



Illinois City/County Management Association
Multiple Funding Partnerships for Stormwater Mitigation



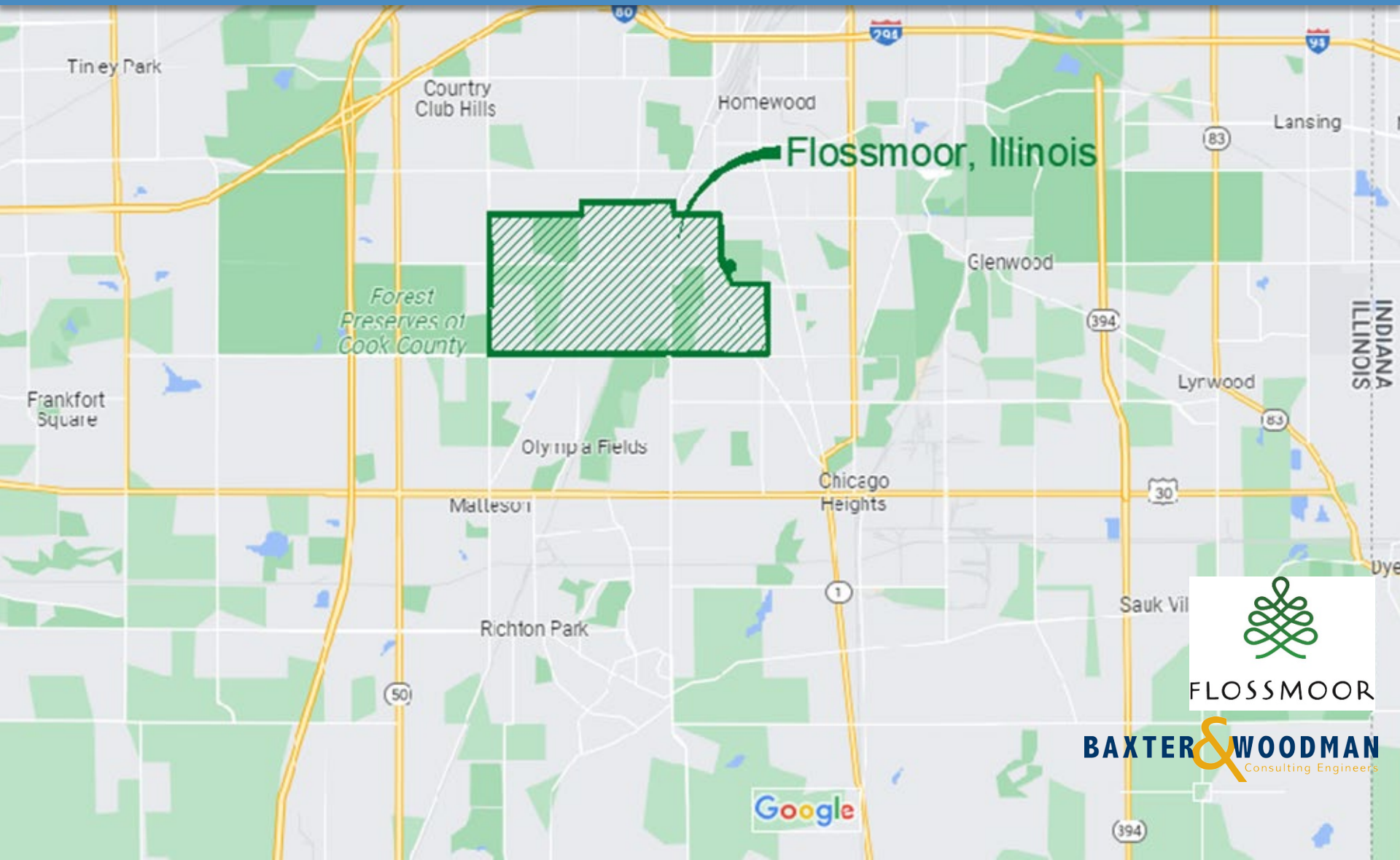
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Welcoming. Beautiful. Connected.



February 9, 2023

Where is Flossmoor, Illinois?



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History of Flossmoor



Flossmoor Train Station built in 1890 with the extension of the Illinois Central Railroad



Incorporated in 1924 with a population of 270



Developed as a summer home and golf destination for IC Railroad executives and the University of Chicago faculty





Flossmoor Today

- Located 28 miles south of the City of Chicago in Southern Cook County
- Diverse population of 9,704 (2020 census)
- Area of 3.66 square miles
- Bedroom community



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Flossmoor Road Viaduct Flooding

Viaduct flooding is top priority to Village for mitigation

Flooding has been an issue since its construction in early 1900s

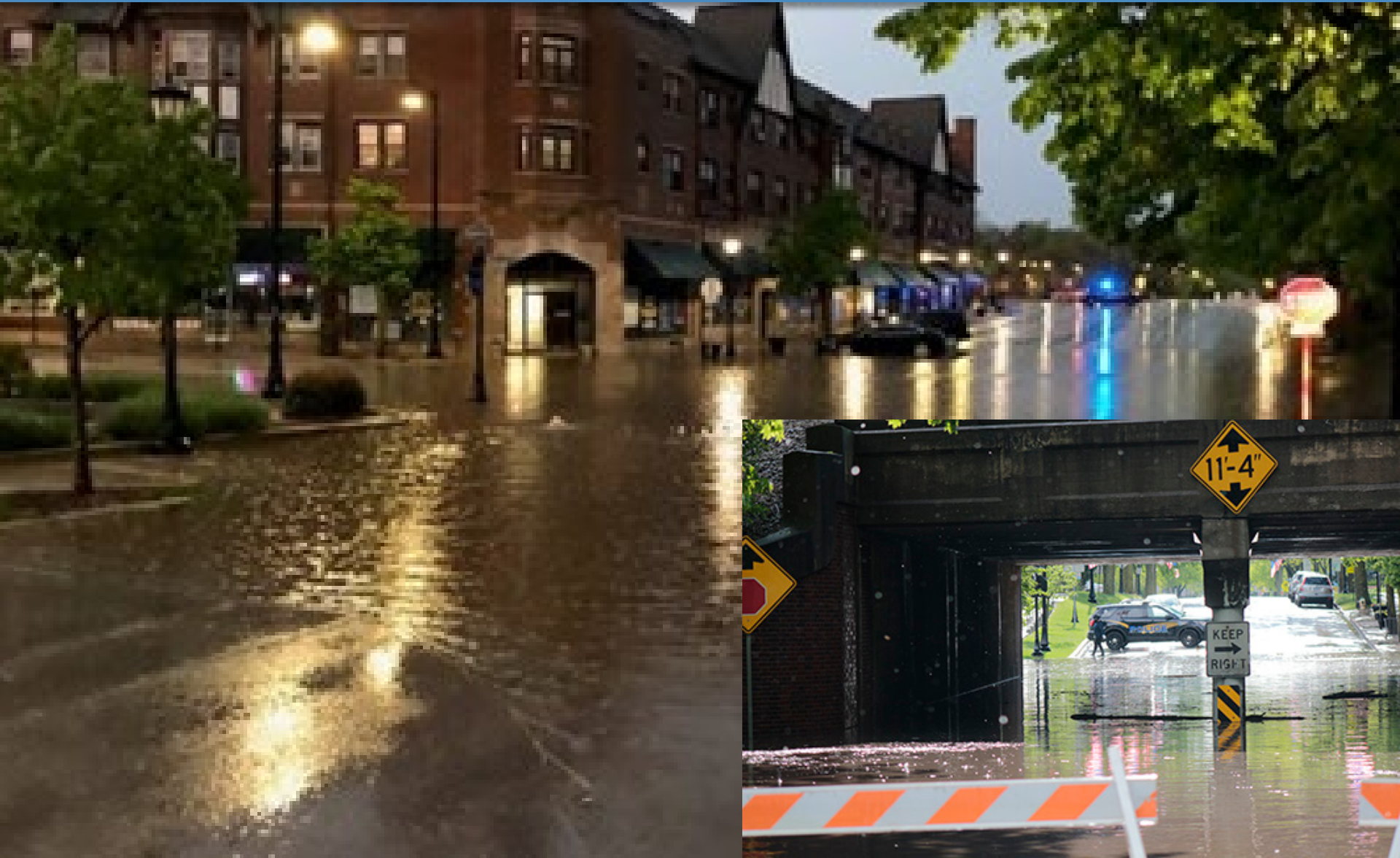


Flossmoor Rd. Viaduct - 1928



Flossmoor Rd. Viaduct - 1951

Flossmoor Road Viaduct Flooding - 2019



Berry Lane Flooding - 2019



Plan of Action

Previous ACOE drainage studies focused on viaduct

Baxter & Woodman completed a comprehensive study in 2020

Determined two options for improvements



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Funding

- In November 2020, G.O. Bond Referendum was approved by voters for \$10 million for Street Rehabilitation and Flossmoor Road Viaduct Drainage Improvements
- Half of Bond proceeds were allocated for viaduct project
- Rebuild Illinois Bond Fund proceeds were used for viaduct engineering



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Balancing Funding Requirements and Deadlines

Nov. 2019

Flooding

July 2020

Nov. 2020

Spring 2022

Finding Funding

Comprehensive Study

ACOE Project

**Green
Infrastructure**



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Balancing Funding Requirements and Deadlines

2019 Flooding initiated increased interest in solving flooding

November 2019: Legislator Meeting

December 2019: MWRD Meeting

December 2019: Initiate ACOE Discussion

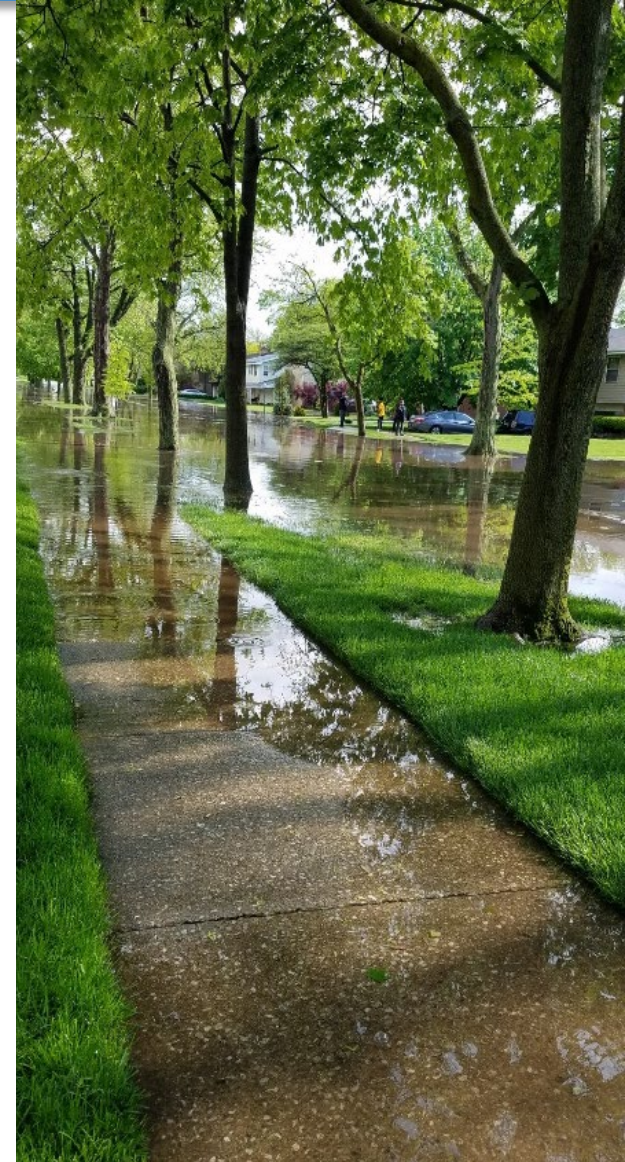
~~February 2020: FEMA HMGP Pre Application~~

May 17 & 23, 2020: Viaduct and Street Flooding

~~June 2020: DCEO (Rebuild Illinois) Application~~

June 2020: Start Comprehensive Study

July 2020: ACOE Selection Notification



Balancing Funding Requirements and Deadlines

August 2020: IEPA GIGO Application

September 2020: MWRD GI Partnership Application

September 2020: Formal ACOE Selection (~\$1.5M)

★ October 2020: Comprehensive Study Preliminary Draft Memo

October 2020: Kick-Off ACOE Schedule

November 2020: Village votes to approve Referendum

~~November 2020: FEMA BRIC Application~~

November 2020: Define ACOE Scope of Work

November 2020: ACOE Preliminary Design Submittal (QCP, Alternative Analysis)



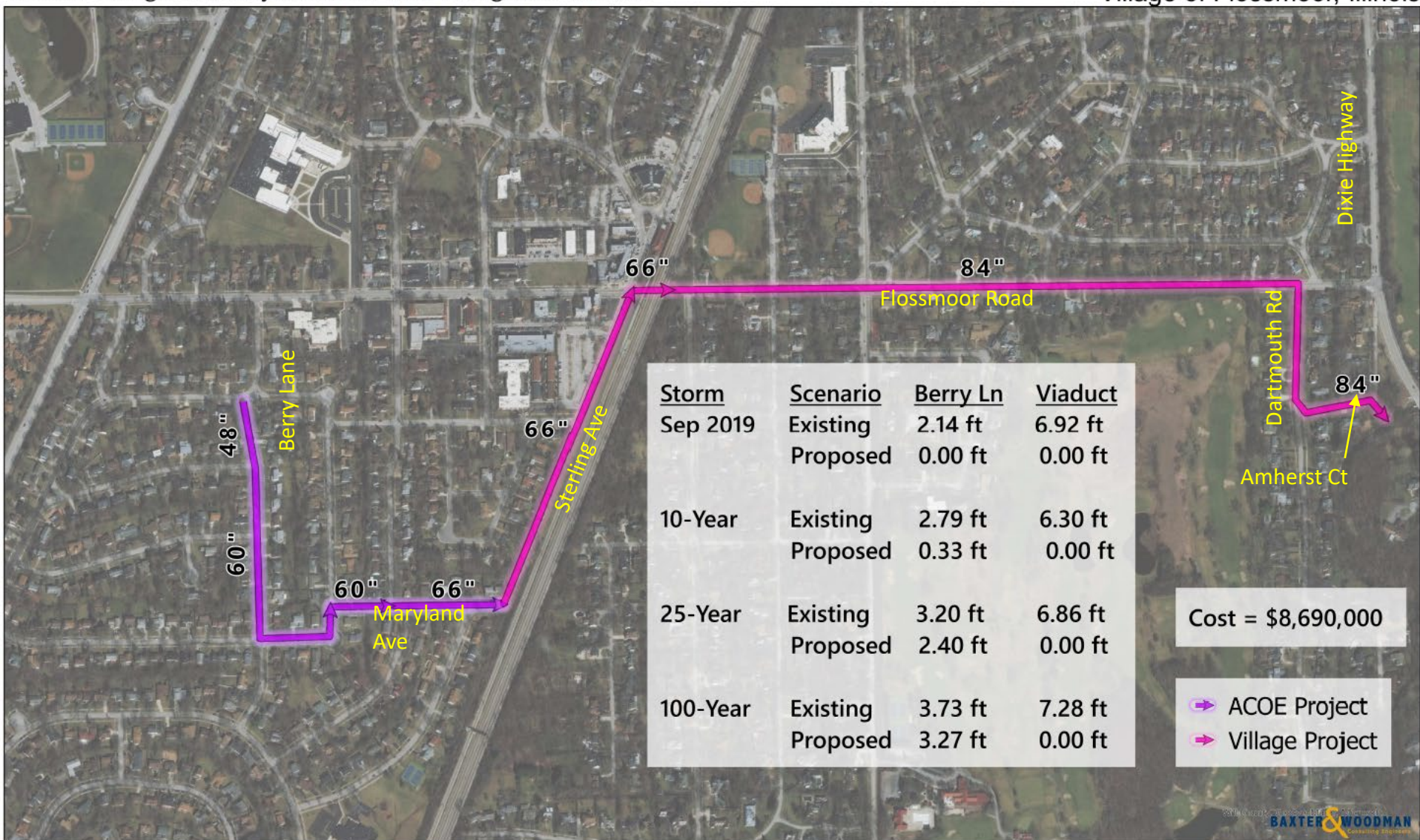
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Upsized Conveyance Option

10-Year Design for Berry Lane, 100-Year Design for Viaduct

Village of Flossmoor, Illinois

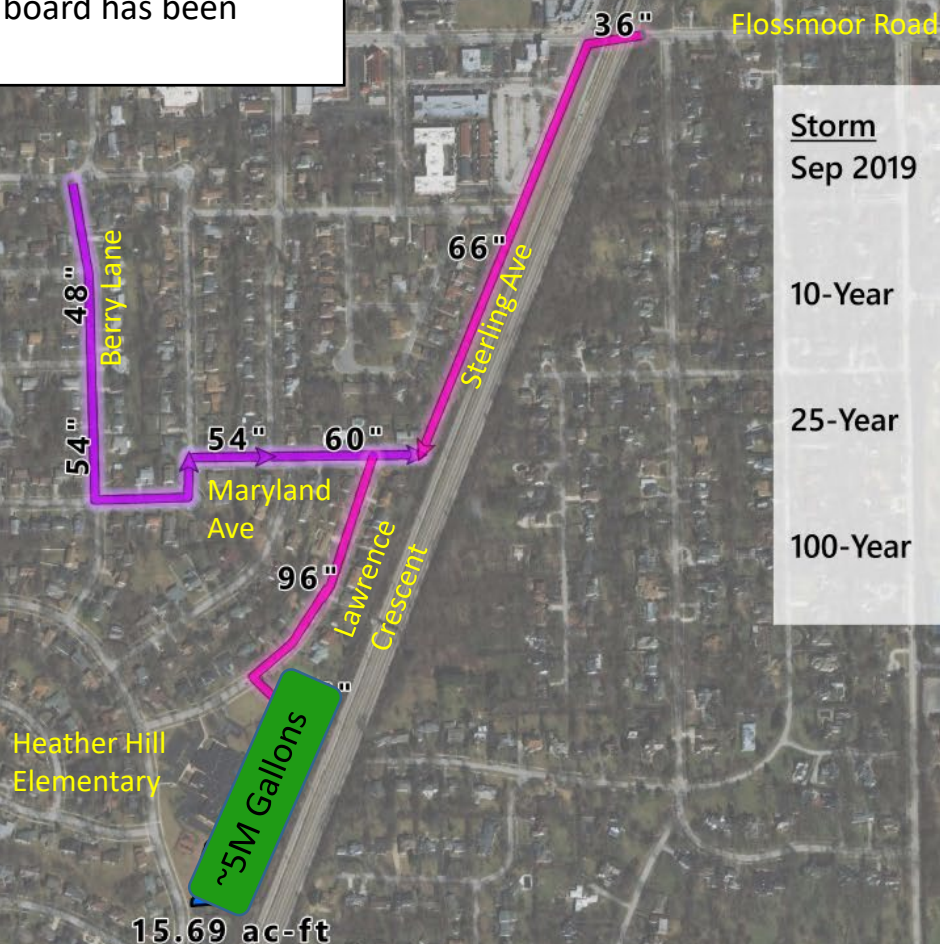


Local Detention Option

10-Year Design

Village of Flossmoor, Illinois

School District and Park District staff are open to the concept – neither board has been approached yet.



Storm	Scenario	Berry Ln	Viaduct
Sep 2019	Existing	2.14 ft	6.92 ft
	Proposed	0.00 ft	4.83 ft
10-Year	Existing	2.79 ft	6.30 ft
	Proposed	0.52 ft	0.35 ft
25-Year	Existing	3.20 ft	6.86 ft
	Proposed	2.60 ft	4.05 ft
100-Year	Existing	3.73 ft	7.28 ft
	Proposed	3.37 ft	7.13 ft

Cost = \$7,240,000

- ACOE Project
- Village Project
- Proposed Detention Basin

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D	Task Mode	Task Name	Duration	Start	Finish
1		Project Formulation (LS, AE & USACE)	299 days	Thu 10/24/19	Tue 12/15/20
2		Initial Letter of Intent	27 days	Thu 10/24/19	Fri 10/2/20
3		Initial USACE, LS & AE meeting	1 day	Wed 9/23/20	Wed 9/23/20
4		Local Sponsors provide Project Scope and Location Map	20 days	Thu 9/24/20	Wed 10/21/20
5		USACE Planning develops Scoping Letter	10 days	Thu 10/22/20	Wed 11/4/20
6		Scoping Letter approved	5 days	Thu 11/5/20	Wed 11/11/20
7		Scoping Letter posting period	24 days	Thu 11/12/20	Tue 12/15/20
8		Initial Design Development	22 days	Thu 10/22/20	Fri 11/20/20
9		Pre-Design Conference & Kickoff	1 day	Thu 10/22/20	Thu 10/22/20
10		USACE QAP (Budget, Schedule)	15 days	Fri 10/23/20	Thu 11/12/20
11		AE Develop QCP, Alternatives Analysis	10 days	Fri 10/23/20	Thu 11/5/20

ACOE Schedule

12		Preliminary Design Submittal (C Analysis)	20			50% USACE Submittal including 50% Cost Estimate, Bid Schedule and Final Real Estate Drawing	3 days	Thu 2/11/21	Mon 2/15/21
13		USACE reviews and posts comments in DrChecks	21			50% BCOES, LS Review, QA Review (USACE)	15 days	Tue 2/16/21	Mon 3/8/21
14		AE responds to Preliminary Design DrChecks	22			USACE reviews and posts comments in DrChecks	10 days	Tue 2/16/21	Mon 3/1/21
15		50% Submittal Development (AE)	23			50% Design Review Meeting	1 day	Mon 2/22/21	Mon 2/22/21
16		Development of Pre 50% Design Estimate and 100% Real Estate Plans	24			AE responds to 50% Comments in DrChecks	5 days	Tue 3/2/21	Mon 3/8/21
17		AE Internal Review	25			Contracting Coordination (USACE)	25 days	Thu 2/11/21	Wed 3/17/21
18		Pre 50% Submittal of Quantities	26			USACE requests Front Ends (CELRC FORM 38)	5 days	Thu 2/11/21	Wed 2/17/21
19		USACE Development of 50% Cost Schedule	27			LD & Weather Days Memo from Construction	5 days	Thu 2/11/21	Wed 2/17/21
			28			Market Research	15 days	Thu 2/18/21	Wed 3/10/21
			29			Small Business Coordination	5 days	Thu 3/11/21	Wed 3/17/21
			30			Letter Report (USACE)	71 days	Thu 1/7/21	Thu 4/15/21
			45			Project Partnering Agreement	334 days	Fri 1/31/20	Wed 5/12/21
			46			FY20 Funding Appropriation	1 day	Fri 1/31/20	Fri 1/31/20

47		Local Sponsor provides LOI and F	57			Development of 100% Drawings, Specifications and DA including Internal Review	25 days	Tue 3/9/21	Mon 4/12/21
48		Draft PPA	58			OP SEC Cover Sheet -> Security Officer	5 days	Tue 4/13/21	Mon 4/19/21
49		Submit PPA to LS	59			AE Submittal Revised Quantity to USACE Cost Engine	5 days	Tue 4/13/21	Mon 4/19/21
50		Approve PPA	60			Development of 100% Bid Schedule and Cost Estimate	10 days	Tue 4/20/21	Mon 5/3/21
51		Execute PPA	61			Submit 100% Bid Schedule to Contracting	1 day	Tue 5/4/21	Tue 5/4/21
52		Real Estate Submit Request To	62			Contracting provides revised Front Ends for 100% Review	3 days	Wed 5/5/21	Fri 5/7/21
53		100% P/S Development (AE)	63			Submit 100% Plans and Specs including Fron Ends	1 day	Mon 5/10/21	Mon 5/10/21
54		Contracting provides draft 100%	64			100% BCOES, LS Review, QA Review (USACE)	15 days	Tue 5/11/21	Mon 5/31/21
55		KO\BOB Review	65			USACE reviews and posts comments in DrChecks	10 days	Tue 5/11/21	Mon 5/24/21
56		Advance Notice (15 days min)	66			100% Plan in Hand Site Visit	1 day	Thu 5/20/21	Thu 5/20/21
			67			AE responds to 100% Comments in DrChecks	5 days	Tue 5/25/21	Mon 5/31/21
			68			Backcheck Review	9 days	Tue 6/1/21	Fri 6/11/21
			69			Complete Backcheck Plans and Specs	5 days	Tue 6/1/21	Mon 6/7/21
			70			USACE Review BackCheck Submittal	4 days	Tue 6/8/21	Fri 6/11/21
			71			Certified Final (AE)	4 days	Mon 6/14/21	Thu 6/17/21
			72			Certified Final P/S	4 days	Mon 6/14/21	Thu 6/17/21
			73			Final Approval (USACE)	9 days?	Fri 6/18/21	Wed 6/30/21
			74			DQC Checklist Complete	4 days	Fri 6/18/21	Wed 6/23/21
			75			TS Certification (CELRC FORM 41) route for approval	5 days	Thu 6/24/21	Wed 6/30/21
			76			Procurement Checklist (CELRC FORM 42) route for approval	7 days?	Fri 6/18/21	Mon 6/28/21
			83			Solicitation Phase	25 days	Thu 7/1/21	Wed 8/4/21

Start – 10/2020
100 % PSE – 6/2021
Bidding – 8/2021

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Balancing Funding Requirements and Deadlines

December 2020: Notified of MWRD Green Infrastructure Partnership Award

January 2021: Notified of IEPA GIGO Award

*January 20, 2021: ACOE Funding Reduced

★ February 2021: ACOE 50% Submittal (50% Drawings, EOPC, Real Estate Plans)

February 2021: Comprehensive Study Presentation to Village Board

May 2021: ACOE 100% Submittal

August 2021: ACOE Bid Opening

*February 2021: Full ACOE Funding Reinstated



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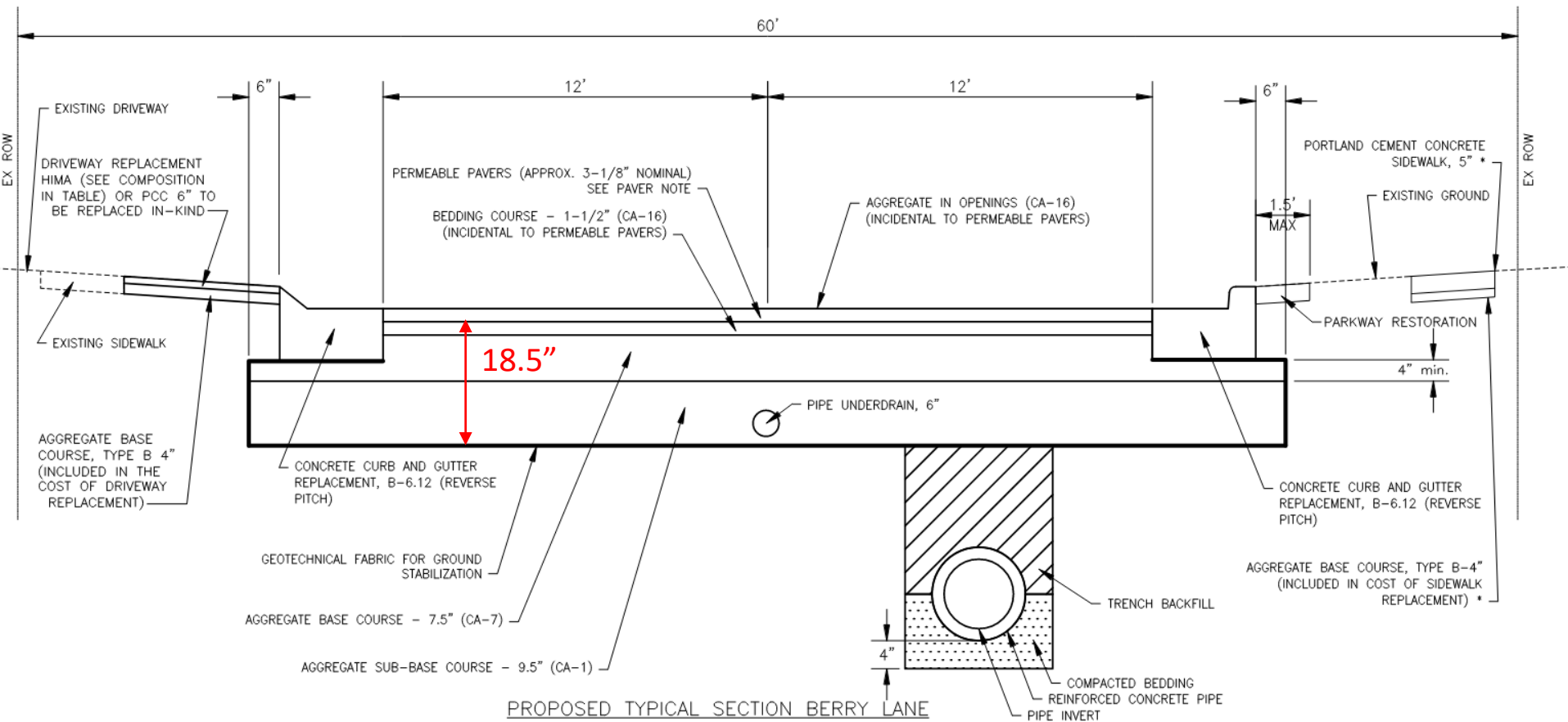
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ACOE Project



- ACOE Project Defined Early
- Upstream Project Works!
- Add Permeable Pavers

Berry Lane - Full Width Permeable Pavers



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March 2022: Begin Construction

APWA EXPO!

Summer 2022: Determine Downstream Project

November 2022: Construction Complete



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Design Reviews

Funding Agency	# of Reviews
ACOE	12
MWRD	3
IEPA	1
Village	2

Sample Deadline Order:

- ACOE – 50% Review
- MWRD – 30% Review

- ACOE – 100% Review
- MWRD 60% Review

MWRD Reviews

1. Preliminary Design Submittal
2. Response to Preliminary Design Submittal Comments
3. Pre 50% Submittal
4. 50% Submittal
5. Response to 50% Submittal
6. Revised Quantities
7. 100% Plans and Specs
8. Response to 100% P&S Comments
9. Back Check P&S
10. Certify Final P&S
11. For Bidding
12. For Construction



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Other Requirements

ACOE Affirmative Action Goals

vs.

MWRD Affirmative Action Requirements

IEPA Quarterly Reporting



Ground Breaking



Junction Chamber Installation



Junction Chamber Installation





Water Main Break



Berry Lane Permeable Paver Install



Completed Berry Lane



Balancing Funding Requirements and Deadlines

Spring 2022

Nov. 2022

Feb 2023

ACOE Project

Feasibility Studies

Finding Funding



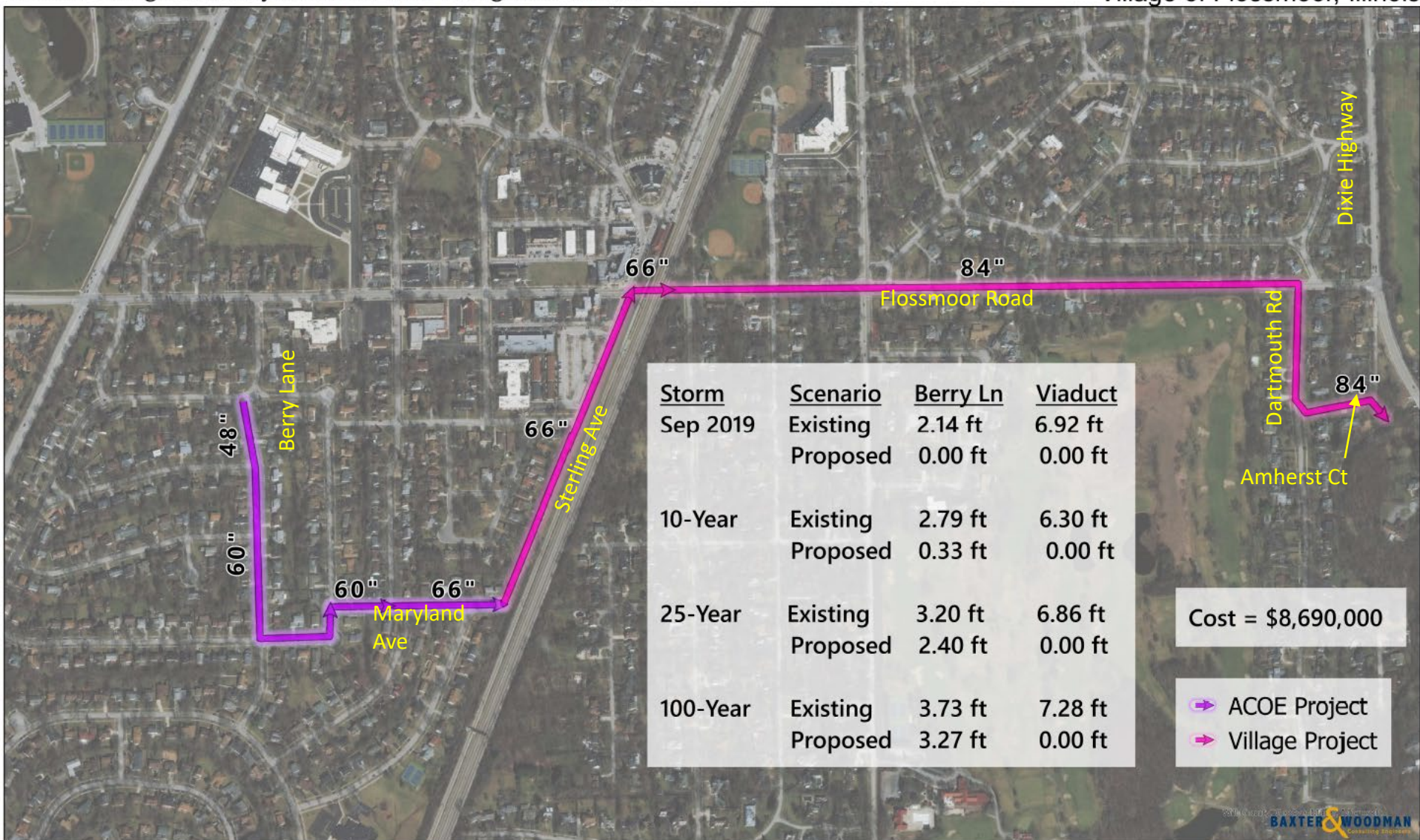
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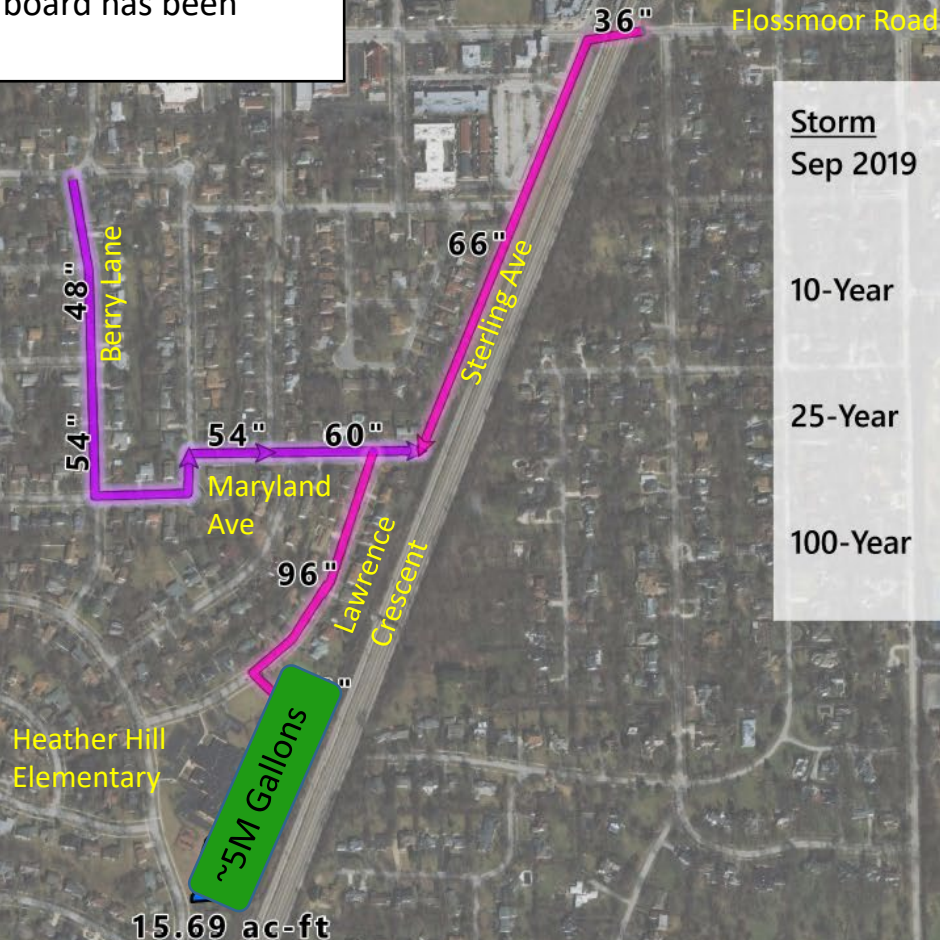


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Continued Funding Efforts

Continued work with Engineering Team and Lobbyists

December 2022: Applied for MWRD Stormwater Partnership

\$1.5M from IL DCEO from two State Senators

\$200k from Sen. Durbin through FEMA

Petition Rep. Kelly for ACOE funds from the \$4M allocated in the Community Project Funding Act



Illinois Association for Floodplain and Stormwater Management
Multiple Funding Partnerships for Stormwater Mitigation



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