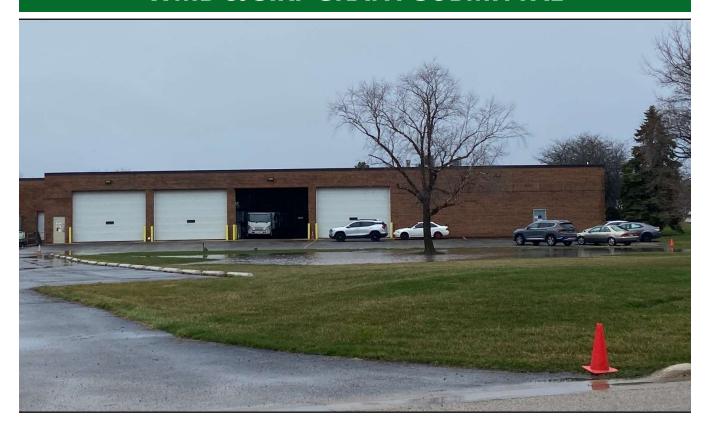
BRADLEY ROAD SUBDIVISION STORMWATER IMPROVEMENTS – PHASE 1 WMB & SIRF GRANT SUBMITTAL



Applicant:

Bradley Road Industrial Park Unit I and Unit II POA
Beth Dancy, POA President
13822 Laurel Drive
Lake Forest, IL 60045

Consultant:

Gewalt Hamilton Associates, Inc. 625 Forest Edge Drive Vernon Hills, IL 60061





August 26, 2024

Ms. Ashley Strelcheck, Water Resources Professional Lake County Stormwater Management Commission 500 W. Winchester Road, Suite 201 Libertyville, IL 60048

Re: WMB & SIRF Projects FY2025

Bradley Road Subdivision Stormwater Improvements - Phase 1

Unincorporated Libertyville Township

Dear Ms. Strelcheck:

On behalf of the Bradley Road Industrial Park POA, we are pleased to submit the enclosed project proposal for consideration of WMB & SIRF grant funding from the Lake County Stormwater Management Commission. The project is located within the North Branch Chicago River watershed. The following items are included for your review:

- WMB Grant Application
- WMB Member Project Sponsor Signature Page, Signed
- SIRF Grant Application, Signed
- SIRF Grant Statement of Compliance, Signed
- Concept Exhibit
- Engineer's Opinion of Probable Cost
- Hydrologic Atlas Exhibit
- Existing Conditions Flooding Exhibits
- Proposed Conditions Flooding Exhibits

Project Description

Existing Conditions

The TruGreen Lawn Care building floods starting at the 2-year event. This causes damage to equipment and their office. The adjacent Libertyville Township Road District roadway, Ballard Road, also floods in 2-year and greater storm events. To determine the cause of these issues, the subdivision and all upstream areas (the Viking Park Business Center subdivision) were modeled in XPSWMM. It was determined that stormwater floods in the roadway due to undersized storm sewers and that the TruGreen building floods due to the roadway flooding and also a wetland overflowing to TruGreen. The reoccurring building flooding causes structural damage and disrupts TruGreen's ability to conduct their work. The roadway flooding creates health and safety risks for emergency vehicles and cars. Also, during smaller events TruGreen experiences parking lot flooding and nuisance flooding.

Proposed Conditions

The proposed improvements will be built phased with a phase 1 and a phase 2. This grant submittal is for phase 1, knowing that phase 2 will be built later. To address the flooding issue the following improvements are proposed:

- Phase 1 A relief sewer will be constructed from the Bradley Road storm sewer directly to the subdivision pond. This will reduce flooding on Bradely Road and also slightly reduce flooding on the TruGreen property.
- Phase 1 To improve water quality, stormwater will be redirected to the detention pond instead of flowing directly to the Middle Fork North Branch Chicago River. It will be accomplished by installing a new 42" storm



- sewer at the north end of the detention pond to redirect stormwater to the pond and also intercepting a trunkline storm sewer at the south end of the pond to redirect stormwater to the pond.
- Phase 2 The storm sewer from TruGreen to the relief sewer will be upsized. This will eliminate flooding on the TruGreen property caused by flow from Bradley Road.
- Phase 2 The TruGreen storm sewer will be extended to the wetland with the catch basin grate elevation set at the 2-year wetland HWL. This will eliminate flooding on the TruGreen property caused by flow from the adjacent wetland.

Together, the above improvements eliminate the TruGreen building flooding, reduce the Ballard Road roadway flooding, reduce parking lot and nuisance flooding, and improve water quality.

The proposed project benefits are:

- Benefit multiple jurisdictions the project will eliminate building flooding for private property in unincorporated Libertyville Township and reduce Libertyville Township Road District roadway flooding on Ballard Road.
- Eliminate structural damage, building flooding, and revenue disruption the TruGreen building will no longer flood throughout the building.
- Reduce roadway flooding, improve health and safety Ballard Road flooding will be reduced with the relief sewer. This will allow emergency vehicles to access properties more safely during storm events and provide safer roadway conditions for all drivers.
- Reduce parking lot and nuisance flooding the frequency, duration, and flood depths for the TruGreen parking lot and grass areas will be reduced, eliminating damage to parked vehicles.
- Improve water quality sediments, nutrients, and heavy metals will be reduced via sedimentation, filtration, plant uptake, and microbial activity within the detention pond.

To fund the project the POA will create an assessment levied on the entire subdivision to fund phase 1 of the project. Phase 2 will be funded by TruGreen Lawn Care. Engineering and construction management will be done by Gewalt Hamilton and Associates.

If you have any questions regarding this application, please call me at 847-478-9700 or email me at: dvanek@ghaengineers.com.

Sincerely,

Daniel Vanek, PE, CFM Water Resources Engineer

cc: Ms. Beth Dancy, POA President

Received	

Stormwater Infrastructure Repair Fund Eligibility Authorization Form

<u>Disclaimer:</u> Approval of the project described herein is an acknowledgement of potential program eligibility only and in no way authorizes payment of funds, reimbursement of expenses incurred for the project and does not guarantee any future funding for the project. Funding may be available once the project has met all the eligibility requirements and a project agreement has been approved and executed by the Commission.

Applicant Jurisdiction (s) (Community, Township, HOA)	Bradley Road Industrial Park Unit I an	d Unit II Pro	operty Owners Association		
Brief Project Title	Bradley Road Subdivision Stormwater	r Improvem	ents – Phase 1		
General Location	East of the crossing of N Bradley Roa	d & Ballard	Drive, Libertyville Township		
Contact Person	Daniel Vanek, PE, CFM				
Address	625 Forest Edge Drive				
City, State Zip	Vernon Hills, Illinois 60061	Phone	(847) 478-9700		
Resource Request					
SIRF Funds	SMC Staff Capacity	у [Combination Funds and Staff		
Project Description (use addition	al sheets if necessary):				
	ng floods starting at the 2-year event. The		• • •		

The TruGreen Lawn Care building floods starting at the 2-year event. This causes damage to equipment and their office. The adjacent Libertyville Township Road District roadway, Ballard Road, also floods in 2-year and greater storm events. To determine the cause of these issues, the subdivision and all upstream areas (the Viking Park Business Center subdivision) were modeled in XPSWMM. It was determined that stormwater floods in the roadway due to undersized storm sewers and that the TruGreen building floods due to the roadway flooding and also a wetland overflowing to TruGreen. The reoccurring building flooding causes structural damage and disrupts TruGreen's ability to conduct their work. The roadway flooding creates health and safety risks for emergency vehicles and cars. Also, during smaller events TruGreen experiences parking lot flooding and nuisance flooding.

To address the flooding issue the following improvements are proposed:

- A relief sewer will be constructed from the roadway storm sewer directly to the subdivision pond.
- The storm sewer from TruGreen to the relief sewer will be upsized.
- The TruGreen storm sewer will be extended to the wetland with the catch basin grate elevation set at the 2-year wetland HWL.
- Additionally to improve water quality, stormwater is redirected to the detention pond instead of flowing directly to the Middle Fork North Branch Chicago River. It is accomplished by installing a new 42" storm sewer at the north end of the detention pond to redirect stormwater to the pond and also intercepting a trunkline storm sewer at the south end of the pond to redirect stormwater to the pond.

Together, the above improvements eliminate the TruGreen building flooding, reduce the Ballard Road roadway flooding, reduce nuisance flooding, and improve water quality. See the attached Concept Exhibit & XPSWMM Exhibits.

Cost Estimate \$39	4,335	Applicant Share	\$294,335		SIRF Share	\$100,000
In-Kind Service Person Hou	rs Applicant	N/A		SMC	N/A	
In-Kind Service Description	N/A					

Project Timing Start Date 01/2025 Completion Date 07/2025

Summary of	of Project Area Damages (Quantify	Below # and type of damages	incurred or threatened to occur)
<u>Damage</u>	Flood Damage Type	Number of Occurrences	Frequency of Occurrences
<u>Priority</u>			(e.g. Every Year, every two years)
1	Structural Damage	1	2-year storm event & greater
2	Flooded Building	1	2-year storm event & greater
3	Health and Safety	1	2-year storm event & greater
4	Road Flooding	1	2-year storm event & greater
5	Disruption of Revenue	1	2-year storm event & greater
6	Parking Lot Flooding	1	1-year storm event & greater
7	Nuisance Flooding	1	9-month storm event & greater

Summary of Project Benefits (how much of the quantified damage is to be relieved and to what extent) The proposed project benefits are:

- Benefit multiple jurisdictions. The project will eliminate building flooding for private property in unincorporated Libertyville Township and reduce Libertyville Township Road District roadway flooding on Ballard Road.
- Reduce flood hazards. Ballard Road flooding will be reduced with the relief sewer. This will allow emergency
 vehicles to access properties more safely during storm events and provide safer roadway conditions for all
 drivers.
- Eliminate structural damage. The TruGreen building will no longer flood throughout the building.
- Reduce nuisance flooding. The frequency, duration, and flood depths for the TruGreen parking lot and grass areas will be reduced, eliminating damage to parked vehicles.
- Improve water quality. Sediments, nutrients, and heavy metals will be reduced via sedimentation, filtration, plant uptake, and microbial activity within the detention pond.

Statement of Local Commitment (assurance that applicant has sufficient matching funds and staff capacity)

To fund the project the POA will create an assessment levied on the entire subdivision to fund Phase 1 of the project. Phase 2 will be funded by TruGreen. Engineering and construction management will be done by Gewalt Hamilton and Associates.

Sda. Hancy

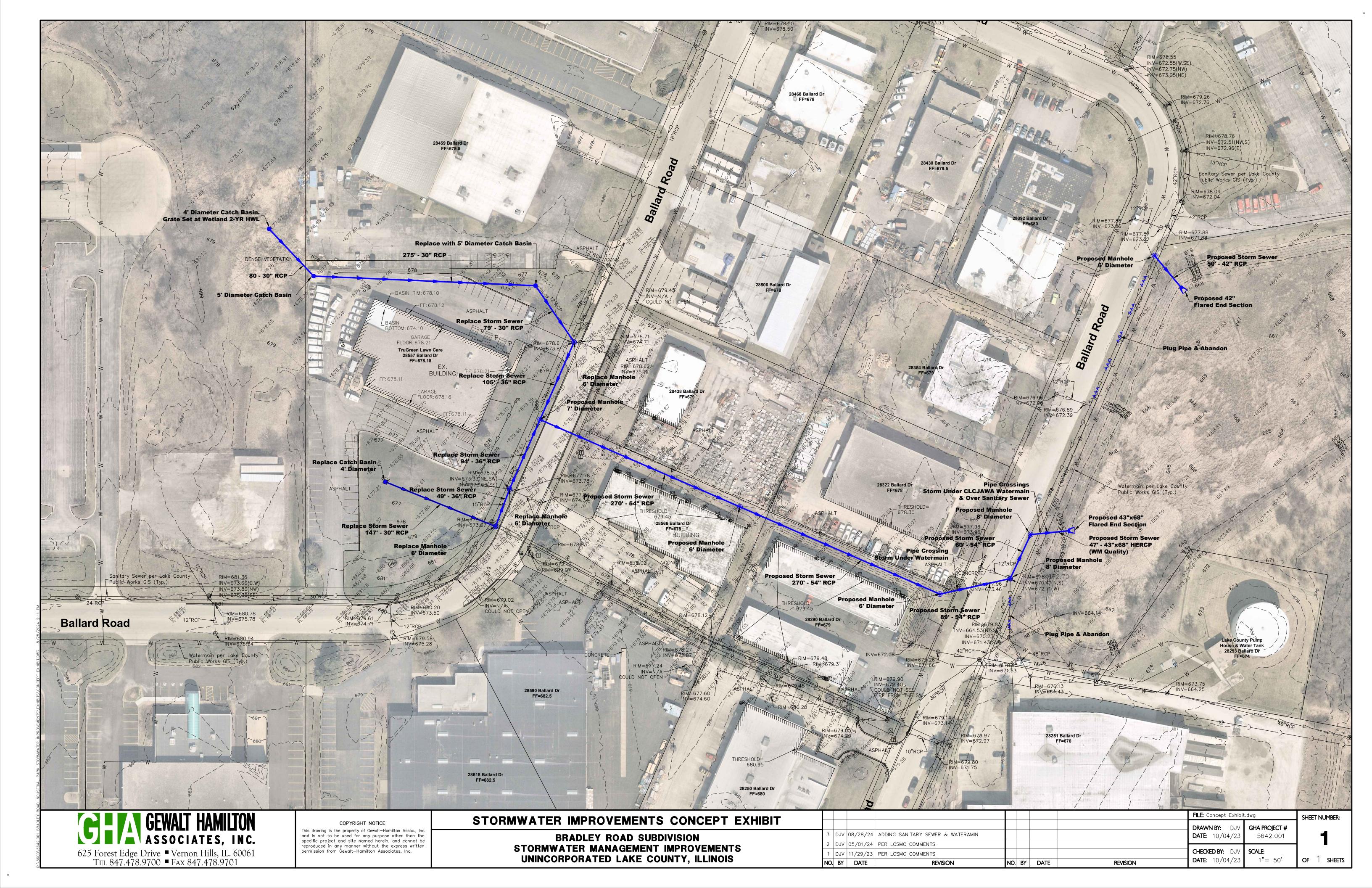
Signature of Authorized Representative of the Cost Sharing Entity

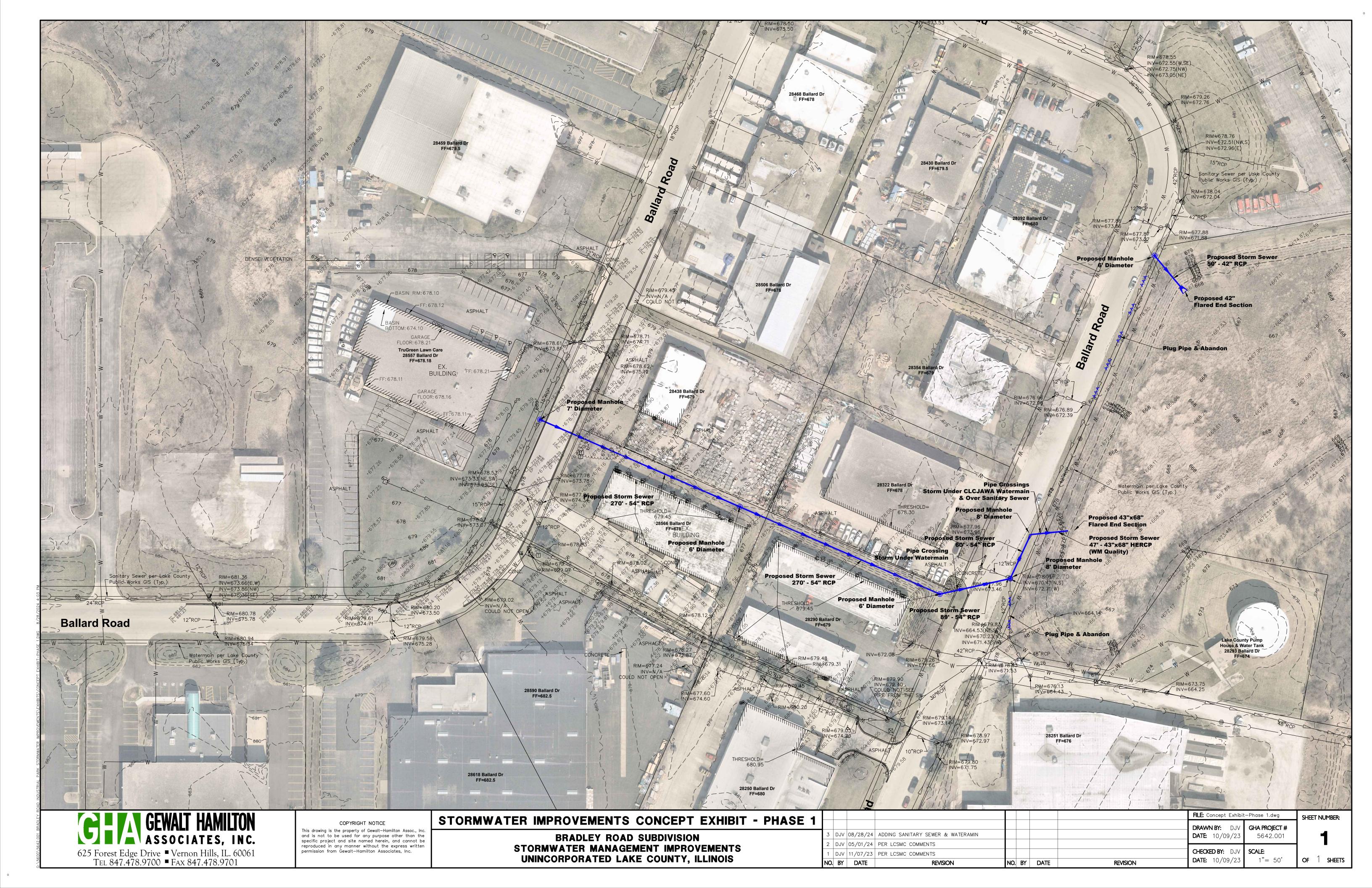
Beth Dancy, President

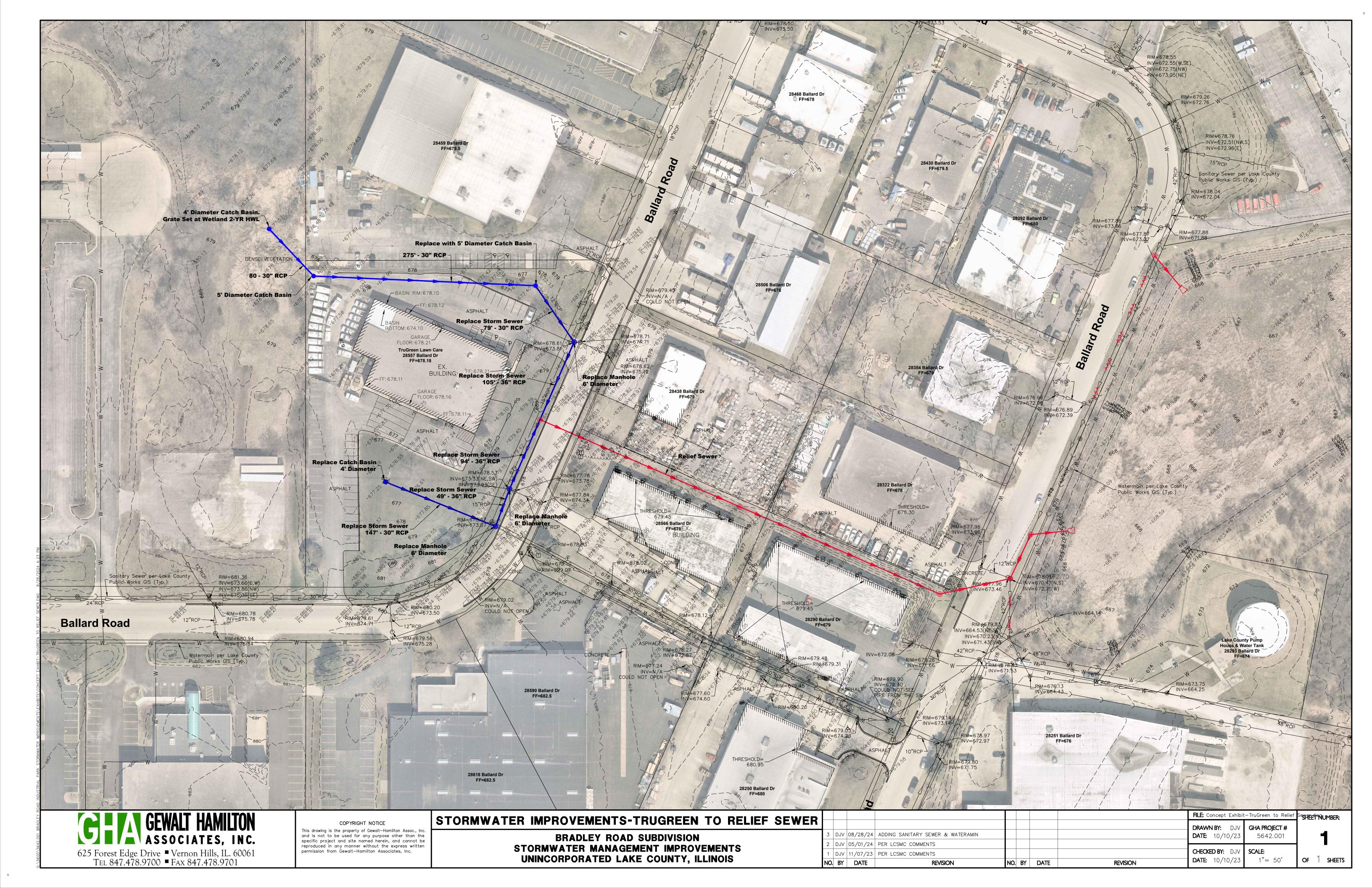
Spell Name Above

Requested Attachments:

- 1. Location Map
- 2. Detailed project Description
- 3. Detailed (per criteria) Statement on Benefits, including quantifiable benefits.
- 4. Statement of compliance with SMC policies, local plans and Ordinance
- 5. Other comments or supporting documents.







This project will comply with all Lake County Stormwater Management Commission policies, local plans and ordinances, and applicable state and federal regulations.
Signature: Signature:
Printed Name: Beth A Dancy
Position: President
Date: <u>08/27/2024</u>

Applicant: Project Title:

Statement of Compliance