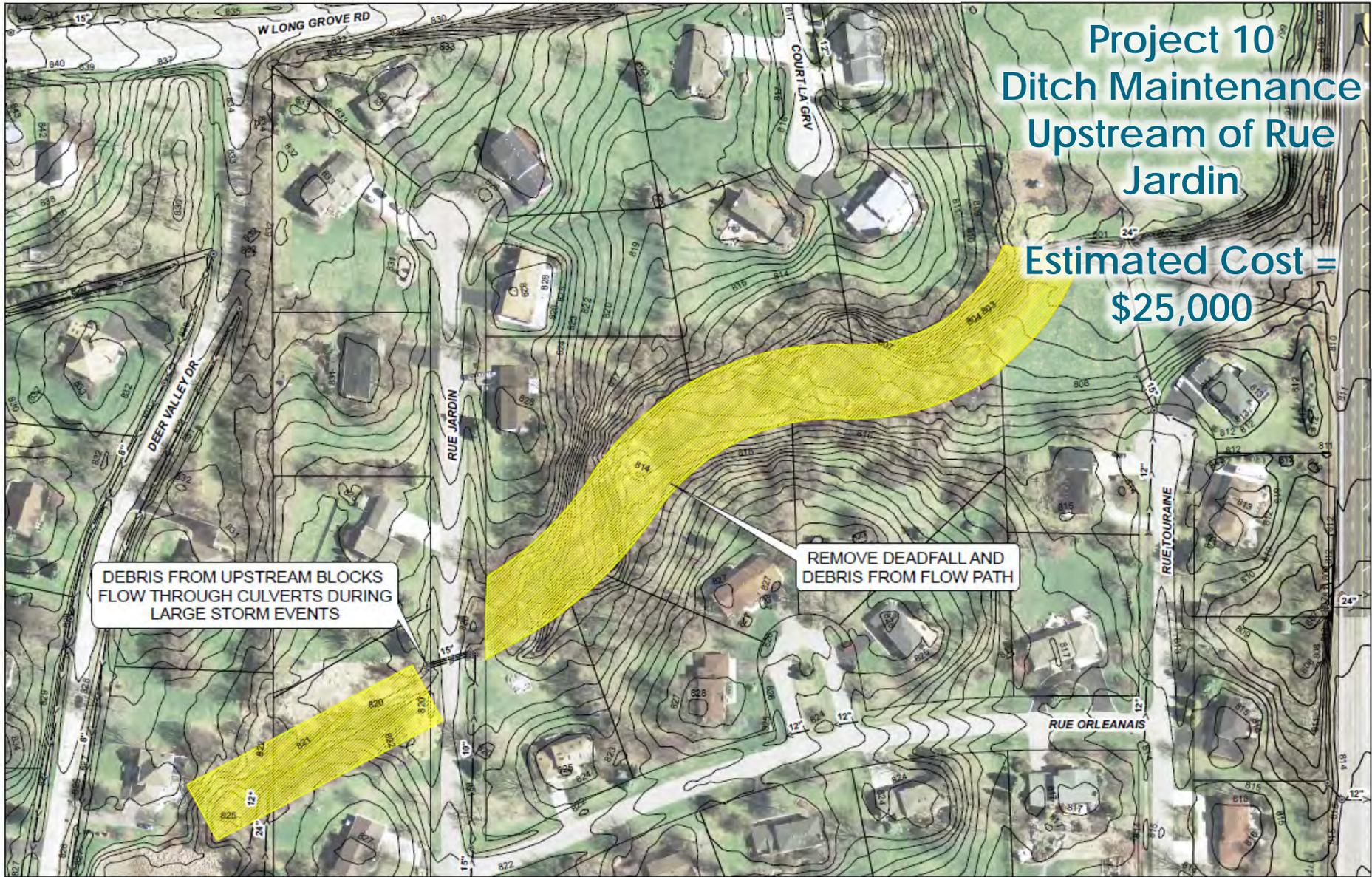




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# Project 10 Ditch Maintenance Upstream of Rue Jardin

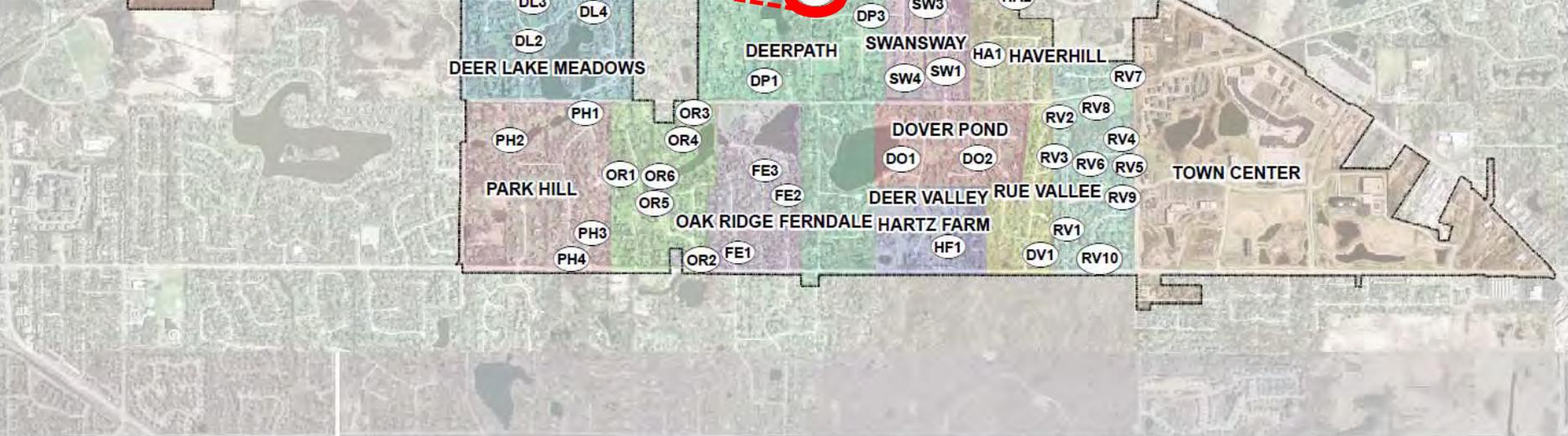




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# Project 11 Deerpath Pond to Deerpath Park





**Project 11  
Deerpath Pond to  
Deerpath Park**

**Estimated Cost =  
\$54,000**

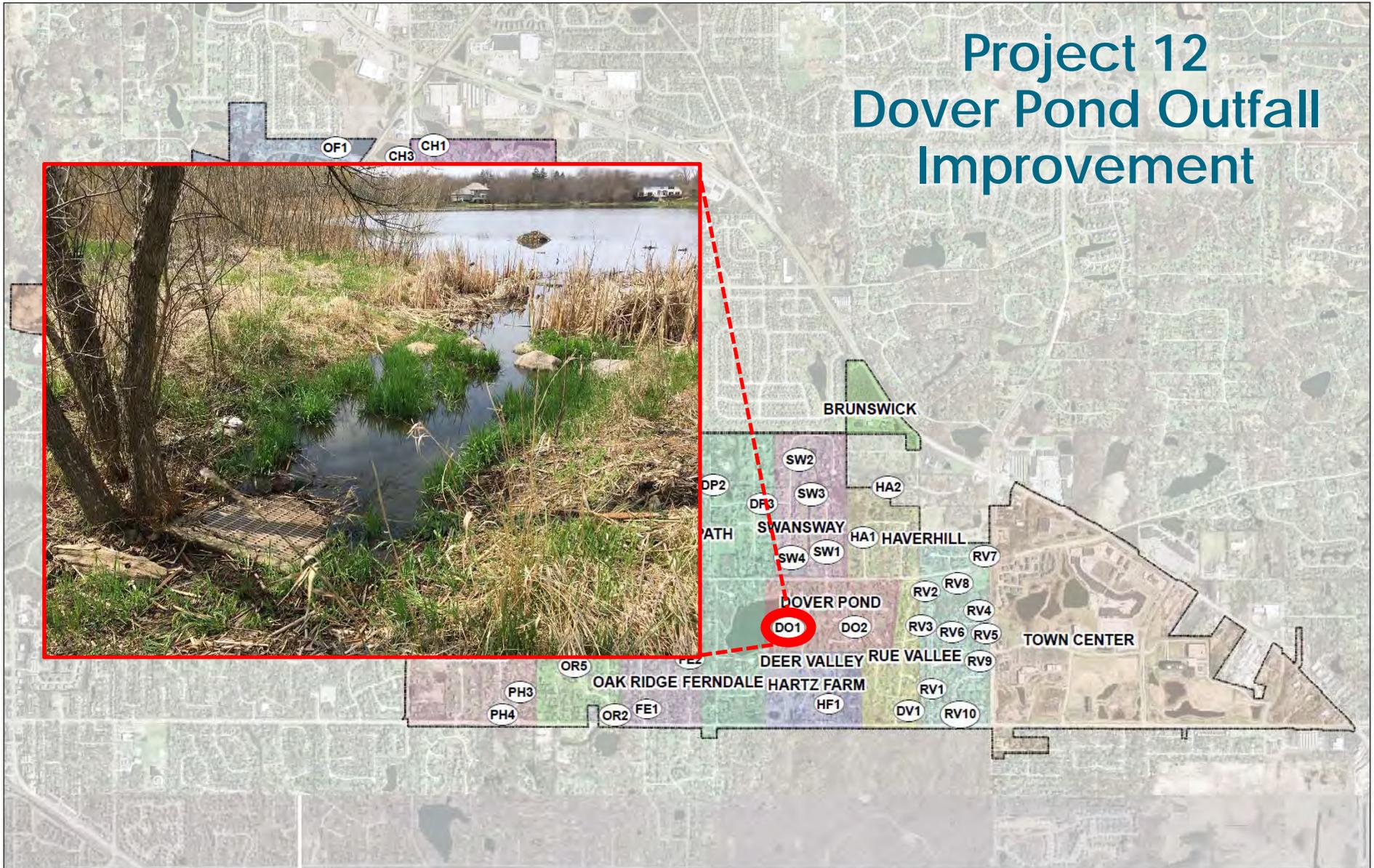
**INSTALL FES  
WITH GRATE**

\*Based on 2017 project costs, and includes construction, design engineering, construction engineering, and permitting. Does not include ROW acquisition, easements, or utility relocates

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# Project 12 Dover Pond Outfall Improvement





\*Based on 2017 project costs, and includes construction, design engineering, construction engineering, and permitting. Does not include ROW acquisition, easements, or utility relocates

# Project 13 23867 Long Grove Road Pond



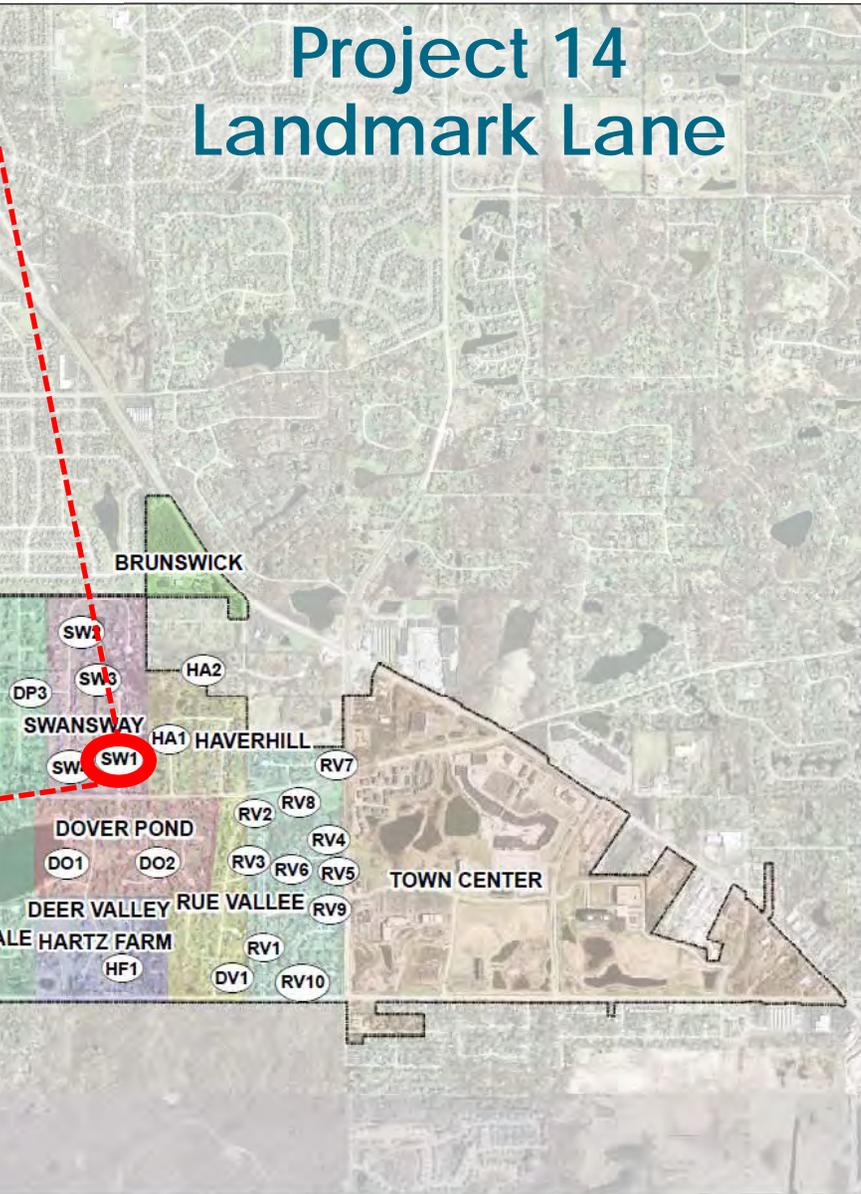


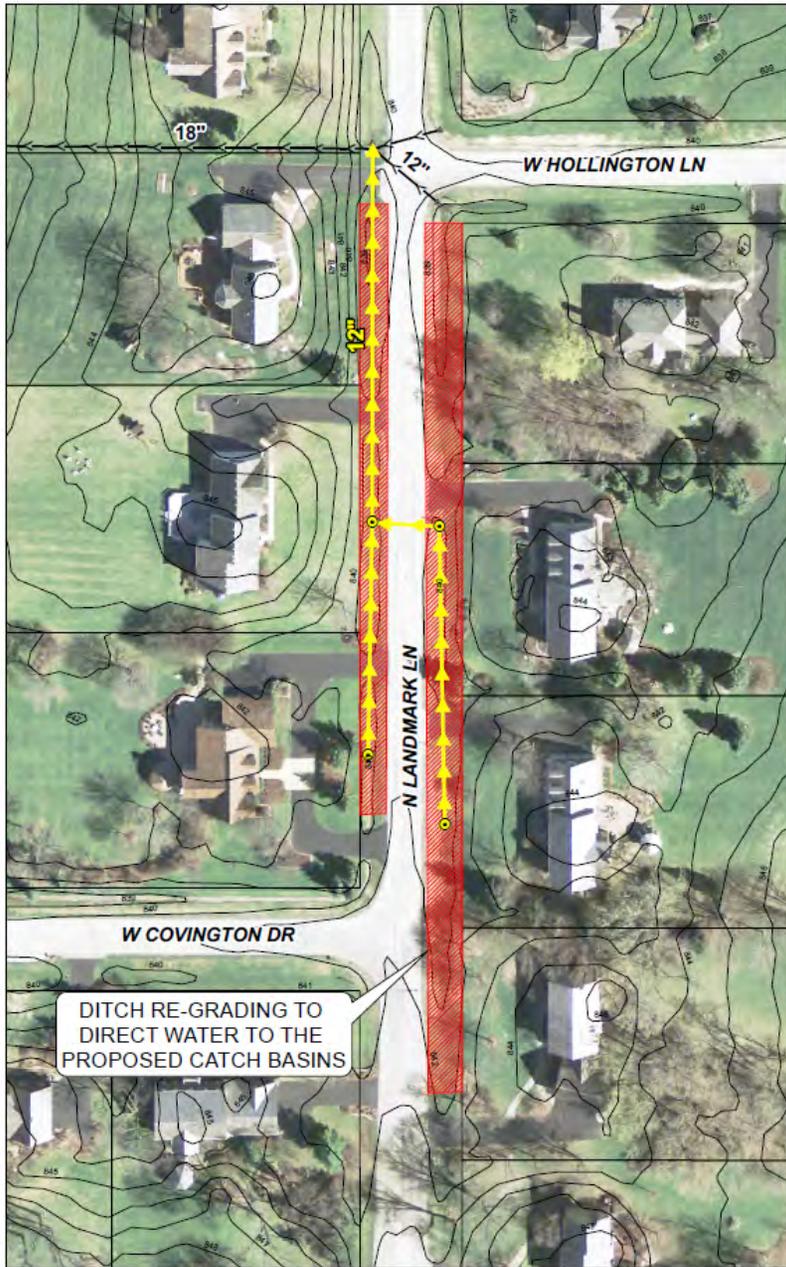
**Project 13**  
**23867 Long Grove**  
**Road Pond**  
**Estimated Cost =**  
**\$22,000**

**PROPOSED POND OUTLET**  
**REPLACEMENT WITH 12-IN RCP**  
**AND FES WITH GRATE**

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# Project 14 Landmark Lane



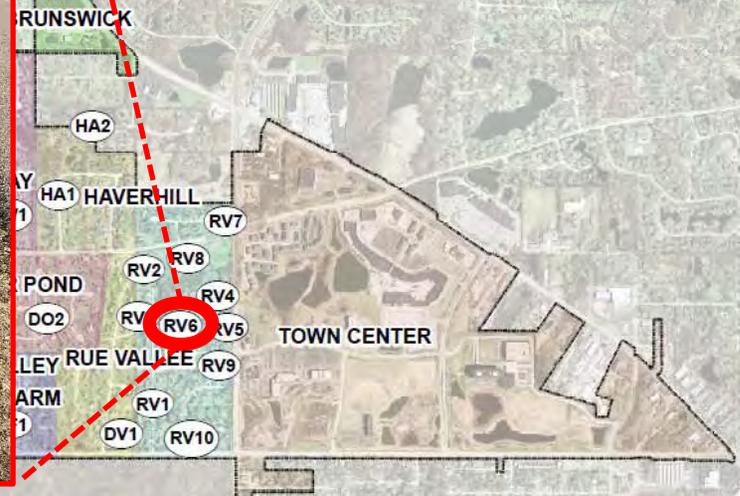


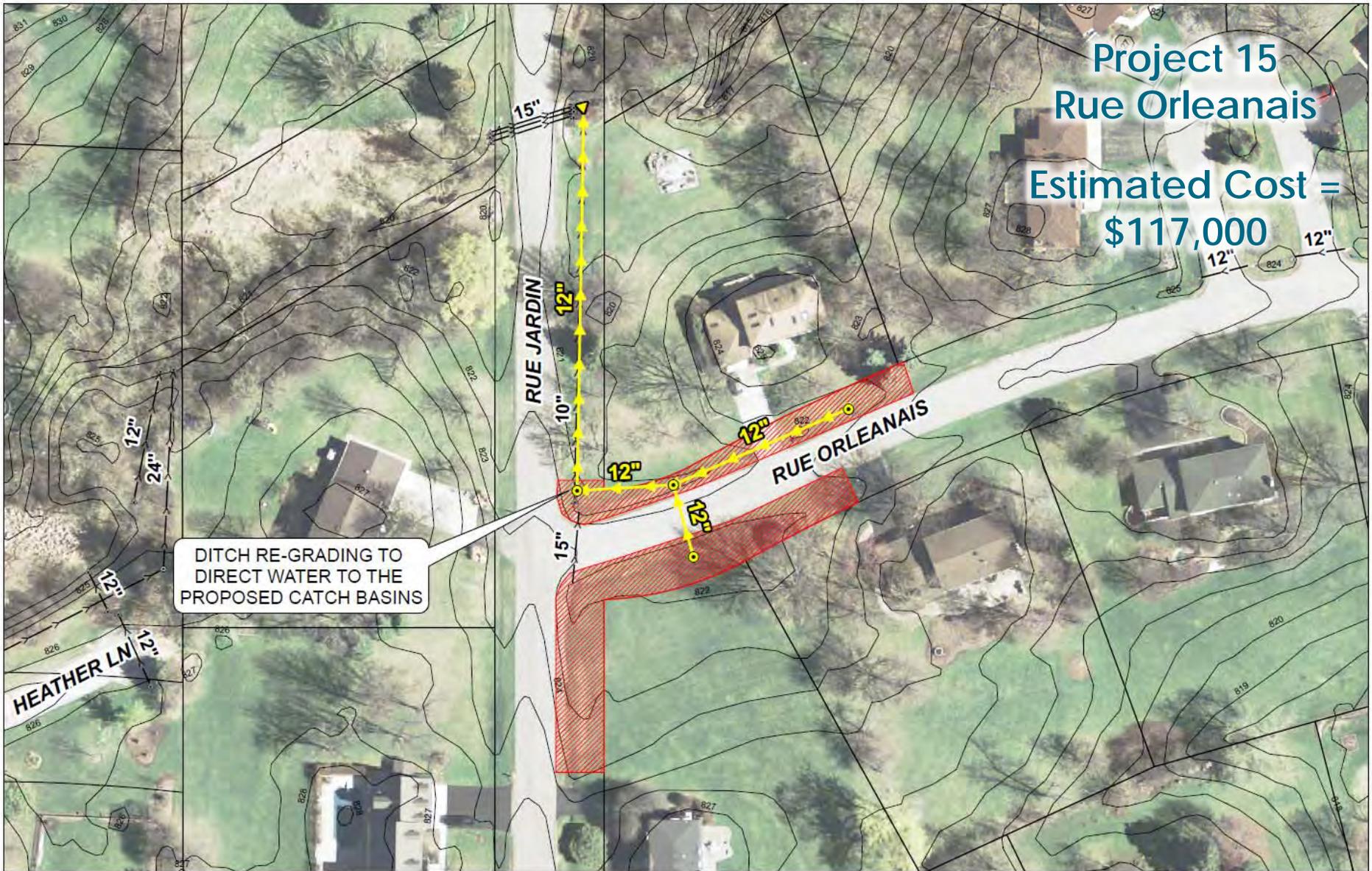
## Project 14 Landmark Lane

Estimated Cost = \$165,000

\*Based on 2017 project costs, and includes construction, design engineering, construction engineering, and permitting. Does not include ROW acquisition, easements, or utility relocates.

# Project 15 Rue Orleanais





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# 5-Year Drainage Improvement Program Summary

Master Plan Phase	Project Number	Drainage Improvement Project	Drainage Severity Category	Estimated Cost*	Fiscal Year	Subtotal per Year
	1	South Rue Jardin and Dogwood Court	3 – Flow exceeds ditch capacity	\$578,000	2018/2019	\$930,000
	2	North Rue Touraine and 209 & 215 Rue Touraine	3 – Flow exceeds sewer and ditch capacity	\$212,000	2019	
	3	Clover Lane	4 – Previous village project resulted in adverse impacts	\$87,000		
	4	Wooded Ridge Road Culvert Crossing	2 – Flooding over roadway	\$53,000		
Phase 2	1	Old Farm Road	3 – Flow exceeds ditch capacity	\$137,000	2020	\$538,000
	2	Ferndale Road	3 – Flow exceeds ditch capacity	\$125,000		
	3*	Thrush Court	3 – Flow exceeds ditch capacity	\$97,000		
	4*	Quail Court	3 – Drainage infrastructure in poor condition	\$23,000		
	5*	Mallard Court	4 – Poorly defined ditch	\$156,000		
	6	North Rue Jardin	3 – Flow exceeds ditch capacity	\$119,000	2021	\$365,000
	7	Green Forest Lake	3 – Drainage infrastructure in poor condition	\$89,000		
	8	36 Circle Drive	3 – Drainage infrastructure in poor condition	\$61,000		
	9	20606 Wallingford Lane	3 – Potential safety hazard	\$17,000		
	10	Ditch Maintenance Upstream of Rue Jardin	3 – Drainage infrastructure in poor condition	\$25,000		
	11*	Deerpath Pond to Deerpath Park	3 – Drainage infrastructure in poor condition	\$54,000	2022	\$436,000
	12	Dover Pond Outfall	3 – Drainage infrastructure in poor condition	\$132,000		
	13	23867 Long Grove Road Pond	3 – Drainage infrastructure in poor condition	\$22,000		
	14	Landmark Lane	4 – Poorly defined ditch	\$165,000		
	15	Rue Orleanais	4 – Poorly defined ditch	\$117,000		
<b>Total for 5-Year Drainage Improvement Program</b>						<b>\$2.3 Mil</b>

\*Project to be completed concurrent with Road Program Plan



# Questions?