

Stormwater Infrastructure Repair Fund Eligibility Authorization Form

Disclaimer: 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)	Fremont Township Highway Department		
Brief Project Title	West Shore Park - Forest Lane 2021 Drainage Improvements		
General Location	West Shore Park Subdivision (Diamond Lake)		
Contact Person	Alicia Dodd, Highway Commissioner		
Address	22376 W. Erhart Road		
City, State Zip	Mundelein, IL 60060	Phone	847-223-2848
Resource Request			
<input checked="checked" type="checkbox"/> SIRF Funds <input type="checkbox"/> SMC Staff Capacity <input type="checkbox"/> Combination Funds and Staff			
Project Description (use additional sheets if necessary): The Fremont Township Highway Department assumed jurisdiction of the right-of-way within the West Shore Park subdivision in 2016. As the Township has worked with the HOA and responded to drainage concerns, it has become apparent that much of the drainage system within the subdivision is undersized, in poor condition, or both. As the Township has begun planning how to address the existing storm sewer system within the subdivision, three areas on or adjacent to Forest Lane have assumed a high priority: (1) Replacement of the failed 10" HDPE storm sewer between 19251 and 19262 Forest Lane with a 12" storm sewer; (2) Replacement of an existing 12" HDPE/VCP storm sewer in poor condition between Forest Lane and Fairview Lane with a 12" storm sewer, and (3) extension of a 10" storm sewer to an existing depressional area at 19314 Fairview Drive. (See attached sheets for additional information)			

Cost Estimate	\$145,000.00	Applicant Share	\$95,000.00	SIRF Share	\$50,000.00 *
In-Kind Service Person Hours	Applicant		SMC		
In-Kind Service Description				*SMC Staff funding recommendation: \$30,000 SIRF \$20,000 WMB	
Project Timing	Start Date	May 1, 2021	Completion Date	June 30, 2021	
Summary of Project Area Damages (Quantify Below # and type of damages incurred or threatened to occur)					
<u>Damage Priority</u>	<u>Flood Damage Type</u>	<u>Number of Occurrences</u>	<u>Frequency of Occurrences (e.g. Every Year, every two years)</u>		
1	Structural Damage	3	Every 2-3 years		
2	Flooded Building	3	Every 2-3 years		
3	Health and Safety	0	None		
4	Road Flooding	2	Multiple times per year.		
5	Disruption of Revenue	0	0		
6	Parking Lot Flooding	0	0		
7	Nuisance Flooding	1	Multiple times per year		
Summary of Project Benefits (how much of the quantified damage is to be relieved and to what extent) The proposed storm sewers will be sized to eliminate structural flooding and damages up to the 100-year event and eliminate roadway flooding up to the 10-year event.					
Statement of Local Commitment (assurance that applicant has sufficient matching funds and staff capacity) There is a need to complete the project scope prior to Forest Lane resurfacing at the end of 2021. The Township will provide funds or staff capacity as needed to provide matching funds as needed to complete the project.					



Signature of Authorized Representative of the Cost Sharing Entity

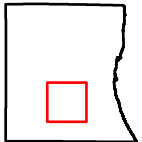
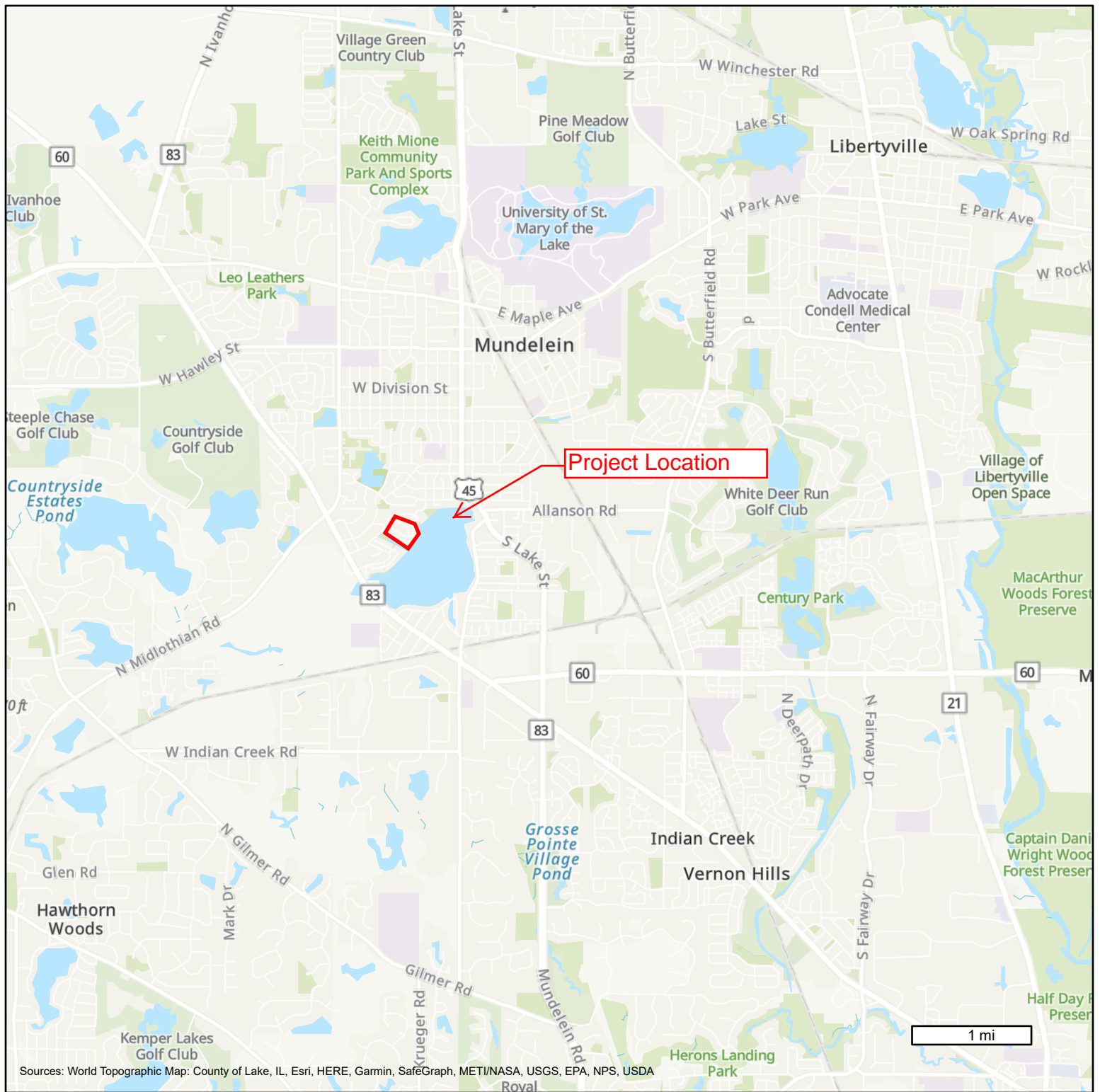
Alicia Dodd

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.

Figure 1. Project Location



Lake County, Illinois



Map Printed on 11/6/2020



Disclaimer:

The selected feature may not occur anywhere in the current map extent. A Registered Land Surveyor should be consulted to determine the precise location of property boundaries on the ground. This map does not constitute a regulatory determination and is not a base for engineering design. This map is intended to be viewed and printed in color.

September 25, 2020



Mr. Kurt Woolford
Lake County Stormwater Management Commission
500 W. Winchester Road, Suite 201
Ela, IL 60048

625 Forest Edge Drive, Vernon Hills, IL 60061

TEL 847.478.9700 ■ FAX 847.478.9701

www.gha-engineers.com

Re: Stormwater Infrastructure Repair Fund
Fremont Township Project Proposal

Dear Mr. Woolford:

Pursuant to the attached Stormwater Infrastructure Repair Fund Eligibility Authorization Form, this document shall serve as the detailed project description, Statement of Benefits, and Statement of Compliance for the Forest Lake Subdivision Drainage Improvements – Phase 1 project.

Detailed Project Description

West Shore Park subdivision is located northwest of Diamond Lake between US Route 45 and IL 60-83 in unincorporated Fremont Township. The community was originally founded in 1923 as a vacation community for Chicago residents, and over time has developed into mostly year-round single-family residences. A general location map of the area is shown below.



Figure 1- Location Map

The Fremont Township Highway Department assumed jurisdiction of the right-of-way within the West Shore Park subdivision in 2016. As the Township has worked with the HOA and responded to drainage concerns, it has become apparent that much of the drainage system within the subdivision is undersized, in poor condition, or both. As the Township has begun planning how to address the existing storm sewer system within the subdivision, three areas on or adjacent to Forest Lane have assumed a high priority, identified on the location map above:

- **Project Area #1 – Forest Lane Storm Sewer:** This project would replace an existing 10" HDPE storm sewer running between 19251 and 19263 Forest Lane. The storm sewer drains a low area on Forest Lane. The previous property owner at 19263 Forest Lane reported garage flooding due to the condition of this storm sewer. The West Shore Park Corporation replaced the existing 4" water main on Forest Lane in 2020 and the road is planned to be resurfaced in 2021 pending completion of the second phase of water main replacement to the south.



Figure 2- Project Area #1

- **Project Area #2 – Forest Lane Extension Storm Sewer:** The Fremont Township Highway Department has prepared plans and received permits to construct roadway improvements to connect an existing gap in Forest Lane adjacent to 19385 W. Forest Lane. In discussing the project with the West Shore Park Corporation, it was identified that the storm sewer draining Fairview Drive to Forest Lane was in need of replacement to address flooding along Fairview Drive.



Figure 3- Project Area #2

- **Project Area #3 – 19314 Fairview Drive:** There is an existing flood prone area at this address which can be addressed by a small storm sewer extension from the intersection of Fairview & Lake. As part of this project, the Township is exploring the use of permeable pavement to create needed parking areas in the subdivision while reducing runoff to the storm sewer.



Figure 4- Project Area #3

Statement on Benefits, including Quantifiable Benefits

Below is discussion of the project benefits based on the various Project Area Damages listed in the SIRF Eligibility Authorization Form.

- 1./2. Structural Damage/Flooded Buildings - The three project areas noted would each alleviate reported flooding issues. Project area #1 would address an existing flooding issue at 19263 Forest Lane. Project area #2 would address flooding issues at 19377 and 19363 Fairview Drive. Project area. During most routine storm events (1 or more times per month), water ponds to an elevation of 793, causing rear yard flooding impacting 7 properties.
3. Health & Safety- No well or septic systems are located within the proposed project areas.
4. Road Flooding- The flooding associated with Project Area #1 overtops Forest Lane prior to impact the garage at 19263 Forest Lane. Similarly runoff overtops Fairview Drive at the upstream end of Project Area #2 due to the lack of inlet capacity on the north side of the roadway, which will be rectified by the proposed improvements.
5. Disruption of Revenue- The affected area are residential properties, no commercial areas are affected.
6. Parking Lot Flooding- No parking lot areas are within the affected areas.

7. Nuisance Flooding- Project Area #3 would address nuisance yard flooding in the yard at 19314 Fairview Lane. The resident has installed a small sump pit as an interim measure until storm sewer is extended, but the system is regularly overwhelmed during storm events..

Statement of Compliance with SMC Policies, Local Plans & Ordinance

Conceptual plans have been prepared outlining the proposed drainage improvements at each project location. During the engineering design phase, detailed plans will be prepared in accordance with the Lake County Watershed Development Ordinance and submitted for review. Analysis will be completed to finalize pipe sizing and verify that the existing Township storm sewer has adequate downstream capacity to accept the proposed flows. The Township has previously been in contact with the West Shore Park Corporation as well as the other affected property owners and they are in support of the projects.

Please review the attached photos and information and call if you have any questions.

Sincerely,
Gewalt Hamilton Associates, Inc.

A handwritten signature in black ink, reading "Daniel J. Strahan". The signature is fluid and cursive, with a long horizontal line extending from the end.

Daniel J. Strahan, P.E., CFM
Senior Engineer

cc: Alicia Dodd, Fremont Township Highway Commissioner

To: Crane, Juli <JCrane@lakecountyil.gov>

Subject: Re: Info request on WSP drainage improvement grant application

From: "Crane, Juli" <JCrane@lakecountyil.gov>

Date: Thursday, October 29, 2020 at 12:00 PM

To: Highway <highway@fremonttownship.com>

Subject: Info request on WSP drainage improvement grant application

Alicia,

I apologize for the last-minute rush request for information on the WSP SIRC submittal. Apparently I /do/ have to look at it for scoring as if it's a WMB submittal, but because I advised you to fill out only the SIRC application, there are gaps in information about the project. I'm hoping you can answer them **before 4 p.m. tomorrow** so I can get establish the most complete score for SMC's PM grant meeting next Wednesday (I'm out Monday and Tuesday, hence the deadline for tomorrow afternoon)....

If you could provide info on the following, that would help me score the project in WMB-style. The examples provided aren't meant to necessarily apply but can give you some food for thought):

1. Will the project have water quality benefits (e.g., reduced pollution and sedimentation to Diamond Lake, less likely to pick up oil, brake dust/heavy metals from the street, etc.)?

Yes. A water quality catch basin will be installed on Forest prior to the drain pipe leading to the lake to help filter out contaminants from the roadway. The outlet of the pipe will direct the stormwater over vegetation and rocks prior to entering the lake. A permeable parking area will be added along Fairview to collect the initial flush of road water. A swale with native vegetation will help filter stormwater prior to entering the channel of Diamond Lake. All of these features can contribute to improved water quality from roadway runoff.

2. Will the project have natural resource benefits (e.g., see item 1 benefits perhaps as relate to fish, other wildlife using lake/eating fish, lake plant growth/less nutrients = less algae, etc.)?

Yes. By allowing the stormwater to flow over vegetated areas prior to entering the lake, the runoff will have fewer contaminants, sediment, and nutrients.

3. Will the Twp have any phosphorus public education, perhaps as part of WSP news e-blast or with fall leaf-clean-up notifications?

Yes, in our fall newsletter, we do currently and will continue to promote actions that homeowners can take to reduce phosphorus and excess nutrients from entering the watershed.

4. Will the project provide multiple use benefits (?maybe a tie to improved water quality to the lake, benefits to wildlife/natural resources in the lake, benefits to recreational use of the lake boating, swimming, fishing, etc.)?

The permeable parking provides both added capacity and cleaner runoff, as well as much needed parking spaces.

5. Will the benefits related to the project relate to measures recommended in the SESC-adopted watershed management plan (e.g., water quality improvement, reduced sedimentation, improved biological oxygen demand, etc.---doesn't have to be a specific project in a watershed plan, can instead help support other more general plan goals)?

Yes. By implementing vegetation filtration areas, water quality catch basins, and permeable parking areas, our project includes measures that improve water quality, reduce sedimentation and turbidity, and provide buffers to reduce the contaminants entering Diamond Lake.

Again, so sorry for the short timeline...

Location of Permeable Parking and Vegetated Swale Components of Project.



Applicant: Fremont Township Highway Department

Project Title: West Shore Park – Forest Lane 2021 Drainage Improvements

Statement of Compliance with SMC Policies, Local Plans, and Ordinance

This project will comply with all policies of the Lake County Stormwater Management Commission, local plans, applicable ordinances, and applicable state and federal regulations in the development and execution of this project.

Applicant
Signature:



Printed Name: Alicia Dodd

Position: Highway Commissioner

Date: 12/8/2020