

**MINUTES of the
STORMWATER MANAGEMENT COMMITTEE**

**Meeting of: Wednesday, August 29, 2018
Leawood City Hall, Main Conference Room**

COMMITTEE MEMBERS PRESENT:

James Azeltine, CHAIR and Councilmember Ward 4
Debra Filla, Vice Chair and Councilmember Ward 1
Lisa Harrison, Councilmember Ward 3
John Kahl
David Lindley
Curt Talcott

COMMITTEE MEMBERS ABSENT:

Skip Johnson
Mary Larson, Councilmember Ward 2
Carole Lechevin
Bill Ramsey

STAFF PRESENT:

David Ley, P.E., Director of Public Works
Julie Stasi, Admin. Services Manager, Sr.

GUESTS: (by order of sign in sheet)

Pam Nolan, 9849 Sagamore, Leawood, KS 66206
Teresa Brown, 9849 Sagamore, Leawood, KS 66206
Marjorie Anne Dozier, 9851 Sagamore, Leawood, KS 66206
Dan Kahn, Kahn Engineering, 609 SW Gentry Lane, Lee's Summit, MO 64081
Scott Jeffcote, 9843 Sagamore Road, Leawood, KS 66206

CALL TO ORDER: Chair Azeltine called the meeting to order at 7:36 A.M.

FIRST ITEM OF BUSINESS: **Previous Meeting Minutes**

ACTION: Debra Filla made a Motion to approve the Minutes of May 30, 2018, as corrected.

Lisa Harrison seconded the Motion to approve. All members in attendance were in favor.
Motion passed; Minutes approved.

Chair Azeltine asked about the creek maps the group had previously worked on and the status of the map.

David Ley advised we are working on updating the maps to include the lakes. We are working on them in indicating private lakes, public lakes and the lakes part of the detention systems. ETA is probably the end of September.

SECOND ITEM OF BUSINESS: New Business; Stormwater concerns 9849 Sagamore.

Guests in attendance introduced themselves.

David Ley-Staff has been working with resident Pam Noland and looking at the issues they have been having at 9849 Sagamore with the amount of water hitting the rear of their house. Map was displayed that shows approximately 5 acres upstream of this location that collect onto Pembroke Lane and then towards the storm sewer system. There are three curb inlets on Pembroke Lane that collect the water. The biggest concerns that occur regularly is the water that is flowing from the homes between 9824 and 9836 Overbrook. A history of the area and the development back in the 1950's and how the requirements at that time were not that of today. There is not a storm drain system to direct the flow around the properties. Most of the 3 acre watershed flows overland from Overbrook to Sagamore where there is 40 feet of vertical elevation difference. Staff has looked at several solutions and also Kahn Engineering.

Staff reviewed possible solutions. One solution would be to install a swale to direct the water. A swale could be fairly steep however along Pembroke Lane along the rear of the properties on Sagamore it could be constructed down to 103rd Street. Funding is an issue and other projects have presented more major concerns, so this project while it has merit, would most likely not have priority. With the projects we currently have (81 & Overbrook area and I-435 area near Lee) this

area might not be workable until about 2020 or 2021 or 4 to 5 years out from now.

David Ley-Advised if the subdivision were built today, typically we look at trying to collect water at about a 2 acre maximum. So once the area is 2 acres, we require an inlet be installed. The best location for that would be on the rear property of 9849 Sagamore. We would need to install berms and swales on 9843 Sagamore and 9835 Pembroke Lane to direct the water down towards the area inlet. And then run the pipe system in the rear of the yards from 9849 to 103rd Street, tying into an existing storm sewer system that is on 103rd Street. The pipe on 103rd is metal pipe so this pipe will be replaced when 103rd Street is mill & overlaid next time and that is probably 2022. At that time, the City could look at increasing the pipe size to collect this additional water. The water currently flows out to Sagamore and most of it comes down near 103rd & Sagamore. With this fix we could probably pick, up about an additional acre of water. This option would also include trying to grade smaller swales on top of where the pipe is to direct additional flow to the inlet.

John Kahl-What problems are we trying to address? Do the houses flood?

Resident Pam Nolan-described information she knew:

9835 Pembroke; mostly nuisance flooding and soil erosion.

9831 Pembroke; has redone all their drains around the house and installed sump pumps. Leaking areas, mostly in the basement, but no serious damage there.

9843 Sagamore; had lots of damage to their finished basement during the Coaches Storm (July 2017).

9849 Sagamore [Noland]; when the water over flows the berms and the retaining wall, there are two window wells on the back of the basement. The water takes the window out of the metal frame, opens up and just pours in. It is unfinished, there is not a lot of property damage because we are outside with little sump pumps in a pit we installed in our garden bed and we run sump pumps all night long if necessary depending upon the water.

9851 Sagamore; has a patio on the south east corner that has washed the dirt out from under it and therefore they get water on that part of their basement and along the east side. Weeping, not flushing through a window.

9855 Sagamore; it breaks through their fence line, over their patio wall and berm. Water sweeps across their patio and on the south side is where they have a finished part of their basement and it weeps in there. Again, not gushing in. Water breaks through the fence and sweeps across.

Not to what David's point was that we would qualify for SMAC. There is only one house that had water come into the windows. Number of times, about three or four times since 2009.

Pam Nolan-continues and also shares photos to the group.

9843 Sagamore, their retaining wall failed and was rebuilt in 2009 (before Scott lived there).

9849 Sagamore; we have a retaining wall on the back of our pool, it failed. We rebuilt it. We are worried about some of these retaining walls.

9851 Sagamore; their retaining wall is bowing. If that fails that is right into the back of their house. during and other residents described how water is currently flowing to the homes down the hill and causing flooding issues of the yards, retaining wall, patio areas. Residents are constantly running hoses, sump pumps and have installed their own French drains and berms to help but need more help in their area to handle the water.

Curt Talcott-Advised the resident at 9849 Sagamore that one temporary fix they might try until more can be done would be to install a different basement window; one that is made to withstand flood-water pressure.

Chair Azeltine asked about the number of homes.

David Ley-roughly ten (10) in the area.

Regarding new/tear-downs or improved homes. If they are adding over 400 square feet of added impervious, they are required to do a stormwater report and then in a situation like this, where there is no flooding, we would require them to contain that just to the existing flow. So they could put a rock basin underground and then direct the flow into that. That is not an option in this scenario.

Lisa Harrison-asked if there were any tear-down properties in the neighborhood, and there were not.

One resident advised one of the changes in the area was the loss of a huge Oak tree that had been in the back. This appears to have been an issue with the water for a long time.

Pam Nolan-Had photos of water to share. Although advised they were not amazing as other neighborhoods with little kids floating in rafts. Most of the water is ankle deep and sheet flowing over the driveways and to the houses, retaining walls, basement windows. There are no inlets for the water to go to. Nothing that many people would blink at but it was about one to two inches of water in a two plus hour time frame. It was intense. We have a dry creek there with pipes underneath and filled with rock and the water is about to jump out of its banks. There is an attempt by private individuals to get the water down, but it is just too much water. We always keep our hoses and our sump pumps and our extension cords ready with any type of storm. Just a few inches of rain, and it becomes ankle deep in the yards and driveways.

David Ley-There is about a 40' drop from the upstream area at 9824 Overbrook to 9849 Sagamore. These are one foot elevations. Currently the water is just flowing down to Sagamore and being collected at 103rd Street, so this would just collect the water a little bit upstream and direct it down to 103rd. We could bump up the pipe size along 103rd Street. We could do this in conjunction with the Mill & Overlay on 103rd Street; that is probably 2024. This is not even in the five year storm projection now.

James Azeltine-Asked about SMAC Funding. How does this work with the new rules coming into place?

David Ley-The County is still working on the funding mechanism for that. But if this were to qualify it would be 50% funded. Typically on those they want to see pictures that show the flooding of the structures inside the homes. It will not be 75% anymore; that is changing starting in 2019. My estimate for one option is \$310,000. There is another option to try to catch the water and direct it west to the creek, but that would be more and potential problems pushed down at the outlet on the creek.

Pam Nolan-asked if they could look at what Kahn Engineering had come up with. Back in 2015, they realized this was way too much water. They had Public Works out in 2017 and no clear solution as to what could be done. In early 2018, residents found Kahn Engineering and they have been wonderful to work with. Instead of looking at every property owner doing something, they

looked more towards a global problem and wanted a bigger solution. Kahn Engineering came up with a proposal which was shown to the Committee. The proposal included swales on the east side down to 103rd, also a catch basin that is 24" catches water from Pembroke and it comes to a spot on Sagamore catching a little more water. Kahn was going to try to create another swale to catch more water and in a two sided catch basin and then pipe it over to the existing 24" basin. Although Public Works has since reviewed this and has a concern with the swale becoming a bit of a problem. And David Ley had expresses concerns about berming and the swale due to the slope. David Ley-That's right. There is a ten foot drop between 9831 and 9835 so there is a pretty good drop behind the houses and driveways.

James Azeltine-If we were successful in getting SMAC funding and we were going to go ahead with this, we would need easements. Once this would be completed, wouldn't it become part of our City Maintenance responsibilities?

David Ley-The pipe system would. The berms and the swales and the landscaping are all the responsibility of the property owners.

Kurt Talcott-And the City usually does not go in and install berms.

David Ley-In the past (Hallbrook as an example) there were actually engineering swales on their construction plans.

Pam Nolan-Noted that all the driveways along 98th were elevated with a curb when the road was improved.

Dave Ley-The way it was originally constructed they had a curb along Pembroke. The curb was I believe about a 3 inch curb. And the driveways just sloped straight back to the house after that. So once that gathered up over top, it would just run right down the driveways and across. Our standard for a declined driveway is we drop the driveways flat at the curb and then the high point of the driveway has to be at the top of curb elevation to create a berm out of the driveway to keep the water away. That is our typical build. The new curbs are 4 1/2 inches (our standard). We built it to what our Construction Standards are. Originally when they were constructed, the standards were not what they are now.

Curt Talcott-So those driveways are not beyond standard, they were just brought up to more current standards of today.

John Kahl-has some concerns. Do we have any funds set aside? If we were to do this project, where would the funding come from? Where does this stand on schedule with other project?

David Ley-Advised if this was approved for funding, we are looking at 4 to 5 years out, as there are other locations already in the queue.

ACTION: John Kahl-Made a motion that the area of concern at 9849 Sagamore be recommended to the City Council as a project and to move this forward onto the City's list of Stormwater Projects. Council needs to further investigate addressing the drainage and flooding problems in the area of 9849 Sagamore. Subject to any future prioritization with other projects. This area has a potential for funding through the 1/8 cent sales tax or SMAC Funds.

Curt Talcott seconded the motion. All members present were in favor. Motion passed.

ACTION: Debra Filla-Made a motion to recommend to Council that Council direct staff to create criteria for stormwater projects and how they are prioritized. Whether they be eligible for SMAC, 1/8 cent sales tax or a Capital Improvement Program. Included in ratings of the prioritization would be the funding mechanism; such as a cost sharing by the citizens, number of homes in the path or

severity of the impact. All those kinds of factors and how much money is available.

John Kahl-seconded the motion. Advising that the old SMAC program had a rating system that we could possibly model this off of and that it would lend assistance to the development of Leawood's rating system. All members present were in favor. Motion passed.

David Ley and Chair Azeltine-Also thought it would be a benefit for this Committee to meet in January of each year to review the Pay-as-You Go Projects and projected funding to know where the stormwater projects fall in the funding/time frame schedules.

Chair Azeltine adjourned the meeting at 8:49 AM.

Minutes respectfully submitted by Julie Stasi, Leawood Public Works Department.