



1200 Wilmette Avenue
WILMETTE, ILLINOIS 60091-0040

MEETING MINUTES

MUNICIPAL SERVICES COMMITTEE OF THE VILLAGE BOARD

WEDNESDAY, JANUARY 28, 2015

7:00 P.M.

TRAINING ROOM OF VILLAGE HALL

Members Present: Trustee Julie Wolf, Chair
Trustee Alan Swanson
Trustee Cameron Krueger

Members Absent: None

Staff Present: Brigitte Berger, P.E., Director of Engineering Services
Jorge Cruz, P.E., Assistant Director of Engineering Services

I. CALL TO ORDER.

Trustee Julie Wolf, Chair, called the meeting to order at 7:00 p.m. Committee members Trustees Swanson and Krueger were present.

II. APPROVAL OF MINUTES; MUNICIPAL SERVICES COMMITTEE MEETING OF OCTOBER 8, 2014.

Trustee Wolf directed the Committee's attention to the draft minutes of the Municipal Services Committee meeting of November 20, 2014.

Trustee Krueger moved that the Committee approve the minutes. The motion was seconded by Trustee Swanson and approved by unanimous voice vote. **The motion carried.**

III. PRESENTATION OF THE WEST SIDE SEPARATE STORM SEWER STUDY RESULTS

Trustee Wolf noted that there would be a presentation this evening by Christopher B. Burke Engineering Ltd. (CBBEL) of the storm sewer study and public comment would be taken after the presentation.

Brigitte Berger, Director of Engineering, said the presentation will cover the separate sewer system, why homes flood, sanitary versus storm systems, past and current capital infrastructure improvements. She noted that Wilmette's separate sewer system was constructed back in 1930-1950 when there were no modern stormwater management techniques that are used today. When the sanitary sewer system leaves Wilmette, it enters another piping system in two locations, one in the Kenilworth Gardens Subdivision which is Princeton Place and a second outfall is located at Lake Avenue and Harms Road. From there the Metropolitan Water Reclamation District of Greater Chicago takes the water and treats it.

Ms. Berger said the storm water system discharges directly into the North Branch of the Chicago River. It is a gravity system until a pump station at Lake Avenue and Harms Road pumps the stormwater to the Chicago River.

Ms. Berger said homes flood for a variety of different reasons which makes it an interesting problem to solve as there is not one solution that will take care of all types of flooding. She demonstrated, through a slide show, the different types of flooding for residential homes. She said they chose sanitary sewer improvements over stormwater improvements because federal and state laws require that sanitary sewer backups and sanitary sewer overflows be mitigated. Wilmette has three times more residents with sanitary sewer backups in their basement compared to structure damage caused by overland water flow. Sanitary backups result in raw sewage in basements which poses a health concern. When the Village did the hydraulic modeling of the sanitary system, some very evident structural problems were found right at the connection with the Metropolitan Water Reclamation District. During a storm event there were 17 hours that the Metropolitan Water Reclamation District's water was flowing backwards into Wilmette's system. That is a tremendous problem that is being corrected with the West Park Storage project that is currently under construction.

Ms. Berger said since 1990, not including current work being done, the Village has spent almost \$52 million Village-wide on our sewer systems. There is also ongoing Village wide maintenance in the form of sanitary sewer cleaning, lining and repair. The \$26 million project that is taking place now is related to fixing the sanitary problem on the west side of the Village.

Ms. Berger introduced Darren Olson from the firm of Christopher B. Burke Engineering Ltd., for the presentation of the Separate Storm Sewer Study.

Mr. Olson outlined the following in the attached power point presentation:

- Data collection
- Summary of Existing Model Results
- Identification of System Bottleneck
- Summary of Potential Drainage Improvement Projects

- Summary of Benefits and Costs
- Discussion of Potential Funding Sources

Mr. Olson noted that the compilation of resident information from those residents who attended Open Houses, responded to questionnaires and surveys, provided photographs and videos was invaluable for their study.

Mr. Olson highlighted the limitations of the existing system which are:

- Reliance on Storm Sewers and the Pump Station
- Topographic Limitations
- A highly developed residential area
- Sewers were developed prior to modern stormwater management practices
- Limited open space in the Village
- No easy place to safely store or send runoff

Mr. Olson said after reviewing all the limitations of the current system, the next step was to develop a stormwater model of the west side of the Village. They digitally imported survey data and landuse data, studied the area divided into 150 subbasins and modeled all trunk and lateral storm sewers. Underutilized segments and/or restrictions were identified as well as potential improvements. They also calibrated monitoring and flood events. The next step was to run the existing conditions model to get into the results. They looked at the different high water elevations at different locations throughout the Village for a variety of storm events and learned the existing stormwater capacities during specific events and the estimated number of structures impacted by flooding as detailed in the report attached.

Mr. Olson said using the results of the model they were able to identify bottlenecks in the system and given the limitations of the existing system they tried to identify a goal to improve the system. The goal is the 10 year system capacity which is usually reducing the 10 year flood elevation below pavement elevation which is similar to the design standard for new construction.

They looked at a variety of proposed drainage improvements from near term improvements and green infrastructure to long term capital improvement projects.

Mr. Olson reviewed the proposed drainage improvements for three alternatives:

- Alternative 1-Relief Storm Sewer System
- Alternative 2-Centralized Storage at Community Playfield
- Alternative 3-Neighborhood Stormwater Storage

Mr. Olson discussed the project benefits, costs and the other costs to the Village for each proposed drainage alternative as presented in the attached report. The unquantified benefits to the projects would be a reduction in the duration of street flooding, infiltration into sanitary sewer system, inflow into sanitary system, basement seepage and yard flooding. There would also be improved transportation access during storm events and increased property values.

Mr. Olson said possible funding sources for the projects could be cash reserves, bonding, Special Service Area, a stormwater utility fee, Metropolitan Water Reclamation District and Federal Emergency Management Agency. He noted that funding from the Water Reclamation District or the Federal Emergency Management Agency would be highly competitive.

Trustee Wolf said the study is a starting point to identify where problems are but geography plays a part as Chicago is a low lying area that has been developed. She would recommend green infrastructure for each homeowner but said it is hard to say what would be the best return for dollars spent.

Trustee Krueger said he encourages green infrastructure but according to the study results if every resident had a rain garden, there would only be a 0.2 foot of flood reduction for a 10 year storm event.

Trustee Swanson said every little improvement helps but it is understanding how much water has to be eliminated and where, and the projects will be costly. He thanked Mr. Olson for his presentation as he thought the study was very well done.

Trustee Wolf opened the meeting up to public comment.

Jordan Fitchew, 423 Wilshire Drive, asked how long it would take to complete each of the alternatives discussed.

Mr. Olson said the amount of funding would dictate how much storm sewer could be installed each year. He said Alternative 1 has a logical progression to install storm sewer as funding becomes available.

Ms. Berger said realistically it would take approximately a year to secure funding, a year to design, a year to permit and five years to build.

Irwin Smiley, 244 Sunset Drive, said some storms leave more than 3 feet of water in the street. He asked where the Village would start the project.

Ms. Berger said they would start downstream and work upstream so lateral

sewers would be last.

Glen Ventrell, 2525 Greenleaf Avenue, said he believes there are more houses impacted than the numbers contained in the study. Many homes in his area have sump pumps that discharge into the storm sewer system. He does not believe people are aware that they should disconnect them from the sewers.

Ms. Berger said that is allowed but the way to solve some of the water issues would be to disconnect the sump pump from the sewers. She said staff could get the word out that disconnecting sump pumps from the sewers is highly encouraged.

Mr. Ventrell said the Community Playfield floods during storm events so how far could they take that flooding down without the huge cost of storage underground.

Mr. Olson said there would be cost reductions to supplying water storage above ground.

Mr. Ventrell asked if there were any short term alternatives that would not take care of 100% of the problem but would provide some relief to a smaller percentage of residents.

Sheryl Katz, 740 Lacrosse, said she has had multiple flooding events on her street over the years. She asked if the Village coordinated with Glenview what impact would there be in benefits to minimize water flooding.

Mr. Olson said the work that Glenview is doing would only affect the portion of the Village that is immediately adjacent to the project which is about 20 acres of land in the southwest corner of Wilmette.

Howard Gantz, 2400 Meadow Drive North, said when the school district connected the Junior High the contractor broke the connection that brought the water from the playfield to the trunk line on Locust Road. He does not know how a storage facility in the Community Playfield would be connected.

Trustee Swanson asked Mr. Gantz how often he sees the Community Playfield flood.

Mr. Gantz said there is flooding the majority of time in the spring. He also stated that he would prefer to have a special charge on his property taxes which is deductible from his taxes.

Bill Shapiro, 406 Wilshire Drive West, asked if it was necessary to add a sixth pump station since there are already five, would the Village of Wilmette benefit from the project that Winnetka will be doing for flooding and if the alternative solution of

leaving water in the street, but not high enough to flood basements, would be less costly.

Mr. Olson said in response to the alternative solution, they looked at an alternative of a 10 year level of service and as the level of service provided goes down, the level of cost will go down. He said the deep tunnel project in Winnetka would not affect the area that Mr. Shapiro lives in. They contacted the manufacturer of the pump and the cost of the sixth pump was approximately \$750,000 which can be compared to the other alternative solutions.

Trustee Swanson clarified that we do not have to go to zero water in the street as that is an impractical goal. There is a level at which water can be in the street but does not enter a home and one can live with water in the street for a few hours but would not like to live with water in the basement.

Howard Gopman, 226 Millbrook Lane, said he believes that if the Village wants to mitigate flooding problems in west Wilmette, they should put a moratorium on new construction in the area.

Lee Canel, 2124 Birchwood, said he understands that Alternatives 1 and 2 have a similar overall cost and that in terms of relief provided the first Alternative provides more relief and that per household it was more efficient but that was based only on the upfront cost. He wondered about the costs of operating and maintaining the systems for each alternative.

Mr. Olson said Alternative 1 is a relief storm sewer system and the maintenance on those would be similar to what the Village does on its storm sewer system now and would most likely be incorporated into that maintenance program. Alternative 2 has less storm sewer but has the storage facility at Community Playfield. The lift station at Community Playfield will have operational and maintenance costs associated with it.

Joel Kurzman, 2615 Greenleaf Avenue, said he started the "Dry Out West Wilmette" campaign in the summer of 2013 which addresses long standing sanitary and stormwater issues. He does not agree with some of the numbers that are in the report prepared by Mr. Olson or the process the Village Board and Municipal Services Committee have taken in addressing the flooding issues in west Wilmette. He believes more public input is needed in addressing flooding issues in west Wilmette.

Trustee Wolf said she also believes more public input is needed and tonight is the beginning of a discussion. Trustee Wolf said public input is always welcome at any meeting and has always been welcome. She said the Village is looking at the problem, studying the problem and then deciding the best way to forward.

Mark Schoenfield, 328 Wilshire Drive West, said he has waterproofed his house, put in a rain garden, a new drainage system, re-leveled his backyard and the water level still comes up far enough in the front to infiltrate and over run the pumps. He said when the study looks at depth, the Village needs to look at what the impact is on the house and the surrounding area from flooding that comes from the front yard to the back of the house. He also noted other agencies use portable pumps to clear out high standing water and believes that the Village should look at this as a short term solution.

Mr. Acuna, 1936 Lake Avenue, said he has had flooding in his basement of over 6 inches from recent storm events. He said he is not able to afford a flood system of \$10,000 and does not know what to do with the water flowing back in through his basement floor drain.

Trustee Swanson said Mr. Acuna's water seems to be back flowing in from the sewer through his floor drain which comes from the sanitary sewer and that will be addressed by the West Park Reservoir which is currently under construction.

Bob Davis, 227 Kilpatrick, said on the year events in the study, is it possible to translate those numbers into inches of rain.

Mr. Olson said they looked at a wide duration of storm events. If there is a 100 year storm event, if there is a 24 hour event, there would be 7.58 inches of rain, if there is a 12 hour event, there would be 6.59 inches of rain. For a 10 year storm event for 24 hours duration, there would be 4.47 inches and for a 12 hour event there would be 3.89 inches of rain. For a 2 year storm event for a 12 hour duration there would be 2.64 inches and a 24 hour duration there would be 3.04 inches of rain.

Mr. Davis said most of the flooding seems to happen in the spring rather than the fall. He wondered if Mr. Olson knew the elevations of the river at that time.

Mr. Olson said they analyzed the system when the river was under the worst case scenario.

Mr. Davis said he believes the water in the streets around him was much higher than what was in the study, as there were cars floating in the street.

Mr. Olson showed on his map where the water flows were measured and how they were measured.

Paul Berglund, 135 Lockerbie Lane, said the solution for his street would be to connect to the Glenview project and asked if that would be possible.

Ms. Berger said the Glenview project would require an additional scope of work for the consultant as it was not included in the report presented this evening. Staff has spoken to Glenview staff and they are willing to work with Wilmette should this option be pursued.

Trustee Wolf said they would be discussing that issue at a future meeting and would keep Mr. Berglund informed. She believes Glenview is in a preliminary phase at this time.

A discussion ensued regarding past rain events. Ms. Berger noted that since 1980, Wilmette has had 16 storm events greater than the 10 year event. 86% of the storms since 1980 would have been protected with Alternative 1 or 2.

Trustee Wolf said everyone is recognizing that there is climate change and the storm events are happening more often.

Alan Rudin, 3132 Walden Lane, asked what the total number of structures would be in west Wilmette that would benefit from the proposed alternatives. He wondered if a decision is made regarding the proposed alternatives, would it be subject to a referendum.

Trustee Wolf said it depends on if a decision is made and what type of funding would be used. Wilmette is a Home Rule Municipality so a bond issue would not have to go to referendum.

Mr. Rudin said since the cost is so high for the alternatives provided in the study, would it make more sense to just help out the 700 homeowners that have flooding issues.

Trustee Krueger said he has a concern with getting into the public/private issues of providing funds to homeowners now and trying to justify that when there are future flooding problems.

Trustee Swanson said the Village is addressing the problems as they arise and trying to take care of the most important issues as there is not unlimited funding and not one project will take care of all the flooding issues. He sees the flooding issue as a Village-wide problem to deal with.

Kim Hardigan, 935 Harvard Lane, said she has lived there for 20 years and did not have any flooding for the first 6 years. She said the water runs from Mallinckrodt to her street and floods it.

Chris Tucker, 420 Brookside Lane, said the study showed that the Village has

capacity for a 2 year flood event and he wondered if that was adequate.

Trustee Wolf said absolutely not that is why they pursued the study. She thanked all the residents for coming to the meeting and providing input.

Ms. Berger said since this is such a large and significant project, the Village Manager's office has suggested that the Village Board review the study and the most logical time to that would be in conjunction with our 5 year Capital Improvement Program (CIP). Staff is in the process of drafting the CIP now and would be presented in late summer.

IV. OLD BUSINESS: COMPLETE STREETS ORDINANCE

Ms. Berger said that Corporation Counsel has verified that we can adopt the policy that staff has drafted as an ordinance. The changes that the Committee previously recommended have been made and the ordinance will come before the Village Board in February.

V. ADJOURNMENT

Trustee Wolf asked for a motion to adjourn. Trustee Krueger moved to adjourn the meeting. The motion was seconded by Trustee Swanson. No further discussion occurred on the motion. Voting yes: Trustee Wolf, Trustee Swanson and Trustee Krueger. Voting no: none. **The motion carried.**

The meeting was thereafter adjourned.

Minutes Respectfully Prepared by Barbara Hirsch.